Development Management Model of Industrial Work Practice at Vocational High School Based Entrepreneurship

Samsudi\textsuperscript{1}  
Sunyoto\textsuperscript{2}  
Faculty of Engineering,  
Semarang State University, Indonesia  
\textsuperscript{1}samsudi.prof@gmail.com  
\textsuperscript{2}sonyoto@yahoo.com  
and Joko Widodo\textsuperscript{3}  
Faculty of Economics,  
Semarang State University, Indonesia  
\textsuperscript{3}jokowidodounnes@gmail.com

Abstract - The purpose of this research was to develop a management model of industrial work practice at vocational high school based entrepreneurship. This research was planned during three years using the approach of Research and Development. This article contains the results of a preliminary study carried out in the first year. Subjects were two kind vocational high school study program mechanical engineering (public and private school) in Central Java, Indonesia. Data were collected through interviews, questionnaires, observation, and documentation. Analysis of data through qualitative and quantitative approaches. Result of preliminary study show that the implementation of the industrial work practice at vocational high school which was carrying out until now more oriented toward preparing graduates to become employees of the industry and not to prepare graduates become entrepreneur. Therefore this research need to continue to develop a management model of industrial work practice at vocational high school based entrepreneurship.

Keywords - Management Model, Industrial Work Practice, Entrepreneurship, Vocational High School

I. INTRODUCTION

Indonesia as a big country with a population of more than 237 million (the fourth largest in the world) with a wealth of natural resources were outstanding but the development results achieved are still far from the expected. Until the year 2012, ranking the Human Development Index (HDI) Indonesia depicting the success of development in the fields of education, health and economics, ranks 121 of 186 countries surveyed. Compare with neighboring ASEAN countries, such as Singapore (18th), Malaysia (ranked 64), and the Philippines, Thailand (sequence 103), and the Philippines (114 sequences) (http://hdr.undp.org/en/statistics).

Challenges faced by Indonesia at the beginning of the 21\textsuperscript{st} century marked by globalization in almost all aspects of life is getting heavier. The success of developed countries proves that the progress achieved is not determined by the wealth of its natural resources but more due to the excellence of its human resources. In other words, competition in the 21\textsuperscript{st} century is more determined by competitive advantages rather than comparative advantage. One characteristic of a developed country is to have at least 2 percent of the population as an entrepreneur, while
Indonesia currently has about 0.8 percent (Tilaar, 2012). So Indonesia most needs about 2.88 million entrepreneur order to align with the developed countries so that they can compete in the global era.

The lack of entrepreneurs is also characterized by high rates of unemployment. Based on the Statistik Central Bureau (BPS, 2013) until the month of February 2013, the number of unemployment in Indonesia as many as 7.2 million people, or 5.92 percent of the 121.3 million workforce. When viewed under the background of education, the number of unemployed who graduated from vocational schools (SMK) as many as 847,052 people, or 11.81 percent, or greater than the national unemployment rate was 5.92 percent.

The high unemployment rate need to get serious attention of all parties, both government and educational experts, because it is directly related to poverty, crime, and other social problems. As an implication, it is necessary for innovation in the organization of vocational education, so as to minimize the gap between what the expectations with reality.

One of the government's efforts are intended to make quick work of vocational graduates are dual system education program (PSG) which is in force since the school year 1994/1995. Through the PSG program, organized education in schools and in businesses and industries causing link and match between school and the world of work (Department of Education, 1994). In its implementation, the program PSG also called Industrial Work Practices (Prakerin). The main objective of the program is to quickly graduate work or get job in the industry.

Not wrong if Prakerin keep running as it exists today, but keep in mind that the number of vocational school graduates is always more than the capacity of the industry. Therefore, it needs to think about how to design a model industrial work practices more oriented toward preparing graduates to become entrepreneurs.

This is important because after 18 years of implementation of the program PSG, its impact of programs on reducing unemployment is almost non-existent. As an illustration, the unemployment rate vocational graduates in 2004 amounted to 12.23% (BPS, 2004), is not much different from the situation in 2013 in which the unemployment rate amounted to 11.81% (BPS, 2013) or the difference is only 0.42%.

In this paper will explain the results of the preliminary study on the implementation of industrial work practices that exist in vocational school, as a foothold in developing a management model based industrial work practices on entrepreneurship.

Studies and related research efforts to improve entrepreneurs through education has been done. According Patriasih (2011), the entrepreneurial spirit in students of vocational schools can be improved not only through the provision of Entrepreneurship subjects. Entrepreneurial spirit can be integrated in all subjects, one of them through industrial work practice (Prakerin).

The purpose of vocational high schools is to prepare graduates for work. This is in contrast with the aim of general high schools to prepare graduates to go on to university. Prakerin program as only in vocational high schools it is right. The problem is how to make a goal to prepare vocational school graduates ready to enter the working world reached. Related this case the need for management education in order to manage existing resources so that the vocational high school goal is reached.

As said Hikmat (2011) and Amtu (2011), management education is an ongoing process carried out by the organization of education in the use of existing resources in order to achieve set educational goals effectively and efficiently. Management functions suggested by experts are quite varied, but in principle not much substantial difference. As noted GR Terry, Henry Fayol, Louis A Allen, Luther Gulick, etc., including Harold Koontz and Cyril O'Donnell who mentions five
management functions, namely: Planning, Organizing, Staffing, Directing and Controlling. Meanwhile, according to Terry management function covering Planning, Organizing, Actuating, Controlling (POAC) (Hasibuan, 2007).

II. RESEARCH METHOD

This research was carried out by using a Research and Development (Borg and Gall, 1983). Research subjects include teacher educational institutions (LPTK) in this case, Semarang State University faculty of engineering and vocational high schools (SMK) in three areas, namely Semarang City, Salatiga City and District of Demak. In terms of educational unit, will be chosen SMK with public and private status where each region consists of 4 vocational school. Source of research data is a teacher (productive and entrepreneurship subject), the principal, vice principal, head of study program, head of production unit, and head of the laboratory.

Collecting data in this study are grouped in three parts, namely, a preliminary study, development, testing and validation. At all stages of the research used interviews, questionnaires, observation, and documentation, in addition to the study of literature (literature review). In general, the four methods (interviews, questionnaires, observation and documentation) are used simultaneously and are complementary. In this event also held Focus Group Discussion (FGD) as a means of data collection and validation of the resource.

Data analysis was carried out in an integrated and support each other both quantitatively and qualitatively. Quantitative data were analyzed with descriptive analysis techniques). Qualitative data were analyzed qualitatively interactive model of Miles & Huberman (Sugiyono, 2008).

III. RESULTS AND DISCUSSION

The objective this study is to the development of management model of industrial works practice practices at vocational high school based on entrepreneurship. Broadly speaking, this study was conducted in three parts, namely, a preliminary study, development, testing and validation. In the preliminary study disclosed and described how planning, organizing, implementation, and evaluation of the model related industrial work practices at this time.

In the questionnaires using Likert scale four answer options: strongly agree (SS), agree (S), disagree (TS), and strongly disagree (STS). The data analysis was done by using descriptive percentages, the results of which are described below.

In terms of planning, research subjects have a response that is dominated by the category of strongly agree and agree, as follows: Semarang City and Salatiga City is dominated by strongly agree (57.00% and 46.00%), while District of Demak and LPTK dominated category agree (58% and 48.00%). The average of all respondents stated strongly agree and disagree are 42.50% and 43.50%. These results may indicate that there Prakerin planning has been running well.

Data analysis was carried out in an integrated and support each other both quantitatively and qualitatively. Quantitative data were analyzed with descriptive analysis techniques). Qualitative data were analyzed qualitatively interactive model of Miles & Huberman (Sugiyono, 2008).

III. RESULTS AND DISCUSSION

The objective this study is to the development of management model of industrial works practice practices at vocational high school based on entrepreneurship. Broadly speaking, this study was conducted in three parts, namely, a preliminary study, development, testing and validation. In the preliminary study disclosed and described how planning, organizing, implementation, and evaluation of the model related industrial work practices at this time.

In the questionnaires using Likert scale four answer options: strongly agree (SS), agree (S), disagree (TS), and strongly disagree (STS). The data analysis was done by using descriptive percentages, the results of which are described below.

In terms of planning, research subjects have a response that is dominated by the category of strongly agree and agree, as follows: Semarang City and Salatiga City is dominated by strongly agree (57.00% and 46.00%), while District of Demak and LPTK dominated category agree (58% and 48.00%). The average of all respondents stated strongly agree and disagree are 42.50% and 43.50%. These results may indicate that there Prakerin planning has been running well.

Data analysis was carried out in an integrated and support each other both quantitatively and qualitatively. Quantitative data were analyzed with descriptive analysis techniques). Qualitative data were analyzed qualitatively interactive model of Miles & Huberman (Sugiyono, 2008).

III. RESULTS AND DISCUSSION

The objective this study is to the development of management model of industrial works practice practices at vocational high school based on entrepreneurship. Broadly speaking, this study was conducted in three parts, namely, a preliminary study, development, testing and validation. In the preliminary study disclosed and described how planning, organizing, implementation, and evaluation of the model related industrial work practices at this time.

In the questionnaires using Likert scale four answer options: strongly agree (SS), agree (S), disagree (TS), and strongly disagree (STS). The data analysis was done by using descriptive percentages, the results of which are described below.

In terms of planning, research subjects have a response that is dominated by the category of strongly agree and agree, as follows: Semarang City and Salatiga City is dominated by strongly agree (57.00% and 46.00%), while District of Demak and LPTK dominated category agree (58% and 48.00%). The average of all respondents stated strongly agree and disagree are 42.50% and 43.50%. These results may indicate that there Prakerin planning has been running well.
In contrast to the aspects of the planning and organizing, in terms of the implementation Prakerin not so good. This is shown by Fig. 3, where amount of respondents who answered disagree. On average respondents who answered disagree quite a lot that is 26.25%.

Meanwhile, in terms of the evaluation of the implementation of Prakerin in vocational high school, respondents said not too good but not too bad, where the answer is dominated by the answers agree (average 65.10%), and who disagree are also quite a lot (average 15.36%), as shown in Fig. 4.

Based on the analysis it can be concluded that the implementation of the industrial working practices at SMK during this run well in terms of planning and organizing, not so good in the implementation, and enough in terms of evaluation.

In this study also revealed that the implementation of work practices in the industry that took place during this SMK, particularly in vocational areas of expertise Mechanical Engineering, has the following characteristics: 1) as an institutional partner is medium or large scale of industry/enterprises; 2) as a field supervisor is the worker/employee/operator; 3) The main purpose so that students master the skills of the technical aspects/operator; and 4) focuses on preparing students to fill vacancies in the industry. With this pattern, then students are more likely to mentally workers rather than as entrepreneurs.

Prakerin as one form of cooperation between the vocational school and industry above has several drawbacks, among other things: 1) because as partners in Prakerin is medium or large scale industry, the student is not possible to study directly to the owner of the business/industry that in fact as entrepreneurs; 2) students only learn in the technical aspects, and less in aspects of business management, but to become an entrepreneur is not sufficiently armed with technical capabilities; and 3) As a further impact, when graduate students are less daring entrepreneurship, students are more interested to become employees, but jobs are also limited.

If the implementation Prakerin still with a pattern like that took place during this time, the effort to prepare entrepreneur difficult to realized. This is contrary to the principles of entrepreneurship, where to become entrepreneurs should capable in the two aspects at the same time, the technical competence and business management skills (Pearce II, 2013). So although the management of the implementation Prakerin in vocational impressed "good" but not associated with efforts to prepare graduates to become entrepreneurs. This happens because the
students only equipped or learn the technical aspects alone, do not learn aspects of business management. To overcome the weakness of the model Prakerin that exist for this, it will develop management models prakerin based entrepreneurial characteristics, among others: 1) as an industrial partner is a small industry or medium scale industry, 2) as the field supervisor are a business owner or entrepreneur, and 3) students learn both technical and management aspect in the same time.

IV. CONCLUSIONS

Based on preliminary research results can be concluded as follows:

1. The implementation of industrial work practices in vocational high school (SMK) has been running well in terms of planning and organizing, not so good in the implementation, and enough in terms of evaluation.

2. Industrial work practices (Prakerin) at SMK are not specifically designed to prepare graduates to become entrepreneurs, but is designed to prepare graduates to be ready to work in the industry as an employee.

3. It should be designed management model of industrial working practices based on entrepreneurship, which is to prepare graduates ready to become entrepreneurs, not as an employee of the industry.

4. The model industrial working practices that exist should not be changed/removed, but there should also be an alternative model that is based entrepreneurship.

V. ACKNOWLEDGMENT

Our thanks goes to all those who have helped either directly or indirectly in research, especially to the Directorate Research and Community Service (Ditlitabmas), the Ministry of Research and Higher Education of the Republic of Indonesia, which has funded this research. To the Director of the Graduate Program, LP2M chairman, and Dean of the Faculty of Engineering, Semarang State University who had expedite this research. Also to the principals and teachers of SMK in Semarang, Salatiga, and Demak as sampled studies have provided valuable information and data for the research team.

REFERENCES

(Arranged in the order of citation in the same fashion as the case of Footnotes.)