

The Influence of Technology-based Entrepreneurship Education on Generation Z's Entrepreneurial Readiness Through Intrinsic Motivation and Peer Support

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ABSTRACT

This study aims to analyze the influence of technology-based entrepreneurship education on Generation Z's entrepreneurial readiness through intrinsic motivation and peer support. The study was motivated by increasing competition in the world of work and the importance of entrepreneurship education as an alternative for preparing students to create business opportunities independently. Technology-based entrepreneurship education is considered relevant to Generation Z, who are familiar with digital technology in learning and business practices. This study employed a quantitative approach with an explanatory research design. The population consisted of 96 students, with 88 students selected as the sample using random sampling and the Slovin formula. Data were collected through a questionnaire distributed online using Google Forms and analyzed using IBM SPSS Statistics 26 through path analysis and the Sobel test. The results show that entrepreneurship education does not have a significant direct effect on entrepreneurial readiness. However, entrepreneurship education significantly affects intrinsic motivation and peer support. Intrinsic motivation does not significantly affect entrepreneurial readiness, whereas peer support has a significant effect on entrepreneurial readiness. The Sobel test indicates that intrinsic motivation and peer support significantly mediate the relationship between entrepreneurship education and entrepreneurial readiness.

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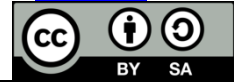
pendidikan kewirausahaan berbasis teknologi; kesiapan berwirausaha; motivasi intrinsik; dukungan teman sebaya; Generasi Z.

ABSTRAK

Penelitian ini bertujuan untuk menganalisis pengaruh pendidikan kewirausahaan berbasis teknologi terhadap kesiapan berwirausaha Generasi Z melalui motivasi intrinsik dan dukungan teman sebaya. Penelitian ini dilatarbelakangi oleh meningkatnya persaingan di dunia kerja dan pentingnya pendidikan kewirausahaan sebagai alternatif untuk menyiapkan siswa menciptakan peluang usaha secara mandiri. Pendidikan kewirausahaan berbasis teknologi dianggap relevan bagi Generasi Z yang akrab dengan teknologi digital dalam pembelajaran dan praktik bisnis. Penelitian ini menggunakan pendekatan kuantitatif dengan desain penelitian eksplanatori. Populasi terdiri dari 96 siswa, dengan 88 siswa dipilih sebagai sampel menggunakan teknik random sampling dan rumus Slovin. Data dikumpulkan melalui kuesioner yang disebarluaskan secara daring menggunakan Google Forms dan dianalisis menggunakan IBM SPSS Statistics 26 melalui analisis jalur dan uji Sobel. Hasil penelitian menunjukkan bahwa pendidikan

kewirausahaan tidak berpengaruh signifikan secara langsung terhadap kesiapan berwirausaha. Namun, pendidikan kewirausahaan berpengaruh signifikan terhadap motivasi intrinsik dan dukungan teman sebaya. Motivasi intrinsik tidak berpengaruh signifikan terhadap kesiapan berwirausaha, sedangkan dukungan teman sebaya berpengaruh signifikan terhadap kesiapan berwirausaha. Uji Sobel menunjukkan bahwa motivasi intrinsik dan dukungan teman sebaya secara signifikan memediasi hubungan antara pendidikan kewirausahaan dan kesiapan berwirausaha.

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Introduction

Vocational High Schools (SMK) play an important role in preparing students with practical skills that can be directly applied in the world of work. Vocational education focuses on developing vocational and technical competencies, while graduates are also expected to demonstrate creativity, adaptability, critical thinking, teamwork, and communication skills (Brunetti & Corsini, 2019; Hommel, 2024). Entrepreneurship education is important because it enables learners to apply entrepreneurial knowledge and skills through practical activities in real-world contexts (Ahmed et al., 2020). In an increasingly digital and global environment, entrepreneurship education also helps vocational students identify business opportunities and innovation as initial capital for business formation (Griantari & Sri Wati, 2023).

Entrepreneurship education can also develop entrepreneurial characteristics such as confidence, risk-taking, and persistence (Dharma et al., 2020). Previous research further indicates that entrepreneurship education can contribute to entrepreneurial readiness, particularly when learning is accompanied by practical experiences and the development of entrepreneurial competencies (Pudjiastuti et al., 2024). The social environment is another important aspect. Peers can function as motivators and learning partners, while discussions concerning business planning, financial management, and promotion can facilitate learning and create stronger connections among students (Osborn et al., 2022; Patel et al., 2024). Peer support can also create a positive learning atmosphere and increase students' interest and focus (Pham & Muralles, 2023).

At SMK Adhikawacana Surabaya, students in the Office Management and Business Services program receive entrepreneurship education through both theory and practice. Students plan businesses, produce products, market them independently, and prepare financial reports. They also use digital technologies such as ChatGPT for business ideas, BukuWarung and BukuKas for financial management, Canva for design, and Shopee for marketing. These activities provide students with direct entrepreneurial experiences.

However, observations indicated that students' motivation could decrease when they were placed in groups without their close friends or when some group members were perceived as less active. This phenomenon suggests that entrepreneurial readiness may be shaped not only by educational experiences but also by psychological and social factors. Therefore, this study examines the direct and indirect relationships among entrepreneurship education, intrinsic motivation, peer support, and entrepreneurial readiness.

Methods

This study used a quantitative approach with an explanatory research design. The population consisted of 96 students in the Office Management and Business Services program at SMK Adhikawacana Surabaya. Using the Slovin formula with a 3% error level, 88 students were selected as the sample through random sampling. The study included four variables: Entrepreneurship Education (X), Intrinsic Motivation (Z1), Peer Support (Z2), and Entrepreneurial Readiness (Y). Data were collected through an online questionnaire using a five-point Likert scale. The instrument was tested for validity and reliability. Cronbach's Alpha values were 0.850 for Entrepreneurship Education, 0.938 for Intrinsic Motivation, 0.911 for Peer Support, and 0.948 for Entrepreneurial Readiness, indicating reliable instruments. Data were analyzed using IBM SPSS Statistics 26. Path analysis was applied to examine direct relationships among variables, while the Sobel test was used to examine the indirect effects through intrinsic motivation and peer support. Path analysis is a development of multiple linear regression used to analyze causal relationships among variables (Wooldredge, 2021), while hypothesis testing is used to evaluate claims concerning a population based on sample data (Emmert-Streib & Dehmer, 2019).

Results

Hypothesis Testing

The hypothesis testing results show that entrepreneurship education did not have a significant direct effect on entrepreneurial readiness, while it significantly affected intrinsic motivation and peer support. Intrinsic motivation did not have a significant direct effect on entrepreneurial readiness, whereas peer support significantly affected entrepreneurial readiness.

Hypothesis	Relationship	Statistic	Decision
H1	Entrepreneurship Education → Entrepreneurial Readiness	t=0.800; Sig.=0.426	Rejected
H2	Entrepreneurship Education → Intrinsic Motivation	t=7.332; Sig.=0.000	Accepted
H3	Entrepreneurship Education → Peer Support	t=2.262; Sig.=0.026	Accepted
H4	Intrinsic Motivation → Entrepreneurial Readiness	t=1.848; Sig.=0.061	Rejected
H5	Peer Support → Entrepreneurial Readiness	t=5.908; Sig.=0.000	Accepted
H6	Entrepreneurship Education → Intrinsic Motivation → Entrepreneurial Readiness	Z=5.629; p=0.001	Accepted
H7	Entrepreneurship Education → Peer Support → Entrepreneurial Readiness	Z=5.734; p=0.000	Accepted

Support →
Entrepreneurial
Readiness

Coefficient of Determination

The reported model produced an R value of 0.800, an R Square of 0.640, and an Adjusted R Square of 0.627. These results indicate that the model explains a substantial proportion of the variance in the dependent variable, while the remaining proportion is associated with factors outside the model.

Mediation Test

The Sobel test confirmed significant mediation through both intervening variables. The entrepreneurship education → intrinsic motivation → entrepreneurial readiness pathway produced $Z=5.629$ with $p=0.001$. The entrepreneurship education → peer support → entrepreneurial readiness pathway produced $Z=5.734$ with $p=0.000$. Thus, both intrinsic motivation and peer support significantly mediate the relationship between entrepreneurship education and entrepreneurial readiness.

Discussion

Entrepreneurship Education and Entrepreneurial Readiness

The finding that entrepreneurship education did not significantly affect entrepreneurial readiness directly differs from previous evidence suggesting that entrepreneurship education can improve readiness (Pudjiastuti et al., 2024). This difference may be related to the characteristics and duration of the practical learning experience. In the present setting, students receive entrepreneurial practice at school, but the experience is still conducted within a relatively controlled educational environment. Entrepreneurship learning is not merely a transfer of information. Rae (2006) conceptualizes entrepreneurial learning as a social and experiential process in which learners develop through real experiences, relationships, business activities, feedback, and personal interpretation. Therefore, entrepreneurship education may require sustained real-world exposure before it translates into strong entrepreneurial readiness.

Entrepreneurship Education and Intrinsic Motivation

Entrepreneurship education significantly affected intrinsic motivation. The thesis findings indicate that learning methods were the strongest aspect of entrepreneurship education, while students' interest was a prominent aspect of intrinsic motivation. This is consistent with the view that students' motivation is strengthened when learning activities provide interest, curiosity, and personal value (Pintrich, 2003). Self-determination theory also emphasizes the importance of autonomy, competence, and relatedness in supporting intrinsic motivation (Deci & Ryan, 2000; Ryan & Deci, 2020). Entrepreneurship activities that allow students to explore business ideas and make decisions can therefore provide opportunities for these psychological needs to develop.

Entrepreneurship Education and Peer Support

Entrepreneurship education significantly affected peer support. The finding is consistent with the social and experiential perspective of entrepreneurial learning proposed by Rae (2006), in which social interaction, teamwork, reflective conversations, collaboration, and mutual learning contribute to entrepreneurial development. The students' entrepreneurial practices require them to divide roles and responsibilities. Some students may lead groups, manage funds, promote products, or contribute other skills. Such collaboration allows students to complement one another's knowledge and skills and strengthens teamwork (Smith et al., 2024). Peer discussion can also help students understand learning material and business-related problems (Patel et al., 2024).

Intrinsic Motivation and Entrepreneurial Readiness

Intrinsic motivation did not have a significant direct effect on entrepreneurial readiness. Although intrinsic motivation is theoretically associated with engagement and persistence in learning (Vallerand et al., 1992; Pintrich, 2003), the present findings indicate that internal interest alone may not be sufficient to produce practical entrepreneurial readiness. Students may enjoy entrepreneurship and be curious about business activities but still require practical experience, competencies, confidence, and social support before they are ready to undertake entrepreneurial action. This finding also suggests that psychological motivation may operate more effectively through broader learning and social processes rather than as an isolated predictor.

Peer Support and Entrepreneurial Readiness

Peer support significantly affected entrepreneurial readiness. This finding is consistent with the role of peers as learning partners and sources of practical and emotional support. Peer support can provide students with opportunities to exchange information, solve problems, and receive encouragement during entrepreneurial activities (Osborn et al., 2022; Patel et al., 2024). The thesis findings identify behavioral support as the dominant aspect of peer support. Practical assistance from peers can make students feel supported and more confident when dealing with entrepreneurial challenges. This is consistent with Eberhart et al. (2022), who emphasize the social dimensions of entrepreneurial activity and the importance of interaction in entrepreneurial processes.

Mediation through Intrinsic Motivation

The Sobel test showed that intrinsic motivation significantly mediates the relationship between entrepreneurship education and entrepreneurial readiness. This indicates that entrepreneurship education can contribute to readiness indirectly by generating students' internal interest and engagement. The result is compatible with Rae's (2006) experiential view, in which entrepreneurial identity and motivation develop through meaningful experiences and personal interpretation. Thus, the effectiveness of entrepreneurship education should not be evaluated solely by whether students acquire entrepreneurial knowledge. Learning experiences also need to encourage students to find personal meaning and interest in entrepreneurial activities.

Mediation through Peer Support

Peer support also significantly mediates the relationship between entrepreneurship education and entrepreneurial readiness. The finding supports the idea that entrepreneurship learning is partly social: students learn through collaboration, discussion, mutual assistance, and shared experiences (Rae, 2006). The result is also consistent with research emphasizing peer effects and social interaction in entrepreneurial behavior (Portyanko et al., 2023). When students receive behavioral and emotional support from peers, they may feel more secure, confident, and willing to participate in entrepreneurial activities. Therefore, group-based entrepreneurship learning can function as an important bridge between educational experiences and entrepreneurial readiness.

Conclusion

The study concludes that technology-based entrepreneurship education does not have a significant direct effect on entrepreneurial readiness among students at SMK Adhikawacana Surabaya. However, entrepreneurship education significantly affects intrinsic motivation and peer support. Intrinsic motivation does not significantly affect entrepreneurial readiness directly, whereas peer support has a significant direct effect. Both intrinsic motivation and peer support significantly mediate the relationship between entrepreneurship education and entrepreneurial readiness.

These findings indicate that entrepreneurial readiness is not formed solely through the delivery of entrepreneurial knowledge. Practical experience, meaningful learning, peer interaction, collaboration, and social support are important components of the process. Entrepreneurship education in vocational schools should therefore be strengthened through continuous practical activities, opportunities to interact with real business environments, collaborative projects, and reflective learning.

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