

Educational Institution Performance Measurement based on Miles and Huberman Models using *Balanced Scorecard* Approach

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Abstract

The purpose of this study is to design a model performance appraisal for educational institutions by using Balanced Scorecard approach. This study uses qualitative research with case study approach. Qualitative research is research that aims to understand the phenomenon of the object of study by the words thoroughly and descriptive. The method used in this research is a case study in which researchers are trying to design a performance appraisal in Labor SMK Pekanbaru, Riau Province, Indonesia using a balanced scorecard approach. After obtaining sufficient data, they were differentiated to primary data and secondary data sources. This study uses primary data source. Primary data is data collected by researchers directly from the data source at the sites. Primary data collection techniques may include observation, interviews, questionnaires, or documentation. This study uses two data collection techniques; semi-structured interviews and use of documents. Data analysis was carried out during the research process, i.e. before the analysis of field data collection, the analysis prior to the collection of field data on previous research or secondary data that will be used to determine the focus of research and analysis while on location research models Miles and Huberman. Based on the results of research and discussion concluded that: The measurement of school performance from the customer perspective by creating learner satisfaction as the main customer of the school, so that students can increase intelligence. Indicators for this measure is a national exam passing rate above 80%, and non-academic achievement, and the number of graduates who go to college. The performance measurement of the goal business process perspective is the fulfillment of curriculum standards increased learning effectiveness indicator is the fulfillment of the composition of local content and national cargo. The performance measurement of learning and growth perspective the goal is increasing the quality of teachers, availability of access to information, the establishment of professional educational institutions. Indicators for measuring this performance is meeting the needs of human resources, training of human resources, as well as satisfaction and alignment of human resources. The performance measurement of the financial perspective is to fulfill the financing needs. It can be seen from the utilization of the budget efficiently and effectively, raising adequate funds.

Keywords: measuring performance; educational institutions; balance scorecard.

1. Introduction

Every organization would want the best performers, so as to obtain the corresponding revenue to the activities undertaken. The performance of an organization traditionally could be seen from the acquisition profitability. Therefore, measuring the performance of the organization is very important. Measurement of organizational performance by Bastian (2001) would encourage the achievement of organizational goals and will provide feedback for corrective action on an ongoing basis. Performance measurement system should be constructed so that information about the performance can be obtained as much and as accurate as possible. Performance is very important for the organization, thus improving organizational performance is a major concern for the administration. Unfortunately, only a handful of attempts were made to assess the effectiveness of government organizations (Brewer and Selden, 2000). One reason is that the performance of the organization is a complex concept to be understood and measured. Sometimes the stakeholder does not accept fully elements of performance that are most important, and some elements are difficult to quantify because it is more preventive elements (e.g. preventing environmental disasters, poverty, and so on).

Traditionally there is some measure of performance assessment that is ROI, Profit Margin and Operating Ratio, all shows in financial terms, is not really a representative to conclude whether the performance owned by a company is good or not. Financial measures to not be real about the state of the company because it does not pay attention to other things outside the financial side, for example the customer is an important focus for the company and its employees, but two things are the cogs at the firm (Kaplan and Norton, 1996). Performance measurement is also required not only by the company's organization, which is largely oriented to profitability. Organizations outside of the company or society together public also need to measure performance, such society together in education both primary and secondary level or in higher education. School is an organization whose main task of providing quality education to the community. Related to the education services, the government has established the National Education Standards as a basic reference for measuring school performance. Therefore, by taking into account various opinions of experts about the dimensions of organizational performance measurement, then the measurement of school performance in this study refers to the National Education Standards, as set out in Regulation No. 19 of 2005.

The school performance assessment is the process of periodic performance appraisal and open to assist and empower schools to be able to develop their resources in achieving national education goals. While academic *school performance assessment* is the process of recording and measuring the achievement of the activities of the school in order to map the full and comprehensive school profile of Ministry of Education (2005). Ministry of Education (2005) mention the purpose of the assessment of school performance are: 1) obtain a school performance in general, which can be used as a means of coaching, development, and improving the quality of education, 2) to provide accurate information to the public about the quality of a school, and 3) provide input to the proper parties for coaching materials and improving the quality of school services. Some school performance is measured by how well the students' graduation rates are seen from the results of their National Exams. While the Ministry of National Education Strategic Plan 2005 to 2009 was also explained that the purpose of school performance assessments to measure the suitability of the achievement of performance indicators or employment targets set out in a certain period and through specific implementation strategies.

No.	Name of School	District / City	Average IIUN 6 Year
1	SMK Negeri 1	City Tanjungpinang	96.93
2	SMK Permata Harapan	City Batam	96.79
3	SMK Negeri 1	City Batam	96.55
4	SMK STATE 2	City Batam	96.37
5	SMK Negeri 1	City Pekanbaru	96.24

Table 1. List of Schools Private with average IIUN Top and consistent of 2010-2015

Source: Data compiled from Kemendikbud (2016)

SMK Labor Pekanbaru is under the auspices of the Foundation of the University of Riau and built directly by the Faculty of Education University of Riau, since it was founded in 1998 by the Minister of Education Certificate Number: 8733 / 109.8.4 / MN.1998, SMK Labor then better known as *Labschool*. The term is synonymous with the purpose of establishment of vocational Labor, which wants to make the development laboratories of science education, development of educational personnel and the development of teaching methodology at the level of secondary vocational schools. In connection with the performance, This SMK is a proud achievement for the alumni and the University of Riau. One of the achievements that have been reached is that it received an award from the Ministry of Education and Culture as a school which has been maintaining the integrity of the National Computer Based Exams (UNBK).

Some of the achievements that have been in reach of this school, the performance seen from several achievements with the standards set by the Ministry of Education, but these standards do not yet reflect the performance of a comprehensive, meaning that the school's performance is not only seen from the perspective of the customer, or the number of students interested in school and achievement obtained mainly related to the learning outcomes of their students. This means that there are other components that need to be assessed in addition to the learning outcomes of students. In organizational theory, the problem remains the big question mark is how to set the size and the best model the performance of each public organization including schools. A number of experts work to develop the best way to define or measure the performance of the organization. Unfortunately some research often leaves the conflict model of organizational performance measurement. Overall, the basic theory that there has not been adequate as explanatory factor most appropriate to assess and measure the performance of public and nonprofit organizations. ([http:// Philip, 2014](http://Philip, 2014)). In one of the management accounting tools for assessing the performance of an organization that is more comprehensive to look

at financial and non-financial performance of an organization that can support management processes or analysis tools that aim to support the management process called the Balanced Scorecard developed by Norton in 1990. The Balanced Scorecard is a measure that is comprehensive enough to realize the performance, in which the financial success achieved by the company is long-term (Mulyadi and Johny Setiawan, 2001; Dalimunthe *et al.*, 2016; Lubis *et al.*, 2016). *Balanced Scorecard* not only gauges the performance of the company but also is a form of strategic transformation in total to all levels within the organization. With a comprehensive performance measurement, it is not only a financial measure but also the incorporation of measures of financial and non-financial companies to run their business better.

Currently there is a measurement of performance of companies using financial and non-financial aspects introduced by Kaplan and Norton (1998), the *Balanced Scorecard*. *Balance Scorecard* adds some perspective to measure the performance of companies. So that there are four perspectives in the *Balanced Scorecard*, namely financial perspective, customer perspective, internal business perspective, and learning and growth perspective. From the description of the background that has been stated above, the problem can be formulated into a discussion of this study, namely how the design of performance assessment model for an educational institution by using *The Balanced Scorecard* approach.

2. Literature Review

2.1. Performance

Performance is a state of the display as a whole over the company for a certain period of time, the result or achievement is affected by the operations of the company in utilizing the resources owned (Helfert in Srimindarti, 2004). According to Mulyadi (2001), the performance is a general term used to indicate some or all actions or activities of an organization in a period. Based on the above understanding can be concluded that the measurement of performance is the act of measurement that can be performed on a variety of activities in the value chain in the company (Muda *et al.*, 2016; Ferine *et al.*, 2017; Handoko *et al.*, 2017; Sadalia *et al.*, 2017; Muda *et al.*, 2018e & Pohan *et al.*, 2018). The measurement results are then used as feedback that will provide information on the achievements of the implementation plan and the point where companies require an adjustment to the planning and control activities.

2.2. Characteristics of Performance Measurement System

With the emergence of a new paradigm in which the business should be driven by *consumer-focused*, an effective performance measurement system must have at least the following requirements (Yuwono *et al.*, 2002 & Situmorang *et al.*, 2017); 1) is based on each activity and characteristics of the organization itself conforms customer perspective; 2) evaluation of the various activities, use traditional performance measures that are *consumer-validated*; 3) compliance with all aspects of the performance of activities that affect customers, so as to produce a comprehensive assessment; and 4) Provide feedback to help all members of the organization to recognize the problems that have the possibility to be repaired.

2.3. Balanced Scorecard

According to Kaplan and Norton (1996), *Balanced Scorecard* is a performance measurement tool executive which requires a comprehensive measure with four perspectives, namely financial perspective, customer perspective, internal business perspective, and learning and growth perspective. Meanwhile

Anthony, Banker, Kaplan, and Young (1997) define the *Balanced Scorecard* as: "a measurement and management system that views a business unit's performance from four perspectives: financial, customer, internal business process, and learning and growth". Thus, *Balanced Scorecard* is a performance measurement tool that measures the company's overall performance, both financial and nonfinancial using four perspectives, namely, financial perspective, customer perspective, internal business perspective, and learning and growth perspective approach. *Balanced Scorecard* is intended to answer the central question, namely (Kaplan and Norton, 1996): Once upon a time, many companies are using traditional performance measurement systems which only measure the success of the company's performance on a number of benefits (*financially*). Traditional measurement system is now considered not so effective anymore in this era of globalization.

2.4. The Advantages of *Balanced Scorecard*

Balanced Scorecard has advantages that make strategic management system is now significantly different from the system of strategic management in the traditional management (Mulyadi, 2001). Strategic management traditionally only focused to the goals of a financial nature, while the contemporary strategic management system covers a broad perspective, namely financial, customer, internal business processes, and learning and growth (Lubis *et al.*, 2016 & Muda *et al.*, 2018a). In addition, various strategic objectives formulated in the traditional strategic management system is not coherent with each other, while the various strategic objectives in the contemporary strategic management system formulated coherently. In addition, the *Balanced Scorecard* strategic management system makes contemporary has characteristics that are not owned by traditional strategic management system, namely in the measurability and balance characteristics.

Mulyadi (2001), said that there are several advantages of the *Balanced Scorecard*, which is a comprehensive (have a wide perspective), coherent (strategic), balanced (between internal and external focus), and measurable. Additionally, *Balanced Scorecard* can provide an opportunity for the organization or company to develop a measurement system that can enhance the performance of companies in this era of globalization, according to John Corrigan, (1996). *Balanced Scorecard* is already widely used by companies and organizations worldwide. The Ministry of Finance of the Republic of Indonesia (MoF) using the *Balanced Scorecard* to depict the state revenue, expenditure, financing the state budget, the country's wealth and supervision of capital markets and financial institutions. In addition to the Ministry of Finance, the *Balanced Scorecard* has also been applied by various companies or organizations in Indonesia (Wookee, 2012).

2.5. BSC implementation in the Public Sector Environment

Balanced Scorecard the rapidly grows "not only in the business world, but also in the public sector in the country from the US". The development of the implementation of *Balanced Scorecard* "spread to many countries, including Indonesia." Adaptation of implementation *Balanced Scorecard* "can be harmonized with the government regulation Presidential Directive No. 7 of 1999 on the obligation of government agencies to make LAKIP Echelon II Regulation of the Minister of Administrative Reform, No. Per / 09 / M.PAN/5/2007 date. May 31, 2007 on general guidelines for Determination of Key Performance Indicators (KPI) in the Environment Government Agencies. Then by Minister of State for Administrative Reform, No.Per/11/M.PAN/08/2007, date. August 28, 2007 regarding the Stipulation of Key Performance Indicators (KPI) within the Ministry of State for Administrative Reform.

2.6. Implementation Process of BSC in Environmental Agencies Education

Stages of the process of implementing the *Balanced Scorecard* is varied, the 'Association *Balanced Scorecard*' by The *Balanced Scorecard Institute*, are as follows: 1) the formulation of the vision and mission, 2) map strategy (based on causal relationships of four perspectives), 3) target strategy (*strategic objectives*), 4) size (*measurement*), 5) Target-setting, 6) determination of the performance plan (*initiative*), and 7) performance measurement. Stages of implementation process *Balanced Scorecard* for the education sector (*public sector*) consists of: (Lubis *et al.*, 2016).

1. Vision and Mission, a reflection on the future of the company (which is better than it is today): 20 to 30 years this company what? Long-term goals, ideals will be realized *progress* will be achieved in future.
2. Destination is the result to be achieved. Interest in the *Balanced Scorecard* four perspectives based on four parts of environmental factors internal and external strategic important strong influence. Interest in business organizations is reflected in the purpose of the financial perspective. Interest in public organizations is reflected in the purpose of the customer's perspective.
3. Map Strategy, describes the causal relationship between the destinations as a whole. Map Strategy is a *roadmap* for the implementation of activities succeed as well as possible, according to four perspectives:

Customer Perspective, Benchmark "performance of the customer" is divided into two groups:

- a. Group Core: a) market share, b) The rate of acquisition of new customers, c) Ability to retain existing customers, d) The level of customer satisfaction, and e) The level of customer profitability.
- b. Support groups: a) The attributes of products (functionality, price and quality), b) Customer relationships, and c) The image and reputation of the organization/work units and their products in the eyes of the customer / consumer.

Financial Perspective becomes the attention of the *Balanced Scorecard* for financial measure because it is an overview of the economic consequences that result from decisions and policies. Interest achievement "financial performance" is the focus of the goals contained in the other three perspectives. Targets "financial perspective" appropriate business cycle consists of three stages namely: growth (growth); Sustain stage (last); and harvest.

Perspective service process is the process of identifying critical internal processes in which the organization or work units are required to do it well. Stages in the internal business processes include: a) innovation, b) process operation, c) the process of delivering products / services to customers.

Learning and growth perspective is to develop and encourage "the organization to run and grow". The purpose of learning and growth perspective is to provide the infrastructure to "support the achievement of three other perspectives" took note "of employees and the ability of information systems".

4. Weight, the criteria can be determined by; a) the degree of difficulty to achieve the KPI target each goal more difficult, the higher the weight, b) the degree of interest of strategic objectives and KPI on the future of the organization or work units is increasingly important and strategic. Perspectives in weight (in %); a) the financial perspective: focus on the highest yields that can be given to shareholders, b) Customer Perspective: Focus on the needs of customer satisfaction, including market share, c) Perspective Internal: Focus on the performance of internal processes, e) Learning and growth: Focus on productivity, employee skills and

- infrastructure / facilities workplace.
5. Goal Strategies, is part of a strategy map, which describes the activities that should be undertaken, consisting of:
 - a) Strategic objectives focus on organizational goals in four perspectives;
 - b) Financial perspective, focused on efficient, effectiveness and productivity;
 - c) Customer perspective, focused on customer satisfaction, satisfaction segment of the community served;
 - d) Perspective of internal business processes, focused on process innovation, operational processes and the process of public service;
 - e) Perspective of learning and growth, focused on productivity, employee competence, organizational capacity.
 6. Key performance indicators (KPI). Benchmarks in *Balanced Scorecard* using the KPI. Indicators for each strategic objective consist of the indicator results (outcomes) and performance indicators booster or boosters.
 - Size indicates the financial perspective; a) *Growth*, b) *efficiency*, *Stage sustain* and c) *harvest*.
 - Size indicates the customer's perspective: the level of customer satisfaction, profitability of customers, new customers, customer loyalty, image, and reputation of the organization.
 - The size of the internal business process perspective, indicating: the innovation process, operation process, and the process of delivering a product or service.
 - The size of the learning and growth perspective, indicate: the level of productivity, the level of employee competence, ability of information systems.
 7. The work program, the work plan/annual performance (CTR) or according to other specific period of time (*Strategic Initiatives*); are activities to achieve the goal. Strategic initiative is a formulation activity goal achievement, according to the mission and the implications for the achievement of the vision. The action plan / action poured into a format.
 8. Target; is the performance level expected quantitatively. There are three ways / model of targeting.
 - a. Model-based, *historical or negotiated*
 - b. Conditions by internal and external organization or work unit.
 - c. *Fixed and Flexible namely* (target fixed and flexible targets).
 - The target remains unchanged amount within a certain period.
 - Target amount can be adjusted flexibly to the changing environmental conditions of the organization or work unit.
 9. The realization, the realization is a tangible result of activities undertaken by organizations,
 10. Score organizational policy recommendations (RKO).

BSC implementation process stages above it easier to be understood and implemented can be made in the form of *score* can be seen from table below:

Perspectives Balanced Scorecard	Indicators
Customer	1. Community Satisfaction
Business Process	2. Standards Curriculum
	3. Learning Process
L and G	4. Competence Teachers
	5. Optimizing IT
	6. Institutional Strengthening
Financial	7. Provision of Budget Routinely

Table 2. Balanced Scorecard Environment Agency in Education

Framework

Performance measurement becomes very important in an organization, whether it is business organizations and non-business, school is an institution NGO business/public institution whose performance also needs to be evaluated and assessed (Muda, 2017). Some research related to performance measurement and assessment in educational institutions has been conducted by several researchers, including by Ashu Sharma (2009) on "*Implementing the Balanced Scorecard for Performance Measurement*". This study discusses the description of the elaboration of the *Balanced Scorecard*, that *Balanced Scorecard* is a strategic planning and management system which is used widely in the organization of business and industry, government and nonprofit organizations worldwide to align business activities to the vision and strategy of the organization, improve internal and external communications, and monitor organization performance against strategic goals.

Later studies, Suropto (2009), on the Application of the *balanced scorecard* in educational institutions. *Balanced scorecard* results are expressed as an effective tool to evaluate an organization, and the achievement of performance. This performance is recognized as the relationship between the results and the various factors influencing the strategic outcomes. The ability of *balanced scorecard* applies in business organization business, and is adopted by an academic institution. By emphasizing a thorough analysis of the *balanced scorecard* helps administrators to focus more on internal processes in order to improve institutional effectiveness, and demonstrate its responsibility to the government and society. Research done by Amaratunga *et al.*, (2001) on "*Process improvement through performance measurement: the Balanced Scorecard methodology*". This study suggested that one of the benefits of leading an organization, either public or private has been the successful application of performance measurement to obtain information and make judgments about, the organization, and the effectiveness and efficiency of its programs, processes, and people. *Balanced Scorecard* is a management framework used for the measurement of organizational performance. The concept of *Balanced Scorecard* shows that the process conditions of an organization can be best assessed by taking a "balanced" view on various performance measures. This article seeks to offer insight into the *Balanced Scorecard*, a key feature of the concepts and issues that must be addressed in the implementation as a process improvement technique. The next is to identify the methodology *Balanced Scorecard* as a tool to spread the strategic direction, communicate expectations, and measure progress towards agreed goals.

The other study was conducted by Indrianty (2012). His research states that the *Balanced Scorecard* is a performance management system that can be used to improve the accountability of higher education institutions. This approach can help the universities to translate the vision, mission and strategy into a set of performance indicators that can drive change toward a better repair. However, the university still needs to visualize the map strategies according to the characteristics and strategies of universities. Each university will need to identify the key success factors specific to excel in accordance with his vision. In the implementation of the strategy, the university often faces obstacles that generally come from employees. These obstacles include resistance to change, lack of commitment, or the fear of accountability pressure. Mapping strategy using the *balanced scorecard* concept can focus the university strategy to remove these barriers to success. Hasanuddin University, in particular, have benefited from a *balanced scorecard* to resolve the problems encountered in managing educational institutions (universities).

Lestari (2013) studied BSc in Universitas Brawijaya (UB). The result of translation strategy, UB produces 18 strategic objectives in the four perspectives of the *Balanced Scorecard* and KPI 40 to be used as a measure in the *Balanced Scorecard*. Total size is given on the customer perspective in balance with

the size of the financial perspective, namely by 15%, which the UB focuses on the size of the internal process by 58% to satisfy the customer and learning and growth perspective by 12%. Design and measurement results obtained *balanced scorecard* formulation that includes objectives, measures, targets and strategic initiatives envisaged in the strategy map and *key performance indicators*.

Other research application of *Balanced Scorecard* in education was conducted by Wulandari (2014). Research results indicate that the strategic the objective of the customer's perspective is to create customer satisfaction of the learner as school principal. A strategic target of the financial perspective is to realize adequate fundraising, carrying out budget effectively and efficiently implement the budget. The strategic goal of the internal process perspective is gaining an understanding of learners, to innovate, to processes and operations effectively, and to establish a partnership with the company. The strategic goal of learning and growth perspective is to meet the needs of human resource skills in strategic positions, measure the training of human resources, as well as measuring employee satisfaction and motivation of human resource alignment with the vision of the school.

Subsequent research by Fadl and Sofian (2015) says that the *Balanced Scorecard* is presented as an important tool that can be used to develop strategies and monitor the organization's performance on an ongoing basis, as well as *benchmarking* with key elements of the plan. Discuss strategic planning of *Balanced Scorecard* in HEIs has similarities and significant differences between the *Balanced Scorecard* applied to Education and *Balanced Scorecard* applied to business. It is featured as part of the contribution. The overall strength of the *Balanced Scorecard* is seen as imposing an evaluation system which generates appropriate performance indicators in HEIs. Pietrzak, M (2015) says that the various public universities require organizational performance measurement systems are adjusted and matched with the specific purpose and their characteristics. The proposed approach is a step to introduce the system. *Balanced Scorecard* The main advantage of *Balanced Scorecard* that is proposed can be concluded: 1) reaches a position A at the international level are well designed and model the *Balanced Scorecard* is updated and allows to understand the reason of such a position to improve the quality of the performance; 2) This system can be adapted to the changing environment, *Balanced Scorecard* measures should be verified periodically and checked if the indicator is still very relevant for monitoring the performance of the organization; and 3) measurement of intangible assets in the academic field, and can also be an important part. The results of several studies on the above proved that the *Balanced Scorecard* is a comprehensive performance measurement tool that combines from a financial point of view to the non-financial losses, and can be applied in all sectors of the organization.

3. Research Method

3.1. The type of research

This study used qualitative research with case study approach. Qualitative research is research that aims to understand the phenomenon of the object of study by the words thoroughly and descriptive (Moleong, 2006). Qualitative research is the research methods used to examine the condition of natural objects (Sugiyono, 2012). In qualitative research, the researcher is a research instrument (Nurzaimah *et al.*, 2016, Achmad *et al.*, 2017 & Badaruddin *et al.*, 2017). Therefore, researchers must validate about how far researcher are ready to do research and go into the field. The method used in this research is a case study in which researchers are trying to design a performance appraisal in SMK Labor Pekanbaru using *Balanced Scorecard* approach after obtaining sufficient data on

the implementation of the management school at SMK Labor Pekanbaru.

3.2. Data Sources and Data Collection Techniques

Data Sources distinguished on primary data sources and secondary data sources. This study used primary data source. Primary data is data collected by researchers directly from the data source at the sites. Primary data collection techniques may include observation, interviews, questionnaires, or documentation (Sugiyono, 2012, Dalimunthe *et al.*, 2017; Hutagalung *et al.*, 2017 & Muda *et al.*, 2018c). This study uses two data collection techniques, namely: semi-structured interviews and document collection.

3.3. Data Analysis Techniques

Data analysis in qualitative research conducted during the research process, namely:

1) Analysis prior to data collection in the field

Analysis before the collection of field data on previous research or secondary data will be used to determine the focus of research. At this stage, researchers conducted a review of previous studies related to the implementation of the *Balanced Scorecard* in educational institutions, conducted a study of the literature on School-Based Management, and studied the laws associated with National Education Standards.

2) Analysis of the study sites while Miles and Huberman's model

Data analysis in qualitative research conducted since the time of data collection and after all the data collected. Analysis while on location was done with developments unstructured questions if deemed answers given by the informants did not meet the needs of the data. Miles and Huberman (1984) in Sugiyono (2012) argue that there are three stages of data analysis, namely: data reduction, data presentation, and conclusion.

4. Results and Discussion

4.1. Result

4.1.1. Vision, Mission and Objectives Organizational

Balanced Scorecard is a tool in the strategic planning system that can also be used as a performance measurement tool organization, whether private sector organizations and the public sector, including for educational institutions. *Balanced Scorecard* can be used as a tool in the assessment of school performance may indicate a causal relationship between the aspects that influence each other in order to achieve the vision of the school as determined by SMK Labor Pekanbaru. Stages of implementation process *Balanced Scorecard* for the education sector (public sector) consists of: 1) Vision and Mission, 2) Objectives, and 3) Roadmap.

4.1.2. Application of Balanced Scorecard in SMK Labor Pekanbaru

4.1.2.1. Customer Perspective

For non-profit organization, whose main perspectives are considered customer perspective, customer perspective considered a major public-sector institution. Unlike private organization that runs business activities with the purpose of profits, educational institutions have a duty to provide educational services to the community. Niven (2008) states that a customer is the person or group who has directly benefit from the services provided by the organization. Based on these definitions, then the customer from educational institution students as learners is a party that directly receives educational services from educational institutions. Measurement of performance from the

perspective of the customer can be measured with those aspects that can demonstrate the achievement of SMK Labor Pekanbaru to fulfill the desire of students to study in SMK Labor Pekanbaru. As for the indicators that can be used to assess the achievement of SMK Labor Pekanbaru on a customer's perspective are:

4.1.2.1.1. Average yield exam scores together (UAS and UKK) and the National Examination

SMK Labor Pekanbaru following the final exams along with the rest of vocational schools in the city of Pekanbaru where exam was made by a team of subject teachers deliberation (MGMPs) Pekanbaru. The average acquisition value of the joint exam is a measure of school performance in achieving the position of learners' achievements at the level of the city of Pekanbaru. Acquisition of the National Examination is an indicator that measures the performance of schools in shaping the competence of learners in accordance with the national assessment standards.

4.1.2.1.2. Acquisition of academic and non-academic achievement

Data shows SMK Labor Pekanbaru has very good achievement in academic and non-academic. In the academic field in the last 2 years, the school got first rank student worksheet (LKS), secretary field and computer engineering and network (TKJ) in Pekanbaru. Acquisition of academic and non-academic achievement is one indicator of school performance achievement in fostering learners who have the skills or talent in a specific field and prepare students to compete.

4.1.2.1.3. The passing rate of students

In the last 5 years, the school got 100% pass national exam. Determining the graduation rate as an indicator of the performance of SMK Labor Pekanbaru is based on statements from the principal of SMK Labor Pekanbaru that the target of the schools are hundred percent pass.

4.1.2.1.4. The number of graduates who continue their education to higher education

SMK Since its establishment has graduated hundreds of graduates, as well as other vocational school, SMK Labor Pekanbaru graduates are graduates who are ready to work according to their expertise, which is spread across many companies in Riau Province. In a proportion of vocational school graduates have many of them continue their education to college, until now there have been 198 graduates who go on to university.

4.1.2.2. Financial Perspective

Financial perspective to the attention of the *Balanced Scorecard* for financial measure is an overview of the economic consequences that result from decisions and policies. Interest achievement "financial performance" is the focus of the goals contained in the other three perspectives. Every organization needs funds to carry out its operating activities. Therefore, the private and public sector organizations will not be separated from the financial management system. The indicators used in the assessment of the performance of the financial perspective:

4.1.2.2.1. Effective Utilization Budget

Effectiveness regard to the achievement of objectives. Effectiveness relates to the relationship between with the objectives that have been set (Mardiasmo, 2009; Muda *et al.*, 2017; Hasan *et al.*, 2017; Nasir *et al.*, 2017; Lubis *et al.*, 2017; Azlina *et al.*, 2017; Muda and Hutapea, 2018 & Muda and Naibaho, 2018). Effective utilization of the budget for SMK Labor Pekanbaru means funds are used in accordance with the budget set out in RKAS. When the budget has been absorbed and the work program has been implemented, it is considered that the budget has been used effectively. The calculation used

to assess the effective utilization of the budget is to compare the total expenditure with the budget.

4.1.2.2.2. Efficient utilization of Budget

Funding sources for the funding and delivery of education at SMK Labor Pekanbaru obtained from student tuition and School Operational Assistance (BOS) both of these resources are fully utilized for the purposes of education. In order to provide education to work well, the school does so with caution and efficiency in using the funds. The cost efficiency associated with use of the funds available for the implementation of activities. Utilization of the budget is done efficiently if the source of funds used as low as possible to achieve maximum results (Mardiasmo, 2009, Muda *et al.*, 2016; Erlina *et al.*, 2017a & 2017b; Yahya *et al.*, 2017; Sihombing *et al.*, 2017; Sirojuzilam *et al.*, 2017; Nurlina *et al.*, 2017; Muda *et al.*, 2018b & 2018d). Therefore, the school needs to reduce operating costs by utilizing most of the assets owned. Yulianto (2008) stated that the indicator used to measure cost efficiency is a reduction in operating costs.

4.1.2.2.3. Realizing Fundraising Sufficient

Same with the use of funds, raising funds to finance the provision of education conducted in accordance with the mission of vocational Labor Pekanbaru. In realizing raising adequate funds obtained SMK Labor Pekanbaru both internal and external. Raising adequate funds can be measured by comparing the revenue per source of funds to the budget revenues per source of funds.

4.1.2.3. Process Service Perspective

It is a process of identifying critical internal processes in which the organization or work units are required to do it well. Stages in the internal business processes include: a) innovation, b) process operation, c) the process of delivering products/services to customers. The school needs to be able to determine party that becomes the customer in operating activities of the school, identifying what needs to be done to be able to fulfill the wishes of learners as on the customer's perspective. Benchmarks or indicators in the assessment of the performance of the internal process perspective:

4.1.2.3.1. Understanding the Customer

In the business world, it is known that the customer is king. In the world of education, the customers are students (parents). The school should be careful and observant to captivate and offer the flagship programs of the school in order to attract as many customers. For that the school also must also be able to understand customer requirements (Marhayanie *et al.*, 2017). The school in understanding the customer can be done by observing the level of understanding of students on subjects that are taught by the teaching methods used by each educator. To align the school's need to conduct research to determine the relationship between a specific learning method with the value obtained by the learners so that they can do further development of learning innovation by educators and school MGMPs team. The study is called action research. The number of scientific papers can be generated by the teacher (PTK). Indicators for measuring how far the school has been able to understand the customer is the amount of scientific work in the field of Class Action Research compiled by educators in SMK Labor Pekanbaru.

4.1.2.3.2. Operation Process

SMK Labor Pekanbaru has attempted to represent aspects of the services provided by the school to students in relation to meet the wishes of students as customers. Indicators that can be used as a benchmark of school performance achievement in the process of this operation are:

4.1.2.3.3. Innovate Constant

The indicator that can be used to assess the performance of schools in developing learning innovation is to assess the

number of innovative new learning method developed by each subject.

4.1.2.3.4. *Teacher Performance Assessment*

The ratings of teacher performance in SMK Labor Pekanbaru conducted by a team of senior educators (Senior Teacher) to observe the implementation of learning in accordance with the learning tools developed previously by every educator. Indicators that can be used is the number of the teaching program plan (RPP) which has been reviewed by the implementation of teacher performance assessment team.

4.1.2.3.5. *Provision of Adequate Facilities and Infrastructure*

Facilities and infrastructures are vital for teaching and learning activities, as well as in SML Labor. The indicator that can be used to assess the performance achievements in the field of facilities and adequate infrastructure is the percentage of fulfillment facilities and infrastructure in schools with a national standard school facilities and infrastructure. This school has been marked as one of the schools that organize exams with a computerized system, there are only 5 vocational and high school were selected in Pekanbaru.

4.1.2.3.6. *Increased Interest Learners to Read in Library*

The library in SMK Labor Pekanbaru functioned since 2013. SMK Labor Pekanbaru has a digital-based library, the circulation services, reference, monographs, and audio visual equipment. In addition, the library in SMK Labor Pekanbaru also quite often makes innovations to attract students visit the library. The existence of these innovations can be used as a benchmark for assessing the performance of the library with the number of new innovations designed by SMK Labor Pekanbaru.

4.1.2.3.7. *Personal Development Coaching Students*

Fostering the development of self-learners in vocational Labor Pekanbaru goes well, a few championships with a wide range of expertise has been widely followed, with achievements, for example winning LKS competition since 2014 until 2016. It is also same as non-academic competition. This result was achieved of course with proper preparation and intensive exercises conducted by both the school and the students. In addition, the intensity of exercise is also an indicator of the achievement of the internal processes in the personal development of students. It is stipulated in the Work Plan SMK Labor Pekanbaru 2014/2015 academic year, the school plans to hold a coaching and intensive training after the implementation of the selection of students. To support this development continuously, it is needed accurate data and objective assessment of any self-development activities followed by learners. The indicator used is the acquisition value of self-development that followed.

4.1.2.3.8. *Sufficient Administrative Services*

Currently, SMK Pekanbaru Labor already has a special place in the airport administration student, for example, tuition fees and other payments, it can be served on its own payment counter. Administrative services in school should follow the rules and regulations that have been issued by the relevant authorities in the Ministry of National Education and Culture. The indicator of performance in assessing this aspect according to Niven (2008) is the number of complaints, the amount of rework, and the number of service errors.

4.1.2.3.9. *The Partnership*

Institution may cooperate with private sector corporations to complement their respective missions. Currently, SMK Labor Pekanbaru is in an effort to establish a cooperative relationship of partnership with the company. Since the last 5 years, SMK Labor has established a partnership with the business and industrial world (Dudi) in nearly 100 companies / organizations that have established partnerships with SMK Labor Pekanbaru. Number of cooperation has made more than 85% of the planned target. Indicators that can be used to assess the achievements

of the partnership is the sum of the cooperation than cooperation predetermined targets.

4.1.2.4. Learning and Growth Perspective

Learning and growth perspective is done by SMK Labor Pekanbaru. It provides the infrastructure to "support the achievement of three other perspectives" Attention "employees and the ability of information systems". Teachers and employees is a very important asset in supporting the success, therefore SMK Labor Pekanbaru has to do several things:

4.1.2.4.1. *Skills to Meet the Needs of Human Resources in Strategic Position*

To support this perspective, SMK Labor Pekanbaru actively participates in educational organizations example in MGMPs in Pekanbaru. With active in the educational organization, so that teachers understand that organizations need to determine the strategy group in a goal in the internal process perspective and conducted a review of positions that support the objectives of the internal processes. Aspects that are the focus on internal process perspective are:

4.1.2.4.2. *Understanding customers and innovate*

This aspect requires adequate competence of educators and coordinators MGMPs subjects. Indicators that can be used as a benchmark of this aspect in accordance with National Education Minister Regulation No. 16 of 2007 on Academic Qualification Standards and Competencies Teacher, which is the number of educators who have passed the certification.

4.1.2.4.3. *Teacher Performance Assessment*

Appraisal of teacher performance in SMK Labor Pekanbaru has referred to the appropriate guidelines have been standardized by the Department of Education in Pekanbaru. Aspects of assessment involve principals and educators performance assessment team consisting of senior educators. The indicator is an educator competency assessment of principals as school leaders with the rank criteria teachers, educators who have passed the certification of teachers, and the commitment of educators to improve the quality of learning.

4.1.2.4.4. *A Visit to the Library*

Library business needs to continue to improve innovation in an effort to attract learners to read in the school library. Indicators used in accordance with National Education Minister Regulation number 25 of 2008 on Labor Standards School Library / Madrasah. Librarians at SMK Labor Pekanbaru are still managed by senior teachers, librarians who are not certified as required by appropriate regulation in 2008 on top.

4.1.2.4.5. *Development of Students with Special Skills and Personal Development*

Coaching vocational learners in Pekanbaru Labor are guided by OSN builder, as well as for personal development of students under the program coordinator of student field. Indicators of competence builder of self-development in general was stated by Vice-Principal of SMK Labor Pekanbaru is to have skills beyond the field of self-development, has the ability to foster self-development activities, has the ability to help students develop the skills of students, as well as having the ability to design development programs student.

4.1.2.4.6. *Ministry Adequate Administrative*

SMK Pekanbaru Labor has done adequate administrative governance, it is characterized by their special place in the airport administration student, for example, tuition fees and other payments, it can be served on its own payment counter. Indicators used to assess the competence of administrative staff of the school is the number of school administration staff who have met the national standard school administrative personnel compared with the total of all administrative staff of the school.

4.1.2.4.7. Training Human Resources

Besides doing teaching and learning, vocational Labor Pekanbaru also provides training to human resources to improve the competence of teachers and schools. For that purpose, the measurement of training impact produced, ie from the perspective of learning and growth to the internal process perspective (Muda and Dharsuky, 2016). In SMK Labor in Pekanbaru, the training can be in form of workshops, seminars, and training for educators and employees held in internal and external school. Indicators that can be used to assess aspects of human resource training in vocational Labor Pekanbaru is the amount of training followed by educators and employees compared with the target.

4.1.2.4.8. Employee satisfaction, and alignment of human resources with the school's mission

The most important thing is to give satisfaction, both to customers and job satisfaction by employees or persons

involved. Niven (2008) states that organizations need to look at the resources are not visible from Manusa force consisting of the feelings and thoughts of the workers. For that the school needs to make an assessment on the psychological side of human resources for the climate organization set up by the Principal of SMK Labor Pekanbaru. Educator and employee job satisfaction, harmony between work motivation of teachers and educators with the school's mission, as well as communication systems are in vocational Labor Pekanbaru need to be identified to be able to objectively determine the psychological edge educators and employees to the work performed. Indicators to see educators and employee satisfaction can be assessed with questionnaires related to job satisfaction. In addition, alignment between individual motivation with the school's mission also needs to be assessed through a survey by questionnaire. From the results of research on performance measurement instituted education can be made a simple model to conduct performance measurement approach *balanced scorecard* as follows:

Perspectives	Roap Map	Weight	Goal	KPI	Action Plan	Target	Actual	Score
1	2	3	4	5	6	7	8	9
Customer	Community Satisfaction	20	Intelligence Increase Student	1. Level of graduation 80% 2. Achievement of academics and non-academics 3. Number of graduates entering PT	Monitoring and Evaluation	80%	80%	20
Process Services	Curriculum standards	15	The fulfillment of the standard curriculum	Composition Local subjects and Munas 1: 9	Socialization Education System	90%	90%	15
	Learning process	15	Increased Learning Effectiveness	Jam learning Effective 8 hours	Socialization Rules learning	75%	75%	15
L and G	Competence Teachers	10	Improved Quality of Teachers	<ul style="list-style-type: none"> • Meeting the Needs of HR (Jlh teachers who Certified National) • Training HR • satisfaction and Alignment SDM 	Sergur Diclation and upgrade TP and training routine HR	75%	75%	10
	Optimizing IT	10	Availability of Information access	completeness and freshness of Information	Procurement Facility IT	4 of 5	3 out of 4	75
	Strengthening Institutions	10	Realization Professional Educational Institute	Confidence level of society to Institution	Empowerment Institutions	5 of 5	3 of 5	60
Financial	Provision of Budget Routinely	20	Fulfillment Needs Financing	<ul style="list-style-type: none"> • Budget Utilization efficiently and effectively • raising adequate funds 	Budget Provision	100%	100%	100
		100						93.50

Table 3. Model design of the *Balanced Scorecard* in SMK Labor Pekanbaru
Source: Data Tabulation (2017)

5. Conclusions and Suggestions

5.1. Conclusions

Based on the results of research and discussion on performance measurement models in institutions education with the approach *Balanced Scorecard* (A Study in SMK Labor Pekanbaru) is concluded that:

1. School performance measurement from the customer perspective by creating learner satisfaction as the main customer of the school, so that students can increase intelligence. The indicators for this measure is a national exam passing rate above 80%, and non-academics and academics achievement, and number of graduates who enter college.
2. Measurement of performance from the perspective of internal business process objectives are met curriculum standards and increasing the effectiveness of learning

with the indicator composition fulfillment of local content and national cargo.

3. The performance measurement of learning and growth perspective the goal is increasing the quality of teachers, availability of access to information, the establishment of professional educational institutions. Indicators for measuring the performance of this is to fulfill the needs of human resources (the number of certified teachers nationwide), training of human resources, as well as satisfaction and alignment of human resources.
4. The performance measurement of the financial perspective is to fulfill the needs of financing. It can be seen from the utilization of size with an efficient and effective budget, adequate fundraising.

5.2. Suggestions/Recommendations

The results can be used by educational institutions as one tool in evaluating the achievement of the performance, and

provide feedback and suggestions to improved service delivery in order to improve the quality of service to customers. To achieve this required a deep understanding of what the importance of using *Balanced Scorecard* for the school in the performance appraisal process for the assessment of school performance. That understanding must be owned by the principal of the school as management peak. The results of this study can be used as a reference for similar studies in the future, by conducting interviews with more potential sources related to obtain more complete information to facilitate the process of formulating the strategy map and measuring performance.

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