
RESEARCH ARTICLE

Swot Analysis of Teaching Factory Effectiveness

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ABSTRACT

This study aims to determine the effectiveness of teaching factories. This research uses a qualitative approach using the SWOT analysis method. The study was conducted in five locations in Central Jakarta, East Jakarta, South Jakarta, West Jakarta, and North Jakarta, with five Tourism Office Schools. The subjects of the data collection were school principals, productive teachers, and educational factory leaders. The results of this study state that From the strength analysis, internal conditions are examined. The hospitality expertise underlying the implementation of the Teaching Factory program includes several strengths, which are summarized as follows: 5 SMKNs spread across 5 districts of DKI Jakarta have adopted the integration of production-based learning models. They have productive teaching staff who are qualified and ready to make creative innovations in the hospitality field. Facilities and infrastructure are well available, such as school management systems and collaborations with various companies and the industrial world. Weaknesses in implementing the teaching factory program were noted as follows: Not all teachers have professional experience in this field, their scope of work is limited, and regulations on the management of vocational teaching budgets have yet to be written. External conditions were in the form of opportunities and challenges. It is Permendikbud No. 60 of 2014, which requires harmonization of material with industry; teachers can attend training in fields following the teaching factory, establish cooperation with related fields, and adjust facilities to complement technology.

KEYWORDS

SWOT Analysis; Effectiveness; Teaching Factory

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1. Introduction

Government Regulation Number 66 of 2010 states that Vocational High School (SMK) is one of the levels of higher education whose specialty is to prepare graduates for work. For SMK graduates to be ready to work in professional or industrial life, the government aims to (a) strengthen adaptability, including applied mathematics and applied science, (b) strengthen entrepreneurial skills, and (c) strengthen national and international languages. Skills, (d) Strengthening basic ICT skills, (e) and implementation of teaching factory training (PSMK department, 2010). Through the existence of SMK, it is expected to support economic growth through entrepreneurial activities or work in the world of trade and industry. BPS data in 2017 shows that the number of vocational schools is directly proportional to the increase in regional gross domestic product (GDP). This shows that the existence of SMK contributes to the growth of GDP. Although other factors also contribute to GDP growth, there is at least evidence that vocational graduates participate in economic development. Supporting economic growth and increasing human resources is why the government is gradually increasing the number of vocational schools throughout Indonesia yearly.

Revitalization of vocational education institutions according to the 2016 presidential direction Revitalization of vocational education institutions, superior centers/superior units and vocational superior schools from the national to provincial levels aims to increase the number of qualified vocational graduates. In line with the central government's program, the DKI Jakarta Provincial Government encourages the improvement of education, starting with the launch of a revitalization program in 2019; the issuance

of Governor's Decree Number 32 of 2019 concerning the Revitalization of Vocational Schools aims to increase the linkage and compatibility of the implementation of secondary vocational education in state SMCs and SMCs in the private sector with entrepreneurs with business/work practices implemented and developed in business life, which includes SMC revitalization, cooperation and organization. Competence. Certification, curriculum, trainers and training staff, facilities and infrastructure, facility management, support for private vocational schools, and the role and funding of trainers. In addition, to support the program's implementation, the DKI Jakarta Provincial Government issued Governor's Decree Number 199 of 2020 concerning the 2019-2022 Professional Higher Education Partnership Working Group. The government has established operational units for practical work to train qualified graduates since 1990. According to Article 29(2) of Government Decree No. 29 of 1990, vocational schools can establish professional production units to prepare students for working life. The production unit is a company related to the school education and training program (Diklat), which aims to optimize the resources owned to create greater added value, thus supporting the implementation of school programs. Work to improve the quality of vocational secondary schools continues. In 2005, through the Department of Vocational High Schools (Department of Vocational High Schools), the government helped build 50 Edotel (educational hotels) as school and hospitality facilities by introducing industry in schools so students could complete practicum assignments. The edotel used as an operational facility is also a production unit that the school can develop to cover operational costs. In addition, the production unit becomes a learning model by applying in SMK units an industrial partner system known as the teaching factory learning model. Conceptually, a teaching factory is a production/service-based learning model from SMK institutions that refers to industrial standards and practices and is implemented in an industrial environment. Implementing the teaching factory requires unconditional participation from the sector in evaluating the quality of vocational education outcomes as a key variable. The basic idea of the teaching factory is to transfer the industrial production environment to the classroom training room. Real life production is necessary to enhance real activity-based learning skills about industry practices in everyday life. The program prepared with the SMK partner, the working group development team, has begun.

2. Vocational High School (SMK)

The government has established operational units for practical work to train qualified graduates since 1990. Government Decree No. 29 of 1990, Article 29, Paragraph 2 states that vocational secondary schools may establish professional production units to prepare students for the labor market. The production unit is part of the school education and training program (Diklat), which aims to optimize its resources to create added value to support the implementation of school programs. Work to improve the quality of vocational secondary schools continues. In 2005, through the Department of Vocational Schools, the government helped build 50 Edotel (school hotels) as school and hospitality facilities by introducing industry in schools, so that students could complete practicum assignments. Edotels used as operational facilities are also production units that schools can develop to cover operational costs. In addition, the production unit becomes a learning model by applying in SMK units an industrial partner system known as the teaching factory learning model. Conceptually, a teaching factory is a production/service-based learning model from SMK institutions that refers to industrial standards and practices and is implemented in an industrial environment. The implementation of the Education Factory requires the absolute involvement of industry as an important factor in assessing the quality of vocational education outcomes. The basic idea of the teaching factory is to transfer the industrial production environment to the classroom training room. Real life production is necessary to enhance real activity-based learning skills about industry practices in everyday life. The program initiated by the SMK partner, the working group development team, begins with identifying potential vocational areas, dual system vocational schools and industry, developing education factories and increasing teacher competence in distance learning.

SMK Cooperative, SMK BLUD, Cooperative Room and Marketing of SMK Products Both Directly and Through Media Such as Television, Marketplace SMK Wekiddo, Youtuber SMK, Radio Disdik, Instagram, School Web, Facebook and Other Media. According to Statistics Finland, the local unemployment rate in Indonesia in February 2021 was 8.75 million people. This number increased compared to February 2020, which was 6.93 million. Most of the unemployed are vocational high school (SMK) graduates. This pattern is the same as last year. "The number of SMK graduates is still the highest compared to other education levels (unemployment), which is 11.45%, source <https://www.cnbcindonesia.com>.

The implementation of SMK has at least 9 (nine) characteristics (Wardiman in Sudira, 2006), namely: 1) Preparing students to enter the workforce; 2) Oriented to employment needs (demand driven); 3) Mastery of competencies needed by the world of work; 4) Student success in "hands-on" or work world performance; 5) Having a close relationship with the world of work as the key to successful vocational education; 6) Responsive and anticipatory to technological advances; 7) *Learning by doing* and *hands on experience*; 8) Requires state-of-the-art practice facilities; and 9) Requires greater investment and operational costs. Based on these characteristics, it is expected that SMK graduates have character as prospective middle-level workers with complete personality as citizens and as working citizens armed with skills/competencies to work in certain fields per the demands of DUDI. Therefore, for SMK graduates to have real work insights, the implementation of education in SMK is carried out with a dual system through work practices (prakerin) as a realization of dual system education programs in schools and in DU/DI.

The implementation of vocational education will achieve the target when it can apply the principles that vocational education is

efficient if it is supported by a conducive environment where students are trained/prepared and introduced to the working atmosphere at DUDI. Vocational education will be effective if educational tasks (at school) and job training tasks (at DUDI) can be carried out in an integrated, related and commensurate manner and supported by equipment facilities that are more or less the same (simulation media) as used in DUDI.

Vocational secondary school education is effective when training students' thinking habits and work habits because, in DUDI, each individual develops his interests and expands his knowledge and skills optimally for work. Vocational training is also effective if the way of working hard, thorough, careful, intelligent and responsible can be formed in training through systematic thinking. In addition, SMK also operates: as a regional training center/BLK; 2) as a test center; 3) as a teaching factory; 4) as graduates and as employment agents; and 5) as a business center and franchise development for the community (Dikdasmen, 2005). One of the efforts to make Ammattiopista versatile is to establish a production unit that will function 1) as a training center because it includes skill improvement activities, 2) as an industry because it produces products or services needed by consumers, 3) as a provider of skilled labor for the world of work because it produces graduates who have the knowledge, skills, and work attitudes needed by the industry; 4) an annual routine employee selection place to make it easier for the industry to select employees according to industry specifications and needs without having to pay to promote vacancies, 5) become a job vacancy information center for the wider community, especially for alums and other nearby SMK-S. Vocational training is effective (Prosser, 1949) when such things as 1) Provide an environment appropriate to the real working conditions of graduates; 2) contracts or professional training programs are awarded in accordance with departmental practice; 3) Practicum activities and tasks are given by working using real products and not just imitations. 4) get used to real conditions during job training or assignments; 5) the programs offered vary across all professions and can be used or completed by students; 6) given several times until the student reaches sufficient proficiency; 7) teachers and tutors are experienced and able to impart knowledge to students; 8) be able to offer as few skills as necessary for working life as possible, so that they can be easily developed; 9) pay attention to market conditions; 10) The process of strengthening learning and fostering professional students is promoted proportionally.

2.1 Teaching Factory Model

A teaching factory is a learning concept in real situations to fill the knowledge gap between the knowledge offered by schools and industrial needs (Kuswanto (2014). The application of the teaching factory model can be one of the learning innovations in competency development in schools; it is hoped that student competencies can be developed in accordance with the characteristics of the needs of the industrial world because, through the teaching factory model, students not only learn to master competencies but can also benefit from the sale of practical operating products/services in certain Production Units Schools benefit from teacher skill development and application Profit-making industry-specific business development system. In SMK, teaching factory learning is a production/service-based learning concept based on standards and work methods used in industry and carried out in an atmosphere similar to industry. This is in accordance with the characteristics of professional training, namely: (1) preparing students for professional life; (2) based on working life needs, "market demand"; (3) mastering the skills needed in the world of work; (4) practicum or student work performance; (5) proximity to working life; (6) be responsive to technological developments and respond proactively; (7) learning by doing and practical experience; (8) requires higher investment and operational costs than general education. There are three fundamental things about the teaching factory concept, namely: (1) Mediocre learning is not enough, (2) students benefit from hands-on experience, and (3) team-based learning experiences involving students, faculty, and industry enrich the educational process and offer tangible benefits to all parties (Lamancusa, 2008)

The teaching factory concept is based on the dual learning method that has long been used in vocational training in Germany and Switzerland. This learning method is a method that combines two main environments of each student's activities, namely the school environment and the company environment (industry). Students not only carry out learning activities at school but also practice (basic knowledge) and work (application of knowledge) in practice for a relatively long period. The dual system aims to put students in real situations throughout the workplace. With the help of this type of practice, students not only acquire theoretical knowledge but also know how to apply production practices that have always been used in industrial enterprises. In this way, students can acquire skills, processes, and attitudes that are in line with industry standards so that educational outcomes meet industry needs.

The ideal conditions for implementing a teaching factory in vocational training institutions (Department of Vocational Development, 2017) include the following aspects and areas: 1) Learning Aspects: The purpose of teaching materials is to achieve certain competencies and be versatile (marketable). Especially for competency programs that do not produce products/services, they can be targeted for simulating real work situations in the field. The evaluation system uses a teaching-based factory and learning system that uses a block and continuous schedule. 2) Human resources, human resources are technical design skills and can apply a sense of quality, efficiency and a sense of innovation. In learning must pay attention to comparing the number of teachers with the number of students. 3) Facilities and buildings owned by the school must meet the 1: 1 ratio between students and tools, MRC (Maintenance, Repair and Calibration) has been introduced in maintenance for process tools, reasonable and

complete, and all equipment continues to develop (adding and replacing tools). 4) Practical operation, application of industrial culture with quality standards (quality control), time, efficiency of production processes, work rotation (change), clear work results, training results can be a source of income (income performance), clear assets and responsibilities to each person in charge, the work environment is created and maintained in such a way that it is safe and comfortable, learning activities are regular and run smoothly, supervision and monitoring are carried out continuously. 5) Network: The school collaborates with industry in technology transfer and building an industrial culture in the school. 6) Products and services, products and services produced in accordance with industry standards. 7) Transparency, financial transactions are recorded in accordance with standard accounting practices (financial control). 8) For the implementation of factory training, there must be a legal aspect in the form of an order.

The purpose of implementing the teaching factory (Department of Vocational Development 2017) is eg.

1) ready-made graduate training; 2) help students choose a field of work according to their abilities; 3) offer professional teachers the opportunity to build pedagogical bridges between the classroom and professional life; 4) make learning more interesting and motivate students to learn; 5) direct production-based training and internship opportunities for market-oriented vocational students; 6) Achieve the objectives of SMK to create or form quality human resources according to the needs of DU/DI; 7) Financing for the maintenance of vocational schools, expansion of facilities and operational costs and improvement of welfare; 8) coaching and entrepreneurial development of teachers and students; 9) Development of independent and confident attitude of SMK students through production activities. The general purpose of a teaching factory is:

1) inclusion of work experience in the curriculum; 2) product/service industry-based learning process through synergy between school and industry; 3) Learning habits that are ostensibly "school world" transformed into "industrial world" in the form of "learning by doing" and practical experience; To organize a teaching factory, the school must have a school factory/workshop/other business unit; and 5) The success of the learning implementation depends not only on the use and quality of products, but also on the quality of human resources (teachers and students), the level of cooperation with industry, and the provision of business expertise.

2.2 Teaching Factory Effectiveness

Performance describes the entire cycle of inputs, processes and outputs that relate to the results of an organisation, programme or activity and shows the extent to which objectives (quality, quantity and time) have been achieved. Performance measures the success or failure of an organization in achieving its goals. This means that efficiency is only the desired result or goal. Schools need performance to achieve the goals that have been set. The effectiveness of the teacher's work is aimed at overcoming and solving problems that arise in the implementation of his duties and work. Conversely, if the teacher is not efficient in his work, he is easily depressed when he has difficulty completing tasks, so it is difficult to achieve the goals that have been set. The effectiveness of the program always depends on the ratio between the expected and achieved results. Performance can be viewed from different perspectives, evaluated differently and closely related to performance. Effective and efficient goal achievement is important in an organization. This is supported by Robbins, S & Coulter, M (2013), who states that:

Part of leadership is ensuring that work and activities are done effectively and efficiently by those in charge, or at least that's what managers want to do. Performance refers to the achievement of goals, such as the following statement: Efficiency is often described as "doing the right thing", ie. H. implementation of work activities that help the organization achieve its goals. Efficiency is often described as "doing it right", ie. H. as a job that helps the organization achieve its goals well. According to Robbins (2013), leadership requires effectiveness and efficiency, as explained below:

Management involves coordinating and overseeing the work activities of others so that their activities are completed efficiently and effectively. Efficiency refers to getting the most output from the least amount of inputs. Because managers deal with scarce inputs, including resources such as people, money, and equipment, they are concerned with efficiently using those resources. It's often referred to as doing things right, that is, not wasting resources. Effectiveness is often described as doing the right things,' that is, doing those work activities that will help the organization reach its goals.

Work effectiveness is anything that is related to the target achievement of an organization. The fewer employee errors, the more effectiveness. Work effectiveness can be related to the utilization of general sources (human, facility and infrastructure, etc.) in an organization to support the achievement. (Frinaldi, 2017)

The Teacher Effectiveness Framework is now fully implemented and is based on the belief that consistent correlation with NSBECs is essential for teacher development. (Cepelka, 2019) Some concepts of work efficiency relate to the work done. This is in line with Hersey's (2008) opinion that efficiency is defined as getting the right job. Under certain pedagogical conditions, effective implementation of various learning approaches in the education of primary school children is possible and effective. By researching

and understanding the results, new tasks are outlined, the solution of which is very important: 1) Further search and definition of signs and indicators used in evaluating the effectiveness of teachers and students within the framework of various pedagogical approaches; 2) scientific and theoretical, organizational and methodological support of the process of preparing teachers for the use of various pedagogical methods in the teaching environment of the school (in the system of further training for pedagogical professionals). (Faridovna Dulmukhametova et al. 2019) Individual effectiveness consists of skills, abilities, knowledge, attitudes, motivation and pressure. Team effectiveness involves integration, leadership, structure, status, roles and norms, whereas organizational effectiveness is influenced by environment, technology, structure, processes and culture (Gibson, 2009).

Another definition of work effectiveness by Drucker (2006) states that Work performance is the extent to which goals are achieved and specific problems are solved. Differs in efficiency. Efficiency is defined independently of cost, and efficiency means "doing the right thing". Efficiency means "doing the right thing". This is consistent with what Buhl-Wiggers wrote that providing training and committing to supporting teachers with the right infrastructure can increase variability in teacher effectiveness (Buhl-Wiggers, 2018). Making the most effective teachers is relatively better than the less effective teachers. Work efficiency is about problem solving; it is different from efficiency; efficiency has nothing to do with cost, whereas efficiency is about cost, or efficiency is about doing the right thing, whereas efficiency is about doing that to do right. Meanwhile, Duncan is quoted by Richard M. Steers (1985) in his book *Organizational Effectiveness* as saying the following about effectiveness measurement¹) Achievement of Goals Achievement is a general effort to achieve a goal that should be viewed as a process. Therefore, to ensure the achievement of the final goal, stages are needed both according to the stages of partial achievement and periodization. The achievement of goals consists of several factors: 1) Schedules and goals are concrete goals. 2) integration. Integration measures an organization's ability to connect, develop consensus, and communicate with many other organizations. Integration is about social processes. 3) Personalization. Adaptation is the ability of an organization to adapt to its environment. Therefore, reference values are used for the job acquisition and hiring process. Referring to some expert opinions about effectiveness above, the implementation of a teaching factory in SMK is considered effective if it can meet the following elements: 1) Integrated and adaptive program management through strong analysis and policy formulation processes related to achievable goals and strategies that have been set. 2) Preparation of appropriate programs and programs ready for implementation. 3) Availability of human resources and good facilities/infrastructure. 4) System of supervision and control of program implementation, and 5) Coordinated and synergistic cooperation.

3. Methods

This research uses a qualitative approach using the SWOT analysis method. Data collection is based on secondary data from statistics published by the Central Bureau of Statistics Finland, the Ministry of Education and Culture and the DKI Jakarta Education Office Data. Primary data were obtained from school surveys, especially those related to the implementation of production units through factory learning models in the classroom: 1) identifying the characteristics of SMK organizing teaching factories (2) and reviewing the implementation of teaching factories (3). Data analysis is descriptive. The study was conducted in five locations in Central Jakarta, East Jakarta, South Jakarta, West Jakarta, and North Jakarta, with five Tourism Office Schools. The subjects of the data collection were school principals, productive teachers, and educational factory leaders. This research analysis refers to factory training guidelines prepared by the Department of Vocational School Development, which includes teaching, factory management learning, production activities and industrial results.

4. Results and Discussion

4.1 Effectiveness of teaching factory planning

The conditions for designing the education factory program in SMK are very different; this is related to the school's understanding of the mission of factory education. Planning the implementation of the teaching factory usually does not occur from the beginning. Still, it is a continuation of the production unit that already existed in the previous school, so what is done at the time of school planning is only analyzing strengths and weaknesses. A thorough examination of existing conditions related to existing equipment and the type of product/service to be carried out. The implementation of industrial work practices in SMK in each region is quite diverse regarding the number of competency programs and how to implement them. This refers to selecting competency programs that are considered superior according to the needs, availability of human resources, industry partners and institutions of each region and school. For example, only 2 competency programs were selected to implement the teaching factory. This is based on the results of the analysis that the two schools have run programs and were known to the community long before the existence of the Teaching Factory program, namely SMKN 27 and SMKN 57. Establish a factory internship program based on a unitary commercial competency program The program chosen as a teaching factory model is usually based on the school's existing production units and is the school's flagship program. For example, schools with educational hotels with sufficient space and good facilities are used as teaching factory models. Manufacturing product/service program planning is still based primarily on the type of product based on the order, product innovation that has yet to be achieved, the number of products produced and the product's shelf life.

4.1.1 Organizational Structure, Standard Operating Procedures (SOPs) and Workflows

The Teaching Factory Guide states that the organizational structure of the Teaching Factory is set by the principal according to industry standards and integrated into the school structure, including its duties/scope of work. The organizational structure of the Teaching factory related to its existence in schools has three versions, namely managed by Cooperatives, Schools and Regional General Bodies (BLUD). The organizational structure tends to follow the same tendency, i.e. using a pre-existing structure of production units signed by the principal. Each vocational school's organizational structure varies depending on each individual's needs and understanding. It usually consists of a chairperson, secretary, treasurer, and coordinator of production units. The organizational structure of SMK that is already BLUD or leads to BLUD consists of the head of the teaching factory, the head of production, the head of marketing, the head of finance and administration and under him, the coordinator of each product unit. Usually, there are standard operating procedures (SOPs) for each competency program in SMK, but not all SMKs always install these guidelines in strategic places. A work or workflow model is generally created based on custom, but written instructions, such as instructions on how to do the work, are not created. There is only one expert program related to standard/standard procedures.

4.1.2 Financial Management

The financial administration department registers the functional implementation of teaching in target schools, especially in financial registration of the results of the implementation of educational institutions in accordance with their respective competency programs and registration of activities of each competency. The program is not strictly related to traditional accounting. Procedure. Transactions are usually recorded daily by the cashier of each production unit and then reported to the cashier of the central production unit (UP Pusat). Usually, financial management registration follows the same trend: carried out by the relevant production unit related to the sales results of products/services reported to the central UP, after which the center reports to the principal.

4.1.3 School Understanding of Teaching Factory

In the five target areas of the teaching factory evaluation, it can be seen that the understanding of the principal, teachers and those in charge of the teaching factory as a whole still needs to be improved, both at the concept and implementation levels. This is because all schools targeted for evaluation do not have policies and have yet to receive training on teaching factories. But this did not dampen their enthusiasm to gain knowledge at the Teaching factory by looking for their own knowledge to implement it. Many discussed at school, independently inviting assistants to expand their knowledge of the teaching factory.

4.2 The Effectiveness of Learning Implementation in SMK

The teaching factory model learning class is organized as production/service-based learning related to industry standards and procedures in an industrial atmosphere and culture. In this context, three parts related to the implementation of learning are analyzed: the curriculum, lesson implementation plans and the teachers/resources involved.

4.2.1 Curriculum

The curriculum used in the instructions for the implementation of the Teaching factory must be contextually aligned with the needs and demands of industrial development. The evaluation revealed that vocational schools that focus on using the curriculum during teaching factory model learning activities usually use their curriculum, and most still need to align the curriculum according to industry needs. However, some schools can be good practices and have implemented curriculum synchronization with partner industries according to the needs of the competencies to be achieved. The results of the discussion also showed that one of the obstacles in the implementation of the Teaching Factory is related to the curriculum, namely that not all curriculum content in achievement is in accordance with the competence of products/services to be implemented using the Independent Curriculum. The main features of this curriculum that support learning recovery are: (1) Focus on relevant material so that learning becomes deeper, (2) More time to develop competence and character through learning group in a real context (Pancasila student profile strengthening project), (3) Gradual learning outcomes and flexible teaching hours prioritize learning that is fun and in accordance with the needs of students and the learning conditions of educational units. (4) Provide flexibility for teachers, as well as support for teaching tools and materials for the development of teaching unit curriculum and the implementation of quality learning, (5) Prioritizing mutual assistance with all parties to support the curriculum implementation independently.

4.2.2 Learning Implementation Plan (LIP)

Before assembling the teaching module, the teacher must first understand the parts of the teaching module. The preparation of teaching modules or LIP Merdeka curriculum consists of three main components: general information, core components and attachments. By knowing the teaching module components, teachers can better arrange teaching modules. Thus, all aspects required for lesson planning are directly visible in the teaching module. 1. General Information: General information includes various components and background information in the training module, including A. Module identity includes the author's name, educational institution and year of creation of the teaching module. In this section, you'll also find information about each school's level, such as the vocational level. The module identity also includes the reservation of teaching and learning time in question. The

time allocation mentioned above is based on the allocation rules made in the work unit or school. B. Initial qualifications In this section, the teacher explains the knowledge or skills that students must have before they can complete the learning. The information and skills involved may vary by field of study. This initial knowledge can be used as a reference when making LIP. By knowing the initial competence of students, the teacher can assess how deep the teaching and learning module will be. C. Pancasila student profile. One of the most important keys in preparing the LIP for the independent curriculum is forming a Pancasila student profile. Therefore, the teacher must decide which profile corresponds to the subject. In addition, profiles are translated into student learning methods. D. Support of facilities and infrastructure can help ensure optimal learning. However, teachers must also be creative and use existing infrastructure optimally. This can make learning more interesting for students. e. The target is college students. In general, the target group can be divided into three large groups. That is normal students, students with learning disabilities, and outstanding students. These three groups tend to have different learning needs. Therefore, teachers must make changes so that learning methods can support the three groups in a balanced manner. f. Learning model. In addition, the LIP for the independent curriculum must also include the learning methods used. The selection of this learning method can be adjusted to the circumstances and learning needs of students. The independent curriculum learning model is very flexible. These include face-to-face learning models, online distance learning, distance offline learning models, and blended learning models.

2. Core Components. The core component is the main component of the independent curriculum of LIP. The core components contain at least 6 components: A. Learning objectives. Learning objectives contain information about facts related to learning. Drawing up learning objectives must be adapted to the available resources, the diversity of students and the assessment methods used. In other words, the content of the learning objectives must be measurable and verifiable. There are different forms of learning objectives that teachers can use. Starting from knowledge in the form of facts or information, conceptual understanding, procedural skills, thinking or reasoning skills to cooperation and communication strategies. The area of application of teaching factory teaching modules in each vocational school in the field of tourism varies according to school understanding. The results of the evaluation show that not all teachers plan activities in productive learning of the teaching factory model, which is associated with knowledge about the product to be produced. In practical learning, most still use ordinary LIP, not using LIP specifically designed for block and continuous lessons, according to the teaching factory manual. Only about 30% of schools use block and continuous systems, usually schools that have implemented learning factories and adopted the BLUD format or are switching to BLUD systems. Meanwhile, schools that began introducing textbook schedules continued to use the usual schedule.

4.3 Effectiveness of Human Resources (HR)

The application of the competence of vocational tourism teaching staff in sample schools is, on average, in accordance with secondary competence, but almost all schools lack productive teachers because productive teachers are available. The number of teachers could be much higher. The industry experience of productive teachers in all tourism vocational competency programs, on average, still needs to be improved because internship opportunities in the industry are also limited. Many training activities for teachers are currently held in several ongoing sample vocational schools. Teachers who receive many hands-on opportunities in this field come from residency and hospitality programs. All teachers participating in the "Teaching Factory" program already have the qualification of the skills of the production unit they are guiding. However, there are usually less productive teachers than in the laundry production department. Although pilot schools have also used human resources as educators/mentors from industry partners, they are few and not all competency programs recruit teachers from industry.

4.4 Effectiveness of Production/Service Activities

At the core of implementing the Teaching factory learning model is production/service-based learning related to industry practices and standards. Conditions vary from the results of field inspections to observations of the implementation of the production/service function of the SMK model teaching factory from the perspective of equipment (infrastructure), product/service results, marketing management and finance. Other conditions for each of these aspects are presented as follows. A handy tool for the average hospitality accommodation knowledge is enough. Standard in 2-star hotels, especially in rooms, furniture, air conditioning, bathrooms and other fixtures. Even for some, Edotel is already very good. The scope of existing training facilities strongly supports the implementation of learning, so the practical implementation of hotel accommodation programs is similar to the hospitality industry. The atmosphere in the small hotel is in accordance with the actual conditions of the hotel. The interior design of each SMK edotel as a place for daily training activities varies between 15 to more than 20 rooms. With perfection, the room types are similar to standard hotel room types, luxury rooms, superior rooms, and family rooms. It also has air conditioning, a TV and other furnishings. The bathroom already has a shower, bathtub, and hot water tank.

4.5 Effectiveness of Perhotelen Accommodation Program Service Results

The implementation of Educational Factory in the hotel accommodation competency program is mainly related to room rental services, internet connection, meeting rooms, restaurants and laundry services. When renting a room, the average small hotel owner has more than 10 rooms, sometimes even more than 20 rooms. Of these, not all rooms have been sold; about 50% are intended for learning activities. The average room condition is also quite good in terms of room area, air conditioner (AC), TV,

furniture, bathroom and accessories. The bathroom also has towels, a shower, shampoo, soap and other equipment like in a 2-star hotel. The furniture is average also quite good, most of the furniture is old but in good condition. Available room types: standard room, Deluxe room, superior room and family room, with prices ranging from 250,000 to 450,000.

Most SMK Edotel also has free internet access 24/7, so hotel guests can use the internet at any time at no extra charge. Most of Edotel's meeting rooms are also equipped with meeting rooms that can accommodate 50-100 people. At the same time, about 90% of laundry services work well. For restaurants, all edotle samples have restaurants and cafes. Also, restaurant service cannot be compared with 2 star hotel service due to limited staff. The service around the breakfast menu is very good. Monthly usage rates vary by month. February to March is usually quiet, as is the fasting month. Outside the month, the occupancy is quite good, 40-80%. Even in tourist destinations such as Bali, Padang, Malang and itself, the occupancy rate can reach 100%. Edotel customers usually come from local governments or students and tourists on a study tour. Monthly financial statements of Edotel services are usually well recorded. For marketing personnel, SMK usually already has special marketing personnel. Edotel marketing mainly uses brochures and websites; some hotels already use marketing services through online services.

4.6 The Effectiveness of Business Cooperation in Industrial Unia

The introduction of industrial work practice models in SMK, in collaboration with industry as partners to improve the quality of graduates in each competency program, is needed because industry support increases the competence of SMK graduates. The evaluation results of education factory cooperation between VET institutions and industry regionally are very different from hotel accommodation programmes linked to school circumstances. In general, based on the results of interviews with school principals and productive teachers, industrial cooperation could be better but not optimal. This is because industries registered with partners in the school sector have limited equipment and human resources, so school program proposals sometimes need to be implemented. Based on the number of industry names on the list of SMK partners, usually, quite a lot depends on the competency program. Collaboration with teachers from industrial companies, internships, hotels and other industrial sectors.

4.7 SWOT Analysis

External conditions are viewed as opportunities (opportunities) and challenges (threats). There is Permendikbud No. 60 of 2014, which requires material alignment with the industry. Teachers have the opportunity to take part in training in industries that are following the Teaching Factory, Establish cooperation with related industries to complete facilities to adapt technological developments in the industry, build an accurate and transparent management system, access Teaching locations factories to obtain operational support needs for Teaching Factory is very easy, the opportunity to work with industry to develop business units in Threat Vocational High School. The rapid development of technology so that it is necessary to update technology and supporting equipment, the time of training implementation often collides with teaching and learning schedules, the procurement of goods and special equipment requires procurement from abroad, the work of students is always required to have quality in accordance with consumer demands.

4.8 Program Impact

From the results of pumped group discussions with school principals, education offices and productive teachers, it can be concluded that the impact of the teaching factory program for students, teachers, industry, and the community in each region is generally good because of the enthusiasm of the principal, teachers, and the support of all school residents in implementing the teaching factory. In addition, before the teaching factory program, target schools have also carried out product/service-based learning activities through existing production units in accordance with their respective expertise programs. So with the teaching factory program, the school needs to adjust it. The impact for students on each inter-regional skill program between vocational schools varies, but most of them have been good. The indication for students is seen from the level of absorption in the industry and entrepreneurial ability. The level of absorption in the industry, in general, is quite good. The impact for teachers, learning activities become more enjoyable because practical activities already resemble industries that can produce products/services that can be sold, so teachers and students are more enthusiastic because the sales proceeds from practice products can be used to purchase materials as practice tools. Teachers are also more enthusiastic about teaching because they have the opportunity to improve their abilities during practicum and have a sense of pride in student achievement from the products/services produced by students. The impact on schools is that the teaching factory learning model with existing production units can produce products/services worth selling so that they can increase school income, which can be used to help school operational costs and be used as a medium for school promotion to the community. The impact on the school environment/community from this teaching factory activity includes the community being able to know and utilize the products/services produced by vocational students; besides that, some vocational schools also hold training for the community around the school who want to improve their skills. The impact on the industry through this teaching factory activity is that the industry gets a competent and work-ready workforce to reduce training costs. In addition, industry can also contribute positively to the development of human resources to improve the quality of education, especially vocational education.

4.9 Problems Obstacles encountered

Based on the results of discussions with the head of SMK and teachers, many obstacles are still faced in the implementation of the *teaching factory*. The obstacles faced by each SMK vary; this is related to the condition of each SMK. The obstacles in implementing the *teaching factory model* are as follows. (1) The need for more human resources for *teaching factory managers* (productive student subject teachers) is mainly related to personnel turnover (movement etc.). (2) Character building of students who need continuous improvement to serve/produce industry standard products. (3) Limited land for implementing the Teaching factory, less practice room area, cannot provide an outlet to exhibit products. (4) Promotion/marketing that is still limited to certain circles. (5) Products/services are still subject to the order. (6) There is no strong legal umbrella for implementing the teaching factory, which can create a sense of security for the principal and teachers in implementing the teaching factory in SMK.

5. Conclusions and Recommendations

The training of plant managers usually continues the previous program. The independent curriculum is used as a curriculum that is synchronized with the curriculum of the business world and the industrial world. Most theoretical and practical lesson plans already use block learning systems. Includes staff resources for teachers who run teaching plants. Adequate equipment. The results of residential services are good. Cooperation between vocational training institutions and industry is usually not optimal because not all competency programs have been obtained with partners from the business world and industry.

Based on internal and external conditions, a SWOT analysis of the effectiveness of this program was conducted. From the strength analysis, the internal condition is examined. The hospitality expertise underlying the implementation of the Teaching Factory program includes several strengths, which are summarized as follows: 5 SMKs spread across 5 districts of DKI Jakarta have adopted the integration of production-based learning models. They have productive teaching staff who are qualified and ready to make creative innovations in the hospitality field. Facilities and infrastructure are well available, such as school management systems and many collaborations with various companies and the industrial world. Weaknesses in implementing the teaching factory program were noted as follows: Not all teachers have professional experience in this field, their scope of work is limited, and regulations on the management of vocational teaching budgets have yet to be written. External conditions in the form of opportunities and challenges. It is Permendikbud No. 60 of 2014, which requires harmonization of material with industry; teachers have the opportunity to attend training in fields that are in accordance with the teaching factory, establish cooperation with related fields, and adjust facilities to complement technology. Development in this field is very easy to build an accurate and transparent management system, access educational institutions and factories, and get operational support for the needs of educational factories. There are opportunities to work with industry to develop business units in vocational schools. The development of technology is developing rapidly so that technology and supporting equipment must always be updated, the delivery time of courses often conflicts with the curriculum and study plan, the purchase of special goods and equipment requires purchases from abroad, and Quality is always demanded by work students to meet consumer demand.

The research results can be recommended to related parties for future teaching factory improvements: 1) Central and local governments should provide technical guidance, support and support in training centers, especially for vocational schools that still lack or do not have practical equipment. 2) Local governments open productive teacher training/employment in case of teacher shortages, provide facility support and discuss policy areas related to facilitating access to vocational schools for prospective teachers and promoting the use of vocational products. 3) Special policies are needed to regulate the implementation of Vocational Education related to Non-Tax State Revenue (PNBP) in SMK as a SMK Public Service Agency (BLU) so that the products/services produced are used in schools. Operating costs. A professional public service body must be distinguished from other BLUD bodies because it is a forum for learning activities to improve the quality of graduates. With a secure legal framework, the Teaching factory has the potential to develop a learning model that can improve the quality of graduates and increase costs for vocational schools. 4) Vocational schools should cooperate with industry partners in industrial job training activities, develop curriculum and support related to competency skills in accordance with existing competency programs. Evaluate the implementation of the teaching factory periodically using teaching factory performance indicators.

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