Jurnal Teknologi Pendidikan, December 2023, 25 (3), 654-662
DOI: http://dx.doi.org/10.21009/JTP2001.6
p-ISSN: 1411-2744 e-ISSN: 2620-3081
Accredited by Directorate General of Strengthening for Research and Development
Available online at http://journal.unj.ac.id/unj/index.php/jtp

Strategic Resource Relationship Model, Adaptability to Environmental Dynamics, Implementation of School-Based Management and Vocational School Competitiveness

Amidatus Sholihat Jamil[1], Waras Kamdi[2], Syamsul Hadi[3], Syaad Patmanthara[4]
[1]Postgraduate Students, State University of Malang; Visual Communication Design, University of Nahdlatul Ulama Pasuruan, Indonesia
[2,3]Vocational education, State University of Malang, Indonesia
[4]Electrical Engineering education, State University of Malang, Indonesia

Received : November 12, 2023
Revised : November 30, 2023
Accepted : December 30, 2023

Abstract

The aim of this research is to obtain the best relationship model between strategic resources, adaptability to environmental dynamics, and the implementation of school-based management on competitiveness in vocational schools which is thought to have an indirect relationship through existing mediating variables, without ignoring the direct relationship of each variable. This research is included in explanatory research with the statistical analysis technique used, namely Structural Equation Modeling (SEM). The population and sample in this study were 397 public and private vocational school teachers in East Java Province. Research data was collected through the distribution of questionnaires conducted online and offline. The results of hypothesis testing show that: (1) strategic resources have a positive and significant effect on environmental dynamics; (2) strategic resources have a positive and significant effect on the implementation of SBM; (3) adaptability to environmental dynamics has a positive and significant effect on SBM implementation; (4) strategic resources have a positive and significant effect on competitiveness; (5) SBM implementation has a positive and significant effect on competitiveness; (6) environmental dynamics have a positive and significant effect on competitiveness through the implementation of SBM; (7) strategic resources have a positive and significant effect on competitiveness through environmental dynamics and SBM implementation; (8) strategic resources have a positive and significant effect on competitiveness through the implementation of MBS; and (9) strategic resources have a positive and significant effect on the implementation of SBM through environmental dynamics.

Keywords: strategic resources, environmental dynamics adaptability, implementation of school-based management, competitiveness

(*) Corresponding Author: sparklingasj@gmail.com

How to Cite: Jamil, A. S., Kamdi, W., Hadi, S., & Patmanthara, S. (2023). Strategic Resource Relationship Model, Adaptability to Environmental Dynamics, Implementation of School-Based Management and Vocational School Competitiveness. *JTP - Jurnal Teknologi Pendidikan*, *25*(3), 654-662. https://doi.org/10.21009/jtp.v25i3.48677

INTRODUCTION

In terms of quantity, educational progress in Indonesia is quite encouraging. The education development index in Indonesia is in 69th place out of 127 countries. However, in terms of quality, the development of education in Indonesia is still uneven (Hardiansyah, 2022). Suhardi (2017) research result shows that there are

three factors causing the uneven increase in the quality of education. First, national education policy and implementation uses input and output analysis which is not carried out consistently. Second, the approach to implementing national education is carried out in a centralized manner so that schools as education providers depend on bureaucracy. Third, the role of the community, especially parents, in providing education is very minimal.

Like several other countries, Indonesia has a dual education pathway that provides general and vocational education. The general aim of education is to provide students with academically oriented knowledge as a stepping stone to higher education and training. The aim of vocational education on the other hand is to equip students with practical skills and knowledge that are useful in everyday community life. The vocational curriculum consists of a combination of general knowledge and specific jobs or professions. To ensure adaptability, the skills imparted by vocational schools must be transferable between jobs (Boucher, 2011).

The progress of modern industry has entered a new era, namely the industrial era 4.0. This era is characterized by the use of information technology in interacting and building business. Information technology has encouraged businesses to reach wider markets in a relatively short time (Palilingan & Batmetan, 2019). Business is becoming increasingly advanced but at the same time it is also facing increasingly global competition. This industry is increasingly facing a lot of competition and challenges. This is not only for industry but all institutions, including vocational high schools (SMK).

Every educational institution needs to have competitiveness, namely the ability to produce a product or service that is more meaningful for customers (Mufidah, 2019). Vocational Schools carry out their function as producers of skilled labor for industry. Quality vocational schools will produce graduates who are well absorbed in the industrial world. Producing graduates who are competitive in industry requires a special strategy for carrying out the education process in vocational schools (Siswantoyo et al., 2019). This aims to make vocational schools more competitive in facing the industrial era 4.0. A good strategy in managing vocational school management is produced through comprehensive analysis using appropriate techniques and methods (Palilingan & Batmetan, 2019). The low competitiveness of vocational schools is caused by school management that is less responsive and adaptive (Ben Sassi et al., 2016). Vocational school management needs to be more effective and efficient. Vocational high school management has an important role in building strong competitiveness. Good management will increase competitiveness. Institutions that have the ability to compete will be the winners in the competition (Prilop et al., 2013). Therefore, we need a way to create more competitive institutions.

The quality of education is influenced by several factors, including school management (Solong et al., 2020). The effectiveness of the curriculum, the number of learning aids, the amount of class time, and the learning process will all be influenced and determined directly by school management (Triwiyanto et al., 2017). It is within this framework that School Based Management (SBM) emerges as an alternative to the new educational management paradigm offered. In order to improve the quality, effectiveness and equity of education, as well as paying attention to community demands and establishing close relationships between

schools, communities and government, SBM is a concept that provides autonomy to schools in determining education policies (Zaid, 2021).

Implementation of SBM can be achieved if school resources function well (De Grauwe, 2005). To achieve superior implementation in an educational organization will be difficult without the involvement and interaction of one resource with another. Limited infrastructure resources are a problem that is still found in vocational education today(Yeap et al., 2021). According to the resource based view (RBV) theory, resources are the main source of sustainable competitive advantage (Amit & Schoemaker, 1993; Barney, 1991). If resources are used synergistically, it will produce superior implementation for educational organizations. According to Anderson (2007), Resources can be divided into internal and external resources. External resources typically consist of relationships with actors outside the company, such as customers and suppliers. How a company is perceived by others, in terms of its reputation, can also be classified as an external resource (Deephouse, 2000). In the RBV literature, the main focus is on internal resources such as human, organizational, and physical resources. According to (Grant, 2009), These resources can produce capabilities such as market management capabilities, production capabilities, and innovation capabilities. Using this distinction between resources and capabilities, resources are tangible or intangible assets, and capabilities are the abilities that result from those assets.

Based on the series of explanations above, it can be assumed that there is a positive relationship between strategic resources, adaptability to environmental dynamics, and the implementation of school-based management on competitiveness in vocational schools. Thus, it is necessary to carry out research to analyze the relationship and see the influence of strategic resources and adaptability on environmental dynamics on the implementation of SBM and its impact on vocational school competitiveness. This research tries to provide a bridge by developing a research model based on RBV theory that integrates strategic resources and environmental dynamics as a basis for implementing SBM so that it can improve efforts to adjust competitiveness in vocational schools.

METHODS

This research is explanatory research because it is to prove the relationship between variables which is the result of development of previous research and existing theories. (Saunders et al., 2009). In this research, a quantitative approach was used with a survey method, which aims to test hypotheses and explain the role of each variable. This research design uses correlational research whose main aim is to determine whether two or more variables develop a direction that forms a relationship from observational data. (Bordens & Abbott, 2002). The research design places strategic resources (X1) as the independent variable, adaptability to environmental dynamics (X2) and SBM implementation (X3) as the mediating variable, and vocational school competitiveness (Y) as the dependent variable.

Research Population and Sample

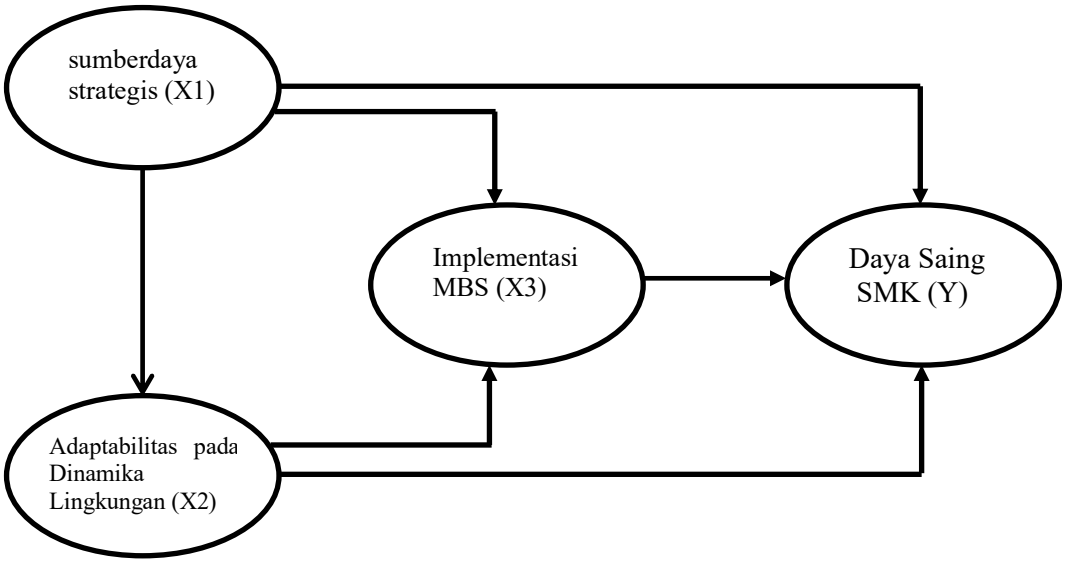
This research was carried out at 2,103 vocational schools in East Java Province consisting of public and private vocational schools with a vocational school teacher analysis unit. The population in this study is all vocational school teachers in East

Java Province, the number of people according to the data listed at http://datapokok.ditpsmk.net/ as of June 20 2022.
With a population of 46,491 people, and a tolerable margin of error of 5%, a minimum sample of 397 people is needed. To obtain sample data, 750 questionnaires were distributed online and offline to vocational schools accredited A and B in East Java Province. After checking in terms of completeness of filling, of the 750 questionnaires, only 500 questionnaires were filled in properly and were deemed suitable for use in research.

Research Instrument
The data collection instrument in this study used a closed questionnaire which was developed and modified from several questionnaires that have been used in previous studies related to the topic of this research. The statements/questions on the questionnaire are standardized and each respondent gets the same questionnaire. Respondent data is made anonymous so that respondents can answer objectively and honestly and after being filled in by the respondent it is returned for further analysis. The instruments addressed to respondents are instruments that meet the validity and reliability requirements.

Research Data Analysis
After all the questionnaire results are obtained both online and offline, they are then analyzed using Structural Equation Modeling (SEM). SEM is a multivariate hypothesis-driven technique that is based on a structural model that represents a hypothesis about the causal relationships between several variables.

Hypotetic Model
This empirical study is based on the RBV theory of the firm by integrating internal and external aspects of the school through a contingency approach (Barney, 2001; Grant, 2010). The contingency model developed in this research examines the influence of strategic resources and environmental dynamics on school competitiveness through the mediation of school-based management performance. The understanding that can be gleaned from the development of this research model is that strategic resources are the embodiment of all assets (tangible and intangible) and capabilities that are used as a source of competitive advantage for vocational schools. Mastery of strategic resources is used as a basis for preparing SBM performance, as well as applying them to capture opportunities and challenges from the environmental dynamics faced. The suitability of strategic resources with environmental dynamics through the implementation of SBM performance plays a strategic role in predicting competitiveness.



The variables that have been presented are latent (unobserved) variables which are measured from several indicators. Each indicator consists of several items which are further explained in the questions in the research instrument as observed variables. The relationship model that occurs is the relationship between strategic resource variables and adaptability in environmental dynamics to the SBM implementation variable, which will then be continued to the vocational school competitiveness variable, but still looking at the relationship of each variable to the vocational school competitiveness variable.

RESULTS & DISCUSSION

Direct Effect Hypothesis Testing Results

The influence of strategic resources with adaptability on environmental dynamics

Hypothesis 1 (one) states that there is a significant influence of strategic resources and adaptability on environmental dynamics. Research findings show that strategic resources have a positive and significant influence on adaptability to environmental dynamics. The success of an organization is greatly influenced by how the organization can manage its strategic resources in facing or responding to environmental dynamics. In this case, strategic resources which include the availability of physical and technological resources, the achievement of reputation resources, the effectiveness and efficiency of organizational management, the effectiveness and efficiency of financial resource management, and the effectiveness and efficiency of HR management play a positive role in environmental dynamics. These indicators are an important part of environmental dynamics, which means that the better the strategic resources a school has, the better its adaptation to environmental dynamics

The Influence of Strategic Resources on SBM Implementation

Hypothesis 2 (two) states that strategic resources as measured by the availability of physical and technological resources, achievement of reputation resources, effectiveness and efficiency of organizational management, effectiveness and efficiency of financial resource management, and effectiveness and efficiency of human resource management have a significant influence. positive and significant towards the implementation of SBM. This shows that these indicators are an important part of implementing school-based management. The better the strategic resources the school has, the better the implementation of SBM in the school.

The Influence of Adaptability in Environmental Dynamics on SBM Implementation

Hypothesis 3 (three) states that there is a significant influence of adaptability on environmental dynamics on the implementation of SBM. The research found that adaptation to existing environmental dynamics has a positive and significant influence on the implementation of SBM. This means that the better the response and adaptation process to environmental dynamics, the better the SBM implementation process in schools will be. It can be interpreted that these indicators are an important part of the success of the SBM implementation process.

The Influence of Strategic Resources on Vocational School Competitiveness

The results of testing hypothesis 4 (four) show that there is a significant influence between strategic resources and vocational school competitiveness. In this research, empirical evidence was obtained that the better the strategic resources a school has, the better the school's level of competitiveness. This means that the indicators in the strategic resources variable play a very high role in the process of increasing competitiveness.

The Influence of Adaptability in Environmental Dynamics on Vocational School Competitiveness

Hypothesis 5 (five) shows that there is a significant influence of adaptability on environmental dynamics on competitiveness. The research results show that adaptability to environmental dynamics has a positive but not significant direct influence on the competitiveness of vocational schools. This causes the path from adaptability to environmental dynamics to competitiveness to be trimmed or deleted. This means that increasing adaptability to environmental dynamics tends to have little or no effect on increasing the competitiveness of vocational schools. Indicators of adaptability to environmental dynamics play less of a role in the process of increasing competitiveness in vocational schools.

The Effect of SBM Implementation on Vocational School Competitiveness

Hypothesis 6 (six) states that there is a significant influence of SBM implementation on competitiveness. The research results show that the implementation of SBM has a positive and significant influence on the competitiveness of vocational schools. This can be interpreted that the better the implementation of SBM, the better the school's competitiveness will tend to be. Indicators in the implementation of SBM play a positive role in competitiveness,

which means that these indicators are an important part in increasing the competitiveness of vocational schools.

Indirect Effect Hypothesis Testing Results

The Influence of Adaptability on Environmental Dynamics on Competitiveness through SBM Implementation

Hypothesis 7 (seven) states that there is a significant influence of adaptability on environmental dynamics on competitiveness through the implementation of MBS. Research findings show that adaptability to environmental dynamics has a positive and significant indirect influence on competitiveness through the implementation of SBM. This can be interpreted that the better the response and adaptation to environmental dynamics due to the better implementation of SBM, the more likely it is to increase the school's competitiveness.

The Influence of Strategic Resources on Vocational School Competitiveness Through Mediating Adaptability in Environmental Dynamics and SBM Implementation

Hypothesis 8 (eight) states that there is a significant influence of strategic resources on competitiveness through the mediation of adaptability in environmental dynamics and SBM implementation. The research results show that there is a positive and significant influence, both directly and indirectly, of strategic resources on competitiveness through the mediation of environmental dynamics and SBM implementation. This can be interpreted as saying that the better the management of strategic resources in a school, which is due to the better the response to adaptation to environmental dynamics and the implementation of SBM, the better the school's competitiveness tends to be.

The Influence of Strategic Resources on Vocational School Competitiveness Through Mediated SBM Implementation

Hypothesis 9 (nine) shows that there is a positive and significant influence of strategic resources on competitiveness through the implementation of MBS. The research results show that strategic resources have a positive and significant influence on the competitiveness of vocational schools through the implementation of SBM. This means that strategic resource management in schools is due to the better the implementation of SBM, the better the school's competitiveness tends to be. The results of testing hypothesis 9 (nine) show that SBM implementation indicators function as moderators in mediating the direction of strategic resources on vocational school competitiveness.

The Influence of Strategic Resources on SBM Implementation Through Mediating Adaptability in Environmental Dynamics

Hypothesis 10 (ten) shows that there is a positive and significant influence of strategic resources on SBM implementation through the mediation of adaptability to environmental dynamics. The research results show that strategic resources have a positive and significant influence on the implementation of SBM through the mediation of adaptability to environmental dynamics. This means that

strategic resource management in schools is due to the better the adaptation process to environmental dynamics, the better the implementation of SBM in the school tends to be.

CONCLUSION

The implementation of SBM has various impacts on various lives in the school and community environment. The school's relationship with the environment or the adaptation process is very necessary. This is because it is to support improving the quality and management processes in schools. Organizations that are unable to understand the environment they are in will always be left behind and will only become followers. Therefore, good organizational management is needed. The application of good management which includes the functions of planning, organizing, implementing and supervising is expected to produce educational output that meets the expectations of the government and society.

Modern organizations have to face increasing competition in the global market. Therefore, effective resource management becomes very important to achieve competitive advantage. Increasing the management of strategic resources can increase competitiveness, meaning that strategic resources that are controlled can directly increase their competitiveness. This shows that when an organization succeeds in implementing SBM well, its strategic resources can be optimized to increase the competitiveness of vocational schools.

Humans are both planners and perpetrators of activities whose performance will determine the success or failure of an organization. Therefore, a management control system is needed to manage the unique and rare resources owned by the organization.

REFERENCES

Amit, R., & Schoemaker, P. J. H. (1993). Strategic assets and organizational rent. Strategic Management Journal, 14(1), 33–46. https://doi.org/10.1002/smj.4250140105

Barney, J. (1991). Firm Reources ad Sustained Competitive Advantege. In Journal of Management (Vol. 17, Issue 1, pp. 99–120).

Ben Sassi, D., Frini, A., Ben Abdessalem Karaa, W., & Kraiem, N. (2016). A Competitive Intelligence Solution to Predict Competitor Action Using K-modes Algorithm and Rough Set Theory. Procedia Computer Science, 96, 597–606. https://doi.org/10.1016/j.procs.2016.08.240

Bordens, K., S. dan B. B. A. (2011). Research Design and Method; a Process Approach (8th ed). McGraw-Hill.

Boucher, G. (2011). Book Reviews: Book Reviews. Critical Sociology, 37(4), 493–497. https://doi.org/10.1177/0261018311403863

De Grauwe, A. (2005). Improving the quality of education through school-based management: Learning from international experiences. International Review of Education, 51(4), 269–287. https://doi.org/10.1007/s11159-005-7733-1

Deephouse, D. (2000). Media reputation as a strategic resource: an integration of mass communication and resource-based theories. Journal of Management, 26(6), 1091–1112. https://doi.org/10.1016/s0149-2063(00)00075-1

Grant, R. M. (2009). The resource-based theory of competitive advantage: Implications for strategy formulation. Knowledge and Strategy, December 1999, 3–24. https://doi.org/10.1016/b978-0-7506-7088-3.50004-8

Grant, R. M. (2010). Contemporary Strategy Analysis (7th ed). John Wiley and Sons Ltd.

Hardiansyah, F. (2022). The Implementation of School-Based Management in Improving Quality of Education in Primary School. Kelola: Jurnal Manajemen Pendidikan, 9(2), 148–162. https://doi.org/10.24246/j.jk.2022.v9.i2.p148-162

Mufidah, N. (2019). Strategi meningkatkan daya saing SMK Negeri 3 Batu jurusan broadcasting. http://etheses.uin-malang.ac.id/13525/

Palilingan, V. R., & Batmetan, J. R. (2019). Competitive Intelligence framework for Increasing Competitiveness Vocational High School Management. 299(Ictvet 2018), 230–233. https://doi.org/10.2991/ictvet-18.2019.52

Prilop, M., Tonisson, L., & Maicher, L. (2013). Designing Analytical Approaches for Interactive Competitive Intelligence. International Journal of Service Science, Management, Engineering, and Technology, 4(2), 34–45. https://doi.org/10.4018/jssmet.2013040103

Saunders, M., Lewis, P. and Thornhill, A. (2009). Research Methods for Business Students.

Siswantoyo, Suyanta, Fitrihana, N., Syauqi, K., Surwi, F., & Khurniawan, A. W. (2019). Daya Saing SMK Dalam Bursa Pasar Tenaga Kerja 4.0. Direktorat Pembinaan Sekolah Menengah Kejuruan Direktorat Jenderal Pendidikan Dasar Dan Menengah Kementerian Pendidikan Dan Kebudayaan, 1–232.

Solong, N. P., Munirah, M., & Arif, M. (2020). Effective School Management At Man Insan Cendekia Gorontalo. Lentera Pendidikan : Jurnal Ilmu Tarbiyah Dan Keguruan, 23(1), 22. https://doi.org/10.24252/lp.2020v23n1i3

Suhardi, A. (2017). PENINGKATAN MUTU PENDIDIKAN MELALUI MANAJEMEN BERBASIS SEKOLAH (MBS) Oleh: A. Suhardi Dosen STAIN Watampone. Adaara: Jurnal Manajemen Pendidikan Islam, 5(1), 374–385.

Triwiyanto, T., Kusumaningrum, D. E., & Juharyanto. (2017). Community Participation Deficits in the Implementation of School-Based Management in Indonesia. Journal of Education and Practice, 8(32), 67–74.

Yeap, C. F., Suhaimi, N., & Nasir, M. K. M. (2021). Issues, Challenges, and Suggestions for Empowering Technical Vocational Education and Training Education during COVID-19 Pandemic in Malaysia. Creative Education, 12(8), 1818–1839.

Zaid, Z. (2021). Implementation of School Based Management To Improve the Quality of Islamic Education At Mts Negeri 1 in Palu City. Risâlah, Jurnal Pendidikan Dan Studi Islam, 7(2), 356–367. https://doi.org/10.31943/jurnal_risalah.v7i2.196