



ANALYSIS OF TEACHING FACTORY IMPLEMENTATION IN VOCATIONAL SCHOOL CASE STUDY: PUBLIC VOCATIONAL HIGH SCHOOL 1 LABUAN BAJO

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ABSTRACT

Teaching Factory is a learning model at Vocational School based on production/services that refer to standards and procedures applied in the industry. The implementation of the Teaching Factory requires industry involvement. Parameters to measure the achievement of the Teaching Factory implementation are management, facilities, learning patterns, marketing-promotions, products-service, human resources, and industrial relations. The purpose of the research in this paper is to find out the implementation of the Teaching Factory in the Hospitality Program at public Vocational High School 1 Labuan Bajo. The research uses the qualitative descriptive method. Data collection techniques were carried out through observation, interviews, and documentation. Data were analyzed by reducing, displaying, and verifying data. The results indicate that the achievement of the implementation of the Teaching Factory in the Hospitality Program at Public Vocational High School 1 Labuan Bajo, based on several achievement measurement parameters, there are still some shortcomings in terms of Management, Marketing-promotion, Human Resources, and learning patterns. The need for commitment to the implementation and evaluation of Teaching Factory must be applied to improve the quality of learning to produce graduates who are competent for industry needs.

Keywords: *teaching factory, learning model, vocational high school*

ANALISIS PENERAPAN TEACHING FACTORY PADA SEKOLAH VOKASI STUDI KASUS: SMKN NEGERI 1 LABUAN BAJO

ABSTRAK

Teaching Factory merupakan model pembelajaran di Sekolah Menengah Kejuruan (SMK) berbasis produksi/jasa yang mengacu pada standar dan prosedur yang berlaku di industri. Implementasi Teaching Factory membutuhkan keterlibatan industri. Parameter untuk mengukur pencapaian Teaching Factory akan dilihat dalam penerapannya dari aspek manajemen, fasilitas praktik, model pembelajaran, promosi, produk-layanan, sumber daya manusia, dan hubungan industrial. Penelitian pada artikel ini bertujuan untuk mengetahui penerapan Teaching Factory pada Program Keahlian Perhotelan di Sekolah Menengah Kejuruan 1 Labuan Bajo. Penelitian menggunakan metode deskriptif kualitatif. Teknik pengumpulan data dilakukan dengan menggunakan observasi, wawancara, dan studi dokumentasi. Data dari penelitian dianalisis dengan cara mereduksi data, menampilkan data dan memverifikasi data. Hasil penelitian menunjukkan bahwa capaian penerapan Teaching Factory pada Program Keahlian Perhotelan di SMKN 1 Labuan Bajo dari beberapa parameter pengukuran pencapaian, masih terdapat beberapa kekurangan dalam hal Manajemen, Marketing-promotion, Human Resources, dan learning patterns. Perlunya Komitmen dalam penerapan dan evaluasi Teaching Factory harus dilakukan dalam rangka meningkatkan kualitas pembelajaran untuk menghasilkan lulusan yang kompeten dengan kebutuhan industri.

Kata Kunci: *teaching factory, model pembelajaran, sekolah menengah kejuruan*

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INTRODUCTION

Presidential Instruction Number 9 of 2016 concerning the Revitalization of Vocational High Schools to improve the quality and competitiveness of Indonesian human resources is manifested in the Vocational High School as a Central of Excellence policy. Joko Widodo said that as many as 82% of the workforce in Indonesia who work abroad turn out to be Vocational High

School graduates so it is not biased to be allowed and there must be improvements in terms of skills so that graduates Work as needed industry (Cahyanti et al, 2018) In Indonesia, the attention of teaching factory concept has been introduced at Vocational High Schools in 2000 in a simple form of developing production units that have been carried out in Vocational High Schools

(Direktorat Pembinaan SMK, 2017). Meeting the industry's need for Vocational High School graduates requires cooperation between schools and industry. (Saputro et al., 2021) one aspect of the parameter that has not been effective, namely industrial relations. This lack of cooperation will be a challenge for schools in providing graduates who achieve industry needs. It is expected that the broken chain due to the gap between what is needed by the industrial sector and the output produced by Vocational Schools can be overcome by teaching factory learning (Abdul Fattah et al., 2021). The existence of vocational schools should be promoted to gain support from related industries. Fattah et al., 2021 state that the marketing promotion parameters have not been carried out massively. Promotions are only carried out in the school environment and have not been able to cover a wider market share.

This instruction focuses on improving the learning model that is linked to and Matches the industry. Teaching factory learning models should be based on increasing student abilities. Research (Dwijayanthi & Rijanto, 2022) shows that Teaching Factory at SMKN 2 Singaraja system implementation is less able to support student work-readiness so it is necessary to implement learning models that can improve students' ability to think critically, which provides a good influence on the factors supporting student work readiness in students.

The vision of the Vocational High School Center of Excellence program is to produce graduates who are absorbed in industries or become entrepreneurs through the deep and comprehensive alignment of vocational education, as well as being a reference/impact in improving the quality and performance of other vocational schools. To do so, Vocational schools are required to create a learning environment that is close to the industry. The Obstacles faced in implementing Teaching factories in vocational schools include government regulations, especially for public schools relating to product sales, government regulations relating to working hours for public teachers, setting practice schedules and inflexible working hours, rapid technological changes, a different understanding of the block schedule among educators, and the

lack of human resource competence in terms of industry experience and teacher competency standards (Wijanarka et al., 2023). Vocational school teachers should have a related background to the major. Result study (Kusumojanto & Wulandari, 2020) in terms of inhibiting the implementation of teaching factories, and student assistants in the laboratory, which is still inadequate. Vocational teachers must have industrial backgrounds to manage learning activities and support the working environment system in the teaching factory. Learning practices in business units that are individual competencies and productive skills are preferred over those that are managerial skills (Hidayati & Mayasari, 2020).

Vocational High Schools are required to form student skills, improving the quality of learning, especially in the field of practice. The competencies obtained by students at the time of theoretical learning can be practiced. Competence is the output of learning in vocational education as Richards (2006) expresses in (Bader & Hamada, 2015) that work-related and survival-oriented teaching language relied widely on the competency-based model, to teach the basic skills for everyday survival situations. The Indonesian Ministry of Education and Culture is now intensively realizing the Link and Match program. Director of Vocational High School Development, Bakrun Dahlan said, "We must know what competencies are needed by the business world and industry <https://bbppmpvbmti.kemdikbud.go.id>. This program was created to synergize vocational education with the industrial world to increase the absorption of vocational school graduates so they become reliable workers with industry needs. The Link and Match program is embodied in a Teaching Factory learning model as a combination of realistic learning and work environment and brings out relevant learning experiences.

Teaching factory is industry-based learning, a learning paradigm that integrates learning with the work environment (Mavrikios et al., 2018; Suhartini, 2022). Universities will be able to offer their students a unique training approach based on real-factory experiences, real-

life problem-solving, and learning from professionals & practitioners, and expose their students to a large pool of possible future employers (Mavrikios et al., 2019). Teaching Factory learning focuses on industrial and academic integration through an approach to curriculum and teaching/training methods. Vocational education should be adaptive and flexible in the globalization era (Pinat, M., T. 2011). Not only stakeholders from the education sector, industry, and government also play a role in supporting the climate of industry-based learning. The industry must supervise the management of a vocational education institution to ensure the achievement of learning in schools delivered by teachers.

Based on this research background, this research was conducted to analyze: (1). What indicators of teaching factory used in State Vocational High School 1 Labuan Bajo and (2) What indicators have been applied and those have not been applied.

Labuan Bajo with the rapid growth of industry especially in the accommodation sector for the last 5 years must be supported by the vocational school graduate which as per industry needs. State Vocational High School 1 Labuan Bajo as one of the vocational schools in Labuan Bajo should have a good school operation based on Teaching Factory Program.

LITERATURE REVIEW

State Vocational High School problems have been a concern of the government, and IDUKA community, and at least since the 1990s until now is still a hot discussion related to (1) the waiting period for graduate work, (2) the high unemployment rate, (3) the quality of vocational school graduates, and (4) competency and certification system (Islami et al., 2021). This situation requires a certain approach to minimizing the gap (problem) that might occur in teaching factory programs.

Teaching Factory according to (Nayang, 2003 in Siswandi & Sukoco, 2015), is a concept that combines learning and a realistic work environment and brings out a relevant learning experience. Teaching Factory can provide real experience for students according to the work

environment and regulations that exist in the industry (Lutfarida & Wailanduw, 2019). Teaching factory brings the world of work closer to learning activities.

Sustainable Economic Development through Technical and Vocational Education and Training (SED-TVET) from the Indonesian Ministry of education and Culture (2017) defines a Teaching factory as a product-based learning model (goods/services) through synergy between schools and industry to create graduates who are competent according to industry needs. The success of this program requires understanding from the schools and people involved. The parameters of the teaching factory as the basis for the preparation of the learning program to be used include Management, Workshops, Training Learning Patterns, Marketing Promotions, Products-Services, Human Resources, and Industrial Relations (Permenperin Nomor 03 Tahun 2017).

REASERCH METHOD

This research uses qualitative descriptive research with a case study approach. A case study is a research approach that is used to generate an in-depth, multi-faceted understanding of a complex issue in its real-life context (Crowe et al., 2011). Data on teaching factory indicators will be collected through interviews with the participant from State Vocational High School 1 Labuan Bajo such as students, teachers, and management, This study observation is conducted by observing the school environment, practicing facilities, teaching method, teachers competency, management and policy or program related to teaching factory. The last data collection technique is a literature study by overviewing learning tools, supporting facilities, program documents, and other related documents. Furthermore, the data is analyzed through three stages based on Miles and Huberman (Ahmad. R. 2018) namely: (a). Data reduction, (b). Data presentation, and (c). Concluding or verification. Next, data validation will be tested by using triangulation of findings (confirmabilities), and by reporting research findings to the informants interviewed (Rahardjo & Si, 2017). This research method is used to analyze the

implementation of teaching factories based on applied indicators.

RESULTS AND DISCUSSION

Vocational High School

Vocational High Schools (SMK) based on the Law of the Republic of Indonesia No. 20 of 2003 regarding the National Education System that vocational education is an education that prepares students to be able to work in certain fields. This is specifically described in (Peraturan Pemerintah Republik Indonesia No 19 tahun 2005 tentang Standar Nasional Pendidikan, 2005) Vocational secondary education is education at the secondary education level that prioritizes the development of students' abilities towards certain types of work.

Vocational High School which is under the Directorate of Vocational Development is an institution of education oriented towards the formation of life skills that has the aim of training students to master the skills needed by the world of work, providing education about entrepreneurship, and shaping life skills.

State Vocational High School 1 Labuan Bajo has one of the majors, namely Hospitality which runs a teaching factory program. The parameters of this teaching factory study are based on training learning patterns, human resources, workshops-labs, marketing promotions, products-services, management, industrial relations, and legal aspects (Saputro et al., 2021).

Management

Directorate of Vocational Education (2017) quoted in (Nurlaili et al., 2022) divided teaching factory management into several sub-parameters, namely financial administration, organizational structure and job desk, Standard Operating Procedure (SOP) of performance and workflow, leadership, and the impact of teaching factory on institutions and environment.

Financial administration of teaching factories has been carried out following standard accounting procedures (recording transactions to financial statements) which includes planning, regulating, accounting, and supervising finances based on the duties and responsibilities contained in the organizational structure. Teaching Factory

hospitality program is carried out according to accounting bookkeeping procedures. This can be seen from the process of budgeting drafts and recording transactions to reporting accountability for the use of money both sourced from the School Operational Fund and the proceeds of sales hotel room services.

The formal organizational structure is stated in the Decree of the Principal number 424/549/Pend/SMKN 1/X11/2021 about the Teaching Factory Organizing Team of State Vocational High School 1 Labuan Bajo. This shows the school's commitment to running the Teaching Factory. However, in its implementation, there are still obstacles as revealed by The Principal of Komodo Vocational High School: 2022) which states that the role of each person has not run optimally. This is due to the lack of coordination, teamwork, performance, and understanding of teachers about the concept of the Teaching Factory is still low.

The management of the teaching factory itself is already running, but the roles and functions of each section have not been carried out consistently according to the job desk and workflow of each part. The job description must contain the main tasks and functions of each position that must be carried out to achieve the Teaching Factory's goals (Vidiastuti & Purwanto, 2021). This lack of management is due to the teachers who play a role in the Teaching Factory organizing team do not have a complete understanding of the concept of developing Teaching Factory, nor have they conducted training related to Teaching Factory governance. The school management operational is the key to success in the future because, with the teaching factory program, teachers and students are continuously required to improve their abilities related to systematic thinking methods, self-control, mental development, vision building, and team learning become teachers and students (Kautsar et al., 2022).

Laboratories

A Workshop or lab is a place where practical learning is carried out at least to meet the elements of suitability both in terms of work equipment, room layout, and space as well as other

supporting facilities according to existing standards in the industry. (Permenperin Nomor 03 Tahun 2017.) Chapter II article 7, emphasized that to support the correlation-based learning practicum, Vocational High School is equipped with a teaching factory, and workshops/laboratories.

The hospitality program teacher (teacher 01:2022), explain that Practical facilities for teaching factory model learning are Edotel Batu Cermin according to hospitality industry standards, both practical equipment for cleaning, guest room layouts along with complete room facilities, general area layouts such as the lobby and front office areas, restaurant room layouts along with food and beverage services laboratory. This statement is reinforced by the statements of hospitality practitioners from Sudamala Komodo Resort, Tree Top Hotel, Ayana Resort Komodo, and Plataran Komodo who were invited to the group discussion about the development of the school's Teaching Factory program. They stated that the facilities of Edotel Batu Cermin are equivalent to 4-star hotels in terms of room facilities and hotel lobby areas.

Laboratories as a parameter have met the needs of learning standards where the availability of the Edotel Batu Cermin facility is a reflection of the working environment of the hospitality industry. The importance of laboratory facilities in supporting the teaching and learning process is also regulated in PP No. 19/2005, Chapter VII Article 42 Paragraph 1 which reads: educational facilities include furniture, educational equipment, educational media, books, and other learning resources, consumables, and other equipment needed to support an orderly and sustainable learning process (Handayani et al., 2018).

Learning patterns

The teaching pattern carried out by the teacher refers to subject-related learning tools. A teacher is expected to be able to prepare learning tools that can produce learning achievements based on industry needs. Teaching factory learning activities can increase the spirit and confidence of students to perform their competencies. Because students are given responsibility and must carry out these responsibilities well (Dwijyanthi &

Rijanto, 2022).

The teaching *factory* learning model system at State Vocational High School 1 Labuan Bajo. refers to the national curriculum that applies regularly to the latest curriculum, namely Kurikulum Operasional Sekolah Pusat Keunggulan (KOS PK) by strengthening the workforce-based learning process through the Independent Curriculum Learning, and the implementation of the *Link and Match* program. The curriculum team, together with the hospitality program teachers plan to engineer time allocation arrangements for learning with a block/rotation system in the upcoming years. Regarding learning tools that include syllabuses, learning implementation designs (RPP), learning media, student worksheets (job sheets), and others, each subject teacher has compiled and has their learning certificates Curriculum Representative of Komodo Vocational High School (2022).

The pattern of organizing the Teaching Factory model learning in terms of learning tools is well carried out, and the application of learning with a ratio of 30% theory and 70% practice is also carried out according to the provisions in the Vocational High School curriculum and teaching activities carried out by guest teachers from industry are well carried out. The hospitality program has not drawn up a block schedule learning plan and has not drawn up a plan and marketing strategy for Teaching Factory products (The Principal of Komodo Vocational High School:2022). The principal statement is also supported by the head of the Hospitality program (2022) point of view that the development of the learning planning of the block system of the program and marketing plans and strategies is because the school management has not conducted socialization and training. This is an early warning to the school that strengthening industry-based governance is needed where all school parties involved must understand and apply the principles of teaching factory management. One of the students also explained that the learning materials provided by the practicing lecture are almost the same as real activities while Industrial practician also involved during the learning process. This greatly affects the ability of participants because they are equipped with learning materials for the

daily service sequence in the hotel industry. (Abele et al., 2017).

Marketing-Promotion

Marketing is a series of activities to meet consumer needs and satisfaction, both by producing products than providing prices and promoting them to consumers so that sales occur. The follow-up of a production process is the sale of products. The thing that needs to be considered is the feasibility of selling products in the community. The program needs to evaluate the clarity of targets, segments, and market reach as well as adjust the methods and actors of promotional activities. The school has published Teaching Factory products to the community, especially to alumni and the hotel industry. Their (industry) response is ready to promote Teaching Factory products to guests both domestic and foreign, the most important thing is that the school facilities and infrastructure are ready (Teacher 02: 2022).

The *marketing/promotion* activities of the school's Teaching Factory products have not been carried out openly even though the principal's t has made a Decree of the Teaching Factory organizing team including the actors of promotional activities but operationally has not been maximized implemented because it has not utilized other promotional media such as brochures/leaflets, websites, Social Media, Direct promotion and other promotional media. The research of (Wiguna et al., 2023) showed that the focus of promotion must also maximize marketing technology developments such as social media and the marketplace to increase product sales. Utilizing social media as a marketing tool is needed in the digital world. Low reach and cost of offline marketing strategy can be the basic reason for maximizing social media for promotional activities.

Product-Service

Products are goods or services that are the result of students' work in practical activities at school that can be used for internal school interests or sales purposes. Product criteria must have the value of expediency, market acceptability, and product quality. One of the hospitality teachers

explained that Products of students' work in practical learning in schools for hospitality programs in housekeeping services, front office, laundry, and food and beverage. In the hospitality business, the main sales product is room rental services. In addition to room rental services, production units that increase hotel revenue are the sale of food and beverages and laundry services for guest clothes (2022).

Student results in practice activities for services in the Front Office and housekeeping sections showed that class XI hospitality students were 80% competent based on the evaluation of student work from the daily practice assessment. Products criteria for market acceptance and product quality in this case Edotel Batu Cermin as a unit of lodging service production, based on testimonials of guests who have stayed overnight gave a very satisfied assessment of the receipt and service during their stay at Edotel Batu Cermin with the presence of complete rooms such as star-rated hotel room facilities. Related to the *quality control* for school hotel products, (teacher 2022) states that the school invites the industry as a guest teacher and assessor) for an assessment of student practice results as well as mentoring and supervising product quality for adjustment to existing products in the hospitality industry.

The product-service parameter is closely related to the existence of Laboratories as one of the parameters. Students can produce product services from learning outcomes, which can generate benefits by selling these services. This is one of the success parameters applied at State Vocational High School 1 Labuan Bajo.

Human Resources

The teaching Factory program needs the existence of human resources (teachers) with appropriate competencies and quantities as well as having work experience and being able to work in a team as an important element in supporting the program. Performance and understanding related to the concept are lacking, and out-of-date knowledge and technology information are the obstacles in the learning process. This is expressed by the *Former Principal* (2022) explains the: Lack of performance from hospitality teachers with a low sense of responsibility for their duties and who

have not shown cohesiveness in working in a team. The fighting spirits and innovation toward the renewal of science and technology below expectation. Teachers have not been able to distinguish between students who are competent and who are not yet competent, especially teachers who teach productive subjects (Purnami et al., 2021). Each teacher must prepare learning tools consisting of (1) a Syllabus, (2) Learning Implementation Plan (RPP), (3) Instructional Sheets, (4) Information Sheets in the form of Service Manuals (5) Job sheets. Teacher performance needs to be improved, one of which is by attending competency development training. 75% of hospitality teachers have attended a 1-month industry internship in hotels both in Labuan Bajo and in Bali. Some teachers also attended online training on the development of learning programs in an independent curriculum organized by the Ministry of Education and Culture (Teacher 03: 2022).

The teacher is a key factor in supporting students in the learning process. The quality of teachers will affect student learning outcomes. A teacher is required to be able to understand the concept of industry-based learning so that they can equip students with skills before entering the world of work. Research (Permata et al., 2021) add the importance of teachers who support the teaching factory program should be able to give better attention such as providing a variety of programs that can improve the competence of students by the objectives of the Catering Service Program at SMKN 2 Mojokerto.

Industry Relations

Teaching factory work-based learning in vocational education is expected to be able to improve the student's competitiveness (Marsono, 2020). Industrial relations with the school to synergize vocational education with the industrial environment will increase the competence of graduates as reliable workers. Providing graduates with the needs of the work environment is an important activity in the equation of cooperation vision (Maulina & Yoenanto, 2022).

The Principal of Komodo Vocational High School (2022) states that the school invited and visited several industries (hotels) in Labuan Bajo

to form cooperation in terms of increasing student competence and absorption of graduates. Hotels that have successfully built cooperation with schools are Sudamala Resort Komodo, Tree Top, Ayana Resort Komodo, Plataran Komodo, and Puri Sari beach resort which have the strength of cooperation agreements in Memorandum of Understandings. While other hotels carry out untied cooperation in the form of an MoU, all industries (hotels) are always welcome to practical learning activities for students carried out in hotels for 6 months.

Industrial support through guest teachers/instructors from the industry, implementation of teacher internships in the industry (hotels), and the implementation of dual system learning, namely class industry and industrial work practices. Learning with the industrial class model is carried out in industry (hotels) for 1 (one) year for 30 students each year while learning with the pre-employment model is carried out for 6 (six) months for all class XI students. The industry supports every school activity in improving competence by providing opportunities for industrial visits, work practices, guest teachers, and industrial classes. This link and match institution, especially Vocational Education, can collaborate with other companies or industries so that students can intern at the company (Disas, E., P. 2018). Industries as associates are important because of their role in standardizing the competencies of students who complete their graduation in this vocational school

CONCLUSIONS AND RECOMMENDATION

In terms of management, the organizational structure in formal form through the Principal's decision, Teaching Factory in hospitality Programs at State Vocational High School 1 Labuan Bajo has been operated wisely, but the roles and functions of each section haven't been consistently performed according to the job desk and workflow of each section. The lack of understanding of the concepts, designs, and applications of the Teaching Factory needs to be overcome with harmonization related to the concept of the teaching factory.

The existence of Edotel Batu Cermin as a Teaching Factory is following the hotel's standard

of service supporting the principles of industry-based learning. These standards of the laboratory become massive support for the learning process. Hands-on practice-based learning directly affects student absorption. The use of role-play learning models with supporting facilities will affect the learning patterns which was carried out well. Supporting facilities should be followed by appropriate learning models such as block systems. This model creates a learning atmosphere like work activities in the hotel industry. Hotel Batu Cermin as a product and service has provided services according to the service standards of a hotel. Based on market acceptance, quality *control* is well performed as per the quality of star-rated hotel room products. Meanwhile, service products (services) from student practice results for *Housekeeping* and *Front Office* competencies have not reached a 100% percentage under the work competency target in the hotel industry. Improvement of the latest hospitality product and service knowledge is required to reach the achievement of the program. Teachers with educational qualifications and work experience with the competencies must work together to develop the learning model of the *Teaching Factory*. However, on the other hand, teacher performance has not shown professionalism in carrying out the learning tasks of the Teaching Factory model. As a role model, Teachers must be able to show a professional attitude as an example of the work attitude of hotel industry players. The upgrading of skills and knowledge applied in teaching techniques will create a picture for students. The teacher as the main motivator in the classroom is encouraged to create a learning atmosphere like a working atmosphere in a hotel.

The role of industry as a party that will accept vocational school graduates through involvement in relationships between vocational school and industry. The results of the collaboration that has been established continue to be improved in the learning process of students in the classroom. Those parameters of the teaching factory that have been implemented are being informed to the public. This is where the marketing activities play their roles to promote the school as their function to promote the school program with industrial based.

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