Sintha Wahjusaputri - Canvas Model Business as an Innovation of Teaching Factory Learning

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Canvas Model Business as an Innovation of Teaching Factory Learning

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Abstract

This research was an attempt to design and enhance the Canvas Model Business of nine blocks in one canvas within teaching factory based learning innovation at the Fashion Department of 27 Public Vocational High School, Jakarta. The research method used qualitative and quantitative methods. The qualitative method, data collection was conducted within a SWOT analysis. This research was conducted in 27 Public Vocational High School, Jakarta, with 13 respondents were 82 students. The quantitative method with in the matrices of Internal Factor Evaluation (IFE) and External Factor Evaluation (EFE). The result of this research that implementation of the Canvas Model Business: (1) Customer Relationships in strategy 1 was valued of 0.34, was "Increasing product marketing through print and electronic media"; (2) Key Partnership in strategy 2 was valued of 0.31, for "Offering products and having cooperation with several textile producers in Jakarta and outside Jakarta "; (3) Value Propositions in strategy 3 was valued of 0.31, namely "Assuring and improving product quality and adding variant to fashion"; (4) Customer Segment in the strategy 4 was valued of 0.29, entitled "The Development of Out-of-School Fashion Sales"; and (5) Channel on strategy 5 which was valued of 0.27, "Utilizing occasional fashion events to meet market demand".

How to Cite

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INTRODUCTION

Vocational education in Indonesia is entering a new phase. Indonesian President, Joko Widodo concerning the Revitalization of Vocational High Schools, consists of improving school facilities and infrastructure as well as identification of curriculum content standards. This aligns with the needs of the industry which will aim to prepare a mid-level skilled workforce.

In line with the *Nawa Cita* program, National Education, especially vocational education, is important to contribute to preparing skilled and highly competitive human resources. Vocational education has the aim of producing competent vocational high school graduates who are ready to come into the industrial world and have the ability to create their own jobs. The Directorate General of Primary and Secondary Education Management, argues that efforts to recruit vocational graduates in the world of work or industry can be done by (a) strengthening the adaptive ability which includes the ability of applied mathematics and applied science, (b) strengthening the ability of entrepreneurship, (c) strengthening the ability to use national and international languages, (d) strengthen basic ICT skills, (e) carrying out teaching factories (Directorate of PSMK, 2010). Learning activities in vocational schools put forward an approach based on the potential of real-life nature. This model allows the growth of creative schools in accordance with the potential advantages of the region. Its main characteristic is that the school lays a basic vision that students are intact personalities. One of the strategies undertaken by the Directorate General of PSMK to achieve these goals is by strengthening the adaptive capacity and developing vocational partnerships with industry in the form of teaching industry programs or also called teaching factories (Mohammad, 2009). According to (Röltgen, Enzberg, Stief, and Siadat, 2018), specified that in the current business environment, trends in various products and customer needs must not be interrupted since the need for agile and reconfigured production systems arises to address a variety of products that have high selling points. In order to design and optimize production systems and choose the optimal product compatibility, a product analysis method is needed.

Teaching Factory

Teaching factory is a concept of teaching and learning in a production/service based vocational school which refers to the standards and procedures that applied in the industry, and is carried out in an atmosphere like what happens in the industry (Rentzos, Doukas, Mavrikios, Mourtzis, & Chryssolouris, 2014). In the teaching factory, teaching and learning environments which occurs in the industry is recognized within the collaboration between learners and industry trainers so that it impacts on increasing learners' competences, productions, social and personal learning methodologies in facing the challenges the future industry of 4.0. (Reisinger et al., 2019). The concept of teaching factory (learning production) merges learning in the classroom with the work environment to foster real and relevant work and learning experiences according to the needs of the Business and Industrial World. Industrial teaching has two-way knowledge, in which the first topic of industrial learning material is the basis of a synergy learning model between the vocational and industrial subject program that is called "Factory-to-Classroom" Learning. Teaching factory learning aims to transfer learning practices in the production/manufacturing environment to the subjects in the classroom that will allow students to understand what products will be needed by the Business and Industrial World (Mavrikios, Georgoulias, & Chryssolouris, 2018). The teaching factory concept is the basis for a new model of synergy between academia and industry. The teaching factory concept is the basis for a new model of synergy between academia and industry. The first lesson is "factory-to classroom" and "academia-to industry". The concept of teaching factory was found because of three things,

specifically: (1) regular learning is not enough, (2) students get the advantages from hands-on practical experience, and (3) team-based learning experiences involving students, teaching staff and industry participation enriches the educational process and provides tangible benefits for all parties (Chryssolouris, Mavrikios, & Rentzos, 2016). According to (Tvenge, et al, 2018), specified that the teaching factory aims to obtain knowledge for students to create learning that is adaptable/standardized according to industrial procedures. Students are encouraged to explore and reflect emotions and questions. The industrial practitioner provides a series of lessons and industry-standard laboratory spaces that will be introduced to students in the product of designs and manufactures, provides guidance and motivation that will be manifested in manufacturing design products (Mourtzis, D., & Vlachou, E, 2018). In a study conducted by Sintha and Fitriani (2017), on the study of the implementation of teaching factory and its implications for the competency of vocational students in DKI Jakarta Province Industrial Zone, resulted that there were differences in students' learning outcomes before and after applying teaching factory learning model.

Canvas Model Business

The Canvas model business can be explained through nine basic building blocks that show how to think about how the organization generates profits (Osterwalder and Pigneur, 2009). According to research conducted by Noor Fitrihana (2017), the Canvas Model Business can be the basis for planning and developing sustainable teaching factories by evaluating each element of the Canvas Model Business to improve the quality of sustainable teaching factory implementation. This statement was also supported by (Ratih Mukti Azhar, Ono Suparno, and Setiadi Djohan, 2017), who discussed that the creation of new value propositions in the design of future business models affects every element of the business model of the canvas, namely an increase in terms of the main resources owned, key activities undertook, collaborative partners, and incoming revenue streams. According to (Cunningham, Ian, Graham Dawes and Ben Bennet, 2017), business strategies which run by companies will not be able to run optimally if they do not base on the assessment and formulation of the right business model. Inspiring business success throughout the world and receiving profits from companies using Canvas Model Business. According to (Aaker, 2018), identified that Canvas Model Business is a tool to support the development of the concept of intelligent services to customers. The Canvas Model Business is very concise, easy to understand and interesting. The concept of the business model Canvas consists of nine fundamental elements that show the logic of profit development for the company. These elements are customer segments, value propositions, channels, customer relationships, revenue streams, key resources, key activities, key partnerships, cost structures (Gierej, 2017).

The Canvas Model Business as the content, structure, and governance of business transactions are designed to create value through the exploration of business opportunities. Moreover, (Cunningham, Ian, Graham Dawes and Ben Bennet, 2017), states that some of the functions of the Canvas Model Business are to identify market segments, to determine the revenue-producing mechanism, to define the structure of the product value chain, to describe the company's position in the value network and to formulate competitive strategies and to hold an advantage over competitors. Furthermore, (Osterwalder and Pigneur, 2009), defined that the Canvas Model Business is an illustration of how companies make a business deliver business products and describe the value of a product or service provided by the company. The business model canvas depicts nine (9) elements that are integrated with one another.

According to (E. C. Tjitradi, 2015), the Canvas Model Business is how to articulate logic and provide data and other evidence that shows how businesses are made and provide value to customer needs. Business mo-

dels describe and describe how businesses are run from product planning and development, production processes, marketing, and product distribution to consumers. The Canvas Model Business (CMB) is a strategy in management in the form of a visual chart consisting of 9 elements. This business model was first introduced by Alexander Osterwalder in his book entitled Business Model Generation. Likewise, (Osterwalder and Pigneur, 2009), explained a simple framework for presenting important elements contained in a business model. Describing the business model correctly will help find clear business goals and discuss what targets must be achieved first. Generally, the stream flows from one business element to the other important element. Here are nine elements in the Canvas Model Business (E. C. Tjitradi, 2018).

The implementation of the Canvas Model Business provides the right business strategy choices in developing a teaching factory in the Fashion Department of 27 Public Vocational High School, Jakarta, DKI Jakarta Province in order to support the growth of Creative Industries, through nine components, namely: (1) Customer segments: Target customers; (2) Value Proposition: product excellence offered to costumers which are service, beauty of design, assistance in maintaining customer relationships with colleagues, design according to costumers' tastes, and quality assurance; (3) Distribution Channel: where consumers get products, in which through telephone and short message, social media, print and radio media, and direct distribution; (4) Customer relationships: manage communication and relationships with customers, that provides services, gifts to customers, and conducts communication; (5) Revenue streams: how to get income, i.e. renting fashion billboards, selling clothes; (6) Key resources: The main resources for running a business consists of physical and human resources; (7) Key activities: activities to run a business, namely the concept of design, the production of fashion billboards, the notification of information, the delivery to locations and packing; (8) Key partnerships: having partners in carrying out business activities, such as the government, public officials, and clothing distributors; (9) Cost structure: the cost components are required to produce the products are variable costs and fixed costs. The innovation of the vocational high schools' fashion design business model results in a strategy that is focused on service quality, student competencies and supports the long-term achievement of vocational high school Fashion Department in a more measured manner.

METHODS

This research method used to identify the success factors of the Canvas Model Business in teaching factory based learning design was qualitative and quantitative methods. The qualitative method, data collection was conducted within a SWOT analysis, which identifies the strengths, weaknesses, opportunities, and threats of the school. The respondents were 82 vocational students. The data was processed using the matrices of Internal Factor Evaluation (IFE) and the External Factor Evaluation (EFE). After obtaining the scores in each factor on the matrices of IFE and EFE, the value was found. The value was used to comprehend the position of the data of the school in the IE Matrix quadrant. After obtaining a value, the next stage was determining the position of the strategy in the Cartesian quadrant, whether included in I, II, III or IV quadrant. The position of this strategy was to determine alternative strategies to be taken by the school. Four main strategies were formulated, they are, SO (Strength and Opportunities) strategy, WO (Weakness and Opportunities) strategy, ST (Strength and Treats) strategy and WT (Weakness and Treats) strategy. The next step is to determine the priority of the strategy implemented by the school using the Analytical Hierarchy Process (AHP). According to (Saaty, 2008), itemized that in determining priorities a hierarchy of decisions must be identified. After that, the pairwise comparison matrix arranged. The pairwise comparison matrix used a scale of 1 to 9. Af-

ter arranging the pairwise comparison matrix, the next step was to create a priority matrix for each alternative strategy followed by searching for the value of the criteria and tailed by the Consistency Test which was looking for CI (Consistency Index) and CR (Consistency Ratio). Based on the selected strategy, strategy development was carried out in accordance with the priorities that have been obtained by using the Canvas Model Business. According to (Osterwalder and Pigneur, 2012), the Canvas Model Business illustrated the rationale of how organizations create, deliver, and capture Business Model Generation values to be able to respond quickly to customers' desires by providing the best values that exist in schools.

RESULT AND DISCUSSION

In the previous section, researchers have identified the list of success factors (CSF) using the Meta-Ethnography approach. As explained in the methodology section that the input at this stage is in the form of a list of success factors (CSF) that have been generated (from the synthesis process) and then validated to determine the significance (importance) of each success factor (CSF). The expected results at this stage were success factors that already have good validity (good content validity) and internal consistency (internal reliability). Content validity is an expert judgment based on quantitative evidence so that content validity is an expert opinion about how important or relevant a construct is in an instrument. Thus, content validity is measured through expert judgment, not by the researcher himself (Sugiono, 2009). At this stage, the questionnaire was designed and distributed to several experts to evaluate and assess the importance of each success factor through experts' judgment. In other words, some experts were asked for their level of agreement whether each success factor (CSF) of e-Government implementation was in accordance with expert opinion until the agreement was reached. The questionnaire instrument was designed using a Likert scale of 1-5 in which 1 (highly inappropriate), 2 (not suitable), 3 (less suitable), 4 (appropriate) and 5 (very appropriate).

In this study, the content validity and homogeneity reliability of the agreement of the experts on each item which was in the form of a successful factory teaching factor were tested with the Aiken approach. As previously mentioned, the content validity was estimated through testing the appropriateness or relevance of the test content through rational analysis by a competent panel or through expert judgment. The validity test was based on calculations by the Aiken method, namely by calculating the content-validity coefficient based on the results of an assessment of the panel of as n = 82 respondents (students) of 27 Public Vocational High School, DKI Jakarta Province on a success factor item of 30 statements on a Likert scale, within rated scale = 1-5, which assessed the extent to which the item success factor represented the measured construct. The quality of the teaching factory framework questionnaire as the basis for indicators of the success of teaching factory implementation in public vocational high school in DKI Jakarta Province, which consisted 30 items of statements presented in table 6 below. The value of the content-validity coefficient resulted in each item of instrument characteristics. All 82 students filled out the questionnaire that had been distributed. The first step was calculating the content-validity coefficient for each item of the success factor using the given Aiken's V formula so that it was obtained as presented in Table 5. All 46 experts filled out the distributed questionnaire, even at in this questionnaire some experts add or propose additional success factors. Nevertheless, the added success factor has been accommodated by the existing success factor. Table 4 presented the results of the content-validity coefficient calculation obtained in this first step. Based on the standard significance of content validity (V), for 189 students (rater) and 5 categories (Likert scale), the minimum value of the content validity (V) significant coefficient was r count> r table. Content Validity and Reliability of Success Factors Based on Expert Judgment of

Students in 27 Public Vocational High School DKI Jakarta Province.

Table 1. Results of Content-Validity and Reliability of Sub-Characteristics Instrument of Students of 27 Public Vocational High School, Jakarta

No	Item Successful Factors of a Teaching Factory	V Coefficient	H Coefficient	Sig
1	I got the work experience from Business and Industrial World that supports teaching factory learning	0,691	0,917	0,000
2	I got training/workshops /seminars from Business and Industrial World that support the achievement of competences	0,626	0,918	0,000
3	I actively participated in the training held by Business and Industrial World	0,684	0,917	0,000
4	I can develop entrepreneurship potential through teaching factory learning	0,520	0,920	0,000
5	I understand the theory of managing teaching factory learning	0,543	0,919	0,000
6	I understand the principles of teaching factory learning	0,623	0,918	0,000
7	I find it easier to understand the materials when they are practiced directly in the TEFA repair service unit based on the procedures and standards of working at the actual Business and Industrial World	0,280	0,924	0,000
8	I created an industrial work atmosphere in learning	0,555	0,919	0,000
9	I apply technology in the industry in learning	0,484	0,920	0,000
10	I apply industrial work culture in learning	0,441	0,921	0,000
11	I have an extraordinary work ethic	0,489	0,920	0,000
12	I have a high sense of responsibility in completing work given by the teacher or Business and Industrial World	0,438	0,921	0,000
13	I have unlimited self-confidence.	0,487	0,920	0,000
14	I understand, obey and teach social norms	0,491	0,920	0,000
15	I maintain good communication with Business and Industrial World	0,495	0,920	0,000
16	I have extensive and in-depth knowledge about the subject matter provided according to Business and Industrial World standards	0,456	0,920	0,000
17	I have practical skills according to my subjects	0,251	0,923	0,000
18	I get the guidance and tutor from the teachers in accordance with the competencies they teach	0,532	0,919	0,000
19	I am passionate about exploring to create and develop products	0,529	0,919	0,000

20	Teaching Factory as a solution to overcome problems that arise during the learning process	,677	0,918	0,000
21	Business and Industrial World provides contributions that adjust to the teaching factory learning design of the school	0,633	0,918	0,000
22	Business and Industrial World provides training for instructors	0,610	0,918	0,000
23	Business and Industrial World provides training for students	0,570	0,919	0,000
24	Business and Industrial World provides training for school managers.	0,396	0,922	0,000
25	Business and Industrial World helps to provide HR/instructor facilities	0,585	0,919	0,000
26	Business and Industrial World helps provide infrastructure facilities	0,520	0,920	0,000
27	Business and Industrial World helps provide learning resource facilities.	0,501	0,920	0,000
28	Schools actively offer cooperation with Business and Industrial World	0,457	0,920	0,000
29	Having collaboration involving more than 1 Business and Industrial World	0,388	0,921	0,000
30	The production process is carried out at school	0,523	0,919	0,000

Source: Processed Primary Data (2018)

In the first stage, the level of validity of an item measured to determine whether an item was suitable to be used or not. In determining whether or not a success factor item to be used, a significance coefficient correlation test was usually performed at the 0.05 significance level, which meant that an item was considered valid if the $r_{count} > r_{tabel}$. By using the formula df = N-2, then rtabel obtained df = 82-2 = 80, the location of rtable = 0.220 From the results of the above calculation it can be explained that the value of $r_{count} > r_{tabel}$ based on the significance test of 0.05. The results of data processing showed that all 30 items success factors were valid, since $r_{count} > r_{tabel}$. In other words, it can be concluded that all 30 items have good content validity and good homogeneity reliability. Furthermore, the instrument that has been developed can be used to retrieve field data empirically.

Then in the second stage, homogeneity-reliability coefficient was calculated for each item of the success factor using the given Aiken's H formula so that the results obtained as in Table 4, using SPSS. Based on the significant standard of homogeneity reliability (H), for 189 students in class XI-XII (rater) and 5 categories (Likert scale), the minimum coefficient of homogeneity (H) reliability value that was considered significant was 0.51 (H>0.51). Thus, if alpha>0.08 suggested all items were reliable and all tests consistently have strong reliability. Therefore, the results of the item factor success of the teaching factory model after the reliability testing using SPSS 22 there were 30 items declared reliable.

In the third stage, the correlation coefficient significant test can be seen from the results was declared to be significant if the significance value (Sig), probability 0.05, then there was the influence of the success factor item. According to the results in table 4, it shows that all 30 items success factors which were the basis for the basic components of te-

aching factory implementation at 27 Public Vocational High School, Jakarta, DKI Jakarta Province were very significant, due to the sig value <0.005.

The SWOT analysis (strength, weakness, opportunity, and threat) used in this research was to find out what strategies used after seeing the strengths, weaknesses, opportunities, and threats possessed by 27 Public Vocational High School Jakarta, Department of Fashion. The SWOT analysis was a management tool for evaluating internal and external organization so that it can provide information about important issues for the Department of Fashion (Boutique Clothing), 27 Public Vocational High School, Jakarta. The SWOT matrices were steps taken based on the development of the IFE matrix. Various alternative strategies were formulated based on the SWOT analysis model, namely SO (Strength-Opportunity), ST (Strength-Threat), WO (Weakness-Opportunity) and WT (Weakness-Threat) strategies. This analysis used data obtained from the IFE (Internal Factor Evaluation) and EFE (External Factor Evaluation) matrices. The advantage of using this model was that it was easy to formulate a strategy based on a combination of external and internal factors of the school's strengths.

This Analytical Hierarchy Process (AHP) method is used to help solve complex problems by structuring a hierarchy of criteria, stakeholders, results and by drawing various considerations to develop qualities or

Table 2. The Calculation of IFE and EFE

IFE (Internal Factor Evaluation)	Value	Rating	Score
Strength Indicator			
The availability of raw materials that are easily obtained	0,065	3	0,195
Processing simple fashion products	0,087	3	0,261
Have students who have fashion competence	0,088	4	0,320
Product results do not contain hazardous chemicals	0,067	4	0,268
Having a quality product	0,085	3	0,255
Products have started to be recognized by the public	0,045	3	0,135
Total Strength Score			1,434
Weakness Indicator			
Have not met consumer demand appropriately	0,056	3	0,168
Lack of transportation and product promotion	0,063	3	0,189
Simple production process equipment	0,075	3	0,225
The marketing reaches only the city area of Jakarta	0,043	2	0,086
Product marketing channels are not optimal	0,073	3	0,219
Lack of knowledge and insight into HR	0,067	3	0,201
Total weakness score			1,088
Total IFE overall			2,522

EFE (External Factor Evaluation)	Value	Rating	Score
Opportunity Indicator			
The level of public consumption of fashion products increases	0,078	4	0,313
The number of printed and electronic promotional media	0,093	4	0,372
The market potential is quite large	0,085	3	0,255
Consumer demand for light fashion is high	0,078	3	0,234
Total opportunity score			1,174
Threat Indicator			
The entry of new competitors	0,089	3	0,267
Cheaper competitors' product prices	0,105	2	0,210
Persistent promotion of other vocational schools as competitors	0,133	3	0,399
Many locations of competitors' product marketing	0,145	3	1,435
Total threat score			2,311
Total EFE overall			3,485

Source: Processed Primary Data (2018)

Table 3. SWOT Strategy Alternative

Opportunity		S-O Strategy		W - O Strategy
	ST-1	Increasing product marketing through print and electronic media	ST - 6	Increase marketing reach both in Jakarta and outside Jakarta and increase the amount of production
	ST-2	Offering products and having cooperation with several textile producers in Jakarta and outside Jakarta	ST - 7	Conducting training for students to be more skillful and creative
	ST-3	Assuring and improving product quality and adding a variant to fashion	ST - 8	Adding transportation to facilitate the delivery of goods
	ST-4	Developing fashion sales outside of school		
	ST-5	Making use of occasional fashion events (Ramadan, Eid al-Fitr, etc.) to meet market demand		
(Threat)		S-T Strategy		W-T Strategy
	ST - 9	Maintaining the quality of fashion products to be better and compete competitively in price	ST - 10	Increase the production of clothing efficiently

Source: Processed Primary Data (2018)

priorities. Furthermore, (Saaty, 2008), defined hierarchy as a representation of a complex problem in a multi-level structure where the first level is the goal, followed by the level of factors, criteria, sub-criteria, and continues to the last level of alternatives. Within the hierarchy, a complex problem can be broken down into groups which are then arranged into a hierarchical form so that the problem appears more structured and systematic. Analytical Hierarchy Process (AHP) strategies presented in the following Table 4.

From the results presented in Table 4, it was concluded that the alternative strategy chosen at the highest assessment value was the first strategy with a value of 0.34, in which the strategy that schools must prioritize was "Increasing product marketing through print or electronic media".

The AHP resulted in the chosen alternative strategy with the highest score was strategy 1 with a value of 0.34, namely "Increasing product marketing through print and electronic media". Furthermore, Canvas Model Business development was carried out. In compiling the development of the Canvas Model Business, 27 Public Vocational High School, Jakarta required improvements to the business model. The use of the SWOT matrix aims to sharpen the analysis so that 27 Public Vocational High School, Jakarta can perceive the position and direction of development. The alternative strategy chosen based on the highest score must be prioritized by 27 Public Vocational High School, Jakarta. The development of five building blocks from the nine blocks of the Canvas Model Business that was applied to 27 Public Vocational High School as follows: first, Customer Relationships. In the customer relationship segment in strategy 1 with the highest priority value of 0, 34 namely, Increasing product marketing through print and electronic media. Customer relationships can be built by schools through several categories ranging from personal and media. The strategy to increase fashion sales of the 27 Public Vocational High School, Jakarta was to carry out promotions through print media such as newspapers, magazines and brochures, websites, bloggers and social media such as Facebook and Instagram.

Second, key partners, in the segment of the key partner segment which was in strategy 2 with a priority value of 0.31, that was "Offering products and having cooperation with several textile producers in Jakarta and outside Jakarta". In order to be able to increase revenue at 27 Public Vocational High School,

Table 4. Total Priority Value

Alternative Criteria	S –O	W-O	S-T	W-T	Total Priority
Strategy – 1	0.09	0.09	0.08	0.08	0.34
Strategy – 2	0.08	0.08	0.08	0.07	0.31
Strategy – 3	0.08	0.08	0.08	0.07	0.31
Strategy – 4	0.08	0.07	0.08	0.06	0.29
Strategy – 5	0.08	0.07	0.06	0.06	0.27
Strategy – 6	0.07	0.07	0.06	0.05	0.25
Strategy – 7	0.07	0.07	0.04	0.04	0.22
Strategy – 8	0.06	0.06	0.1	0.04	0.26
Strategy – 9	0.06	0.06	0.1	0.1	0.32
Strategy –10	0.04	0.04	0.1	0.1	0.28

Source: Processed Primary Data (2018)

Jakarta must continue promoting and offering products to get new customers such as fashion outlets, fashion merchants, fashion enthusiasts on social media in Jakarta and outside Jakarta as well as textile producers in Jakarta and outside Jakarta whom were ready in helping to produce raw materials to 27 Public Vocational High School, Jakarta.

Third, Value Propositions. In the segment of value proposition, there is strategy 3 with a priority value of 0.31, namely, "Assuring and improving product quality and adding a variant to fashion ". 27 Public Vocational High School, Jakarta must continue improving the quality of its products and maintaining the trust of customers that have been established. Moreover, the school must also continue to innovate so as not to be left behind the competitors of other Fashion Department schools in DKI Jakarta Province. 27 Public Vocational High School can do some innovations in the design of fashion products that were constantly developed and must add the variants of the products and can be seen through social media according to the needs of consumer desires.

Fourth, Customer Segment. In the segment of customer block which was in strategy 4 with a priority value of 0.29, named "The development of clothing sales outside of school". The costumers were partners who provided benefits for students and schools. 27 Public Vocational High School, Jakarta can get new customers through communication with the community in Jakarta or outside Jakarta, Housewives, Students or Social Media Users who were fond of fashion.

Fifth, Channel. In the channel segment, there was strategy 5 with a priority of 0.27, namely "Utilizing occasional fashion events (Ramadan, Eid al-Fitr, etc.) to meet market demand". The method used by 27 Public Vocational High School, Jakarta was by communication, distribution, and sales to customers

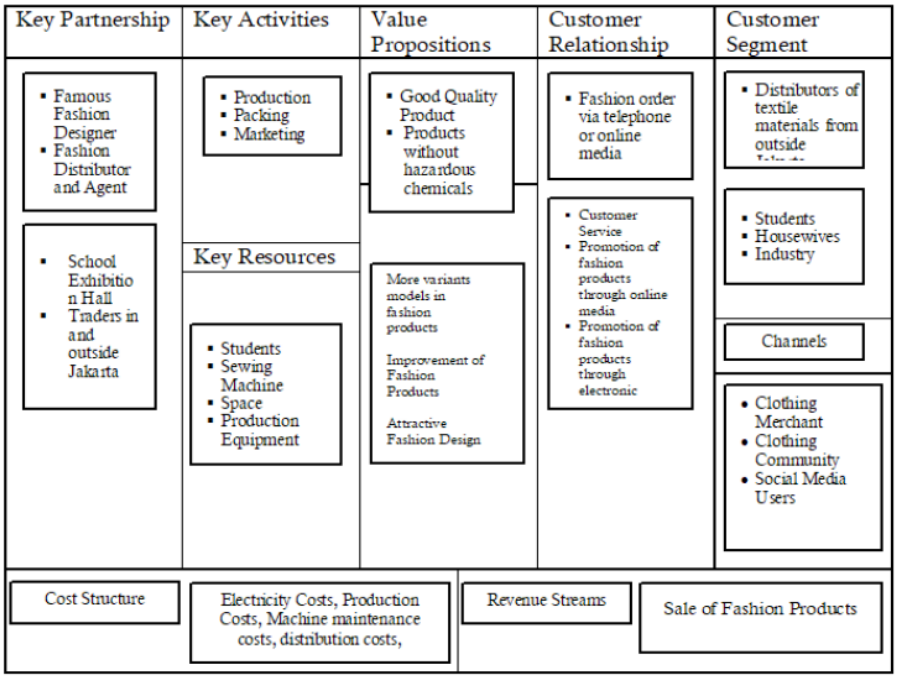

Figure 1. Canvas Model Business of 27 Public Vocational High School, Jakarta
Source: Processed Primary Data (2018)

personally and the media is a link between vocational students and costumers inside the school and costumers outside the school. The school can reach customers through resellers, organizational groups, fashion outlets, and active users of social media.

CONCLUSION

Based on the calculations made by the researchers, the results on the calculation of internal and external factors of teaching factory-based learning production development in the fashion department at 27 Public Vocational High School, Jakarta was in quadrant I. Additionally, a SWOT analysis with ten alternative strategies resulted from priority strategies at 0.34, regarding "Increasing Product Marketing Through Print Media and Electronic Media".

Through the concept of a Canvas Model Business, that the development of teaching factory in fashion department that must be considered in the five building blocks of the Canvas Model Business, namely: (1) Building blocks of Customer Relationships; (2) Key Partnerships; (3) Value Propositions; (4) Customer Segments; and (5) Channels. To find out the 4 building blocks of the Canvas Model Business, the researchers must conduct further research involving respondents who come from the environment of 27 Public Vocational High School, Jakarta by using a value proposition design to identify the dominance of 27 Public Vocational High School, Jakarta.

In the aspect of human resources (Key Resources), the school must have superior HR either of the Principal, Productive Teachers, Education Staff or Students who are competent in the fashion department. This aspect plays an important role in the business innovation of clothing (Boutique Clothing). Indicators of excellence aspects of human resources that must be possessed by school members are (a) Qualification of human resources; (b) Ability to manage learning according to the principles of teaching factory; (c) Good personality and (d) Professional, possessing extensive and in-depth learning materials both in theory and practice.

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