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The Performance of the Production Unit Program Ibu Kartini Semarang Vocational High School

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Abstract

Entrepreneurship program of Vocational High School (SMK) Ibu Kartini Semarang consisted of Business Centre, School of Entrepreneur, and Production unit. The implementation of the production unit faced several problems such as students' lack of motivation in conducting industrial apprentice even though it has been scheduled in the timeline. There were gaps between industrial need and students' output based on their specialization so that improving production units in school was crucial.

This research was qualitative research that focused on evaluating the production unit program in SMK Ibu Kartini Semarang. The participants of the current study were principals, production unit staff, teachers, and production unit partners. The questionnaires, observation, and interviews were applied to gain the data. The analysis data used descriptive qualitative method with evaluation model such as context, input, process, product (CIPP). Furthermore, it was evaluated by the Glickman quadrant. The result showed that the production unit of SMK Ibu Kartini Semarang was "not effective" (++--) and the T score achieved < 50 so that the improvement was needed.

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INTRODUCTION

The development of production units in school can be applied in all expertise programs. Teachers and students involved in the production of merit and the industrial partner can participate in the program. Production units were not only a place to conduct production activity and merit but also as the center of innovation, the creativity of teachers and students. Learning integrated and production processes in the production unit gave factual experiences to the students. It was important to increase students' entrepreneurship and made them ready to compete in the industrial world. The strength of school management became crucial to improve the quality of production units in accordance to enrich human sources. Sangi, Wajong, and Sojow (2019) explained that the production unit was business activities that organized by schools continuously. The production unit was one of improving school quality programs that integrated the financial and academic side. Those activities used school facilities and were managed professionally.

All vocational education focused on attitude, skill, and students' habits. Vocational education consisted of vocational high school and Islamic vocational high school (*Madrasah Aliyah)*. Production units can be a solution to gain creative products from students and teachers based on their expertise. In other words, the production unit became an important aspect of vocational education and needed well-organized planning, managing, conducting, and evaluating. The unit production also brought a lot of benefits such a mentioned in Dikmenjur 2000-2005 (Mahfud, T & Pardjono, 2012, p.30). The benefits were: (1) increasing income that can be used to elevate prosperity; (2) maintaining school facility; (3) decreasing the gap between school output and industrial need; (4) facilitating the students to feel a real industrial atmosphere and became responsible, because of their product will be sold in the public market.

The output of vocational education was not only the skillful worker but also a person who had entrepreneur character. Learning activities that had an entrepreneurship atmosphere stimulated students to do more and gave them better opportunities in life. The students had the strong responsible character to manage themself and were able to face competition in real life (Barnawi dan Mohammad Arifin, 2012: 58-59).

The guidance in implementing production unit was explained in particular purposes: (1) creating entrepreneur skill; (2) increasing students' practicum; (3) increasing internal economic enterprise that brought prosperity to the members; (4) building discipline and confidence; (5) exercising students to take a count risk; (6) giving students' space to be more skillful in their expertise; (7) increasing confident and responsible. Terry (2008: 77-78) stated that production unit management consisted of planning, organizing, implementing, and supervising. Those management functions were applied in the components that included in the production unit such as human sources, facility, cost, production unit activity. The management of the production unit was organized by the principal and staff who managed the production unit at school.

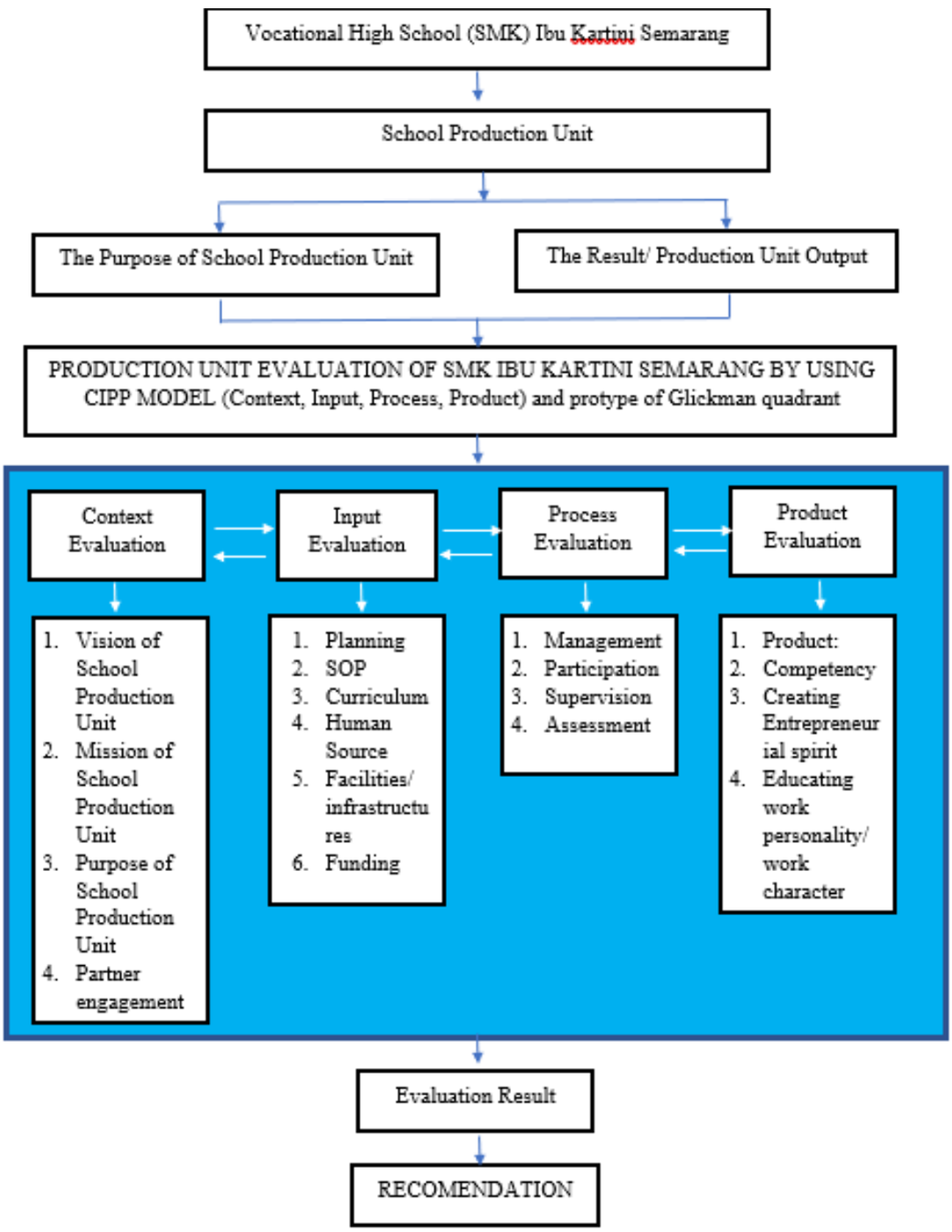
Practicum-based activity in the production unit can be used as learning and working at the same time. It was true vocational high school became a place to develop human source that competent and skillful workers (Marniati, Kharnolis, and Irianti; 2018). The developing entrepreneurship program in SMK Ibu Kartini consisted of Business Centre, School of Entrepreneur, and Production Unit School. Furthermore, the production unit school had some branches in each major. Unfortunately, many teachers did not join the production unit. The implementation of the production unit in SMK Ibu Kartini faced many problems such as students' lack of motivation, students did not do practicum exercises and the gap between students' output and industrial needs. Those problems gave the school challenge to improve unit production in school.

The implementation of the production unit aimed to create students' work performance character. However, the production unit was not ready yet since students' backgrounds were divergent. In addition, the economic level of students was low and most of them were close-minded about the entrepreneurship field. These problems became a huge challenge for the teacher to stimulate students' effort and spirit so that they were ready enough to face the world after graduating from school. The partnership between the school and industrial side was also important to support the production unit. SMK Ibu Kartini was unable to persuade industrial at the national level for becoming a partnership. The improvement of teamwork capacity became crucial to take part in the advanced technology era so that students' competency fulfilled the industrial need.

The evaluation was a prepared activity that evaluated the object condition by using instruments and the result was compared with a certain standard to gain the conclusion (M. Chabib Toha, 2003). The evaluation aimed to give some recommendations or suggestions to the institution. In conducting the production unit, the institution had to ready in preparing all items that support the production unit and its programs. CIPP evaluation

model means a dimension model that covered *Context, Input, Process, and Product*. This model was developed by Daniel L.Stufflebeam et al (1967) at Otto State University. Each evaluation bonded to the planning and implementation decision in a program (Arikunto et al, 2004).

Production unit evaluation can not be done by observing and evaluating in a certain process, but it must be done in all aspects with correct steps. In SMK Ibu Kartini, the evaluation only was conducted in a certain period and did not use measurement instruments to evaluate the obstacles. Sugiarti's (2013) research entitled the contribution of fashion production unit toward students' interest in entrepreneurship at Vocational High School (SMK) Ibu Kartini Semarang. She found that the production unit contributed 57,35% to pique students' interest in the entrepreneurship field. However, the research had a limitation, it was only focused on fashion. The researcher tried to dig up the production unit by using the CIPP evaluation model and Glickman quadrant to find out the real problems faced by the production unit. Some aspect was observed by *Context*: vision, mission, propose of the program, and school policy. In *input,* aspects included planning, standard operational procedure (SOP), curriculum, human source, and budgeting. The *product* aspect consisted of results (price, quality, consumers' satisfying), and competency/ skills. Furthermore, the mapping of the effectivity level toward the production unit can be elaborated quantitatively by using the Glickman quadrant.



Picture 1. Research Pattern

METHODS

This research applied descriptive qualitative and quantitative methods. The researcher chose the CIPP model because this model covered all evaluation process until the result. The analysis data used a descriptive approach by using percentages. The researcher gained the data by observation, interview, questionnaire, and documentation. The evaluation data of the CIPP model came from many methodologies. This research employed quantitative to process numeric data in a product component, while qualitative was used to analyze the activities in *Context, Input, Process, and Product data.*

Context Evaluation	**Input Evaluation**	**Proces Evaluation**	**Product Evaluation**
□Try to find out: what needs to be done? □Time line: before the program was accepted □ Decision: Program planning	□Try to find the answer: what we have to do? □Time line: Before the program was started □decision: programming structure	□ Try to find out the answer: apa yang sedang what is being done? □ Time line: when the program was ongoing □Decision: implementation	□ Try to find out the answer: is the program successful? □ Time line: when the program was done □Decision: Yes or No, the program should be reviewed

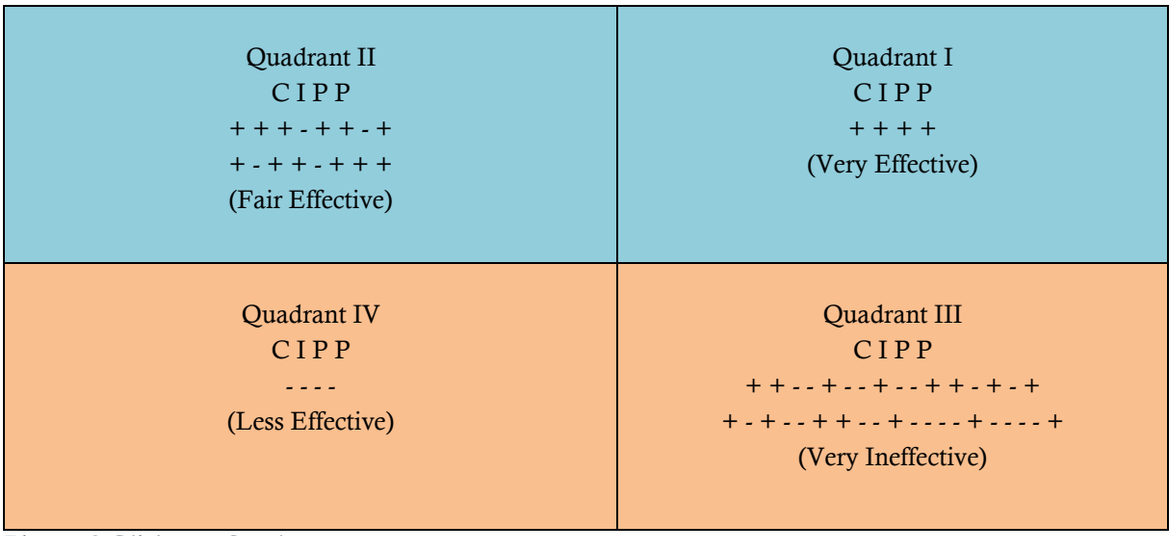
Picture 2. Context, Input, Process and Product (CIPP) model
Source: Wirawan (2011:92)

This research aimed to evaluate the implementation of the school production unit in SMK Ibu Kartini Semarang based on *Context, Evaluation, Input, Process, and Product.* In addition, the current research also evaluated all aspects. The evaluation criteria were set before evaluating activities. Each aspect was stated as suitable if fulfilled the indicators requirement. After that, the researcher analyzed the data to gain the result for each aspect.

Table 1. Level Category

No	Category	Score of Respondent
1	Very good	X > M + 1,5 SD
2	Good	M + 1.5 SD > X ≥ M + 0.5 SD
3	Adequate	M + 0.5 SD > X ≥ M – 0.5 SD
4	Not good	M – 0.5 SD > X ≥ M – 1.5 SD
5	Poor	: X ≤ M – 1.5 SD

The data analysis technique of the study used descriptive qualitative and quantitative. Quantitative data was gained from the questionnaire, it was numerical data and was analyzed by using T-score. To answer the research question, each aspect was analyzed and was presented in descriptive form. To answer the level of effectiveness, the analysis of the *Context, Input, Process*, and *Results* was carried out through the analysis of the Glickman Quadrant. If T score > 50 it meant positive or high (+), while T ≤ 50 meant negative or low (-). To find out the results of each aspect, it was calculated by adding up the positive (+) and negative (-) scores. If the positive (+) score was more than or equal to the negative score (-), then the result was positive (+). If the positive score (+) was lower than the negative score (-) then the result was negative (-). The following was a picture of the Glickman Quadrant used in the study: Quadrant I with the result (+ + + +) rated *Very Effective*, Quadrant II with the result (+ + + - + + - + + - + + - + + +) was rated *Fair Effective*, Quadrant III with results (+ + - - + - - + - - + + - + - + + - + - - + + - - + - - - - + - - - - +) was considered *Less Effective*, and Quadrant IV with results (- - - -) rated *Very Ineffective*.



Picture 3 Glickman Quadrant

RESULT AND DISCUSSION

Evaluation in general means a process in gaining the data or information about the object or subject to decide on the object and subject itself (Sukardi, 2014:2). There was three groups evaluation in the education field: (1) learning evaluation, which was used to decide the students' mastery level toward learning material; (2) program evaluation, to determine the achievement of the program toward the stated goals; (3) system evaluation, to decide the achievement level of institution purpose and the leader commitment toward the set goal. Input evaluation was done by observing relevant methods. In input evaluation, the supporting system of the school was chosen. The purpose of the input evaluation was to assess system capability, the alternative of program strategy, and procedure design. The implementation of information services, input evaluation can be seen in the number of human sources and supporting infrastructure.

Production Unit (UP) of SMK Ibu Kartini in terms of Context

The production unit of SMK Ibu Kartini was held based on vision, mission, and purpose to improve learning quality and to gain competent graduates. The advance of technology and work performance had forced all education aspects and industries to elevate their human source (Hambali, 2019). The school institution gave full authority to the organizer to maximize the production unit. A need mapping was done based on each major competency. The production unit tried to follow the advance of technology by partnering with industries in constructing the program plan.

The results of the contextual aspect research questionnaire from 12 respondents showed *good category* achieved 33.3%, *adequate category* gained 50%, *not good* category got 8.3%, and *the poor category* achieved 8.3%. The indicators measured in the context of the research are: (1) the basis for implementing the Production Unit by the school's Vision and Mission; (2) Objectives of the School Production Unit; (3) Principal policies related to the School Production Unit program; (4) Involvement of the Business World/Industrial World.

Table 2. Frequency Distribution of Context Aspects

No	Category	Respondents' Score	Frequency	Percentage
1	Very Good	X > 67.8	0	0 %
2	Good	67.8 > X ≥ 59.9	4	33,3 %
3	Adequate	59.9 > X ≥ 51.9	6	50 %
4	Not Good	51.9 > X ≥ 44	1	8.3 %
5	Poor	: X ≤ 44	1	8.3 %
			Amount	100 %

The Production Unit (UP) Evaluation of SMK Ibu Kartini in terms of Input

The implementation of the production unit will run well if all stakeholders involved from school leaders, managers, teachers, employees, industrial partners, and students carry out work according to existing SOPs (standard operating procedures). One of the efforts to keep the process running in harmony was providing sanctions for all violations.

Measurement indicators on the input aspect include (1) Program Planning of School Production

Unit; (2) Standard Operating Procedures (SOP) of Production Units; (3) Curriculum suitability; (4) Facilities, infrastructure, and raw materials for the implementation of the School Production Unit; (5) Readiness of Teachers and Instructors; and (6) Financing Program Production Unit. In table 3 the frequency distribution of the input aspect showed *good category* achieved 25%, *adequate category* gained 50%, *not good category* got 16.7%, and *poor category* achieved 8.3%.

Table 3. Frequency Distribution of Input Aspects

No	Category	Respondents' Score	Frequency	Percentage
1	Very good	X > 147.7	0	0 %
2	Good	147.7 > X ≥ 127.3	3	25 %
3	Adequate	127.3 > X ≥ 107	6	50 %
4	Not good	107 > X ≥ 86.6	2	16.7 %
5	Poor	: X ≤ 86.6	1	8.3 %
			Amount	100 %

The Production Unit (UP) Evaluation of SMK Ibu Kartini in terms of Process

The result of the process aspect in the instrument achieved 1100 out of 23 statement items filled in by 12 respondents. The indicators contained in the instrument include (1) Scheduling; (2) Teacher involvement in the implementation of the Production Unit; (3) Supervision of the implementation of the Production Unit; and (4) the process of assessment/evaluation of the production unit. Meanwhile, based on the categories obtained, it was known that the respondent's assessment showed *a good category* gained 25%, *adequate category* got 58.3%, *not good category* achieved 8.3% and *poor category* got 8.3%.

Table 4. Frequency Distribution of Process Aspects

No	Category	Respondents' Score	Frequency	Percentage
1	Very good	X > 120.7	0	0 %
2	Good	120.7 > X ≥ 100.5	3	25 %
3	Adequate	100.5 > X ≥ 80.3	7	58.3 %
4	Not good	80.3 > X ≥ 60.2	1	8.3 %
5	Poor	: X ≤ 60.2	1	8.3 %
			Amount	100 %

The Production Unit (UP) Evaluation of SMK Ibu Kartini in terms of Product

One of the ways to improve learning development was maximalizing the production unit, especially in the practical subject. The certificate legality can be a positive value for schools and students. The production unit must try to provide the best product and be able to cooperate with national certification such as BNSP or major industries in Indonesia. Evaluation in the product aspect needs to be carried out to maintain the quality of service/ product in the production unit, evaluation was carried out on several indicators: (1) Quality control of production result; (2) Feasibility control of selling the product; (3) Satisfaction level of product result; (4) Improving school quality; (5) Mastering the competency. The result of frequency distribution can be seen in table 5. The data showed the average achieved 86 or 78,18% from 1032 points. The data was taken from 12 respondents with 22 questions.

Table 5. Frequency Distribution of Product Aspects

No	**Category**	**Respondents' Score**	**Frequency**	**Percentage**
1	Very good	X > 118.73	0	0 %
2	Good	118.73 > X ≥ 96.91	1	8.3 %
3	Adequate	96.91 > X ≥ 75.09	8	66.7 %
4	Not good	75.09 > X ≥ 53.27	2	16.7 %
5	Poor	: X ≤ 53.27	1	8.3 %
			Amount	100 %

The data showed that the good category achieved 8,3%, the adequate category got 66,7% not good category got 16,7% and the poor category gained 8,3%.

The Effectiveness of Production Unit (UP) SMK Ibu Kartini Semarang

The effectiveness level of implementation by applying several evaluations in the term of *context, input, process, product* (CIPP) used Glickman Quadrant. If T score > 50 was positive or high (+), while T≤ 50 was negative or low (-).

The data of the research was gained from school leaders, production unit managers, teachers, and industrial partners. The data was analyzed by *using context, input, process, product* (CIPP), the data showed "very effective" (+ +++).

Table 6. Recapitulation Results of Context, Input, Process, and Product Variables

No	Variable	Frequency			Note
		f (+)	f (-)	Result	
1	Context	6	6	Positive (+)	Adequate Effective
2	Input	5	7	Negative (-)	Less Effective
3	Process	7	5	Positive (+)	Adequate Effective
4	Product	7	5	Positive (+)	Adequate Effective
Result				(+ - + +)	Very Effective

If the results above were converted to the Glickman quadrant prototype, then the effectiveness of the production unit program at SMK Ibu Kartini Semarang was in quadrant II with the category of **Adequate Effective**.

Production unit program became one of alternative solution from the government in the education field to gain competent students. The production unit is hoped to create conducive and effective learning where theory and practicum run well. The teachers can develop students' talents and skills outside of school hours. Tripathi dan Agrawal (2014) explained that a management approach based on competency can improve workers' competency, skills, and performance in the company and improve human source quality. Furthermore, this management approach produced learning belief, output-oriented, training analyses need, staff assessment, improving satisfaction, elevating productivity, and strengthening staff participation.

The context aspect showed that the implementation of production unit SMK Ibu Kartini Semarang had been done well. It can be seen from the indicators: (1) Vision and Mission; (2) the purpose of production unit; (3) the school leader policy; (4) industrial involvement. The implementation of the production unit had been in line with vision, mission, purpose and it was relevant with industrial needs especially industrial school partners. At the end of the process, the school was able to produce competent, responsible, creative, and competitive students. The involvement of the industrial in constructing program planning was important. It can decide the output from all learning processes at school. Suprapto, et al (2018) explained that the increasing number of job seekers who graduate from vocational schools was caused by a mismatch between graduate competencies and industrial needs. The collaboration between school and industries were needed to execute the apprentice program, some aspects that were needed: 1) mapping and alignment of student competencies; 2) monitoring the apprentice program; 3) evaluation/competency test/certification of apprentice results. The result of the study showed SMK Ibu Kartini did not have a prestigious industrial partner. The partnership was established in the Semarang and surrounding areas which were used apprentice places. The principal had to support mutually beneficial cooperation for both sides (school and industry). The school will receive the transfer of technology and infrastructure while the industry will obtain professional human resources.

The finding of input aspects showed that the planning program of the production unit was constructed among the organizer, principal, teacher, and teacher of the productive subject. The change of curriculum and education policy must be concerned by the production unit management. The curriculum must be planned based on SKKNI and the industrial partner must be involved to produce a good planning program. To support the production unit, a collaboration among national and international industries had to be done. A challenge that is commonly faced in the production unit especially in private-school were changing-curriculum, school policy, budgeting, inadequate infrastructure. In the production unit of SMK Ibu Kartini, those problems also were found. Sukmawaty and Sugiono (2016) explained that the common problem faced by the school in preparing their output was affected by the inadequate infrastructure of training competency. Sutopo (2013) elaborated the budgeting of production units was low. The school had carried out an alignment curriculum with the industry. Unfortunately, maximizing human source, infrastructure, students'

competency was not optimum. One of the solutions to solve the problems was efficiency in terms of infrastructure by coordination among stakeholders and making a schedule for each building.

The process aspect of unit production consisted of (1) scheduling; (2) teachers' involvement in the production unit implementation; (3) supervising toward the implementation of production unit; (4) assessing or evaluating process. Based on the result, students and teachers were scheduled every week. However, some assignments/ projects can not be done at the same time so that the students were given additional time to finish their duty. Furthermore, the teacher had to be ready to accompany their students outside of the class hour. Teachers' involvement became an important point to guide the students. In addition, teachers were able to write students' experiences and skills and developed as entrepreneur activity. Supervision was carried out by the internal school and the manager of the production unit. The supervision produced periodic reports to the school leader so that the activities of the production unit can be properly monitored. The assessment and evaluation process was carried out by teachers, industrial partners, and production unit managers. The purpose of this activity was to obtain student achievement results for each semester of program implementation and serve as an evaluation of school production units. Marheni (2010) stated that the evaluation was conducted to measure how suitable or in-line between planning and executing. Furthermore, an evaluation process was conducted to assess the obstacles faced by the production unit system.

The product aspect has supported the implementation of the production unit activities. SMK Ibu Kartini Semarang has a school production unit coordinator and there are 3 production sub-units, namely the Software Engineering (RPL) production unit, the Fashion Design production unit, and the Catering (culinary) production unit. The output product was identical to each expertise program. The evaluations carried out on product variables will assist managers in reviewing weaknesses and further program plans as well as developing school production units. The product will be measured to achieve the target, quality, and quantity. The evaluation was done by controlling the quality of the products; Control of product sales feasibility; Product satisfaction level; School quality improvement; and Mastery of Competence. The students must be encouraged to love the business world since global challenges increase. It requires graduates to be independent entrepreneurs. Based on research conducted by Abdul Hakim (2010), it was explained that the implementation of entrepreneurship programs had been carried out by teachers, such as providing motivation, projects, etc. However, the school had not been able to prepare a strategic plan for entrepreneurship development. This was in line with the researcher's findings, schools have not prepared a clear roadmap to achieve the target. The schools and most other schools only followed existing programs so that the implementation of the program did not run optimally and the results were unable to compete. The consistency of schools in planning goals was needed.

The results of the study were expected to make a positive contribution to the production unit of SMK Ibu Kartini Semarang. The measurement results on the aspects of context, input, process, and product in table 6 show positive evaluation results and if converted to the Glickman quadrant, the production unit program of SMK Ibu Kartini Semarang was located in quadrant II (+ - + +) with the criteria of Adequate Effective. However, some indicators were less or even ineffective. In the context aspect, several respondents considered that the vision, mission, and objectives of the production unit had not been achieved optimally. It required hard work from every element of the school to achieve the predetermined target. The school policies were expected to be consistent in developing the production unit. There were several weaknesses in planning, curriculum, facilities and infrastructure, participation, and financing of production units. At the planning stage, the production unit had not planned in detail so that there were un optimal programs. The infrastructure of the production unit did not yet have adequate equipment. The process aspect showed not all teachers were involved in program implementation. Furthermore, industrial involvement was relatively low. The product aspect was not optimal because schools had not been able to collaborate optimally with industry, so they cannot cooperate in certain projects.

CONCLUSION

Based on the research results, it was concluded that the evaluation of the production unit of Ibu Kartini's SMK in the context, input, process & product aspects in the terms of effectiveness level showed quite effective. The results (+ - + +) are contained in the Quadrant II prototype Glickman quadrant. However, improvements must be made in the implementation of production units. The schools must collaborate with industries that have business stability and involve in the industrial world. Start from the planning, implementing, producing, and marketing stages so that they can create competent graduates.

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