

# Data Analysis of Light Vehicle Engineering Graduates in Tulungagung and Trenggalek to Assess the Importance of Entrepreneurship Education in Vocational High Schools

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## Abstract:

Entrepreneurship education in Vocational High Schools (VHS) is the main focus to improve the quality of graduates, equipping them with the skills to innovate and adapt in the dynamic world of work. This study aims to assess the importance of entrepreneurship education in VHS through data analysis of graduates of Light Vehicle Engineering in Tulungagung and Trenggalek. This research uses a qualitative approach with a multi-site study, involving observation, documentation, and interviews with various stakeholders in the relevant VHS. The findings indicate that entrepreneurship education in VHS has a beneficial effect on enhancing students' critical and creative thinking abilities. The data from Public VHS 1 Pagerwojo Tulungagung, Public VHS 3 Boyolangu, and Public VHS 1 Trenggalek over the past three years indicate an increase in the number of graduates who have chosen to pursue an entrepreneurship-related path, which reflects the success of this program. Nevertheless, challenges such as educators' lack of understanding and limited resources still require attention. This research proposes enhanced training for educators, the development of more adequate resources and facilities, and an expansion of partnerships with local industries and businesses. Consequently, the quality of entrepreneurship education at VHS can be enhanced, preparing more students to succeed in entrepreneurship and contribute to the local economy.

**Keywords:** Entrepreneurship, VHS, Graduate.

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## 1. Introduction

Entrepreneurship education in VHS has become a primary objective in the initiative to enhance the quality of graduates in Indonesia. The objective of entrepreneurship education is to equip students with the relevant skills to navigate the dynamic world of work. This provides an essential foundation for students to develop the capacity for innovation and adaptation (Vías & Rivera-Cruz, 2020; Hu et al., 2021). This program is integrated into the VHS curriculum with the objective of preparing students for both immediate employment and the creation of new jobs. In various regions of Indonesia, VHS has initiated the implementation of entrepreneurship education through a range of approaches, encompassing both theoretical instruction and practical project-based learning. The observed increase in student interest in entrepreneurship indicates a promising potential for further development (Nabi et al., 2018; Veljkovic et al., 2019). Consequently, it is crucial to gain insight into the manner in which entrepreneurship education is operationalized and its impact on VHS graduates.

There has been a notable surge in the number of VHS graduates pursuing entrepreneurial endeavors in various regions, including Tulungagung and Trenggalek. A review of data from Public VHS 1 Pagerwojo Tulungagung, Public VHS 3 Boyolangu, and Public VHS 1 Trenggalek over the past three years reveals a consistent increase in the number of graduates opting for an entrepreneurial career path. Notwithstanding some fluctuations, interest in entrepreneurship remains high, reflecting the success of entrepreneurship education programs in these schools. This trend indicates that VHS graduates are increasingly viewing entrepreneurship as a promising career path with the potential to offer both financial and personal fulfillment. Entrepreneurship education serves not only to cultivate business acumen but also to foster critical and creative thinking skills (Bell & Bell, 2020; Boldureanu et al., 2020; Zheng, 2024). Consequently, entrepreneurship education at VHS plays a pivotal role in nurturing a more self-reliant and innovative younger generation.

While there are numerous advantages to be derived from entrepreneurship education in VHS, there are also obstacles that must be surmounted to achieve the most favorable outcomes. One of the primary challenges is the lack of understanding and expertise among educators, who frequently lack sufficient entrepreneurial backgrounds (Berliawan et al., 2024). Furthermore, the scarcity of resources and facilities in numerous VHS represents a considerable obstacle (Ariffin et al., 2020; Sriwahyuni et al., 2023). A significant number of educational institutions lack access to contemporary instructional materials, business software, and entrepreneurship laboratories that are essential for experiential learning (Weiming et al., 2016). Additional challenges include the absence of collaborative arrangements with local industries and businesses (Putra et al., 2021) and constrained financial resources for entrepreneurship program development (Isaga, 2019; Mohammadali & Abdulkhalik, 2019). These factors collectively contribute to the suboptimal quality and efficacy of entrepreneurship education in VHS.

It is therefore imperative to undertake a research project with the title "Data Analysis of Light Vehicle Engineering Graduates in Tulungagung and Trenggalek to Assess the Importance of Entrepreneurship Education in VHS" in order to evaluate and understand the various aspects of this entrepreneurship education. The objective of this study is to identify entrepreneurial trends among VHS graduates, evaluate the positive impact of entrepreneurship education on students' skills and readiness, and assess the contribution of such education to the local economy. Furthermore, this research will examine the challenges encountered in the implementation of entrepreneurship education and identify effective solutions. The results of this study are expected to provide in-depth insights and practical recommendations for policymakers, educators, and other stakeholders to enhance the quality of entrepreneurship education in VHS, thereby increasing the number of students who are prepared and capable of succeeding in entrepreneurship.

## **2. Methods**

This research is a qualitative study with a multi-site design. In alignment with the qualitative approach and the nature of a multi-site study, the researcher aims to examine the context and variation between VHS through data on graduates of Light Vehicle Engineering in Tulungagung and Trenggalek. This assessment is intended to determine the significance of entrepreneurship education in VHS and identify the optimal entrepreneurship education model in the Light Vehicle Engineering Expertise Concentration that can be effectively implemented in VHS. The data for this study were collected from

the following sources: the vice principal for curriculum, the vice principal for community relations, the head of BKK, the head of the Light Vehicle Engineering Specialization Concentration, entrepreneurship teachers, and students.

This study employed three data collection techniques: observation, documentation, and interview. These techniques were used to enhance the rigor of the data collection process. To gain insight into the implementation of entrepreneurship education at VHS, direct visits were conducted at three selected locations: Public VHS 1 Pagerwojo Tulungagung, Public VHS 3 Boyolangu, and Public VHS 1 Trenggalek. The documentation in this study is comprised of documents and archives from the school, as well as photographs of entrepreneurship education learning activities at the three VHS. Interviews were conducted in accordance with the established guidelines and grids, and the resulting data will be submitted to informants for their input. The interview questions focused on four key areas: (1) trends in entrepreneurship among VHS graduates; (2) the positive impact of entrepreneurship education; (3) the contribution of entrepreneurship education to the local economy; and (4) the challenges associated with implementing entrepreneurship education.

The data analysis technique employed in this study was conducted in four stages: data collection, data reduction, data presentation, and conclusion drawing or verification. Moreover, the veracity of the data was validated through source triangulation, a technique employed to ascertain the reliability of information obtained from six key informants. These individuals played pivotal roles in the implementation of entrepreneurship education, including the vice principal for curriculum, the vice principal for community relations, the head of BKK, the head of the Light Vehicle Engineering Expertise Concentration, entrepreneurship teachers, and students. Moreover, triangulation techniques are employed to corroborate data from the same source but obtained through disparate techniques, namely observation, interviews, and supported by corroborating documentation.

### **3. Results and Discussion**

The VHS in Tulungagung and Trenggalek has introduced an entrepreneurship education module into its curriculum for students pursuing a concentration in Light Vehicle Engineering. This represents a strategic initiative designed to address the challenges posed by an increasingly competitive job market and to provide students with a broader range of career options. The results of research conducted at Public VHS 1 Pagerwojo Tulungagung, Public VHS 3 Boyolangu, and Public VHS 1 Trenggalek indicate that entrepreneurship education has had a positive influence, encouraging many graduates to establish their own businesses. Furthermore, entrepreneurship education has a profound impact on the development of life skills, enhanced self-confidence, and a notable contribution to the local economy. However, the implementation of this program is not without challenges that must be addressed to achieve optimal results.

#### **Entrepreneurship Trends among VHS Graduates**

Entrepreneurship education in VHS has become a significant component of the preparation of students for the dynamic and competitive world of work. In some areas, such as Tulungagung and Trenggalek, the integration of entrepreneurship education into the VHS curriculum has yielded encouraging outcomes. An analysis of data on VHS graduates over the past three years reveals an interesting trend in students' career choices, particularly in regard to entrepreneurship. This trend reflects a shift in

perspective among graduates who increasingly view entrepreneurship as a viable and fulfilling career path. Students who have participated in the entrepreneurship program at VHS demonstrate a higher success rate in establishing and managing their own ventures (Furdui et al., 2021; Adeniyi et al., 2022). Furthermore, the program facilitates the development of soft skills, including creativity, leadership, and adaptability, which are highly valued in the business world (Vodă & Florea, 2019; Pardo-Garcia & Barac, 2020). As illustrated in Table 1, which presents data on student graduation rates for the Light Vehicle Engineering Concentration of Expertise over the past three years.

**Table 1. Data of Student Graduates of Light Vehicle Engineering Concentration of Expertise**

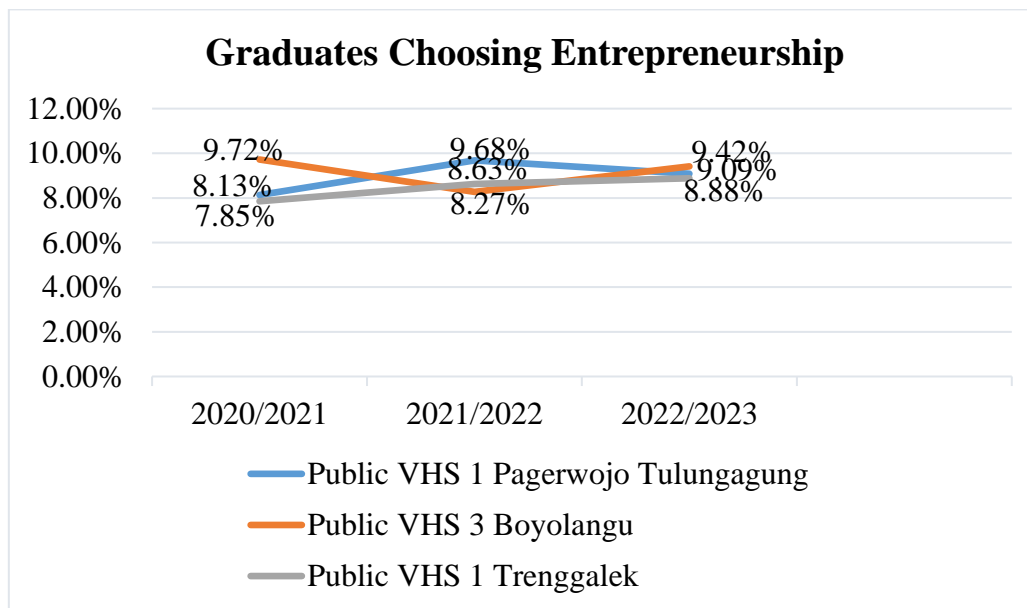
School	Year	Continued f (%)	Appropriate f (%)	Unapriori f (%)	Entrepreneur f (%)	ASN/TNI/Polri f (%)	Unknown f (%)	Total f (%)
Public VHS 1 Pangerwojo Tulungagung	2020/2021	10 (8,13)	74 (60,16)	9 (7,32)	10 (8,13)	2 (1,63)	18 (14,63)	123 <b>-100</b>
	2021/2022	20 (12,9)	83 (53,55)	12 (7,74)	15 (9,68)	1 (0,65)	24 (15,48)	155 <b>-100</b>
	2022/2023	15 (11,36)	58 (43,94)	7 (5,3)	12 (9,09)	0 0	40 (30,4)	132 <b>-100</b>
Public VHS 3 Boyolangu	2020/2021	15 (10,42)	80 (55,56)	9 (6,25)	14 (9,72)	2 (1,39)	24 (16,66)	144 <b>-100</b>
	2021/2022	18 (12,42)	76 (52,42)	12 (8,27)	12 (8,27)	1 (0,68)	26 (17,94)	145 <b>-100</b>
	2022/2023	11 (7,98)	63 (45,65)	30 (21,74)	13 (9,42)	0 0	21 (15,21)	138 <b>-100</b>
Public VHS 1 Trenggalek	2020/2021	35 -25	86 (61,43)	8 (5,72)	11 (7,85)	0 0	0 0	140 <b>-100</b>
	2021/2022	12 (8,69)	57 -41	58 (41,73)	12 (8,63)	0 0	0 0	139 <b>-100</b>
	2022/2023	24 (17,78)	26 (19,26)	27 -20	12 (8,88)	1 (0,75)	45 (33,33)	135 <b>-100</b>

A review of data from Public VHS 1 Pangerwojo Tulungagung, Public VHS 3 Boyolangu, and Public VHS 1 Trenggalek over the past three years reveals a notable and consistent trend in entrepreneurial activity among recent graduates. At Public VHS 1 Pangerwojo Tulungagung, the proportion of

graduates who selected entrepreneurship as a career path increased from 8.13% in the 2020/2021 academic year to 9.68% in the 2021/2022 academic year. However, this figure decreased slightly to 9.09% in the 2022/2023 academic year. This increase indicates a robust aspiration among students to establish their own business ventures upon graduation. They appear to exhibit heightened confidence and a proclivity towards self-creation of opportunities, as opposed to pursuing employment within a specific company or industry.

Public VHS 3 Boyolangu also shows a similar pattern, with 9.72% of graduates opting for entrepreneurship in the 2020/2021 academic year, decreasing slightly to 8.27% in the 2021/2022 academic year, and increasing again to 9.42% in the 2022/2023 academic year. Small fluctuations in these numbers can be due to a variety of factors, including local economic conditions, support from schools, and access to capital and other resources. However, the general trend shows that graduates of Public VHS 3 Boyolangu remain consistent in their interest to go into entrepreneurship.

In the 2020/2021 academic year, 7.85% of graduates from Public VHS 1 Trenggalek identified as entrepreneurs. This figure increased to 8.63% in the 2021/2022 academic year and then decreased slightly to 8.88% in the 2022/2023 academic year. These figures demonstrate a positive growth pattern, despite a slight decline. This indicates that, despite the challenges, there is a continued high level of interest in entrepreneurship among graduates of Public VHS 1 Trenggalek.



**Figure 1. Graduates of the 2020-2023 Academic Year Choosing Entrepreneurship**

As illustrated in Figure 1, which depicts the proportion of graduates from the three VHSs who selected entrepreneurship over the past three academic years, there are notable variations in the data set. At Public VHS 1 Pagerwojo Tulungagung, the percentage of graduates who selected entrepreneurship as a career path demonstrated an increase in the second year, followed by a slight decline in the third year. At Public VHS 3 Boyolangu, there was an increase in the first year, a decrease in the second year, and an increase in the third year. While at Public VHS 1 Trenggalek, although there was an increase from the first year to the third year, the change was relatively stable compared to the other two schools. From the data analysis, it can be concluded that the trend of graduates choosing

entrepreneurship in these three schools experienced different variations. However, overall, there is an increasing trend in the number of graduates who choose entrepreneurship, which may reflect the effectiveness of the entrepreneurship education program implemented in these schools.

The data from these three schools collectively indicate that the entrepreneurship education provided at VHS has had a beneficial impact, motivating numerous graduates to pursue entrepreneurial endeavors. This trend not only provides students with a broader range of career options but also facilitates the development of essential competencies such as business management, innovation, and risk-taking. Entrepreneurship education appears to be effective in providing students with the knowledge and practical skills necessary to succeed in the business world, thereby enhancing their preparedness and motivation to pursue their own opportunities following graduation. This trend also suggests a shift in perspective among VHS students, who now view entrepreneurship not merely as a contingency plan but as a primary career trajectory that can offer fulfillment and financial rewards.

The significance of entrepreneurship education at VHS is further illustrated by the capacity of students to effectively address authentic business challenges. Students who receive entrepreneurship education tend to demonstrate enhanced resilience in the face of the uncertainties and risks that are inherent to the business world (González-López et al., 2019; Amankwah-Amoah et al., 2022; Wasim et al., 2024). Such education equips students with the ability to plan and initiate a business venture, while also imparting the knowledge required to sustain and expand it over time. These competencies serve as a significant advantage, distinguishing them from their counterparts who did not receive entrepreneurship training.

Furthermore, the entrepreneurship curriculum at VHS facilitates the establishment of crucial business networks for students. The program affords students the opportunity to interact with successful entrepreneurs, mentors, and industry professionals (Ahsan et al., 2018; Fiore et al., 2019; Elliott et al., 2020). Such relationships facilitate not only the acquisition of practical insights into the business world but also the creation of opportunities for future collaborations and partnerships. These networks frequently constitute a pivotal factor in the success of start-up businesses operated by VHS graduates, enabling them to obtain the requisite resources, support, and markets to facilitate expansion.

Moreover, the incorporation of entrepreneurship education into the VHS curriculum fosters innovation and creativity among students (Puspita et al., 2020; Rahayu et al., 2023). By being afforded the autonomy to develop their own business ideas, students are encouraged to adopt a more expansive mode of thinking, thereby facilitating the identification of novel solutions to existing problems. This process not only enhances their creative abilities but also fosters a proactive and solution-oriented disposition, which is highly valued in the business world. Consequently, graduates with an entrepreneurial background are frequently better prepared to adapt to changes and capitalize on emerging opportunities in a continuously evolving market (Prokopenko et al., 2024). Therefore, VHS that prioritize entrepreneurship education can continue to serve an instrumental role in motivating students to become successful young entrepreneurs and contribute to the local economy.

### **Positive Impact of Entrepreneurship Education**

The implementation of entrepreneurship education at VHS has been observed to have a considerable, beneficial impact on students and graduates alike. These impacts extend beyond the realm of technical

business skills, encompassing character development and the acquisition of essential life skills. One of the most significant outcomes is the improvement of critical and creative thinking skills (Reyad et al., 2019; Frolova et al., 2021). Entrepreneurship programs equip students with the ability to think outside the box (Barth & Muehlfeld, 2022), identify opportunities (Cohen et al., 2021), and create innovative solutions to problems that surround them (Linton & Klinton, 2019). This is instrumental in fostering an entrepreneurial mindset that is adaptive and proactive.

Moreover, entrepreneurship education has been demonstrated to foster the development of management and leadership competencies among students (Blesia et al., 2021). Such education equips students with the ability to plan, organize, lead, and control their own ventures (Zeng & Honig, 2016; Galvão et al., 2020). This learning process encompasses an understanding of financial management, marketing, production, and human resources. Such skills equip students with the capacity to not only initiate their own ventures but also to oversee teams and resources in an efficacious manner, a quality that is advantageous in the context of pursuing employment opportunities within large organisations. Furthermore, entrepreneurship education is instrumental in fostering students' self-assurance and autonomy (Rina et al., 2019; Rahmi et al., 2020). When students are afforded the chance to initiate and oversee their own entrepreneurial endeavors, they cultivate a sense of accountability and self-assurance, as illustrated in Figure 2. They learn from their missteps and triumphs, which equips them with greater resilience and preparedness to confront challenges in the real world.



**Figure 2. Students Performing Car Service Independently**

Figure 2 illustrates the implementation of an entrepreneurship education program in Light Vehicle Engineering, which involves students independently servicing cars. This activity has been observed to enhance technical skills and foster the development of confidence and independence. Through this experience, students learn to assume responsibility and confront challenges, thereby becoming more resilient and prepared for the world of work, as well as for their personal and professional lives. They gain valuable experience in managing projects independently, which strengthens their managerial skills. The confidence built from these activities is expected to support their future success, both in entrepreneurship and in other professional careers.

Furthermore, entrepreneurship education offers students the opportunity to gain invaluable practical experience. By participating in programs such as internships, business simulations, and entrepreneurial projects, students are able to gain firsthand insight into the business world (Awaysheh & Bonfiglio, 2017; Ramsgaard & Østergaard, 2018). This practical experience serves to complement the theoretical knowledge acquired in the classroom, thereby rendering students better prepared and more competitive in the job market. They learn how to interact with customers, deal with day-to-day business issues, and make risky decisions, all in a relatively safe and controlled environment. Such activities are reflected in Figure 3.



(a) Student Workshops in Industry



(b) Students Handle Customers Directly

**Figure 3. Student Learning in the Industry through Field Work Practices**

Figure 3 illustrates two fundamental activities within the student learning process in the field of Light Vehicle Engineering, which are specifically designed to cultivate entrepreneurial abilities. As illustrated in Figure A, students engage in a fieldwork practice within the automotive sector. This provides an invaluable opportunity for them to apply the technical knowledge and skills acquired at the academic level to a real-world work environment. The program instructs students in the organization, leadership, and control of a business, as well as in the interaction with various elements within the industry. Meanwhile, image (b) depicts students engaging in direct interaction with customers. This activity is designed to facilitate the development of communication, customer service, and business management skills. Through such interactions, students gain an understanding of the significance of customer satisfaction and the importance of providing quality service, which are essential elements in the operation of a business. Collectively, these two activities assist students in refining their entrepreneurial abilities and preparing them for future employment or entrepreneurial endeavors.

Furthermore, entrepreneurship education fosters collaboration and networking (Ndou et al., 2018). Students frequently engage in team-based development of business ideas, thereby acquiring an understanding of the significance of cooperation and communication. Additionally, they have the chance to interact with successful entrepreneurs, mentors, and the local business community, who can offer guidance and inspiration (Fabregà, 2018). This network is of immense value when they embark on their own ventures or pursue future career opportunities.

The positive impact of entrepreneurship education at VHS is multifaceted and profound. The program not only prepares students to become entrepreneurs but also equips them with essential life skills, such as critical thinking, management, leadership, confidence, practical experience, and the ability to cooperate. Thus, entrepreneurship education at VHS has the potential to alter the way students perceive their careers and futures, making them more prepared, resilient, and innovative individuals.

### **Contribution to Local Economy**

Entrepreneurship education at VHS confers direct benefits upon graduates, while also exerting a considerable influence upon the local economy. One of the primary contributions is the establishment of new employment opportunities (Nuraeni, 2022). VHS graduates who elect to establish their own businesses frequently require supplementary personnel to assist in the management of their enterprises. Consequently, they not only create employment for themselves but also facilitate the availability of job prospects for others within their community. This contributes to a reduction in local unemployment rates and an enhancement of community well-being.

Moreover, the establishment of small businesses by VHS graduates has been observed to exert a positive influence on the local economy in a number of ways (Khoirina & Martha, 2023). Firstly, these businesses frequently utilise raw materials and services sourced from local suppliers, which serves to enhance demand and confer benefits upon other businesses situated within the same geographical area. Secondly, these small businesses frequently serve local markets, thereby providing goods and services that are in demand by the local population. This has the effect of maintaining a steady flow of capital within the community and increasing the purchasing power of local consumers.

Additionally, small businesses established by VHS graduates contribute significantly to innovation and economic diversification (Elpisah & Saripuddin, 2023). Small businesses tend to exhibit greater flexibility and innovation than their larger counterparts. This enables them to respond swiftly to evolving market demands and consumer trends. These innovations not only enhance consumer value but also facilitate the introduction of new products and services that may not yet be available in the local market. Furthermore, the economic diversification generated by different types of small businesses enhances the resilience of local economies to economic shocks and market changes.

Moreover, successful small businesses frequently serve as models and sources of inspiration for other members of the community. The success of VHS graduates in entrepreneurship can encourage others to consider entrepreneurship as a viable career option (Mambu et al., 2019). This creates a positive chain effect, whereby more people are motivated to start their own businesses, which in turn further strengthens the local economy. Support and collaboration between local entrepreneurs can also emerge, creating a solid and mutually supportive business network.

Furthermore, the establishment of small businesses by VHS graduates contributes to local tax revenues (Gea et al., 2022). These businesses remit taxes that are subsequently utilized by local governments to fund public services and infrastructure. This augmented tax revenue enables local governments to allocate greater resources toward education, health, transportation, and other services, which collectively enhance the overall quality of life for the community.

Additionally, contributions to the local economy encompass social development. When VHS graduates establish businesses and achieve success, they not only enhance their own economic circumstances but also exert a beneficial influence on their communities (Ubaidah et al., 2021). They frequently engage in social activities, offering support to local initiatives and serving as role models for the younger generation. This involvement facilitates the fortification of social bonds and the development of more unified and resilient communities.

The entrepreneurship education program at VHS has a markedly positive and far-reaching impact on the local economy. Graduates of the program contribute to the strengthening and development of their communities in a number of ways, including job creation, increased local demand, innovation, economic diversification, tax revenue, and social development. The continued support and development of the entrepreneurship program at VHS will ensure that these contributions continue to grow and provide long-term benefits to local communities.

### **Challenges of Entrepreneurship Education Implementation**

Although entrepreneurship education at VHS offers numerous advantages, its implementation is confronted with a number of challenges that must be surmounted to attain optimal outcomes. One of the primary challenges is the dearth of in-depth understanding and expertise among educators. A considerable proportion of teachers at VHS lack the requisite background or training in entrepreneurship. While they may possess a fundamental comprehension of entrepreneurship, they frequently exhibit a deficiency in practical knowledge and real-world experience, which impedes their capacity to effectively impart these skills. This gives rise to a dearth of excellence in material delivery and teaching methods that are not interactive or applicable (Ahmad, Bakar, & Ahmad, 2018).

Furthermore, the scarcity of resources and facilities represents a substantial obstacle. Some VHSs lack access to contemporary teaching materials, business software, and the requisite tools and materials for entrepreneurial practice. Facilities such as business laboratories or entrepreneurial incubators that can provide practical experience and realistic business simulations are often unavailable. Without these resources, students cannot fully comprehend the intricacies of operating their own business, which diminishes the efficacy of entrepreneurship education. According to research conducted by Mustafida et al. (2024), VHSs that possessed adequate facilities and resources exhibited considerable enhancements in students' comprehension of entrepreneurship.

A further challenge is the absence of collaborative arrangements with local industrial and commercial enterprises. It is imperative that partnerships with local entrepreneurs and companies be established in order to provide students with internship opportunities, mentorship, and hands-on experience in the business world (Bachtiar & Faridatussalam, 2024). It is unfortunate that some VHSs lack a robust network with the local industry sector, which makes it challenging for students to access these

opportunities. Without support from the business world, students are unable to gain practical experience and insight into the realities of business (Kirkpatrick, 2020).

The dearth of financial backing represents a significant impediment to the establishment of an efficacious entrepreneurship program. The initiation of such a program necessitates an investment in teacher training, curriculum development, and the provision of adequate facilities (Ibrahim et al., 2015; Galvão et al., 2020). However, some VHSs confront budgetary constraints that render it challenging for them to allocate resources toward these investments. Consequently, entrepreneurship programs may operate with constraints, potentially limiting their impact.

The implementation of entrepreneurship education is also influenced by cultural and social challenges. In certain regions, entrepreneurship may not yet be perceived as a viable or esteemed career choice. There is a tendency to perceive employment in the formal sector or government as a more secure and respectable career path. Such an attitude may prove to be a significant impediment to students' interest in assuming risks and embarking on their own entrepreneurial ventures. It is therefore crucial to facilitate a shift in mindset among students, parents, and communities regarding the potential value of entrepreneurship as a career path (De Carolis & Litzky, 2019; Agustian et al., 2022).

Moreover, the curriculum is not yet fully integrated, which presents a challenge. Entrepreneurship education is frequently regarded as an ancillary or extracurricular component, rather than a fundamental element of the curriculum. This ultimately results in a dearth of time dedicated to the comprehensive instruction of entrepreneurial competencies. Additionally, the extant curriculum may lack sufficient flexibility to accommodate students' diverse needs and interests, as well as the evolving landscape of business trends. To surmount these challenges, it is essential to engage in collaborative endeavors involving multiple stakeholders, including the government, educational institutions, businesses, and communities. It is imperative that training and professional development for teachers be enhanced to ensure that they possess the requisite skills and knowledge (Sancar et al., 2021). Investment in adequate facilities and resources is also crucial to support effective learning (Usman, 2016). Furthermore, the establishment of robust collaborative relationships with local industry sectors can facilitate the provision of invaluable internship opportunities and experiential learning for students (Judijanto et al., 2024). Finally, the implementation of cultural transformation and integrative curriculum reinforcement will contribute to the creation of a more conducive environment for entrepreneurship development in VHS (Sutjipto, 2019).

#### **4. Conclusions**

The implementation of entrepreneurship education at VHS has yielded notable positive outcomes, with a considerable number of students expressing a keen interest in pursuing entrepreneurship as a viable and rewarding career path. The data from three schools in Tulungagung and Trenggalek over the past three years indicate an upward trend in the number of graduates who have selected entrepreneurship as a career path, although there are fluctuations between years and schools. In addition to imparting practical business skills, the program fosters the development of essential soft skills, including creativity, leadership, and adaptability. Therefore, the incorporation of entrepreneurship education at VHS is a crucial element in the development of capable young entrepreneurs who contribute to the local economy.

The entrepreneurship curriculum at VHS has a beneficial ripple effect on students' cognitive abilities, creativity, managerial skills, and leadership aptitude. Through experiential learning opportunities such as internships and entrepreneurial projects, students develop self-assurance, autonomy, and resilience. The program also fosters collaboration and networking, which can enhance students' future employability, making them more prepared, innovative, and competitive in the professional sphere. Entrepreneurship education not only cultivates students' potential as successful entrepreneurs but also instills essential life skills.

It is notable that the entrepreneurship education provided at VHS contributes to the local economy in a number of ways. Firstly, new jobs are created as a result of this education, which in turn supports the local economy through the use of raw materials and services provided by local suppliers. Secondly, goods and services are provided by VHS graduates that meet the needs of the local community. The small businesses that are established by VHS graduates encourage innovation, economic diversification and an increase in local purchasing power, while simultaneously reducing unemployment rates. Furthermore, these businesses contribute to tax revenues that are used for public services, strengthen community ties and serve as models of inspiration for others.

The implementation of entrepreneurship education at VHS is confronted with a number of challenges, including a dearth of teacher expertise, limited resources and facilities, a lack of partnerships with industry, and restricted financial support. Cultural challenges and the integration of the curriculum also impede the efficacy of the program. To surmount these obstacles, it is advised that training for teachers be enhanced, that adequate facilities be provided, that partnerships with the industrial sector be cultivated, and that the community's mindset towards entrepreneurship be transformed. Collective endeavors from a multiplicity of parties will facilitate the overcoming of these challenges and the realization of optimal outcomes in entrepreneurship education at VHS, ensuring long-term benefits for students and society.

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