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# Educational Resource Development Model from The Perspective of Knowledge-Based View: A Study of State Vocational High Schools in Manado City

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#### ABSTRACT

In this era of globalization, which is very competitive in various fields of life, vocational education is crucial, considering the increasing demands for human resources in the labor market for middle-class workers. This study aims to determine the implementation of human resource development carried out by schools and to produce a draft of a human resource development model based on the Knowledge-Based View. This study uses a qualitative approach with a case study method. This method is used to obtain needs analysis data in designing a human resource development model in the field of vocational education. The findings of this study indicate that the development of educational resources, more specifically human resources in the education and training elements of the school, has been planned. In addition, it was also found that the development of educational resources, more specifically human resources in the career development element, has several requirements, including work period, credit points, work performance, education and training, and staff development. This study concludes that

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human resource development in State Vocational High Schools in Manado City has been implemented from planning to implementation.

Keywords: human resources, Knowledge-Based View, SMK

## INTRODUCTION

Human resources are an asset for an organization, therefore, competency needs to be improved according to existing needs and developments, especially in the world of education. Along with the rapid changes influenced by technology, educational institutions can anticipate quickly, especially in secondary vocational education. In this era of globalization, which is very competitive in various fields of life, it seems that vocational education is crucial, considering the increasing demand for human resources in the labor market for middle-class workers. Not many vocational high school graduates have been absorbed in the business world and industry because the required competencies have not been met. President of the Republic of Indonesia Joko Widodo emphasized that the focus of the world of education today is to provide work skills for the younger generation. This is to welcome the demographic bonus and increasingly tight competition between countries. Vocational education and training will be further strengthened along with the shift in development strategy from physical infrastructure development to human development. The key for Indonesia to prepare itself to win the competition lies in the quality of its human resources. In addition to the infrastructure that has been built in the last four years, improving human quality is a prerequisite so that Indonesia does not fall into the middle-income trap. The challenge given by the President of the Republic of Indonesia must be answered by education personnel by improving the current education program, including vocational high school education. On the one hand, this hope is a vision that must be achieved in the next few years. On the other hand, human resources graduates from Vocational High Schools are still far from these hopes. Human Resources (HR) that are not yet qualified and lack the skills to enter the business and industrial world or the world of work are a current problem in Indonesia. This includes graduates of Vocational High Schools, who contribute the largest number to the open unemployment rate. The Open Unemployment Rate of SMK graduates throughout Indonesia is percent (BPS, 2021). The same is true of data in North Sulawesi Province, where the largest contributor to the Open Unemployment Rate is 7.37 percent (BPS, 2020).

Government efforts in this case, the Ministry of Education, Culture, Research and Technology, especially the Directorate of Vocational High Schools, have set policies and programs to improve the quality of vocational high school graduates that are following the needs of the business world and the industrial world or have the competence to become entrepreneurs. In 2016, the Government issued a regulation, namely Presidential Instruction No. 9 of 2016. Presidential Instruction No. 9 of 2016 concerning the revitalization of Vocational High Schools to improve the quality of graduates so that they are following the needs of the business world and the industrial world (Soputan and Sumual,

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2019). The development of vocational schools has been continuously carried out until now, the government has implemented a program that is currently being competed, namely the Center of Excellence Vocational School Program. Center of Excellence Vocational Schools (SMK PK) is a vocational school development program with certain expertise competencies in improving quality and performance, which is strengthened through partnerships and alignment with the business world, industry, and work world, which ultimately becomes a reference vocational school that can function as a driving school and center for improving the quality and performance of other vocational schools. Decree of the Minister of Education, Culture, Research, and Technology of the Republic of Indonesia Number 165/M/2021 concerning SMK PK as the basis for carrying out the program. The vision of Vocational Education is to realize vocational education as a national economic strength by increasing student competencies that are in line with the world of industry, business, and work (Soputan and Sumual, 2019). Manado City has 10 State Vocational High Schools and 26 Private Vocational High Schools. Of the existing vocational high schools, 3 state vocational high schools have implemented the Center of Excellence Vocational High School program, namely SMK N 1, SMK N 3, and SMK 5. The challenge in implementing programs as a Center of Excellence Vocational High School is that human resources, in this case, productive teachers, need to develop competencies according to their respective fields. The goal is to improve student competency in terms of technical skills.

The problems that are monitored with the demands of the independent curriculum, the learning approach must of course be adjusted, emphasizing more on problem-based learning. Not all teachers are able to apply this learning model. Adjustments to this learning approach require a human resource development program, especially teachers, to improve their ability to guide students. The problem raised in this study is the ineffectiveness of the teacher human resource development program in anticipating changes in the curriculum and the needs of the world of work and the industrial world.

This study aims to determine the implementation of human resource development carried out by schools. In addition, produce a draft of a human resource development model based on the Knowledge-Based View. The benefits of the results of this study are to provide input to SMK human resource development models, in this case, teachers.

## THEORETICAL FRAMEWORK

Human resources are a determining factor in the sustainability of an institution or organization and measure the success of achieving the goals of the institution or organization. Human resource development is an effort to develop the quality or ability of human resources through the process of educational planning, training, and management of manpower or employees to achieve optimal results. Vocational High School is an organization engaged in vocational education to produce quality human resources who are ready to work or become entrepreneurs. The quality of graduates will be largely determined by the quality of teacher human resources following the expertise program.

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Many authors agree that human resource development at the micro level is for the development of individuals and organizations. Therefore, the results also increase the productivity and profitability of an organization and encourage national economic growth. In addition, human resource development programs bring social, cultural, and political stability and enrich international relations between countries and national alliances (Huda, 2020). Huda found that there are three core objectives of Human Resource development.

# Knowledge-Based View in Human Resource Management

Talking about knowledge-based views cannot be separated from the Resource-Based View theory. Knowledge-based View (KBV) is a theory that exists today, which initially was more directed at organizational resources (resources-based view (RBV), but is now starting to develop in the direction of views regarding intellectual capital owned by the organization. With the idea that human resources are organizational assets, it is crucial to see that knowledge is one of the capital assets owned by individuals in the organization. KBV starts from the RBV theory and illustrates that knowledge is the interest of resources (Fahmi Jahidah Islamy, 2021). The knowledge-based view (KBV) emphasizes the importance of organizational knowledge for competitiveness and success (Pereira and Bamel, in (Koh et al., 2024). However, KBV is a broad concept and does not identify what knowledge is needed in a particular field.

Various studies based on KBV see that knowledge is very important for individuals in corporate organizations and MSMEs(Hainz, no date) 2014; (Chu, 2016); Martin Silvia L, 2019; (Huda, 2020); (Azmi *et al.*, 2024), (Koh *et al.*, 2024) Relatively little research has been done in schools. Some researchers have argued that the KBV is an outgrowth of resource-based thinking in which the concept of resources is expanded to include intangible assets and, in particular, knowledge-based resources.

In this newer epistemology, knowledge is associated with the phenomenon of knowing processes that are influenced by the social and cultural environment in which it occurs. Having considered these various views of knowledge, we now turn to the schools of thought that underlie the KBV. (Eisenhardt and Santos, 2012) KBV is a strategic theory to achieve a certain performance conception. The KBV approach considers the company as an entity that generates, integrates, and distributes knowledge. The ability to create value is not based on physical or financial resources but rather on a set of intangible, knowledge-based capabilities. According to KBV, competitive success is governed by the organization's ability to develop new knowledge-based assets that create core competencies. Grant in (Theriou, 2009) States that fundamental to the KBV of the firm is the assumption that the essential input to production and the primary source of value is knowledge.

In the knowledge-based view, capability analysis has incorporated human, social, and organizational resources alongside economic and technical resources. (Theriou, 2009), (Koh *et al.*, 2024) A review of his research stated that knowledge is an important asset that increases the competitiveness of companies to achieve success. Knowledge-based sources, which are embedded in the company, are socially complex, difficult to imitate, and continue to evolve. As a result, companies that have extraordinary knowledge management capabilities can achieve sustainable competitive advantages and

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respond quickly to dynamic business environments. Companies are motivated by KBV to improve organizational knowledge, for example by improving individual skills (Flöthmann, Hoberg, and Gammelgaard 2018 in (Koh *et al.*, 2024). However, KBV does not define how to distribute knowledge in a way that encourages and fulfills individual outcomes. Since KBV does not specify which knowledge is important, it must be contextualized in terms of a particular industry and competitive environment.

Researchers use the KBV view in determining the aspects needed in human resource development in education. Although many researchers conduct research for business organizations such as companies and SMEs from the KBV perspective.

## Human Resource Development in Education

Human Resource Management (HR) is an important thing to pay attention to. HR development is very important to study because it is an organizational asset that will be used to increase competitive advantage for the institution. Competitive advantage can be achieved if the HR in the organization has superior performance. Superior performance can only be achieved if individuals or groups can carry out their duties according to their respective fields of work.

Schools (SMK) are organizations that educate students to become superior HR in the vocational field. To achieve these expectations, schools must prepare educators to have quality capabilities and competencies and be able to compete. Human resource development (HR) is the process of increasing the competence, skills, knowledge, and qualifications of individuals in an organization.

Several studies have shown that HR development can improve teacher performance (Mensah Hervie, 2018); (Yuniarti, 2019); (Erlina Yuliyati,2020); (Harahap, Roesminingsih and Mudjito, 2020); (Sadikin *et al.*, 2023). Research has shown that teacher quality is an important factor in determining student improvement, even after accounting for students' prior learning and family background characteristics (Mensah Hervie, 2018).

Human resource development has several dimensions or elements, including education and training, career development, further formal education, talent management, and compensation (Huda Kazi Nazmul, 2020; (Rawashdeh *et al.*, 2022); (van Song *et al.*, 2020); (Arafat, Rismansyah and Kurbani, 2021) Human resource development accelerates human development interventions related to improving human competencies through education, training programs, grassroots community empowerment, awareness raising, formalization of teamwork, social capital development, change management, and other human capital management functions. Teacher training is all types of educational activities to improve teachers' knowledge, including their teaching skills and all other professional skills.

## Framework of Thinking

The survival and effectiveness of an organization are highly dependent on the efficiency of human resources and their activities. Organizational effectiveness can be achieved if members of the organization can carry out their respective tasks optimally. The competent abilities and skills possessed by members of the organization can support maximum work results. The abilities and skills possessed

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by individuals need to be improved in line with changes in job demands. Having quality and skilled human resources is the most important capital for organizations, both companies and educational organizations. Knowledge is an important aspect in supporting HR development. As Nonaka said, the only truly lasting competitive advantage is knowledge (Carla Curado, 2006). From a knowledge-based perspective (KBV), the attainment and application of relevant knowledge is critical to firm performance. (Martin Silvia, 2019).

Human resource development aims to improve the ability, skills to produce productive performance for individuals. Much literature discusses the key to human resource development. Most of the literature on human resource development generally discusses knowledge, skills, education, and behavioral development as the main elements of human resource development that should be beneficial to the organization and the people who work in it, society, and the country. Input from human resource development is very important to ensure good human resource development output and achieve broad human resource development goals (Huda Kazi Nazmul, 2020). It is further stated that most authors discuss training, formal education, organizational development initiatives, and career development programs as HRD interventions. Training is a common intervention provided by organizations to develop the performance of employees and management personnel. Most HRD interventions should be assisted by the government, including infrastructure facilities for formal education, public health, and employment. If the government can ensure essential facilities for HRD, it will be easier for organizations to initiate additional facilities to ensure the productivity and performance of human resources (Huda, 2020).

Educational organizations are not exempt from the Human Resource Development program. Moreover, the organization aims to produce competent graduates in their fields. Vocational High School is one of the educational organizations to educate human resources so that they have quality and competence in line with the needs of stakeholders. The results of the study show that education and training involve a systematic approach that assumes the development and improvement of capacity, skills, and knowledge to improve the effectiveness of the organization as a whole (Ferreira, Curado and Oliveira, 2022). (Ferreira, Curado and Oliveira, 2022) cites several opinions about the objectives of HRD development: (1) handling the change process; (2) facilitating employee learning, skills, and abilities related to work according to the specifics of each organization; (3) improving individual behavior; (4) optimizing production and use of labor; (5) disseminating knowledge through human resource development; and (6) improving organizational performance globally. Therefore, all deliberate activities that support behavioral change and learning opportunities are HRD practices. (Richman, 2015; Stewart & Sambrook, 2012 in (Ferreira, Curado and Oliveira, 2022). Human resource development aims to improve performance (Swanson & Holton, in (Alhalboosi, 2018).

Based on the description, researchers can conclude that knowledge is an important aspect in human resource development. Human resource development aims to increase capacity, skills, abilities, and behavioral changes, all of which are to improve individual performance. Individual performance has an impact on organizational performance.

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#### **METHOD**

#### Research Methods

This study uses a qualitative approach with a case study method. This method is used to obtain the needed analysis data in designing a Human Resource Development Model in the field of vocational education.

#### Research Focus

The focus of this research is on Human Resource Development, which includes:

- 1. Education and training
- 2. Career development
- 3. Further education

# Research Subject

The research subjects were 10 State Vocational High Schools in Manado City. The informants were determined by the principal and vice principal, who knew and implemented everything from HR development planning to its implementation.

# **Data Collection Technique**

Data collection was carried out using the following techniques:

- 1. In-depth interviews were conducted with informants from each school
- 2. Focus Group Discussions were conducted with the principals

## Data Analysis Technique

Data analysis used interactive descriptive analysis based on the Miles & Huberman model.

#### Time and Place of Research

This research was conducted for six months, and the research location was in Manado City.

#### **RESULTS AND DISCUSSION**

# Human resource development is implemented in schools

The results of the study are as follows: the focus of the study, the aspects studied in the development of Human Resources are as follows:

a. Education and Training

Education and training from the school have been planned what programs will be carried out. Education & training programs are implemented both independently of the school and externally from

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the ministry. The aim is to improve the abilities and skills according to their respective fields of expertise. The results of interviews with school principals and vice principals stated that every year, education & training programs are implemented to meet the demands of the curriculum, which refers to the demands of the business world and the industrial world. Training carried out by external parties gradually includes teachers. The implementation of HR development programs is more focused on improving skills. Schools as training organizers, namely, the type of House Training, industrial internships. The costs come from the school, which are taken from BOS funds. Other training is carried out by the Teacher Development Center at government expense. Schools only provide opportunities for teachers to register, and the determination of participants is made by the Center.

The results of the implementation of education and training, or industrial internships and other development activities, can be categorized as good. The results of training or industrial internships, teachers directly practice by transferring their skills to students. So that students' competencies can be improved. The teachers immediately created learning programs based on the knowledge and skills they gained from the training. Some teachers immediately innovated in the implementation in the classroom but were sometimes constrained by the limited tools owned by the school. The limited tools for students to practice meant that not all students in the class could immediately do/practice to produce their work, because they had to take turns. The results of the implementation can be seen from the activities in the Teaching Factory (TEFA) unit. The work produced by the students can be seen in the Tefa unit. Students can already produce in the Tefa unit. In addition to the Tefa unit, students also produce in production units. If there is an order from the community or the community needs student services, they work in their respective production units. The finances obtained from the production results in the production unit and Tefa are allocated for the operational costs of the unit. Some are given to students who work on the project. The knowledge and skills received from training and internships are directly transmitted to students.

Education & training have a positive impact on teachers, students, and schools. For teachers, the positive impact is higher when their competence. Teachers are more enthusiastic about working. Usually, after completing training, teachers propose new things for learning. The higher the teacher's competence, the more it will have an impact on students. Students will increasingly master their field of expertise if they are already in society, and they can generate income through the services or products they produce. The impact on schools means that school performance will improve with the presence of competent teachers in their respective fields, who will produce competent graduates, so that schools can contribute graduates who do not increase unemployment in society. Teachers who have participated in development several times want to make changes in schools towards fellow teachers, both in terms of thinking and acting. The positive thing that is apparent is that each expertise program wants to compete to produce skilled graduates.

# b. Career Development

For teachers, career development is not the same as employees in companies. Career development in the world of education is seen from the rank level. Promotion must meet the credit

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points required according to the criteria. The requirements for promotion and teacher rank must include scientific work. Career development is a personal effort by individual teachers to achieve a career plan. This means that the development of a teacher's career depends on the teacher. The principal provides opportunities for all teachers to develop their careers according to their respective fields of expertise. A teacher's career is determined by their performance. If his performance is good, then the opportunity for his career will increase greatly.

Career in schools is also seen from the promotion of teacher positions such as the position of vice principal, the position of coordinator of expertise programs, and other positions not directly related to the profession of a teacher. Career development is also related to salary.

According to informants, increasing competence and qualifications are the basis for career development. Competence improvement must be attempted by the teacher. The leader only motivates and directs.

#### c. Further education

Most of the teachers in all vocational schools already have a master's degree in education. The aspect of further education referred to in this study is the level of formal education, namely Bachelor's, Master's, and Doctorate. Teachers who still have a Bachelor's status are given the opportunity by the school to continue to the next level, namely S2. Teachers who already have a Master's degree are allowed to continue to the S3 level. Teachers who have S2 status, although given the opportunity by their school, have not taken advantage of the opportunity. The school has not provided scholarships for further study. There is also education in the form of a Short Course with a minimum time of 6 months. Not all schools allocate educational assistance for further studies. Only certain schools provide study assistance, but not in the form of scholarships.

## Human resource development model

The human resource development model (HRD) in this case, teachers or educators, is based on the needs and demands of the business world and the industrial world. Based on the results of the FGD with the principal and vice principal, the researcher can describe the HRD development model carried out in schools. Vocational schools are expected to have the ability to respond to external demands such as the business world and the industrial world. See figure 1. The development of HRD teachers that has been carried out by vocational schools is as follows:

- 1. Preparing an annual education and training program plan
- 2. Improving teacher competence, both vocational and non-vocational teachers
- 3. Teacher competence can be improved through education and training both in school and outside school, internships in industry, and courses.
- 4. Teacher career development according to the needs of individual teachers
- 5. Implementation of career development through continuing professional programs and job promotions at the school
- 6. Further education according to the needs of individual teachers.

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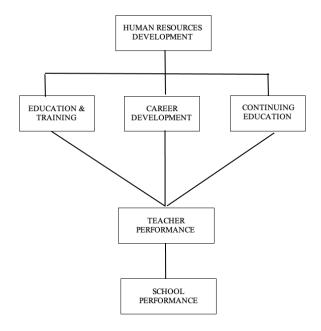


Figure 1. Educational Human Resources Development Model

The development of human resources in education is an important thing to be implemented by every vocational school. Teacher training is also needed, especially in the current environment, to cope with the demands of the ever-changing profession. Trained teachers are in a better position to educate students. Training can improve teachers' knowledge of subject matter, teaching methods, etc (Mensah Hervie, 2018). Kunandar in (Rusyadi, Wasliman and ..., 2022) explains that "professional teachers are teachers who have the competencies needed to carry out educational and teaching tasks. Professional teachers are people who are well educated and trained, and have rich experience in their fields". The results of the study concluded that in-service teaching training is related to and influences the performance of secondary school teachers. Training is very necessary for teachers who teach engineering-based subjects such as technical drawing, building construction, metalworking, basic electronics, concrete block printing, and basic technology (Gull, Khan and Jabbar, 2022) (Ogunbayo S.B., Mhlanga. N, 2022). (Iqbal *et al.*, 2020) concluded in his research that in-service education and training can improve the performance of vocational teachers.

## **CONCLUSION**

Human resource development in State Vocational High Schools in Manado City has been implemented from planning to implementation. Training is more often carried out in implementing

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human resource development. Career development has not been optimally planned and implemented. Further education for teachers with Master's degrees to the Doctoral level has not been planned by the school. The researcher proposes a human resource development model that will be tested next.

## Suggestions

The researcher suggests the following to schools:

- 1. The principal should plan career development because it is part of HR development
- 2. There should be education for teachers about career management

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