

The Effectiveness of Vocational School Performance Measurement Model Based on Balance Scorecard

1st Desmi Irianti
 Educational Management Department
 Universitas Negeri Padang
 Padang, Indonesia
desmi.iriанти@yahoo.co.id

2nd Sufyarma Marsidin
 Educational Management Department
 Universitas Negeri Padang
 Padang, Indonesia
syufyarmamarsidin@gmail.com

3rd Kasman Rukun
 Educational Management Department
 Universitas Negeri Padang
 Padang, Indonesia
kasmanrukun@gmail.com

Abstract—The current model of school vocational performance measurement refers to the eight National Standards of Education, and this has not yet been effective, as it has not measured school performance from all aspects of school life. Therefore, to measure school performance comprehensively and effectively, by using Performance Measurement Model of Vocational School based on Balance Scorecard. This type of research is development research. The development model is from Borg and Gall. Data collection used instrument replenishment to all school stakeholders The collected data were then, 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, this vocational school performance measurement model is very effective. This is stated by filling a questionnaire with 13 statements and distributed to 46 respondents of four SMK in Pesisir Selatan Regency. The effectiveness level of the model book is 91.24%, while the format book is 94.31%. It means that two books of the Vocational School Performance Measurement Model are very effective to measure the performance of vocational high schools.

Keywords—Performance measurement, vocational school, balance scorecard

I. INTRODUCTION

Currently, the model of SMK performance measurement is done through the instrument of Accreditation and School Self-Evaluation. Both of these models are suspected to be no longer effective, because they have not measured all aspects of school life. It is said that a system of performance measurement model is said to be 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 [2] It does not only the business world require the performance measurement model but also the world of education.

It is explained that the existence of performance required by 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 [2]

It is found that in the school's performance measurement model through accreditation and self-evaluation the school 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 [3]. This shows that there is no standard measurement for school customers such as students, parents, tracer, the world of business and industry.

The vocational school performance measurement model should be designed comprehensively in order to measure all aspects of life in the school. 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.

Balance Scorecard was created to overcome the problem of the weakness of traditional performance measurement system, which only focuses 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. They 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 learning and growth 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 [4]. 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 [5]

II. METHODS

This study uses a research and development design. It is explained that development research is a research that conducts an investigation for product development or an existing procedure [6]

Research and development in this research is useful to develop a model of performance measurement of vocational school based on balance scorecards. This developed model can be used to measure school performance internally and can be done regularly, practically and effectively, so that the performance value of vocational schools can be known by all members of school and sustainable.

The preparation of this model is tailored to the steps taken sequentially. This research helps the researcher to design a product that is 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.

This study uses four steps developed by Borg and Gall. Then the steps have been simplified into four, they are; 1) introduction, 2) development, 3) designing models, 4) product dissemination. Data collection technique is done by using some instruments which related to the variables. The instruments were the need assessment sheets, experts validating sheets, practicality sheets, and effectivity sheets. Data analysis is used to describe the effectiveness of model. It is done by filling instrument of performance measurement. Qualitative data analysis uses flow model, and its components consist of data reduction, data presentation, and conclusion. As quantitative, data analysis is descriptive by describing effectiveness of usage and filling instrument of performance measurement. Effectiveness of model seen from the result of filling instrument of the effectiveness model and it is stated by using technique of frequency analysis with formula:

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

The categories of effectivity of the model were described in some numeral like 86 to 100 (very effective), 71 to 85 (effective), 56 to 70 (enough effective), 40 to 55 (less effective), and 0 to 39 (no effective)

III. RESULTS 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 model book of vocational high school performance based on balance scorecard and the format model book of vocational school performance measurement based on balance scorecard. Both of the books have been declared effective by four SMKs in Pesisir Selatan Regency, West Sumatera; Indonesia as a product trial school.

It said that characteristics of an effective educational product if the product consistent or appropriate between expectations, reality and conditions [4]. 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. The result of using the model book of school performance measurement was obtained from the result of questionnaire, which was disseminated, to 46 respondents with 13 points statement. The respondents were principals, vice principals, heads of departments, teachers and school administrators at four pilot schools, namely SMKN 2 Painan (school 1) SMKN 1 Ranah Pesisir (school 2), SMKN 1 Linggo Sari Baganti (school 3) and SMKN 1 Tapan (school 4) Here is the result of the effectiveness test analysis of the book of school performance measurement based on balance scorecard.

TABLE 1. THE RESULT OF EFFECTIVENESS TEST ANALYSIS OF THE BOOK MODEL

Statements	School 1	School 2	School 3	School 4	Total of Resps	%	Note
The book is good for use	210	205	210	215	46	91.30 %	Effective
The book is easily to understand	205	220	215	210	46	91.85 %	Effective
The book contains a clear subtitle	225	220	210	205	46	95.11 %	Effective
The book makes user enthusiastic to understand it	210	220	205	215	46	93.48 %	Effective
The book has an interesting design	210	215	210	210	46	91.40 %	Effective
The book makes the user willing to use it	215	220	210	210	46	90.86 %	Effective
The users more understand about the components of the book	215	220	210	210	46	92.94 %	Effective
Before using the book the user do not know about the her school performance	215	215	215	210	46	92.94 %	Effective
The users	220	215	205	205	46	91.85 %	Effective

agree to use the book in measuring the performance of school							ive
The book is very effective	210	215	215	215	46	92.94 %	Effective
The users feel unencumbered in using this model book	220	210	210	215	46	92.95 %	Effective
The users understand about all of the aspect on this book	220	220	215	205	46	93.49 %	Effective
The model helps school to do SWOT Analysis	210	220	215	210	46	92.94 %	Effective
AVAR AGE						92.62 %	Effective

using this model book						5 %	ctive
The users feel unencumbered in using this model book	220	220	215	205	46	93.49 %	Effective
The users understand about all of the aspect on this book	210	220	215	210	46	92.94 %	Effective
The model helps school to do SWOT Analysis						92.62 %	Effective
Avarage						93.45 %	Effective

Based on the above table, it can be seen from the 13 statements contained in 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 above 92.62 %, It means that the whole book is declared effective with the average amount

Furthermore, for the book of model format also tested the effectiveness of the book format model. The results obtained for this format book model are done by filling the effectiveness test. This instrument contains 13 statements that have been enclosed by 46 respondents from four SMK designated is 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 FORMAT MODEL BOOK

Statements	School 1	School 2	School 3	School 4	Total of Resps	%	Note
The book is good for use	210	205	210	215	46	91.30 %	Effective
The book is easily to understood	205	220	215	210	46	91.85 %	Effective
The book contains a clear subtitle	225	220	210	205	46	95.11 %	Effective
The book makes user enthusiastic to understand it	210	220	205	215	46	93.48 %	Effective
The book has an interesting design	210	215	210	210	46	91.40 %	Effective
The book makes the user willing to use it	215	220	210	210	46	90.86 %	Effective
The users more understand about the components of the book	215	220	210	210	46	92.94 %	Effective
Before using the book the user do not know about the her school performance	215	215	215	210	46	92.94 %	Effective
The users agree to use the book in measuring the performance of school	220	215	205	205	46	91.85 %	Effective
The book is very effective	210	215	215	215	46	92.94 %	Effective
The users feel unencumbered in	220	210	210	215	46	92.9 %	Effective

statements contained in 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 above 93.45%, it means that the whole book is declared effective with the average amount.

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

Measuring organizational performance 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.

Measuring performance is very important. Measuring organizational performance will encourage the achievement of organizational goals and will provide feedback for continuous improvement [8]. Therefore, performance measurement systems should be built in such a way that information on performance could be obtained as much and as accurately as possible.

The effectiveness of vocational school performance measurement is able to do by using a performance scorecard-based school performance model. This model is

effective, because it is able to make the school excited in performing school performance measurement in accordance with what the respondents said that this model book is good for measuring the performance of vocational high school.

To get the excellence of balance scorecard, the measurement of performance must be integrated to management system [9]. Then, the effectiveness of the model is also evident from the respondent's answer to this model book, which says 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, it has an interesting design. It is hoped that the model user will not feel burdened to fill the book format of school performance measurement model later.

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 [10]. In this book, an alternate component is prepared to be measured. 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 is 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. The format model of the vocational school performance measurement is also declared effective as a format to measure vocational school performance. 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.

Next, the book of school performance measurement has a comprehensive indicator. There is important thing that all

respondents also agree this format model makes school easy to analyze the SWOT needed.

The effectiveness of the both books could be seen from the result of the usage the book models.

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

REFERENCES

- [1] Borg and Gall, 2003 *Education Research, An Introduction*. New York and London : Longman Inc.
- [2] Bastian, 2001 *Akuntansi Sektor Publik di Indonesia*. Yogyakarta: BPFE.
- [3] Mulyadi, 2007. *Sistem Manajemen Strategik Berbasis Balance Scorecard*. Cetakan Kedua, April. Yogyakarta: UPP AMP YKPN
- [4] Kaplan & Norton, 1996. *The Balance Scorecard: Translating Strategy Into Action*. Boston: Harvard Business School Press.
- [5] McHargie, S.K. 2003 *Learning for performance in Nonprofit Organization*. 196-204. SAGE Journals.
- [6] Miles, M.B. & Huberman, A.M. 1994 *Qualitative Data Analysis: An Expanded Sourcebook* (2nd ed.) Thousand Oaks: Sage
- [7] Mulyadi & Setyawan, 1997 *Buku Pintar Manajemen Kinerja*. (Translation)
- [8] Plom, 2010, Nieven 2010, *Education Design; Introduction From Tjeerd Plom* (eds). *Educational & Training System Design: Introduction . Design of Educational and Training* (in Dutch). Utrecht (the Netherlands): KLemma. Netherland. Faculty of Educational Science and Technology, University of Twente.
- [9] Anderson ,H. 2001 *Balance Scorcard Implementation in SMEs: Reflection on literacy and practice*. Aalborg University. Aalborg.
- [10] Bernadine & Russel. 2010. *Handbook of Human Performance Technology. A Comprehensive Guide for Analysis and Solving Performance Problem in Organization*. San Fransisco: Jersey –Bass Publisher.