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Journal of Social Studies Education Research
SosyalBilgilerEğitimiAraştırmalarıDergisi
2019:10 (1),133-155

Examining The Relevance of Indonesian Vocational High School Career Outcomes to The Labor Market

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Abstract

When coping with the tight competition in the Asian Economic Community, career guidance from educators can be very beneficial to students. This research looks at vocational high schools in Pasuruan, East Java, Indonesia and aims to: see the attainments of vocational school graduates in labor markets, analyze guidance-counseling program to bridge students' student's outcome and labor market, and the partnership systems for connecting with their stakeholders as users of labor. This research employed mixed qualitative and quantitative methods with an explorative survey. The findings reveal that graduates achieve successful attainment in labor market in three areas: variety of jobs, satisfied standard competence in job market, and satisfied income. However, in preparing production markets, most schools lack: loyal customer bases for production outputs, marketing networks, and show rooms; adequate promotional efforts for their production outputs; personnel for quality assurance activities, resulting in graduates being un prepared for employment; and adequate industry support for production, such as by outsourcing production to schools' production units. Half of schools have employed liaison officers to seek orders from industrial partners or companies for joint production, and such staff have been key in empowering school committees to enlarge their partnership networks.

Keywords: *Relevance, Vocational Schools Graduates, Labor Market*

Introduction

This study primarily concerns with guidance and counseling on the career development of vocational school students in Pasuruan, Indonesia. The main focus is to see how graduates of the vocational schools in Pasuruan prepare to compete in the labor markets, performing quality of workforce and entrepreneurship skills. To achieve the goal, the vocational schools in Pasuruan work professionally with career-guidance managed by the department of Guidance and Counseling in the schools, considering the significance of counseling for young people to discover their skills, inclinations and to outline a future.

In practice in the vocational school policy in Pasuruan, career-guidance services have been primary elements of vocational schools in terms of basic guidance services, responsive services,

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individual planning services, and system-support services. The partnerships formed by vocational schools have also systematically influenced the development of their students' understanding and readiness to undertake careers. Educators, as integral parts of the school system, must be able to cater for all conditions, and schools' partnership policies should result in students that are mentally prepared to join the workforce.

The global advancement of technology, management, and workforce quality has forced all elements of education and industry to enhance their levels of quality and competitiveness. Gardner (2006) describes five minds for the future that must be developed, one of which is creative thinking, and a mastery of working skills and entrepreneurship needs a high level of creative ability. Entrepreneurship and education plays a vital role in the enhancement and development of a country (Bakar, Islam & Lee, 2015). The fast-moving pace of industry requires educators to adapt if their graduates are to be accepted into the industry workforce. A suitable curriculum, qualified teachers and other educators, and instructional processes that ensure the desired outcomes must all be developed. Teachers make a great contribution to the formation of an entrepreneurship profile from the middle to the high level. Indeed, a good knowledge of entrepreneurial education can be a great asset in developing an entrepreneurial attitude (Stettiner et al., 2015). These can work effectively if all educational components can expand their networks in order for their graduates to satisfy the expectations of industry.

Entrepreneurship instruction can happen through joint instruction with business planning to establish new economic activities (Stettiner et al., 2015). Vocational high schools, in particular, educate their students in order to prepare them for working in various business sectors. In addition, graduates still have the opportunity to pursue their studies in higher education. The government is continuously developing regulations that enable vocational high schools to improve and to meet the expectations of their graduates. One such support has been an effort to create a conducive environment to enhance the attainment of graduates of vocational high schools by achieving a 70 to 30 proportion in 2014. Entrepreneurship education is not only geared toward developing new businesses—it also covers many different ways of building up new businesses. Entrepreneurship education plays important roles in developing skills, abilities, and attitudes that will help students looking to engage in entrepreneurial processes (Stettiner et al., 2015)

The government also enhances the quality of vocational high schools' graduates by supporting adequate facilities, so the educational melieu will suit industry. On the micro-level, vocational high schools also enhance industrial work practices with strategies to develop relevant new labor skills while meeting the existing industrial needs. Psychologically, vocational high schools also create quality brand images for their students, such as by using the slogan of the so-called *SMK BISA* (Vocational High School Can). In terms of refining their access, quality, and relevance, vocational high schools need to conduct thorough studies in order to find solutions that enable them to provide the quality and relevance in their educational programs that industry expects. Moreover, the development of new working opportunities through business practices and entrepreneurship is very important. The concept of entrepreneurship covers entrepreneurship education, education for entrepreneurs and the community, entrepreneurial promotion to the community, and entrepreneurship activities (Stettiner et al., 2015).

Entrepreneurship education is applied in educational curriculum through technical level and vocational training. This aims to develop and enhance students' core competencies for starting their own businesses. Entrepreneurship and businesses can be sources for new working opportunities, and a dynamic economy backed up by the state can enhance the quality of life, as well as the economy as a whole, for the younger generation (Ibrahimet al., 2015). To find solutions to the aforementioned problems, this study aims to enhance the quality and relevance of vocational high schools' education to labor markets and achieve quality graduates by networking with relevant industries. This study also especially analyzes important aspects related to the quality of vocational high schools. The following research questions guide this research:

1) What attainments are achieved by Vocational Schools graduates in Pasuruan, Indonesia to chain students' learning outcomes and labor market?
2) How is quality as entrepreneurs developed to bridge students' career-development at schools and the labor market needs?
3) What partnership systems and strategies are designed by the career-guidance program at schools to bridge students' learning outcomes and labor market?

Review of Literature

Career Guidance

Career-guidance was first coined by Frank Parsons so as he is known as the father of vocational guidance movement. By 1908 Parsons established the Vocation Bureau in Boston, promoting the concept of careers guidance. Career-guidance was primarily required to help a clear understanding of the individual's skills, interests and limitations. To Parson, requirements and conditions for various types of jobs was essential, and successful guidance was required to accommodate the characteristics (Gothard, Mignot, Offer & Ruff, 2001:10).

Career-guidance has its content as the guidance and counseling. In schools, guidance refers to a range of learning experiences provided in the development students' self-managements skills which will lead to effective choices and decisions about their lives. It consists of three areas: personal and social development, educational guidance and career guidance. In addition, counseling aims to achieve the empowerment of students so that they can make decisions, solve problems, address behavioral issues, develop coping strategies and resolve difficulties they may be experiencing. Counseling in schools may include personal counseling, educational counseling, career counseling or combinations of these (St Fergal's College, 2018).

A career guidance is defined as a process to help understand individuals a clearer of themselves and their potential for future career development. Particularly careers guidance helps people to clarify their goals for the future, assess their career development needs at different points in their life, to understand the actual process of choosing a career, and take appropriate measures to implement these objectives (Ali & Graham, 1996:1-2). Through the guidance, individuals are helped to explore their complex needs, "to make greater sense of their current situation and to build confidence in their ability to complete the review process and move forward from the point at which they seek help" (Ali & Graham, 1996:5).

Career counseling explores the students' interests and guide them to choose their professional career. Students need professional career counselors to guide them to develop self-awareness in personal interests, skills, knowledge, potentials, weaknesses and assess occupational opportunities such as employment trends, competencies in the field, requirement of employment and job description (Kok & Low, 2017). They also need to prepare a career plan related to their career search, goal setting, the ways to realize goals, and cultivate job-searching skills. This includes identifying potential employers, preparing resumes, preparing for interviews (Getachew

et al., 2016). The role of career counseling and vocational guidance services is precious in empowering students to select the best fit with their ability, interest, personality and in the long run a satisfied life (Santilli et al., 2017).

According to Van Esbroeck (20028:36) guidance are divided into three kinds: (1) vocational (career) guidance, (2) personal guidance, and (3) learner support. Vocational guidance is used to support in relation to development, choice and placement in educational options and occupations or work roles. The objective of personal guidance is to support in relation to personal and social development and well being, and (3) learner support. In addition, learner support has its objective to support to maximize the effect of the learning process. It includes support to acquire appropriate learning skills and methods, attitudes and motivation" (Van Esbroeck, 2008:37).

Career counseling includes all counseling activities related to career choice on a lifetime. In the career counseling process, all matters regarding the individual needs (including work, family and personal preoccupations), are recognized as an integral part of career decision making and planning. It includes also activities related to the inadequacy of employment, mental health issues, stress reduction and development programs that improve work skills, interpersonal relations, flexibility, adaptability, and other development programs leading to self-agent (Zunker, 2006:9). Careers guidance operates "at the interface between the individual and society, between self and opportunity, between aspiration and realism. It facilitates the allocation of life chances" (Watts, 1996:351). Career counseling and vocational guidance is interlinked with the employability of pass outs. To gain the competitive advantage, the employers are joining hands with universities and training institutes in the developed countries. These developed countries are arranging seminars, workshops and industrial tours of the students to gain awareness about the working place (Seung, 2014).

According to Lemm, (2006) the age of 18-25 years old is a new stage of life. The transition period between adolescence and early adulthood is the time an individual gets difficulty to make decisions. The difficulties of the career decision-making process include the lack of information, such as individual own self, work, and information, and information inconsistencies, including internal and external conflicts (Gati, Kraus, & Osipow, 1996; Monika, 2018). Making a career decision is a complex matter, involving what an individual deems the most appropriate from career possibilities, comparison and evaluation of career

alternatives, professional program and the individual character (Gati, Krausz, and Osipow, 1996). In career decision-making, the individual's ability impacts on whether the individual is accepted for the training or work he or she wants, while the ability of the individual also plays an important role in career decision-making (Gati, 2013; Monika, 2018). In addition, problems of individual is taken into account in terms of lack of motivation, general indecisiveness, and dysfunctional beliefs (Monika, 2018).

Vocational Education Training

Vocational Education Training (VET) constitutes an educational option that can be chosen by adults who want to change career. It enables to learn an occupation in a quick and direct way, which confines the costs—in terms of time and money—of a career change projects (Juntunen & Baley, 2014). VET consists in the combination of theoretical and practical courses, often associated with direct learning in real companies through internships or a dual education system (Organization for Economic Co-operation and Development [OECD], 2014).

VET plays a key role in the social development of societies and communities in a context of market globalization and conscious technological innovations. VET helps promote the socioprofessional integration of young people and adults in many countries. VET orientation, roles and learning models are based on public and educational policies and different social actors involved, such as government, training institutions, employers, union, collaborate or not. (Masdonati, Fournier & Pineault, 2015). Australia's VET sector is based on a partnership between governments and industry. VET qualifications are provided by government institutions, called Technical and Further Education (TAFE) institutions, as well as private institutions. Australian governments (federal and state) provide funding, develop policies, and contribute to regulation and quality assurance of the sector. Industry and employer groups contribute to training policies and priorities, and in developing qualifications that deliver skills to the workforce.

Researches show in Norway, Denmark, Switzerland and Germany, VET is offered, through dual and holistic models that encompass alteration of learning experiences within academic institutions and work organizations. In Canada, United States, England, France, VET respond to a linear model of academic experience complemented by internships within work organizations (Bosch & Charest (2008); Brockmann et al., (2008); and Eichhorst et

al. (2012). Two models of VET include e joint acquisition of general knowledge transferable to several professional activities and a trade (Brockmann et al., 2008). VET success is thus based on a sustainable alternation of learning between the school and work organization environments and the different social actors concerned, i.e. governments, employers, schools).

VET is an interesting training option for individuals looking to find, in a relatively short period, better working conditions and employment outlooks, as well as for employers looking for skilled and productive workers able to adapt to labor market and technological transformations (Soenarto, et al, 2017). In many countries, VET suffers from a lower status and negative social value attributions compared to higher education (Billett, 2014; Virolainen & Stenstrom, 2014). However, VET receives more positive perception among young people and adults who voluntarily choose to engage in it (Cournoyer et al., 2016; Ashar, 2018). VET offers very interesting conditions and perspectives for people wishing to quickly acquire qualifying training to enter a new career (Masdonati, Fournier & Pineault, 2015).

In the career-guidance, attention in competencies in soft skills is important. Soft skills should the focus of teaching and learning process in training institutions and in the career counseling and vocational guidance. Soft skills help the graduates to be competitive and valuable in the labor market (Anindo et al., 2016). The job market now expects that the trainees should have know-how about the skills before taking proper admission in the institute (Tsitskari et al., 2017). Workforce should be provided with the necessary requisite soft skills. The trainees / students who are formally guided to recognize their personal interest can exploit their potential in better way (Mobley et al., 2017). Survey by Association of Graduate Recruiters (AGR, 2007) discovers that shortcomings related to employability skills include: softer's skills such as team-working, leadership and project management, awareness of their chosen industry sector; commercial awareness and business/organization understanding. These deficiencies can be improved by formal set up of career counseling and vocational guidance system at the training institutes.

Marilyn (2008) asserts that employability is all about being capable of getting and keeping work done as per requirement. Employability is the capacity to deploy self-sufficiently within the labor market sustainable employment. Employability consists of three: (1) person's

employability assets (i.e. knowledge, skills and attitudes, deployment; which includes career management skills, and job search skills), (2) presentation (e.g. job getting skills, for example CV writing, work experience and interview techniques, (3) ability to make the most of his employability assets, e.g. family responsibilities, current level of opportunity within the labor market. Employability of competencies such as ability, aptitude and qualities developed useful to an occupation or career (Mihaela & Cristina, 2015).

Methods

Design and setting

This study took the form of a survey research using mixed qualitative and quantitative methods with an explorative survey. These approaches and methods were used with the aim of describing the relevance and suitability of the competencies taught in vocational high schools and comparing them with the needs of industry. Programs, curriculum, apprenticeship activities, and attainments were evaluated. Competency gaps (chain conversion) need to be met by vocational high school graduates working in manufacturing industries and potentially technological groups to create teaching factories. This study was conducted in Pasuruan regency and involved 12 Vocational Schools, 10 career-guidance centers and three industrial centers where students dedicated for their apprenticeship as the research sites.

Participants

A total of 120 participants were involved in this study. The participants consisted of alumni already got jobs in various sectors who regularly reported to the career-guidance centers in their schools. The participants came from 10 centers of career-guidance in vocational schools in Pasuruan. Of 120 participants, 46 (38,33%) were male and 74 (63,67%) female, aged between 19-23 years. They were selected purposively based on their availability of being observed and interviewed. Intentionally, the participants were administered in the career-guidance centers the teachers allowed to investigate.

Instrumentations and Data Collection

Instruments of this study included checklist and interview guide. Open checklist instruments consisting of 12 items were used to see the demographic information of the programs and

development of labor markets. In addition, interview guides were used as guidelines for interviewing students and teachers to define in-depth information on the programs of career-guidance, entrepreneurship as well as the relevance between vocational programs and labor market the students obtained in industrial sectors. The interview guide was tested with three adults having experienced a career change, and adjusted according to their feedback.

Pursuing to the research instruments, data of this study were collected through an observation, interview and document analysis. Primary data were obtained by asking respondents to fill out questionnaires and through observation, as well as by collecting documentation in vocational high schools, manufacturing industries, and entrepreneurial workshops. Respondents from the vocational high schools were principals, while the participants from industry were chief officers, and those from entrepreneurial businesses were business owners. Observation was conducted to see students and teachers in the career-guidance process, in the workshop and in the apprenticeship sites. All students and teachers involved in those programs were observed.

Semi-structured 15 to 20 minutes were carried out individually with participants. Interviews were structured into six themes: (1) sociodemographic information; (2) life path; (3) reasons for career change; (4) systemic influences on career change; (5) relationship to work and occupational identity; (6) articulation of students and adult roles. The interview was conducted in a face-to-face basis. Results of the interview were recorded verbatim. In addition, documents were examined their content thoroughly in accordance with the results of interview and written responses of the questionnaire.

Data Analysis Techniques

Data obtained from questionnaire were analyzed using descriptive statistics allowing table and diagram to display the results. Data from questionnaire were analyzed to see socio-demography of graduates, kinds of attainments, career-achievement, level of graduate competence, level of satisfaction and perception of graduates in career-guidance. Data obtained from document were used as the complement of the questionnaire. In addition, data from the interview were transcribed verbatim and each theme and information regarding the attainment of the program were sorted. Basically, both data were analyzed using contents analysis from which quantitative and qualitative approaches were allowed to do.

Quantitative data were analyzed using descriptive statistics, figuring out the rate percentage and diagram. In analyzing the qualitative data, this study adapted data analysis from Masdonati, Fournier & Lahrizi (2017, p. 150) that applied domains identification, categories definition, and coding. The domain analysis corresponds to developing a domain list and identifying core ideas. The category identification and coding system indicated cross-analysis stage. To identify the domain, we shared with the team and went through the interview transcriptions to identify and define the domains: life and vocational path; reasons for the career change; process of career; meaning of career, future plans, and representations of VET; we coded the domains of four common transcriptions, compared their coding and reached consensus in a team meeting; and we summarized each participant, summing up what characterized them in each domain.

In characterizing the definition of categories, we undertook all the summary sheets and the interviews sections to read thoroughly, and identified a common preliminary categorization of reasons. Following the step, we provided the adjustment of each definition and wrote down a definition and a detailed description, allowing a final version of the categories definition, description, and illustration. Finally, to give the coding, we selected meaning units and coded each according to the categories; explained possible different reasons, and identified frequencies of the reasons and most recurrent co-occurrences (Masdonati, Fournier & Lahrizi, 2017, p. 151-52).

Findings and Discussion

Attainment of SMK Graduates

In preparing graduates for work, schools equip students to find a job or start a business. Based on figure 1, we found 120 alumni achieving jobs in various contexts.

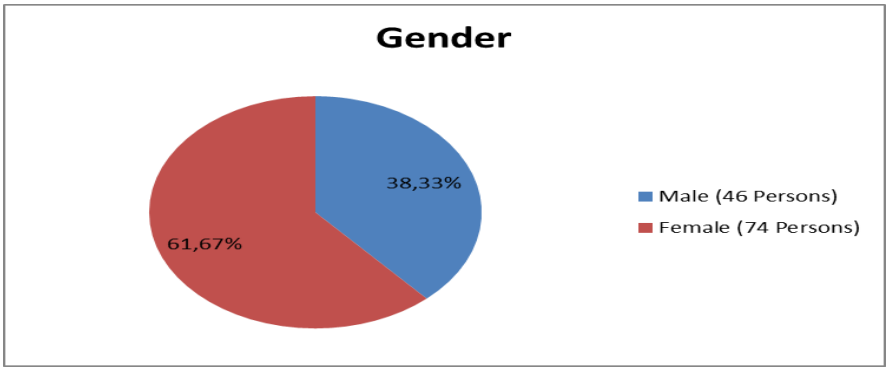

Figure 1. Gender of the alumni

Record of the alumni shows how they achieve level of competence of Vocational Education Training (VET) as the minimum standard of competence that measures 11 aspects of competence with the minimum achievement 80%. The standard includes: (1) collaboration, (2) discipline, (3) ethic, (4) tenacity, (5) theoretical knowledge, (6) practical skills, (7) feeling confidence, (8) carefulness, (9) creativity, (10) sense of responsibility, and (11) leadership. Attainment in the standard competence appears in figure 2.

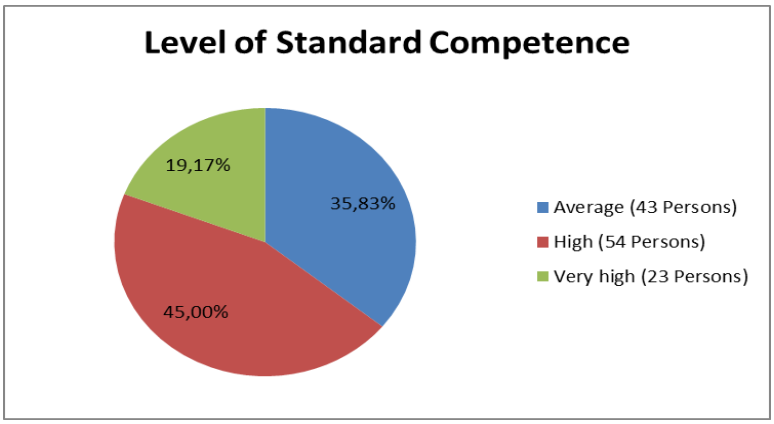

Figure 2. Achievement of alumni in the standard of competence

As figure 2 suggests three levels of achievement on the minimum competence are achieved by 120 persons: average (43 or 35,83%), high (54 or 45%), and very high (23 or 19,17%). Two levels of competence: low and very low are not identified. This figure implies that the minimum standard has been achieved by 77 (64, 17%) alumni.

Alumni administered their job attainments and we record 21 jobs have been identified as seen in figure 3.

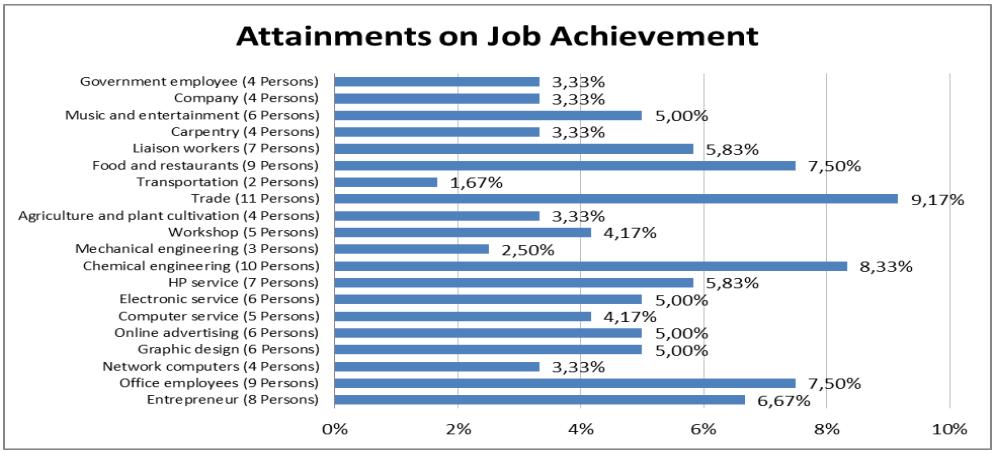

Figure 3. Variation of job reported by alumni.

Figure 4. Job satisfaction

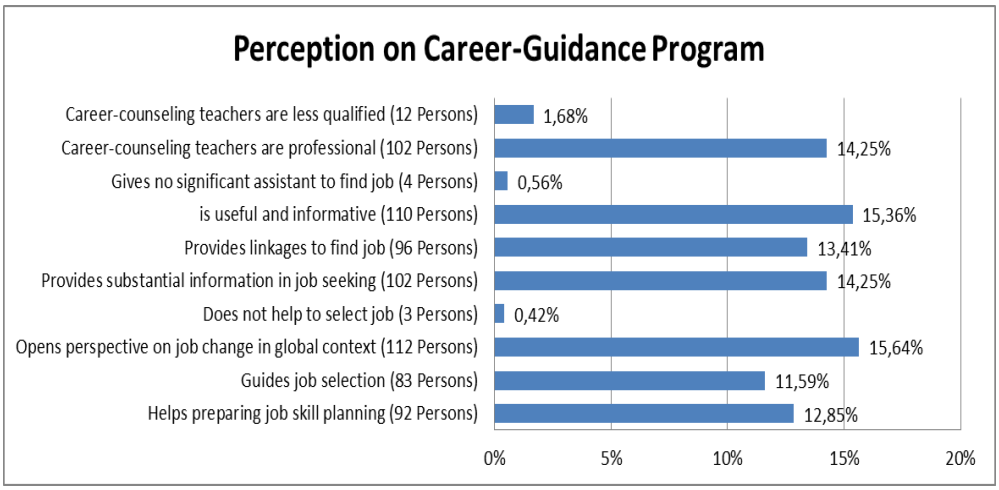

Figure 5. Perception on career-counseling

The Quality as Entrepreneurs

Martin (2015) explains that schools should provide facilities and create a conducive environment for learning, so graduates will be able to identify and exploit new business opportunities. To enable graduates to become entrepreneurs, schools can make serious efforts in terms of providing facilities and support to cultivate new entrepreneurs. Indicators to measure the extent of these facilities and supports are proposed below.

The production-orientation of vocational high schools

A production-orientation represents an effort to give the students the opportunity to directly experience, observe, and understand the creation of products that can become commodities for

supporting a business. Schools often ask students to manage production units and the subsequent marketing, and this has impacted attitudes and self-motivation, as well as increased the awareness that vocational high schools graduates do not necessarily become employees.

Support from the community affects the industrial practices through which products can be sold. Vocational high schools, for their part, cultivate entrepreneurship skills in their students. This can be a first step in which students can experience producing their own products, which could be saleable and have economic values. This can then motivate students to produce new and better version of these products. Instructional programs that result in final products as saleable commodities has therefore become a way to create new entrepreneurs.

Schools can also provide entrepreneurial coaching through workshops, maintenance services, and repair. Entrepreneurship is the science and arts of managing human resources and natural resources in order to create added value as a benefit. Therefore, such coaching is a first step in students acknowledging and improving their own management skills. Students are then expected to change their attitudes, going from believing they cannot become entrepreneurs to embracing the possibility. This process is taught to students from the first year, it and supports the habits of the students.

Facilities need to be adequate for production activities, so they are important tools in the entrepreneurial-learning process. Loyal customers and marketing networks and showrooms also bring attention to the schools. Again, these are considered integral parts of entrepreneurship education and its efforts to create new entrepreneurs. Students' experiences in performing transactions with customers are not replicated in the employees of a company. To students, the experience is two-fold: being an employee and being the owner of a production unit. Their experiences as employees are valuable for developing skills in their relevant working fields, while their experiences as owners of a production unit can teach them competencies like undertaking a cost & benefit analysis. The ability to predict profits and losses can be learned through such rich experiences, but it is difficult to teach in classes. Production units therefore offer this experience to ensure the opportunity is not lost. This study showed that most of the vocational high schools in Pasuruan had not yet acquired loyal customers, sustainable networks, and product showrooms yet.

Marketing, business legalities, and production unit management determine the success of a business. Marketing is part of a company's management, so it is taught by vocational high

schools as part of the learning process to prepare graduates for entrepreneurial competency. In this case, entrepreneurs need both easy and difficult experiences. Schools also need to provide special staff to promote their goods and services to customers. This study reveals that promotional efforts and marketing activities for the products of production units have not been adequate. Schools only conduct this limitedly in the form of exhibitions and special events, and even this is not done continuously. Promotional efforts have been integrated into efforts to teach children to experience the real world through suitable experiences. There tends to be insufficient exposure of students to promotional activities and customer relations, and this is an indicator of ineffective entrepreneurial learning. In other words, the entrepreneurial education is sub-optimal.

Schools efforts to ensure product quality through a quality assurance process

In offering students experience, schools can involve students in working for real businesses managed by the school itself. Directing students to certain business practices is therefore very important. To develop entrepreneurial character and the ability to work according to their skills, entrepreneurs with social sensitivity need to motivate students through their education (Toch & Phi, 2015). Product quality is one consideration that determines the success of marketing and promotional efforts. The need to maintain and assure quality is met by consciously developing a quality assurance system as a part of professional management. Schools encouraging students to experience entrepreneurial learning therefore need to teach about quality assurance.

Research data shows that from the sampled schools, only 20% performed quality assurance, and even then, it was only done for a handful of products. This is the backdrop for graduates who are expected to be industry-ready. Quality management must be introduced to students at school, especially with regard to processes and techniques for quality management, because quality matters to consumers.

Graduate quality that is relevant to the current market needs

Schools' curriculums play a central role in developing entrepreneurial skills. This can steer students toward starting businesses and give them the skills to succeed in their future lives (Hebert & Bass, 2015). Being qualified should mean being better than others (smarter, more skilled, more competent, stronger, determined, etc.) with 2) a winning attitude. Programs and offerings developed for vocational high school education in Pasuruan, East Java, Indonesia were

considered qualified if they were superior to others. The creation of graduates that are relevant to the industrial needs was measured according to the following indicators:

- a curriculum oriented toward the interests of industry;
- the relevance of a vocational high school curriculum to the workforce needs of industry;
- human resource management, including for the teachers and technicians of vocational high schools, that is relevant to industry's interests;
- the development of vocational high school facilities that are relevant to industry's interests;
- the commitment of school principals to production units that support industry;
- policy support for production units that are relevant to industry;
- support from industry for the products of vocational high schools, such as by outsourcing to school production units; and
- an instructional syllabus that is up to date and aligned with the needs of industries.

The research data reveals that school's actions do not suit these indicators, so the delivery of their offerings needs to be done more optimally. In general, the support for the vision and mission and the schools' objectives toward the growth of the manufacturing industry has been adequate. Most of the sample schools have genuinely supported the growth of the manufacturing industry. It turns out that the orientation of the vocational high schools' curriculums toward industry, the relevance of these curriculums to industry's workforce needs, and the development of teachers and technician that are relevant to industry needs have all been adequate.

Some sample schools expressed that their curriculums accommodated industry's needs and were relevant to industry's workforce requirements, as well as that they developed teacher and technicians suitable for industry's needs. Most of the sample schools also revealed that their facilities were relevant to industry needs, but the school principals' commitment to production units that are relevant to industry's needs have not been oriented towards products. Looking at vocational fields, the schools need to focus their attention toward product and services. Most schools felt that policy support for production units was relevant to industry's needs, while industry support for production units (e.g., outsourcing to school production units) has not been adequate and limitedly implemented. However, the instructional syllabus was always kept up to date was delivered in line with the needs of industry. Half of the sample schools said they had

identified graduates working in informal sectors, such as working in small workshops or working independently to develop a business in their spare time. This statistical survey and subsequent identification has been considered very important.

Partnership systems and strategies to connect with workforce stakeholders

To implement a curriculum to help students to become entrepreneurs, schools need to design it to foster success in more than just business (Hebert& Bass, 2015). A partnership system is one way to profit from a suitable and responsible commitment. This has been developed with the aim of developing new, qualified human resources with suitable competencies to meet the needs of industry. Vocational high schools must therefore strive to produce suitably qualified graduates. Such partnerships include: (1) partnerships for learning needed skills, (2) partnerships involving special personnel from both schools and industry, (3) partnerships in providing products, goods, and services made by schools for industry, and (4) mutual partnerships for *experiential learning*.

These partnerships include several indicators: (a) the availability of special staff in vocational high schools to solicit orders from industries and communities,(b) the school's efforts to work with industrial partners, and (c) the collection of data for vocational high school graduates working in industrial sectors.

Half of the sample schools did have special staff to seek orders from industry and communities. They engaged in partnerships with companies to produce parts for industrial work. The other half had not yet done this, however. When looking at the importance of such special staff, schools can involve school committee members. Some 70% of the schools had not yet been successful in forming industrial partnerships to work for several industrial tasks. Only 30% of them had successfully formed such partnerships, despite its great importance (Mihaela & Cristina, 2015).

The research data revealed that most of the sample schools had not developed loyal customers for their production outputs, networks for selling production units, and showrooms in which to promote and sell their products and services. This implies that these schools have not considered production units as a major part of the school system and an organic element that is just as important as other instructional components.

The schools formed policies by providing non-teaching staff to form industrial unit groups; identifying the relevance and regional potency, as well as areas of expertise owned by the schools for formulating relevant production units; and following up this identification with an

organizational development of production unit management and wider management practices under the responsibility and supervision of the principal.

The promotional efforts of the schools for production output have not been adequate. Schools conducted promotion incidentally through exhibitions and other one-off events that did not allow continuous marketing. Promotion is another integral skill that can be learned through suitable experience. Unfortunately, the lack of learning opportunities for product promotion shows that the entrepreneurial learning process is suboptimal.

Policies that could be developed by the schools could include delegating a vice-principal and teachers from guidance and counselling to focus more on promotional management for the schools' goods and services in order to foster adequate skills and competences. This can be determined in official policy by asking the government's education department to force schools to formulate special organic units for promotion activities. Parents can also be invited to become involved in school promotion programs (Yusoff, Zainol & Ibrahim (2015).

Most of the sample schools expressed that their policy support for production units that are relevant to industry, as well as industry's support for their production units (e.g., outsourcing to school production units),has not been adequate. As mentioned earlier, only half of the schools collected data on their graduates who were working in both formal and informal sectors. Vocational high schools therefore need strategy for data collection through an ongoing relationship with graduates and their parents. The status of graduates is sometimes difficult to trace through formal industry channels, but it can be monitored through direct links to graduates and their parents. This means that schools should create networks with parents as the source of the graduates. Based on the previous analysis, 70% of schools have not yet engaged in partnerships with industry to manage their production and services. The government's trade and industry and employments departments should therefore formulate policies to encourage industry and vocational high schools to form mutually beneficial relations.

Conclusion, Limitation and Implications

Our study has identified three areas of findings: attainments of vocational school graduates in labor market, quality of entrepreneurs and partnership system and strategies designed by career-guidance programs to bridge students' outcomes and labor market. Our findings confirm that students' attainment in labor market is categorized as successful indicated by three indicators.

Students have worked in 12 different sectors, no low standard competence is identified, and most of their salary is satisfied, all indicate the successful program of the school and career-guidance.

In terms of school endeavors on product sale, however, the results has not been fulfilled. We can conclude that most of the sample schools have not built up loyal customer bases for its production outputs, created marketing networks for their products, or set up showrooms in which to sell their products. The promotional efforts undertaken by schools for their production outputs have also been inadequate, with them conducting only limited promotion through exhibitions and other time-limited events, so there is no continuous effort. Only 20% of schools conducted quality assurance, with some only focusing this on selected products. This is unsuitable for schools trying to create graduates that are equipped to join the workforce. The efforts made by the schools to develop entrepreneurial skills have suited the expected indicators, however. In their implementations, it was discovered that there were many factors influencing the effectiveness of a school's efforts. In general, the support of the schools' vision, mission, and objectives for the growth of manufacturing industries already exists. Indeed, most of the schools supported growth in the manufacturing industry. They also keep their curriculums aligned with industrial interests. Most of the sample schools have not gained sufficient support from industry for production, such as by outsourcing to the production units of vocational high schools. However, they have provided up-to-date instructional syllabuses that cater to industrial needs. Half of the sample schools also had specialized staff to seek orders from industry and communities and develop partnerships with industry for elements of industrial work. The presence of such specialized staff is very important, and to achieve this, schools can involve their committees in enlarging their partnership programs.

This study has limitation in terms that exploration on the career-guidance has is limited to focus on its program. Schools should provide specialized staff to seek orders from industry and communities, including offering them their production outputs. These schools are also advised to recruit industry technicians to work as school instructors, as well as be agents for building networks and partnerships between their schools and industry. Schools should continue to seek industrial partnerships oriented to both products and services.

It is suggested that the government develop minimum criteria, through laws or regulations, for how schools manage their production aspects, especially for physical products, because most schools focus more on services. The government could also look at providing Standard

Operating Procedures for schools to conduct graduate-tracking studies. In line with this, industries could look at providing data for tracking graduates whom they have recruited. Schools are advised to provide opportunities for graduates to independently engage in their own entrepreneurial ventures, and they should also develop their teachers to enhance the relevancy of their competencies.

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