

Enhancing Multiple Skills Competency and Entrepreneurial Behaviour of Vocational High School Students in Developing Automotive Workshop

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Abstract

Nowadays, many entrepreneurship workshops have been created under vocational high schools' supervision in Indonesia's territory. Skill competencies have been expanded in vocational schools through the Center of Excellent (COE) program to hone vocational school students' skills during their education. Vocational High School (SMK) has established an automotive workshop business by combining many competencies in accommodating that mission. However, the combination of those competencies is yet to be known when implemented in the automotive workshop. We observed the role of light vehicle engineering, motorcycle engineering, and business, multimedia expertise, computer & network engineering, syariah banking competencies owned by students of SMKN 10 Garut in developing PULGAR automotive workshop with the collaboration and support of *industry, business, and the world of work* (IDUKA) near the school location. Also, utilization and addition of tools owned competency expertise automotive Light Vehicle Engineering SMK Negeri 10 Garut, which can be used in the school workshop. This research employed a qualitative descriptive method supported by interviews to obtain the data used to determine interview informants using the purposive sampling technique. Respondents include the head of the light vehicle engineering skills competency, mechanics, technicians, promotion team, and PULGAR customers. Based on the observations using SWOT analysis and Boston Consulting Group (BCG) matrix, PULGAR develops well and get positive responses from people if managed professionally with a record of getting assistance from a professional from IDUKA.

Keywords: Vocational High School, Workshop Business Development, Entrepreneurship, PULGAR

Introduction

Currently, Indonesia is entering a new era by getting demographic bonuses in 2015 – 2035. There will be many people who have a productive age between 15-64 years old, which reaches 70% of Indonesia's current population, as many as 187 million people, the remaining 30% or about 80 million people are of unproductive age. Demographic bonuses become an interesting phenomenon from a variety of perspectives. Demographic bonuses can be lucrative and rewarding if a country can manage the younger generation into quality and reliable generation. Nevertheless, otherwise, demographic bonuses would be a tremendous disaster if a country did not efficiently and adequately prepare its resources. Many countries face many challenges and obstacles in preparing their young generation to become qualified resources with adequate education and skills. Badan Pusat Statistic (BPS) has released Indonesia's workforce condition in 2020. Most of the workforce with low education levels

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of 58.77 percent or 72.8 million are dominated by this condition. On another side, the Ministry of Women's Empowerment and Childs' Protection (KemenPPPA) in 2018, Indonesia was entering a new era of demographic bonuses marked by a decrease in the ratio between nonproductive populations the number of productive populations aged 15-64 years. Demographic bonuses in Indonesia dominated by an average high school education level significantly affect national productivity. This situation is proven by Indonesian labor productivity, which is

relatively lower compared to other neighboring countries. Referring to the Asian Productivity Organization (APC), in 2018 released that Indonesia's productivity level is only 1.37%, or almost four times lower than Thailand's productivity, which reached 5.28%. Compared to production value in three countries, Indonesia's production value is lower than Vietnam (4.39%) and Malaysia (2.16%).

The Government of Indonesia strives to overcome these conditions to immediately prepare a qualified and skilled workforce to increase productivity and competitiveness through education. One of the government's strategies to prepare a qualified and skilled workforce is through improving access, quality, and relevance of education, including developing vocational schools. The fact that vocational education today tends to produce many semi-skilled graduates. With such a condition, the government encourages vocational high schools (SMK) to prepare and teach their students an entrepreneurial spirit. But at the moment, the ingenuity of the job market has limited capacity to absorb labor. Entrepreneurship urgently needs a vision that can be innovative ideas, see opportunities, and know-how and steps are structured and systematic in carrying it out. Characteristics of entrepreneurship that must be planted early on to vocational school students include confidence, oriented to tasks and results, dare to take risks, have a leadership spirit, and be honest and diligent. Entrepreneurial education has become a severe problem for university administrators, course developers, government/public servants, and researchers (Kuratko, 2005). One of the reasons for the increasing interest in entrepreneurial education is entrepreneurship's impact on economic growth and employment (Audretsch, Grilo, & Thurik, 2011). By promoting entrepreneurship, the economy can further generate economic growth and jobs. Entrepreneurial education can be one way to increase entrepreneurs' prevalence rate and, thus, stimulate economic growth. Entrepreneurship does not teach students to pursue an entrepreneurial career but to apply what they learn to their future work. Co-teaching assistance does increase the satisfaction of the subject and the efficacy of student learning. The increasing focus on entrepreneurial education has resulted in various articles evaluating entrepreneurial education's impact. Entrepreneurial education is useful and very effective (Martin et al., 2013). Several studies have shown that entrepreneurial education improves entrepreneurship's positive perception, such as attitudes and attention (Liñán et al., 2011; Byabashaija & Katono, 2011). In addition to skills competencies related to the industrial world, vocational school students must also be equipped with the basics of entrepreneurship and trained to create and manage a business related to their competencies. Workshop business for vocational education is the first place where the students acquiring understanding and vocational skills. The workshop also has enormous benefits and role in giving hard skills that fit the industries and encourages the students' entrepreneurial nature to get used to working and opening jobs after graduation. However, previous research has a limitation in terms of exploring entrepreneurship related to industrial with a limited focus on its program.

This study aims to understand whether managing a workshop business can stimulate and influence vocational high school students' interests, intentions, and attitudes towards entrepreneurship and develop workshop business into a business that generates income for schools and is trusted by the community.

Conceptual Framework

Entrepreneurial Potential

The available evidence shows a promising role for entrepreneurship in tackling poverty in developed countries. In a large study, Slivinski (2015) calculated the level of entrepreneurship among the poor in every U.S. state. The results showed that the highest entrepreneurial rate showed the largest poverty reduction over six years, while the lower entrepreneurial rate was associated with increased poverty (Slivinski, 2012, 2015). The results of the exploration conducted by Amoro and Cristi (2011) proves that startup activities affect poverty in both developed and developing economies. Using data from 29 developed and 37 developing countries, they found that higher levels of entrepreneurship were associated with more significant poverty reduction in developed and developing countries, with relatively higher rates in developing countries. Entrepreneurship's potential is even greater if we consider the informal sector (i.e., unregistered businesses) in developed countries. Banerjee and Duflo (2011) looked at 18 countries and found that 44% of the destitute people in urban areas run businesses. This conclusion is reinforced by the work of Cristi, Amoró's, and Couyoumdjian (2012), who provided empirical evidence of the positive impact of informal sector entrepreneurship on poverty alleviation and economic development. Entrepreneurship offers solutions by providing a natural way out of the poverty zone. It can be said that entrepreneurship is a more natural path than working for others on low wages, without benefits, limited opportunities for progress or personal development, and the possibility of being fired at will. Creating entrepreneurship is valuable, beneficial directly from one's work. Taking control of one's future, hiring others who are poor, and contributing to a community is an innate entrepreneurial trait. However, as we will see, there will be many aspects of poverty that collaborate to work against entrepreneurship

Entrepreneurial Competencies

Competence or entrepreneurial expertise is a structured and integrated ability to conduct entrepreneurial activities and solve entrepreneurial problems adequately. Competence relates to the performance of individuals, employers,

or professional employees. It shows a complete set of job or entrepreneurial problems that are complemented by professionals or entrepreneurs. Competent entrepreneurs must be able to use such knowledge, attitudes, and skills to handle the tasks, problems, dilemmas, and contradictions generated, for example, from heavy competition or changes in customer demand. Employers should be able to live in vulnerable conditions, though, and define risk as an opportunity to use their skills and not as a possible reason to give up. Instead, they will find better ways to solve problems through discoveries, services, and new approaches. Competence that an entrepreneur must also have is communicating, persuading, and discussing with customers, clients, suppliers, competitors, and other stakeholders in the business environment. Entrepreneurs who have much experience will get higher competency scores than those with less experience. Entrepreneurs with experience (more than three years) print their competencies more than entrepreneurs without experience. More specifically, entrepreneurial competencies honed since the beginning of adolescence are predicted to affect future developments positively. The perseverance factor and the breadth of insights about the market contribute positively to being and staying active as an entrepreneur (Kyndt & Baert, 2015).

Entrepreneurship and vocational education

Entrepreneurship and Vocational Education are generally seen as forms of education or training that provide specialized professional knowledge and skills to individuals who sign up for it. In vocational education, curricular attention to entrepreneurship is not new. Innovation and enrichment of educational entrepreneurship is a good example of vocational education as an essential factor and is part of an education-related to business education, agriculture, bookkeeping, and brick installation, among others, to acquire skills in the field (Iheanacho, 2006). However, it is important to emphasize that it is not enough to empower or equip someone with call skills or knowledge. Some schools identify entrepreneurship more clearly as learning specifics and develop a more integrated curriculum. There are interesting projects aimed at intensifying and enriching business plans, such as those included in many trade training courses. Such a person must demonstrate the capacity to use that knowledge or skill to set up a business. When a person has good supplies and can set up a business, both micro, small, and medium, the person automatically holds the title of *entrepreneur*.

Vocational High Schools Managerial

The principal is an important part of the school committee structure within a school, both from primary to secondary education, from elementary to high school /vocational school. The principal is a leader who runs all forms of school activities, operational activities, and non-operational activities related to the school and its structure. The principal is the highest leader in the school. As a school leader, the principal has an important role and responsibility in managing available resources to improve education quality at the education unit level (Stanley, 2016). Act as the school leader, the school principal is the person who will decide some factors that can encourage schools stakeholder to realize their vision, mission, goals, and targets through a variety of programs well-implemented based on the learning plan. Therefore, school principals must have active management and leadership skills since they have to decide quickly and have a highly positive attitude in improving their education quality (Subekhi & Jauhar, 2012). For this purpose, the principal should be able to mobilize or empower all the potential resources for various programs, processes, evaluations, curriculum development, learning activities at schools, teacher's administration, infrastructure, services to students, relations with the community, and the creation of a conducive school climate. These elements will be well implemented when the principal can influence all parties involved in educational activities to realize their goals. School principals should have the ability to move the teachers and administrative staff to carry out the supervision function (Uci Pranita, Nina Kurniah, 2018). The pattern of leadership will be very influential and even determine the progress of the school. Therefore in modern education, the leadership of the principal is a strategic position in achieving educational goals. Furthermore, school improvement's success depends on developing professionalism at schools, especially teacher professional development (DuFour & Barkey, 2005). In other words, the principals should devote their efforts to improve the quality of learning by continuously developing teacher professionalism. The teacher factor is one of the input components that influence the quality of the learning achievement. The learning process will achieve high quality if supported by all the input's readiness, including the maximum teacher performance in teaching and learning activities. The teacher is a very influential factor, as seen from the teacher's ability and eligibility to teach. The teacher should have the ability to encourage students to be disciplined to enhance each student's employability (Tentama et al., 2019). Discipline is defined as socially and morally responsible behavior motivated by intrinsic factors, not solely by anticipating external rewards or fear of punishment (Bear, 2010). Moreover, employability skills are essential for every individual in educational institutions, companies, and organizations. Educational institutions must prepare their students to have employability as a provision to get a job in the future (Fugate & Kinicki, 2008)

Method

Design and setting

This study was designed with a qualitative approach, namely extracting as much data as possible from the object of research. This approach and method is used to provide an overview of relevance, facilities, training, competencies, spirit entrepreneurs taught in vocational high school SMKN 10 Garut, West Java, Indonesia, in developing automotive workshops named PULGAR. By conducting an in-depth examination of the PULGAR automotive workshop's management and conducting observations to students, teachers, and stakeholders, and conducting interviews with *industry, business, and the world of work* (IDUKA) and the community around the workshop. The driving factors, inhibition, and financing were evaluated to make PULGAR automotive workshop more professional and able to help the students of SMKN 10 Garut more excited and work optimally.

Data Collection

Some of the data collection techniques used were interviews, direct observation, and document review. Interview information is focused on supporting studies based on opinions and facts in the field. Interviews were directed by interview guidelines assigned to SMKN 10 Garut policyholders and school management executives, including school principals, head of the TKRO skill competency, mechanics, technicians, and promotional team. Observational data collection was carried out by observing physical conditions, coordination meetings with stakeholders, and learning activities, which are part of the implementation of student career development center's management. Also, document checks were carried out to support the results of interviews and observations. The data collection instruments were in the form of data source grids, interview guides, observation guidelines, document inspection guidelines, cameras, and recording devices.

Data Analysis

FGD results and interviews were recorded. Data analysis was carried out in several stages, namely data reduction, data presentation, and conclusions. Data from interviews, observation, and documentation are classified, directed, and arranged into three components: planning, implementation, and evaluation. The data is then used as the basis for drawing conclusions that are still open, general, and then converted into specific or detailed findings.

Findings and Discussion

The Indonesian government has mandated introducing and developing entrepreneurial spirit towards vocational school students through the 2013 curriculum. This has been applied by SMKN 10 Garut through the business development program automotive workshop PULGAR. Based on SWOT (Strengths, Weaknesses, Opportunities, Threats) and BCG (Boston Consulting Group) analysis, PULGAR's automotive workshop business has a huge opportunity to grow much more. One of the conditions for this purpose is diversifying the business, merging various competencies into the workshop container PULGAR. Business diversification involving other competencies such as multimedia (photography services, narrative animation, graphic design advertising, printing), computer and network engineering (service related to computers and networks), motorcycle business techniques (service services and oil change for motorcycles), and syariah banking (serving savings and loan). The next challenge is to apply the business form and merge it into one roof, namely PULGAR workshop business. In the early stages, this business diversification has been tested to serve the students and teachers, and residents of SMKN 10 Garut and is considered to have met the expected expectations.

In the early stages of PULGAR workshop development, curriculum synchronization with needs qualifications at IDUKA is carried out. This aims to improve the competence of PULGAR workshops for students and teachers to answer the challenges of IDUKA needs while also so that PULGAR workshops become a means of service for the community around the site. A letter of agreement with IDUKA is made as a manifestation of involvement in the PULGAR development process to reiterate it. Furthermore, IDUKA helps improve facilities and facilities and provide work tools, especially for service services for 4 and 2 wheel vehicles.

In addition to serving the improvements of 4 and 2 wheeled vehicles, PULGAR workshop is also a one-stop solution for advertising, photography services, animation narrative making, printing services, computer service, network installation, sharia mini bank. These efforts impact increasing the students' level of competence and skills because they can apply various theories by being guided by professionals in their respective fields. PULGAR automotive workshop itself has synchronized the curriculum with Daihatsu in terms of supervision and human resources development to apply in the industrial-grade application. The same thing is also done by motorcycle business engineering competency (TBSM) with Astra Honda Motor. Competence of syariah banking that has established synchronization from Bank Syariah BJB. The form of curriculum synchronization with industry, *business, and the world of work* (IDUKA) greatly influence students. Students are trained in the industrial environment in terms of thinking, acting, and acting. Starting at 7:30 a.m., continue with a briefing, continue working until home on time at 16:00. With that effort, the students are accustomed to entering the world of work that requires speed, accuracy, and professionalism. It also helps students' entrepreneurial spirit because they face various industry problems that require a quick and appropriate response and reaction. Experiential learning model is needed and suitable for vocational high school students because it is very conducive to improving students'

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interest and motivation (Prastawa et al., 2018). With supervision by accompanying teachers and coaching teachers conducted by related professionals, students are directed to play a more active role in developing PULGAR workshops into a profitable business pattern for them and schools. And with the right strategy, in the future, students' entrepreneurial spirit will be more developed along with this PULGAR automotive workshop program's success.

Conclusion

The development of SMKN 10 Garut workshop called workshop PULGAR becomes an alternative service for both school residents and the surrounding community. They are supported by the curriculum of synchronization results with IDUKA workshop PULGAR, as well as a replica workshop that becomes a center of learning competency skills in schools. Based on SWOT and BCG analysis, the school's workshop can be developed well and get positive responses from people if managed professionally with a record of getting assistance from a professional workshop. IDUKA partner provides opportunities for workshop SMKN 10 Garut in better management of the workshop. PULGAR Workshop can improve students' discipline to follow the operating hours in the world of work. Moreover, improve the soul enterprenur students because at all times required to be able to organize and overcome various problems in the automotive workshop.

Limitation and Future Studies

The research could be done yearly to measure the program's output each year, to examine if there be an improvement for the program. A wider scope of research, involving more vocational school, would make the research even more reliable. Action research would be necessary to evaluate and do the changes needed to support the students in the following years continuously. The government is also advised to develop minimum criteria in the statutory umbrella on how schools manage aspects of cooperation with IDUKA and continue after students graduate and conduct graduate search studies.

Acknowledgement

The research was funded by *MITRASDUDI* and monitored by lecturers from Research Interest Group–Cross Cultural Communication, Binus University, in Industrial Based Capacity Building and Managerial Program for SMK Principals, the year 2020, with the agreement contract no. 1377/D4/KS/2020 and 23/BIDC/PM/IX/2020.

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