

The effectiveness of vocational school performance measurement model based on balance scorecard

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Abstract

The current models of vocational school performance measurement refer to the eight National Standards of Education. They are accreditation and school self-evaluation models, and the models are not effective yet, as they did not measure school performance from all aspects of the school life. Therefore, to measure school performance comprehensively and effectively, by using A Model of Vocational School Performance Measurement based on Balance Scorecard. The type of the research is development research. The development model procedure followed the model from Borg and Gall (2008: 570). Data collection used instrument replenishment to all school stakeholders. The collected data then were analyzed using scoring on each measurement indicator. The results obtained based on the stages of product development trial to 46 respondents. The result of study showed that the vocational school performance measurement model is very effective. The Effectiveness of model wastaken by filling questionnaires that contains of 13 statements and distributed to 46 respondents of four SMKs in Pesisir Selatan Regency. The effectiveness level of the model book is 91.24%, while the format book is 94.31%. It means that the books of the Vocational School Performance Measurement Model based on Balance Scorecard are very effective to measure the performance of vocational high schools.

Keywords: performance measurement, vocational school, balance scorecard



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Introduction

Currently, the model of vocational school performance measurement is measured through the instrument of accreditation and school self-evaluation. Both of these models are suspected not effective, because they have not measured all aspects of school life. Mulyadi (2011) says that a system of performance measurement model is effective if it meets the following requirements: 1) based on each activity and character of the organization itself according to customer perspective, 2) evaluation of various activities using customer validated sizes, 3) complies with all aspects of the performance of the activities affecting the customer so as to produce a comprehensive assessment, 4) provide feedback to help all members recognize the problems that exist and allow for improvement.

It is not only the business world that required performance measurement model, but also the world of education. Mulyadi (2011) explained that the existence of performance measurement model for educational organization; that is school, is very useful to see whether the condition of school in

accordance with customer expectation, and can show whether all component of school can give satisfaction to customer or not. Setyawan (2011) also explained that that measurement performance is the measurement action performed on various activities within value chains that exist in an organization. The measurement results are then is used as a feedback that will provide information about the accomplishment of the implementation of a plan and the point at which the organization needs adjustment or planning and control activities.

Moving on from Mulyadi & Setiawan's statement, it is found that in the school's performance measurement model through accreditation and school self-evaluation, it only measures eight national education standards such as; content standards, process standards, graduate competency standards, educational assessment standards, standards of educators and personnel, facilities and infrastructure standard, standard of management and financing standards. This shows that there is no measurement standard for school customers such as students, parents, tracer, the world of business and industry.

The vocational school performance measurement model must be redesign comprehensively in order to be able to measure all aspects of life in the school. The Measurement of vocational school performance based on balance scorecard aims to measure school performance effectively by measuring financial and non financial perspective, such as customer perspective, internal business process perspective and growth and development perspective.

Balanee Scorecard was created to overcome the problem of the weakness of traditional performance measurement system which only focus to the financial aspect. The balance scorecard was developed by Robert S Kaplan; a professor from Harvard University, and David P. Norton; a consultant from Boston. Kaplan and Norton conducted a study on new performance measurement methods. The results of this study conclude that a comprehensive measure of organizational performance measures includes four perspectives namely; financial perspective, customer perspective, internal business process perspective and growth and development (learning) perspective.

Implementation of a balanced scorecard is not only known as a performance measurement tool, but it has also become a tool in defining the organization's strategic plan. In subsequent developments Kaplan and Norton wrote their article entitled Using Balance Scorecard as Strategic Management System. In the article it is written that the balance scorecard as a management tool has evolved from a performance measurement system as a strategic management tool. Balance scorecard is a management framework that translates the organization's mission and strategy into a set of performance measures that provide a framework for strategic management measurement and systems (Kaplan & Norton, 2009: 2).

Method

The type of the research is research and development. Tika (2010) says that development research is a research that conducts an investigation for product development or an existing procedure. Research and development in this research is useful to develop Model of Performance Measurement of Vocational School based on Balance Scorecard. This developed model can measure school performance internally, regularly, practically and effectively, so that the performance value of vocational schools can be known by all members of school and sustainable.

The steps preparation of this model created to the steps taken sequentially. This research helps the researcher to give birth to a product. The prудucts of the reserach are the books of the Model of Vocational School Performance Measurement based on balance Scorecard on four perspectives, namely: 1) financial perspective, 2) customer perspective, 3) internal business process perspective, and 4) growth and learning perspective. The other one is The Format Book of Vocational School Performance Measurement based on balance Scorecard

This study uses the steps developed by Borg and Gall (2011) which have been simplified into four steps; 1) introduction, 2) development, 3) designing models, especially to the effectiveness of the models, and 4) product dissemination.

Data analysis used descriptive data analysis. It is describing the effectiveness of usage by filling instrument of performance measurement. Qualitative data analysis uses flow model and its components consist of data reduction, data presentation, and conclusion (Miles and Huberman, 2007). Quantitative data analysis used descriptive data analysis. It is describing the effectiveness of usage by filling instrument of performance measurement. The effectiveness of model seen from result of filling instrument of the effectiveness model and it describes with technique of frequency analysis with formula:

$$\text{Scores obtained} / \text{maximum score} \times 100\% = \text{Effective}$$

Result and Discussion

This research and development aims to produce an effective vocational school performance measurement model based on balance scorecard. The product of this development is a book of performance model of vocational high school based on balance scorecard and a book of model form of vocational school performance measurement based on balance scorecard. Four SMKs in Pesisir Selatan Regency, West Sumatera, Indonesia declared that both of the books were effective as a guidance to measure vocational school performance measurement..

The characteristic of an effective educational product is if the product consistent or appropriate between expectations, reality and conditions (Plom, 2010, & Nieven 2009), The effectiveness of this model is seen from the results of the use of the books model of vocational school performance measurement based on balance scorecard through the questionnaires that contributed to 46 respondents with 13 points statement. The respondents were principals, vice principals, heads of departments, teachers and school administrators at four pilot schools. They are SMKN 2 Painan, SMKN 1 Ranah Pesisir, SMKN 1 Linggo Sari Baganti, and SMKN 1 Tapan. Here is the result of the effectiveness analysis of the model book of performance measurement of vocational school based on balance scorecard.

Table 1. The Result of Effectiveness Analysis of The Book Model

| Statements | SMKN 1 Painan | SMKN 1 Ranpes | SMKN 1 LSB | SMKN 1 Tapan | Total of Respons | % Effektiv eness | Status |
|--|------------------|------------------|---------------|-----------------|---------------------|------------------------|-----------|
| The book of performance measurement model of SMK based on balance scorecard is good for use to measure SMK performance | 210 | 205 | 210 | 215 | 46 | 91.30 % | Effective |
| The book of performance measurement model of SMK based on | 205 | 220 | 215 | 210 | 46 | 91.85 % | Effective |

| | | | | | | | |
|--|-----|-----|-----|-----|----|----------------|------------------|
| BSC is easily understood | | | | | | | |
| The Book of SMK Performance Measurement Model contains a clear subtitle | 225 | 220 | 215 | 215 | 46 | 95.11 % | Effective |
| The contents of the Model Book make me enthusiastic to understand it | 225 | 220 | 210 | 205 | 46 | 93.48 % | Effective |
| Book Model of Performance Measurement of SMK based on BSC has an interesting design | 210 | 220 | 205 | 215 | 46 | 91.40 % | Effective |
| I am willing when asked to use this model book to measure the performance of my school | 210 | 215 | 210 | 210 | 46 | 90.86 % | Effective |
| I better understand all the components in this book when compared to other models | 215 | 220 | 210 | 210 | 46 | 92.94 % | Effective |
| I do not know the value of my school performance before using this book | 215 | 215 | 215 | 210 | 46 | 92.94 % | Effective |
| I agree if the measurement of school performance is measured using this model book | 220 | 215 | 205 | 205 | 46 | 91.85 % | Effective |
| This model book is very effective for use in SMK performance measurement | 210 | 215 | 215 | 215 | 46 | 92.94 % | Effective |
| I feel unencumbered in using this model book | 220 | 210 | 210 | 215 | 46 | 92.95 % | Effective |
| I understand about all of the aspect on this book | 220 | 220 | 215 | 205 | 46 | 93.49 % | Effective |
| In my opinion, SMK will be easier to do SWOT analysis after using this model book | 210 | 220 | 215 | 210 | 46 | 92.94 % | Effective |
| Avarage | | | | | | 92.62 % | Effective |

Source: the own researcher (2017)

The above table showed that the 13 statements contained in the instrument sheets of effectiveness test of book model, it is seen that the average percentage of measurements reached about 92.62 %, it means that the model of book is declared effective.

Furthermore, the book of model format; the second book, also tested its effectiveness. The results were come from the instrument sheet which contains of 13 statements that have been distributed to 46 respondents from four SMKs. The schools are SMKN 2 Painan, SMKN 1 Ranah Pesisir, SMKN 1 Linggo Sari Baganti, and SMKN 1 Tapan. Here are the results obtained for the effectiveness of the Book Format Model of Vocational High School Performance Measurement based on Balance Scorecard.

Table 2 The Result of Effectiveness Test Analysis of The Model Format Book

| Statemen | SMKN 1 Painan | SMKN 1 Ranpes | SMKN 1 LSB | SMKN 1 Tapan | Total of Respons | % Efektiven ess | Status |
|---|------------------|------------------|---------------|-----------------|---------------------|-----------------------|-----------|
| The book of performance measure mt model of SMK based on balance scorecard is good for use to measure SMK performance | 220 | 220 | 210 | 205 | 46 | 92.86 % | Effective |
| The book of performance measurement model of SMK based on BSC is easily understood | 210 | 210 | 215 | 215 | 46 | 92.30 % | Effective |
| The Book of SMK Performance Measurement Model contains a clear subtitle | 220 | 220 | 220 | 210 | 46 | 94.57 % | Effective |
| The contents of the Model Book make me enthusiastic to understand it | 220 | 220 | 210 | 215 | 46 | 94.02 % | Effective |
| Book Model of Performance Measurement of SMK based on BSC has an interesting design | 215 | 210 | 215 | 215 | 46 | 92.94 % | Effective |
| I am willing when asked to use this model book to measure the performance of my school | 210 | 215 | 215 | 220 | 46 | 93.48 % | Effective |
| I better understand all the components in this book when compared to other models | 220 | 210 | 210 | 215 | 46 | 92.94 % | Effective |

| | | | | | | | |
|--|-----|-----|-----|-----|----|----------------|------------------|
| I do not know the value of my school performance before using this book | 215 | 210 | 215 | 220 | 46 | 94.35 % | Effective |
| I agree if the measurement of school performance is measured using this model book | 220 | 215 | 220 | 210 | 46 | 94.02 % | Effective |
| This model book is very effective for use in SMK performance measurement | 220 | 210 | 220 | 210 | 46 | 93.48 % | Effective |
| I feel unencumbered in using this model book | 215 | 210 | 210 | 215 | 46 | 92.39 % | Effective |
| I understand about all of the aspect on this book | 215 | 215 | 220 | 220 | 46 | 94.56 % | Effective |
| In my opinion, SMK will be easier to do SWOT analysis after using this model book | 210 | 210 | 215 | 220 | 46 | 92.95 % | Effective |
| Avarage | | | | | | 93.45 % | Effective |

Source: the own researcher (2017)

The above table showed that from the 13 statements contained of the effectiveness test instrument of vocational school performance measurement model based on the balance scorecard, it is seen that the average percentage of measurements reached about 93.45%, it means that the whole book is declared effective with the average amount.

Model of Vocational School Performance Measurement based on Balance Scorecard; New Alternative in Measuring Vocational School Performance Measurement Effectively

Performance is the work of an organization in order to realize its purpose (Tika, 2010:31). At first glance, performance can be interpreted as a working behavior, appearance or work. Therefore, performance is a form of building so the way to measure it varies depending. There are also those that define performance as the implementation of achievement results from limits of human and technical capabilities in realizing timely goals and in accordance with the purpose (<http://job.sgepub.com/jobperformance&sortspec=date&submit/journal> of management divertiture and firm performance). Meanwhile, according to Mankunegara, performance can be defined as the work of quality and quantity that can be achieved person / employee in performing tasks in accordance with the responsibilities given to him.

From this sense it can be concluded that there are four elements contained in the sense of performance, namely: 1) The results of job functions, 2) Factors that affect employee performance, such as motivation, skills, role perception, and so forth, 3) Achievement of organizational goals, 4) Period of time.

Measuring performance is very important. Measuring organizational performance will encourage the achievement of organizational goals and will provide feedback for continuous improvement

(Bastian, 2011: 330). Therefore, performance measurement systems should be built in such a way that information on performance can be obtained as much and as accurately as possible.

Measuring organizational performance like education institution (school) is a management tool used to improve the quality of decision-making and accountability. Measurement of organizational performance is the process of recording and measuring the achievement of the implementation of activities in the direction of achieving value through the results shown in the form of products, services or a process.

The value of school performance is an integrative value of the whole components of the school, as well as an indicator of head leadership success schools that are accumulated in each period and measurable. therefore Anthony, Banker, Kaplan, and Young define performance measurement as: "the activity of measuring the performance of an activity or the entire value chain".

Effective vocational school performance measurement measured by using a performance balance scorecard-based school performance model. This model is effective for vocational schools because it is able to make the schools excited in performing school performance measurement in accordance with what the respondents said that this model is good for measuring the performance of vocational high school.

Then, the effectiveness of the model is also evident from the respondent's answer to the model book. They gave the responses through the instrument sheets that this model book is easy to understand, as well as its clear and easy-to-understand subtitles that make it easy for school stakeholders to understand this model book. Furthermore, as a performance measurement model, the dook model has an interesting design, so that the model user will not feel burdened to fill the book format later.

Next, The format book of the vocational school performance measurement model is a workbook that schools must complete to find out how the school's internal condition is. In this book, an alternate component is prepared to measure. The basis used in this school's performance measurement is the balance scorecard, where it sees school performance from four perspectives.

The reference model of this school's performance measurement format remains on eight National Education Standards and integrated into four balanced scorecard perspectives namely; financial and non-financial perspectives such as customer perspective, internal business process perspective, and learning and development perspectives. This format book model also was declared effective as a book format of vocational school performance measurement (Soni, 2002).

The factors that said that this measurement format is effective are referring to respondents' answers who strongly agree that this model is good for the performance measurement format of vocational high schools. It is further stated that this school performance measurement book has a comprehensive school performance measurement indicator. There is important thing that all respondents also agree this format model makes school easy to analyze the SWOT needed.

Conclusion

The effectiveness of the Vocational School Performance Measurement Model was obtained from the questionnaires by school principals, vice principals, heads of departments, teachers and school administrators.

Performance measurement is a management tool to assess the success or failure of the implementation of the strategy to achieve goals / goals of the organization. Performance measurements need to be always articulated with the vision, organizational mission, goals or objectives of the organization.

The implication of the effectiveness of this model is that vocational schools can regularly measure school performance, while it recommended to vocational schools that both of the books model could be used to measure school performance at other educational unit levels; such as junior and senior high school.

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