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THE IMPACT OF DIGITAL ENTREPRENEURIAL COMPETENCIES, DIGITAL LITERACY AND GOVERNMENT SUPPORT ON DIGITAL ENTREPRENEURSHIP USING REGRESSION ANALYSIS

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ABSTRACT

Digital entrepreneurship in rural Malaysia is limited, with small businesses struggling to use digital tools and develop entrepreneurial skills. This study explores the impact of digital literacy, entrepreneurial skills, and government support on small businesses, areas that have not been fully studied. It also looks at the role of youth in Terengganu in promoting digital entrepreneurship, in line with Malaysia's National Entrepreneurship Policy. The study found that digital literacy and entrepreneurial competencies explain 37.3% of digital entrepreneurship, with government support and interaction effects increasing this effect by an additional 5%. Digital literacy and entrepreneurial competencies significantly impact digital entrepreneurship, with entrepreneurial competencies having a stronger influence. Government support does not impact digital entrepreneurship, but combining digital literacy with government support does. In rural areas, limited resources and knowledge may reduce the effectiveness of government aid. The government should prioritize training programs, like workshops and mentorships, to improve digital skills and business capabilities, in collaboration with academic institutions. This strategy would assist business owners in acquiring the useful abilities required for success in the digital economy. It highlights the importance of continuous learning and offers key insights for educators and policymakers to foster skills.

Keywords: *Digital Entrepreneurship, Digital Literacy, Digital entrepreneurial competence, Government support*

1. INTRODUCTION

Entrepreneurship is the backbone of economic development and stability in any country. Malaysia has taken a giant step through the introduction of the National Entrepreneurship Policy, DKN 2019, aspiring to rank among the entrepreneurial leaders in the world by the year 2030. This policy looks toward establishing a holistic ecosystem for entrepreneurship development to realize an inclusive economy compatible with Industry 4.0. While the economy is increasingly being embedded with digital technologies, Malaysia recognizes the strategic potential of the digital economy for spurring inclusive growth globally (Kulub Abd. Rashid et al., 2022).

Digital entrepreneurship can be defined as the process of seeking new business opportunities

enabled by digital technologies and the internet. It means coming up with new business models and implementing them, which involve using digital platforms to both create and exchange products (George & Edghiem, 2023; Mishra, 2023; Milošević et al., 2024). According to Kollmann & Jung (2022), digital entrepreneurship involves leveraging technology to create new business models that enhance customer experiences and improve operational efficiency.

On the contrary, with the availability of relevant digital tools, digital entrepreneurship would only be doomed to failure when the owners of the business lack digital entrepreneurial competencies. These competencies involve skills in digital marketing, data analytics, and the management of platforms—all important in creating competitive advantages within a digital economy. Lack of such competencies would invariably raise significant challenges to the sustainability of growth of entrepreneurship ventures within a digitized environment. Digital literacy boosts these competencies by helping entrepreneurs find, evaluate, and use digital tools and information effectively. It allows them to access valuable market insights, assess the reliability of online content, and manage their digital presence. With these skills, entrepreneurs can make better decisions, optimize strategies, and stay competitive in a fast-changing digital world. In fact, it is the set of skills necessary to harness new technologies and bring in further innovation. Therefore, low levels of digital literacy would hold an entrepreneur back from fully utilizing the available opportunities presented by these tools. This is quite negative for the country's economy because SMEs are a very important part of it, yet they are frequently short of digital capabilities and resources.

Moreover, there is the relevance of government support to creating an enabling environment for digital entrepreneurship. Many government initiatives, training programs, finance, and policies are put in place to reduce the threshold for adopting a digital business. However, the accessibility and awareness of such initiatives remain a challenge. The above calls for a structured approach toward meeting the idea that the mechanisms underlying government support for digital literacy and competencies among entrepreneurs become available to them and function in an efficient manner.

The study, therefore, explores the interaction of digital literacy and government support for entrepreneurial competencies to clearly understand how the different components interact and affect the degree to which entrepreneurs can use the digital opportunities. The specific focus is on the extent to which government initiatives may be bridging any possible gaps between digital literacy and entrepreneurial competencies to advance the ecosystem in digital entrepreneurship in Malaysia. Conclusions will be made to develop strategic recommendations that will enhance the entrepreneurial readiness, digital skills of people, and effectiveness in government policy to help Malaysia achieve its aspirations for a robust digital economy come 2030.

2. LITERATURE REVIEW

2. 1. DIGITAL LITERACY

Digital literacy for entrepreneurs is defined as one's ability to adapt to the continuous development in technology, which allows them to communicate through various mediums and market their products, analyse trends, and thereby respond to the market demand for the goods and services. As asserted by Sariwulan et al. (2020), this ability doesn't just need to be at par with the changes in technology but needs to be proactive, extending the new tools and methodologies in one's business as a way of competing. Digital literacy among entrepreneurs can help in the effective use of digital media for communication and marketing, thus influencing their entrepreneurial performance positively.

Study by Achmad et al. (2024) highlights the significant role of digital literacy in empowering

farmers to leverage digital technologies for business operations. Other studies underscore the critical importance of digital literacy and digital transformation in enhancing entrepreneurial performance and boosting competitiveness in the digital economy (Duc et al., 2024; Mićić & Mastilo, 2022).

In fact, such digital literacy combined with entrepreneurial interest may be clearly outlined among students, according to Mulyati, (2023), and this could have significant implications for building the entrepreneurial spirits of their youth. The combination of digital literacy and entrepreneurial efficacy, in fact, is an essential factor affecting entrepreneurial intentions when complemented by experiential entrepreneurship education, as seen by Setiawati et al., (2022). All these findings put together indicate that digital literacy plays a crucial role in enabling entrepreneurs to access, manage, and utilize digital media effectively to communicate and market themselves, leading to better entrepreneurial performance, interest and intention in entrepreneurship.

It is a dynamic skill set in simple terms, which involves much more than the basic usage of technology. In its core, it involves continuous learning and adaptation with changing technology, using digital media to enhance communication and marketing, data analysis for proper decision-making, and understanding demand for services and goods required through the digital marketplace. A holistic approach to digital literacy empowers the entrepreneur to understand how complex the digital world is and grasp its opportunities.

Additionally, Ji and Zhuang (2023) investigated the relationship between farmers' digital literacy and their entrepreneurial success in Jiangsu Province. They discovered that farmers who were more proficient with technology had more success in their businesses. The research indicated that two key elements, entrepreneurial bricolage (the creative use of available resources) and opportunity identification (recognizing new business opportunities), play a significant role in linking digital skills to better business outcomes. Farmers with digital literacy are more inclined to optimize their resources, discover new opportunities, and enhance their entrepreneurial performance. The study emphasizes the significance of digital literacy in enabling farmers to thrive and reinforces the notion that enhancing digital skills may assist in fostering long-term economic and social development in rural areas.

Besides, Firmansyah et al. (2023) investigated the connection between market orientation, digital literacy, digital transformation, and entrepreneurial performance in the context of the digital economy and found that, either individually or in combination, digital transformation and digital literacy significantly improve market orientation. Digital literacy and digital transformation also have a direct impact on entrepreneurial success.

The study revealed that market orientation serves as a mediator, increasing the impact of digital transformation on entrepreneurial performance. The study finds that digital literacy and digital transformation play a vital role in enhancing market orientation and entrepreneurial performance within the digital economy. It indicates that businesses need to alter their marketing strategies to align with these changes. Future research may explore the influence of innovative marketing models on digital transformation, digital literacy readiness, and market orientation, as well as the approaches in which these factors ultimately affect business performance.

Moreover, Mulyati's (2023) study examined the impact of entrepreneurship education, digital literacy, and self-efficacy on students' interest in entrepreneurship. A survey conducted with 106 students from Economics Education found that entrepreneurship education, digital literacy, and self-confidence (self-efficacy) positively influence students' interest in entrepreneurship. The study additionally indicated that students exhibited strong skills in both entrepreneurial and digital literacy. The importance of providing entrepreneurship education and fostering digital

skills, both in formal education and informal settings, is highlighted as essential for encouraging young people to start their own businesses. The study emphasizes the importance of improving digital literacy in education, especially for startup businesses, to bolster students' entrepreneurial interest.

2. 2. DIGITAL ENTREPRENEURIAL COMPETENCE

Digital entrepreneurial competence is more than the creation of a business—it is about the competencies and skills that contribute toward effectiveness in the digital business environment. It has many dimensions and sub-competencies within its scope, such as opportunity identification, action planning, and integration of cognitive, emotional, and practical competencies in entrepreneurship. Moreover, it involves specific digital skills like managing online stores, promoting businesses, participating in community-based initiatives, analysing data, ensuring cybersecurity, navigating cloud computing, and understanding artificial intelligence. Given the ever-changing nature of our world, honing digital entrepreneurial competence is crucial, underscoring the importance of specialized training to refine these skills (George & Edghiem, 2023).

For instance, it was evidenced that among university students, the differences in digital entrepreneurial competence can be explained by their individual characteristics (Simovic et al., 2023). More precisely, in the healthcare sector, the level of digitalization plays an important role in explaining the entrepreneurial mindset of youth with medical backgrounds (Patru et al., 2023b). While vocational education is important in the preparation of people for entrepreneurship, there has been identified a lack of both entrepreneurial orientation and support for digital competency in this domain (Triyono et al., 2023a).

According to the study by Singh et al. (2024), digital entrepreneurial competence is a key factor linking education and training to the intention of starting a business. Entrepreneurial training, which involves both passive and experiential learning, plays an important role in developing innovative capabilities. The multidimensional nature of entrepreneurship helps identify opportunities and foster an innovative mindset. More importantly, higher levels of competence have a positive impact on the intention to start a business, with an emphasis on enhancing digital entrepreneurial competence through a combination of theory and practice in the digital era.

Simovic et al. (2023) undertook research to measure the digital entrepreneurship abilities of university students in Kuwait and Serbia, gathering preliminary data using a questionnaire based on the framework established by Kluzer and Priego. The findings revealed considerable disparities in students' levels of digital entrepreneurial ability, which were connected to a variety of variables including personal traits, educational backgrounds, and access to digital resources. The study aimed to determine how effectively educational programs equip students for employment opportunities in digital entrepreneurship and the labour market after graduation. It found that present educational initiatives do not entirely meet the skills needed for success in the digital economy. Therefore, the study underlines the need for institutions to modify their curriculum to prepare students for the digital and entrepreneurial skills required by today's workforce.

Quantitative research by Patru et al. (2023a) investigated the connection between digital technology and the growth of entrepreneurial abilities in young medical professionals. The research used PLS-SEM (Partial Least Squares Structural Equation Modelling) to evaluate data from 395 young people with medical backgrounds. The study suggests that developing entrepreneurial competencies in the medical field is crucial for adapting to digital changes and delivering high-quality services with fewer medical errors. According to the study, the digitization of the healthcare industry has encouraged many young individuals in the medical area to pursue entrepreneurship. The availability and usability of new technologies in the medical field were

identified as key factors influencing their entrepreneurial aspirations. The study highlighted that the COVID-19 pandemic revealed the necessity for strong entrepreneurial skills in healthcare, stressing the significance of educating young individuals in these competencies to foster sustainable healthcare practices. Therefore, the digital transformation of the medical sector significantly enhances the accessibility and functionality of emerging technologies, encouraging young medical professionals to explore entrepreneurial opportunities. The research indicates that nurturing entrepreneurial skills in this field is crucial for tackling evolving healthcare issues and ensuring its long-term sustainability. The study suggests that vocational education providers enhance the integration of technology in learning, offer entrepreneurship education and training programs, and establish connections with local business communities.

Singh et al. (2024) carried out a quantitative study to evaluate the influence of digital entrepreneurship education and training on entrepreneurial intention, emphasizing the mediating role of entrepreneurial competencies. The research revealed that digital entrepreneurial education greatly improves both digital entrepreneurial competences and intentions. Digital entrepreneurial competence encompasses skills, mindset, and knowledge, serving as a mediator in the relationship between digital education and entrepreneurial intention. This indicates that enhancing these competencies enables individuals to develop a greater intention to engage in entrepreneurship. Additionally, both passive learning methods, such as lectures, and experiential learning approaches, like hands-on practice, were shown to effectively enhance innovative capabilities and entrepreneurial effectiveness. The study emphasizes the importance of digital entrepreneurial training programs in developing entrepreneurial competencies, which subsequently motivate individuals to pursue entrepreneurial ventures and overcome challenges in the process.

2. 3. GOVERNMENT SUPPORT

Digital entrepreneurship, e-commerce based on global connectivity, is therefore an important generator of economic growth (Huseyn & Abasova, 2024). One of the very critical mediating factors in the development and success of digital entrepreneurship initiatives is the support garnered by the government. This may be in the form of initiatives and funding programs that foster digital entrepreneurship, such as through grants, subsidies, or tax incentives, motivating aspiring entrepreneurs to take up the digital space (Mian et al., 2016). Such initiatives act as catalysts, lowering barriers to entry and fostering a conducive environment for startups to grow (Xie et al., 2023). The government has an important role in helping small service businesses transition into the digital era (Matviienko-Biliaieva et al., 2023).

There are many barriers to this transformation, including the lack of funding, limited digital know-how, and a shortage of skills, in addition to the technical barriers. Those challenges prevent small service firms from successfully implementing digital strategies and technologies. The lack of funds restricts their potential to invest in necessary digital infrastructure and resources. A lack of digital skills and human resources may also become an obstacle in successfully adopting and exploiting digital technologies. Another element that may delay the progress of digital transformation efforts involves technical challenges such as old systems or lack of access to the technology needed. To overcome these barriers, government support is crucial, offering funding, training, and resources to empower small service businesses in their digital transformation. The government's role in supporting digital transformation includes providing financial support, promoting digital payment systems, offering digital skills training, and fostering a collaborative digital environment. Additionally, government subsidies are crucial for enterprises to successfully implement innovative ideas. The study by Jayeola et al. (2022), found a positive link between government financial support and the financial performance of SMEs.

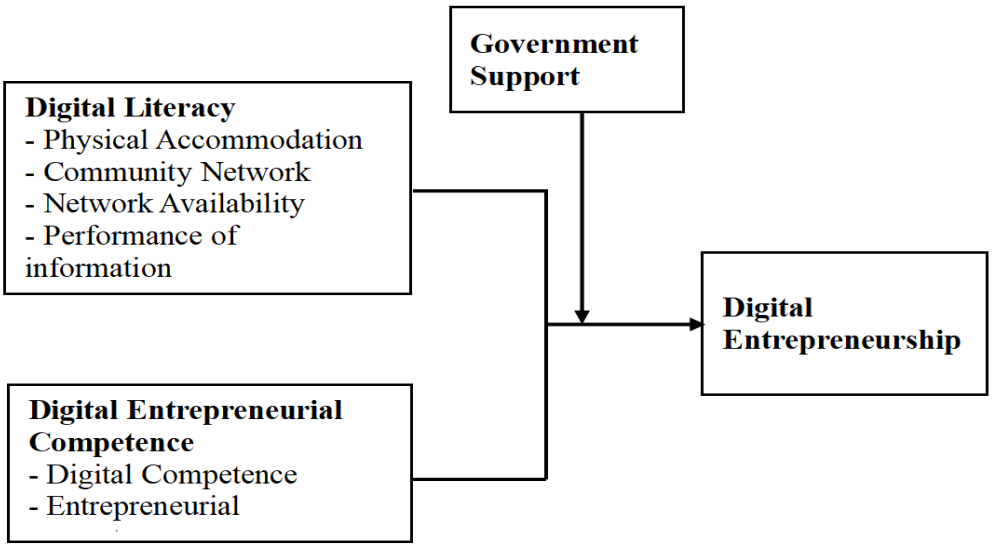
The government's financial support could enable SMEs to achieve resources as well as abilities that enhance their competitiveness (Pamučar et al., 2022). There was a positive relationship of government financial support to profit, market share, and overall financial performance of SMEs located in countries such as Korea, China, Vietnam, and Malaysia. Some forms of government financial support that aided in improved financial performance for SMEs were tax incentives, preferential interest loan rates, and government financial assistance programs. This relationship between government financial support and financial performance is mediated by factors like cloud-based ERP (enterprise resource planning software) and competitive advantage, which indicated the holistic relationship between them. According to Zhao & Collier, (2016) outcomes, the development of digital entrepreneurial capability is dependent upon collaboration between the government, industry, business, academic institutions, and NGOs (non-governmental organizations) (Ali et al., 2020). The key to creating a strong innovative ecosystem in digital entrepreneurship lies in the active support and collaboration of these different entities (Belas et al., 2024).

In addition, educational institutions can play a vital role in fostering digital entrepreneurship among schoolchildren in rural areas by providing access to digital technologies such as mobile devices, tablets, and smartphone applications for educational purposes. Teachers will help improve the level of digital literacy and provide students with hands-on experience in using digital tools by embracing the mentioned technologies in their curriculum. The mystery surrounding technology is lifted, hence nurturing an entrepreneurial mind among students. They develop skills in using digital tools for creative problem-solving, critical thinking, and innovation.

3. CONCEPTUAL FRAMEWORK

As shown in Figure 1 below, the independent variables include factors such as digital literacy and digital entrepreneurial competence, both of which can influence digital entrepreneurship (the dependent variable). Government support serves as a moderator, affecting the relationships between these independent variables and digital entrepreneurship. Specifically, the interaction term Digital Literacy* Government Support represents the combined impact of digital literacy and government support on digital entrepreneurship. Similarly, the interaction term Digital Entrepreneurial Competence*Government Support reflects the joint effect of digital entrepreneurial competence and government support on digital entrepreneurship outcomes.

Figure 1. Conceptual Framework of Digital Entrepreneurship



Source: Created by author

4. METHODOLOGY

4. 1. DATA COLLECTION

This study employs a quantitative analysis based on surveys conducted with youth in Terengganu, including the districts of Kuala Terengganu, Kemaman, Dungun, Marang, Hulu Terengganu, Besut, and Kuala Nerus. A total of 348 youth participants were selected, with data compiled from the Malaysia Department of Statistics (DOSM). The self-administered questionnaires were distributed in person, and after excluding outliers, the analysis was conducted using the responses from all 348 participants.

4. 2. QUESTIONNAIRE MEASUREMENT

The questionnaire outlines the key variables and specifies the number of 5-point Likert scale questions used to assess each variable in this study. The digital literacy (independent variable) is measured across four key dimensions: physical accommodation, community network, network availability, and the performance of information technology use. Each dimension is assessed using 12 questions, which are discussed in more detail within the study. The study also examines digital entrepreneurial competence, another independent variable, which is divided into two components: digital competence (measured by 7 questions) and digital entrepreneurial competence (measured by 8 questions). Government support is included as a moderator in the study and is measured using 6 questions focused on the role of government assistance in fostering digital entrepreneurship. Finally, digital entrepreneurship, the dependent variable, is measured using 24 questions to assess how entrepreneurs utilize information technology in their ventures. This structured approach allows the study to comprehensively evaluate the factors influencing digital entrepreneurship, with a particular focus on the roles of digital literacy, digital entrepreneurial competence, and government support.

4. 3. DATA ANALYSIS

This study utilized multiple linear regression analysis to assess the relationships between digital literacy and digital entrepreneurial competence, which serve as independent variables, and digital entrepreneurship, the dependent variable, while considering government support as a moderating variable. The reason for using multiple regression is that it allows for the examination of how multiple independent variables simultaneously influence the dependent variable. This case, the analysis helps to understand the individual and combined effects of digital literacy and digital entrepreneurial competence on digital entrepreneurship while accounting for the potential moderating role of government support. This method is particularly useful for identifying the strength and nature of these relationships and providing a more comprehensive understanding of the factors influencing digital entrepreneurship.

A Kolmogorov-Smirnov test was conducted to assess the normality of the data. The results indicated that all variables followed a normal distribution, as the test showed no significant deviations from normality. The p-values for all variables were greater than 0.05, confirming that the data met the normality assumption. As a result, the data was normal distributed, allowing for the use of parametric tests.

5. RESULT AND DISCUSSION

5. 1. DEMOGRAPHIC CHARACTERISTICS OF RESPONDENT

The demographic information for the respondents in Terengganu is presented in Table 1a. There are 17 questions about the respondents. According to the table, most of the respondents were

female 188 (54%) and males 160 (46%) aged between 18-22 years old (45.4%) followed by 23-27 years old (35.1%). Only 9 youths in the category of 38-39 years old participated in this study. Aside from that, Malays make up most responses (98.3%), with Chinese (1.1%) and Indians following closely behind (0.3%). However, other races contributed about 0.3% of the total answer, and the details are unknown. As presented in Table 1b, most of the youth come from various districts such as Kuala Terengganu (48%), Marang (20.7%), Kuala Nerus (12.9%) and Dungun (6%). Besides that, other districts such as Kemaman, Hulu Terengganu and Besut also contributed around 12.3% to the study. In terms of marital status, 277 young people are single and have not yet married. However, 67 of the 348 young people are already married and have a family. Despite this, just 4 of them become widows or widowers by the time they reach a young age. However, most of them (160 people) have a skills certificate/STPM/Diploma, followed by degree holders (112 people) and SPM holders (67 people). Only 2 of them, however, stated that they have PMR and are unschooled.

In terms of money, most of the respondents (181 in total) stated that their monthly income is less than RM500. Around 30 respondents stated that their income ranges from RM501 to RM1000. Other respondents, totalling 137 people (or 39.4%), stated that their monthly income exceeds RM1000.

Even though most of them are single, some of them have responsibilities to their parents and relatives, as only 244 of them have no dependents. Aside from that, 103 persons said they have a responsibility to 1-5 dependents, and 0.3% said they have a responsibility to more than 5 dependents. Table 3 also demonstrates that students make up most of the youth (157 persons, or 45.1%), followed by those engaged in private agencies (30.5%). Only ten people out of a total of 365 worked for the government. The rest of them (12.6%) said they run their own business, and 31 said they worked in a different sector than stated. 347 persons are Malaysians, with only 1 person (0.3%) reporting as a foreigner in terms of nationality.

In terms of pay earnings, 156 of them said they were paid based on their duties, while just 112 said they were paid every month. However, 32 and 31 people, respectively, received their pay hourly and daily. Nonetheless, 4.9% of the youngsters, or 17 of them, were paid weekly. Around 202 people said they have their own business, which included sole proprietorships (77 people), private limited companies (90 people), partnerships (19 people), and limited companies (16 persons). However, the rest of the respondents (around 146 people) chose the other option, which could result in a different answer from the ones given.

Approximately 82.8% said they had either some or no experience in entrepreneurship. However, only about 9 people out of the total have 7 to 10 years of entrepreneurship experience. Aside from that, just 12 of them had a truly entrepreneurial experience when they claimed to have done so for more than 10 years. Approximately 39 respondents (11.2%) indicated they have worked in entrepreneurship for between 4 and 6 years.

In terms of entrepreneurship, nearly half of them said they had a food and beverage business, with 17.8% saying they were an agent for Food Panda or Grab Food. 64 persons, on the other hand, stated they concentrated on appearance by considering cosmetics and garments as their major business. Only 4 people said they were involved in multi-level marketing as a business product. Around 60 people said that they had products other than those listed.

Table 1. Demographic profile of Respondent

	Profile demographics	Response (N=348)	Percent (%)
1. Gender			
	Male	160	46
	Female	188	54
2. Age			
	18-22 years old	158	45.4
	23-27 years old	122	35.1
	28-32 years old	39	11.2
	33-37 years old	20	5.7
	38 and 39 years old	9	2.6
3. Race			
	Malay	342	98.3
	Chinese	4	1.1
	Indian	1	0.3
	Others	1	0.3
4. Residence			
	Kuala Terengganu	167	48
	Kemaman	13	3.7
	Dungun	21	6
	Marang	72	20.7
	Hulu Terengganu	16	4.6
	Besut	14	4
	Kuala Nerus	45	12.9
5. Marital status			
	Single	277	79.6
	Married	67	19.3
	Widow/widower	4	1.1
6. Educational background			
	Unschooled	7	2
	PMR/SRP and below	2	0.6
	SPM	67	19.3
	STPM/Skills certificates/Diploma	160	46
	Degree and above	112	32.2

Source: Created by author

Table 1 (Continued). Demographic profile of Respondent

		Response (N=348)	Percent (%)
7. Income per month			
	RM0-RM500	181	52
	RM501-RM1000	30	8.6
	RM1001-RM1500	63	18.1
	RM1500 and above	74	21.3
8. Number of dependents			
	1-May	103	29.6
	5 and above	1	0.3
	0 (no dependents)	244	70.1
9. Employment sector			
	Government agency	10	2.9
	Private agency	106	30.5
	Business	44	12.6
	Students	157	45.1
	Others	31	8.9
10. Nationality			
	Malaysia	347	99.7
	Others	1	0.3
	Kuala Nerus	45	12.9
11. Salary earnings			
	Duty-based salary	156	44.8
	Hour-based salary	32	9.2
	Weekly-based salary	17	4.9
	Monthly-based salary	112	32.2
	Daily based salary	31	8.9
12. Business ownership			
	Sole proprietorships	77	22.1
	Private limited company (Syarikat Sdn. Bhd)	90	25.9
	Partnership	19	5.5
	Limited company (Syarikat Berhad)	16	4.6
	Others	146	42
13. Experience in entrepreneurship			
	0-3 years	288	82.8
	4-6 years	39	11.2
	7-10 years	9	2.6
	10 years and above	12	3.4
14. Business product			
	Food and beverages	129	39.9
	Cosmetics	37	7.8
	Garments	27	10.6
	Food panda/Grab food	62	17.8
	Dropship	19	5.5
	Multi-level marketing (e.g., Amway, Tupperware etc.)	4	1.1
	Others	60	17.2

Source: Created by author

Although 294 respondents expressed an interest in entrepreneurship, they reported not having participated in any public or private entrepreneurial training. Only 54 individuals indicated

they had undergone entrepreneurship training programs such as Digital Marketing HRDF, IN-SUEN MARA, Essential Steps to Success, Ozir Zuri Strategy Business, and TM Digital, among others. Regarding promotional methods, 103 young entrepreneurs primarily used Facebook to promote their businesses, while WhatsApp and websites ranked second and third, with 17.2% and 17.5% usage, respectively. In addition to online platforms, offline methods like brochures, banners, and face-to-face advertising were also utilized. Interestingly, one respondent selected YouTube as their main promotional channel, while 6.3% of participants used other platforms. In terms of financial assistance, 327 of them said they had received none from the government, while only 21 said they had received assistance from TEKUN, Geran Khas Prihatin, Bantuan Prihatin Nasional, My Kasih Capital, and sewing tools.

Table 1 (Continued). Demographic profile of Respondent

		Response (N=348)	Percent (%)
15. Have you ever attended any entrepreneurship training?			
	Yes	54	15.5
	No	294	84.5
16. What are the main strategies you implement to promote your company?			
	Off-line (pamphlet/banner/face to face)	52	14.9
	Online (website)	61	17.5
	Online (Facebook)	103	29.6
	Online (Instagram)	33	9.5
	Online (Twitter)	12	3.4
	Online (Tik Tok)	2	0.6
	WhatsApp	60	17.2
	Google search	2	0.6
	YouTube	1	0.3
	Others	22	6.3
17. Have you ever gotten government financial assistance for your business?			
	Yes	21	6
	No	327	94

Source: Created by author

5. 2. CORRELATION ANALYSIS

Pearson's correlation was used to assess the bivariate relationship between two continuous variables, as the normality assumption for the data was met. The correlation coefficient ranges from -1.00 to +1.00, with the sign indicating whether the relationship is positive or negative. For valid correlation analysis, each variable must be normally distributed, which was confirmed in this study. Since all variables passed the normality test, the correlation results in Table 2 are reliable and unbiased. The strength of the relationship is determined by the correlation coefficient: values closer to +1.00 or -1.00 indicate a strong relationship, while values near 0.00 indicate a weak relationship. The strength of the correlation is further explained in Table 2, following the guidelines provided by Ibrahim (2010).

Table 2. Interpretation of correlation index value

Correlation index value	Interpretation
0.00-0.20	Very weak
0.21-0.40	Weak
0.41-0.70	Moderate
0.71-0.90	Strong
0.91-1.00	Very strong

Source: Ibrahim (2010)

Based on the correlation results presented in Table 3, all variables demonstrate significant relationships, as evidenced by correlation values (r) that are significant at the 0.01 level, which is well within the 99% confidence interval (George & Mallery, 2019; Morgan et al., 2019; Pallant, 2020). The positive values of these correlations further indicate that each pair of variables moves in the same direction, suggesting a positive relationship among them.

Specifically, digital literacy exhibits a moderate positive correlation with government support (r = 0.561**), meaning that as digital literacy increases, there is also a moderate increase in government support. This suggests that higher levels of digital literacy are associated with stronger government support in the context of digital entrepreneurship. The correlation between digital literacy and digital entrepreneurship is close to being weak because the correlation coefficient (r = 0.401) is relatively low. In correlation analysis, values closer to 0 indicate a weak relationship, while values closer to 1 or -1 suggest a stronger relationship. A correlation coefficient of 0.401 is just above the threshold that typically defines a moderate correlation (around 0.4). Thus, the relationship between digital literacy and digital entrepreneurship, as reflected by a correlation of 0.401, indicates a positive but moderate association.

On the other hand, digital entrepreneurial competence shows a moderate correlation with both government support (r = 0.505**) and digital entrepreneurship (r = 0.604**). These results indicate that increased entrepreneurial competencies are linked to higher levels of government support and stronger outcomes in digital entrepreneurship. Similarly, government support shows moderate positive correlations with both digital entrepreneurial competence (r = 0.505**) and digital entrepreneurship (r = 0.488**).

In conclusion, the correlation results indicate significant positive relationships among all variables, with correlations at the 0.01 significance level, suggesting that as one variable increases, others tend to increase as well. Specifically, digital literacy shows a moderate positive correlation with government support (r = 0.561), and a moderate, but slightly weaker, positive correlation with digital entrepreneurship (r = 0.401). Digital entrepreneurial competence also demonstrates moderate correlations with both government support (r = 0.505) and digital entrepreneurship (r = 0.604). These findings highlight that higher levels of digital literacy, digital entrepreneurial competence, and government support are positively associated with stronger outcomes in digital entrepreneurship, suggesting a complex but interconnected relationship between these factors.

Table 3. Correlation results between digital literacy, digital entrepreneurial competence, government support and digital entrepreneurship

Variable	Digital Literacy	Digital Entrepreneurial Competence	Government Support	Digital Entrepreneurship
Digital Literacy	1.000			
p-value				
Digital Entrepreneurial Competence	0.535**	1.000		
p-value	0.000			
Government Support	0.561**	0.505**	1.000	
p-value	0.000	0.000		
Digital Entrepreneurship	0.401**	0.604**	0.488**	1.000
p-value	0.000	0.000	0.000	

**. Correlation between variables is significant at the 0.01 level (2-tailed).

Source: Created by author

5. 3. REGRESSION ANALYSIS

The relationship between the dependent variable, digital entrepreneurial competence, and the independent variables digital literacy and digital entrepreneurial competence, moderated by government support through interaction terms was analyzed using multiple linear regression. This method was selected because it is well-suited for examining the relationship between a continuous dependent variable and multiple independent variables (Montgomery et al., 2021; Sarstedt & Mooi, 2019). The results of this analysis are discussed in the following Table 4.

Table 11 presents the model summary of the regression analysis. Key values to consider include R and R Square. R represents the correlation between the independent and dependent variables, while R Square indicates the proportion of variance in the dependent variable explained by the independent variables (Ibrahim, 2010; Sarstedt & Mooi, 2019).

The table identifies two models. Model 1 shows the contribution of the two independent variables (digital literacy and digital entrepreneurial competence) to the dependent variable. Model 2 illustrates the effect of the moderating variable (government support) on the relationship between the independent and dependent variables.

From the direct analysis, the study found that digital literacy and digital entrepreneurial competence together account for 37.3% of the variation in digital entrepreneurship, with the remaining 62.7% attributed to other unidentified factors. When the moderating effect of government support is included in the analysis (i.e., by examining how government support interacts with digital literacy and digital entrepreneurial competence), the contribution of the independent variables to digital entrepreneurship increases slightly to 42.3%. This represents a 5% increase compared to the direct analysis, indicating that government support has a small but positive effect on the relationship between the independent variables and digital entrepreneurship.

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.611[a]	.373	.369	.36407
2	.651[b]	.423	.415	.35072
a. Predictors: (Constant), Digital Literacy, Digital Entrepreneurial Competence				
b. Predictors: (Constant), Digital Literacy, Digital Entrepreneurial Competence, Digital Literacy * Government Support, Digital Entrepreneurial Competence * Government Support				

Source: Created by author

The results from the regression analysis (ANOVA table) presented in Table 5 indicate that both models are statistically significant. In Model 1, which includes only the independent variables (digital literacy and digital entrepreneurial competence), the regression explains 27.206 units of variation in the dependent variable, with an F-statistic of 102.625 and a p-value of 0.000, suggesting a highly significant relationship. In Model 2, which includes the moderating variable (likely government support), the regression sum of squares increases to 30.868, indicating that the inclusion of the moderator explains more variation in digital entrepreneurship. The F-statistic for Model 2 is 50.190, also highly significant with a p-value of 0.000. Thus, it shows the both linear models describe the relations between independent variables and dependent variable.

Table 5. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.206	2	13.603	102.625	.000[b]
	Residual	45.729	345	.133		
	Total	72.935	347			
2	Regression	30.868	5	6.174	50.190	.000[c]
	Residual	42.067	342	.123		
	Total	72.935	347			
a. Dependent Variable: Digital Entrepreneurship						
b. Predictors: (Constant), Digital Literacy, Digital Entrepreneurial Competence						
c. Predictors: (Constant), Digital Literacy, Digital Entrepreneurial Competence, Digital Literacy * Government Support, Digital Entrepreneurial Competence * Government Support						

Source: Created by author

The results from the regression analysis show that in Model 1, which includes only digital literacy and digital entrepreneurial competence as predictors of digital entrepreneurship, both variables have significant positive effects. Digital literacy has a smaller effect, with a coefficient of 0.106, meaning that each unit increase in digital literacy leads to a 0.106 unit increase in digital entrepreneurship. This relationship is statistically significant ($p = 0.031$). On the other hand, digital entrepreneurial competence has a stronger impact, with a coefficient of 0.527, indicating that each unit increase in entrepreneurial competence results in a 0.527 unit increase in digital entrepreneurship, which is highly significant ($p = 0.000$). In Model 2, when government support and interaction terms are added, the results change slightly. Digital literacy now shows a negative relationship with digital entrepreneurship, with a coefficient of -0.952, meaning that government support may dampen the positive impact of digital literacy, and this effect is statistically significant ($p = 0.006$). However, digital entrepreneurial competence remains positively related to digital entrepreneurship, with a coefficient of 0.974, suggesting its continued positive impact when government support is considered ($p = 0.003$). Government support itself has a small negative effect on digital entrepreneurship (-0.136), but this is not statistically significant

(p = 0.668). The interaction between digital literacy and government support is positive and significant (0.230, p = 0.005), suggesting that government support strengthens the effect of digital literacy on digital entrepreneurship. However, the interaction between digital entrepreneurial competence and government support is not significant (-0.131, p = 0.096), indicating that government support does not moderate the relationship between entrepreneurial competence and digital entrepreneurship in a meaningful way. Overall, while digital literacy and entrepreneurial competence remain important predictors, government support plays a significant moderating role in the relationship between digital literacy and digital entrepreneurship, though its direct effect is minimal (see Table 6).

Table 6: Regression Coefficients for the Relationship Between Digital Literacy, Digital Entrepreneurial Competence, Government Support, and Digital Entrepreneurship

Model B		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		Std. Error	Beta			
1	(Constant)	1.685	.193		8.731	.000
	Digital Literacy	.106	.049	.109	2.168	.031
	Digital Entrepreneurial Competence	.527	.049	.545	10.806	.000
2	(Constant)	3.023	1.369		2.209	.028
	Digital Literacy	-.952	.346	-.980	-2.755	.006
	Digital Entrepreneurial Competence	.974	.325	1.008	2.998	.003
	Government Support	-.136	.318	-.161	-.429	.668
	Digital Literacy * Government Support	.230	.081	1.840	2.823	.005
	Digital Entrepreneurial Competence * Government Support	-.131	.079	-1.064	-1.670	.096
a. Dependent Variable: Digital Entrepreneurship						

Source: Created by author

5. 4. GOVERNMENT'S ROLE

The government should take a proactive role in designing and implementing support programs tailored to the specific challenges faced by small businesses. These programs should include financial assistance, tax relief, or grants aimed at improving digital infrastructure, providing essential resources, and easing the financial burden of adopting digital technologies. Additionally, the government should create channels for knowledge sharing and collaboration within the small business community, such as publicly supported forums, networking events, or online platforms. These spaces can help small business owners exchange ideas, learn from common experiences, and access valuable resources.

The government can encourage sustainability by providing incentives for small businesses to enhance their energy efficiency, including tax credits for the adoption of green technologies and grants for conducting energy audits. Small businesses could have benefit significantly from engaging with industry experts and digital professionals. The governments can help bring together those parties on a single platform where small business owners can connect with experienced mentors, consultants, or even digital professionals who can provide guidance and support.

Additionally, small firms may also benefit from government support for regional collaboration. By funding regional business clusters, seminars, and conferences, the government may promote information exchange and resource sharing to address problems. Small firms need regional co-

operation to exchange knowledge and solve difficulties. A significant issue for small enterprises is obtaining finance. The government may assist by easing the application procedure for grants or loans and providing low-interest loans or specialized funds to facilitate digital transformation initiatives. These specialized financial instruments could be essential in assisting small enterprises overcome challenges to digital adoption and promote development in the digital economy.

5. 5. IMPLICATION FOR ACADEMIA

In this fast-evolving digital world, academic institutions play an important role in shaping the next generation of entrepreneurial skills and competencies. With technology being one of the core drivers of innovation and economic growth, there is a growing emphasis on fostering digital literacy and competence. One of the key ways academia can support digital entrepreneurship is by integrating digital literacy into academic curricula. Across disciplines, courses should include modules or special programs that concentrate on basic digital skills, including data analytics, digital marketing, and technology adoption. By incorporating these skills into the classroom, academic institutions ensure that students graduate with a foundational understanding of the digital tools critical for entrepreneurial success.

Digital entrepreneurship requires a multi-disciplinary skill set. Academic institutions foster interdisciplinary collaboration by encouraging students with diverse backgrounds to work on projects and initiatives. This approach promotes the integration of business, technology, and creative disciplines in academia to prepare students for the dynamic and collaborative nature of the digital business environment. Furthermore, academic research drives technological advancement as universities actively contribute to the promotion of digital entrepreneurship by examining emerging technologies, market trends, and innovative business models. Research outcomes, published papers, and conference presentations provide significant insights for both academic and entrepreneurial communities. The digital landscape is constantly changing, therefore ongoing learning and adaptation are essential. Academic institutions should promote lifelong learning by offering regular opportunities for alumni and entrepreneurs to improve and update their skills. Online courses, webinars, and collaborative platforms can be effective tools for this.

5. 6. IMPLICATION FOR INDUSTRY

The all-pervasive digital technologies in the modern business arena make a strong case for digital literacy and competency among people. It is the industry itself that plays the leading role in setting up the patterns of competencies and skills for prospective workers and entrepreneurs alike. This view calls for industry's importance to improve the digital literacy rate through workplace-tailored training programs. Programs such as these need to focus on imparting only the requisite level of digital competencies related to industry, such as data analysis, digital marketing, and technology adoption. Investing in continuous employee learning and development will pay off in terms of a digitally enabled workforce, which is ready for entrepreneurial ventures.

Finding a solution requires industry-academy collaboration on issues relating to the digital skills gap. Companies can engage in a positive manner with schools, colleges, and universities by providing practical insight into digital entrepreneurship. This would also involve guest lecturing, workshops, and work experience to give students an appreciation of how their learning might be applied in the real world. Mentorship programs in which experienced professionals mentor aspiring entrepreneurs especially go a long way in building digital competence. The experts would thus be able to provide practical insights, lessons learned, and the best practices in their respective fields. This, if anything, is valuable knowledge transmission in helping someone find their way in the most complicated digital business environment.

6. CONCLUSION

This research emphasizes the essential importance of digital literacy and digital entrepreneurial skills in fostering digital entrepreneurship. The regression analysis indicates that both criteria strongly influence the success of digital entrepreneurship, with digital entrepreneurial skills exhibiting a notably large positive impact. However, while digital literacy is important, its moderate correlation with digital entrepreneurship suggests that it alone is insufficient to ensure business success. Other factors, such as entrepreneurial competence and government support, are also important for fully realizing the potential of digital entrepreneurship. Although government support has a limited direct impact, proves to be an important moderator, amplifying the impact of digital literacy on entrepreneurial outcomes.

The percentage of explained variation in digital entrepreneurship rose from 37.3% to 42.3% when government support was included as a moderating variable, suggesting a little but meaningful impact. The relationship between government support and digital literacy was very interesting, indicating that policies that boost digital skills might improve the success of entrepreneurs. Government support does play a part, it may not be as effective in directly influencing entrepreneurial competence as it is in fostering digital literacy. These results suggest that government initiatives to encourage digital entrepreneurship should be more focused and comprehensive, emphasizing the development of both digital skills and broader entrepreneurial qualities.

To encourage the development of digital entrepreneurship, several practical recommendations are proposed for both small businesses and policymakers. First, targeted digital literacy programs are essential for small businesses. These programs should focus on areas such as e-commerce, online marketing, and digital tools for business management, ensuring that the digital skills acquired are directly applicable to business strategies and operations. Local governments or industry bodies could collaborate with online learning platforms to offer subsidized courses or workshops that provide practical digital skills tailored to entrepreneurial needs.

Improving digital literacy is important, but small firms should also prioritize developing their entrepreneurial competence. This involves developing key business skills like strategic planning, financial management, and marketing, all of which are vital for digital entrepreneurship. It is essential for governments and industry organizations to advocate for entrepreneurship development programs that assist businesses in cultivating these fundamental skills while aligning them with the digital economy. These programs could concentrate on assisting entrepreneurs in formulating strategies for expanding their businesses online and successfully navigating the digital marketplace.

Although government support has demonstrated a beneficial moderating effect on digital literacy, its direct influence on digital entrepreneurship appears to be limited. Consequently, it is essential to enhance government support. Policies and interventions must be customized to address the specific needs of digital entrepreneurs. Financial assistance, tax incentives, or subsidized access to technology could motivate a greater number of small businesses to adopt digital tools. Governments need to devise policies that go beyond general financial assistance by offering targeted resources to digitally literate businesses that may lack the infrastructure or capital to grow fully online. Initiatives such as grants for digital transformation or low-interest loans for e-commerce startups could be key to empowering small businesses.

Additionally, strengthening government support programs is important. The positive interaction between digital literacy and government support shows that initiatives combining both elements can be highly effective. Therefore, government programs should not only provide digital literacy training but also offer ongoing mentoring, technical support, and access to networks. Mentoring networks, where digitally savvy entrepreneurs are paired with experienced business

mentors, can help guide them in effectively leveraging their skills.

Finally, further research should examine additional moderators that could strengthen the relationship between digital entrepreneurship competencies and digital entrepreneurship. Factors such as networking opportunities, access to capital, and entrepreneurial mindsets should be explored, as they may provide valuable insights. Researchers and policymakers should collaborate on studies that assess the broader ecosystem supporting digital entrepreneurs, focusing on both internal (entrepreneurial skills) and external (financial, regulatory) factors, to develop a more comprehensive support framework for digital entrepreneurs.

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REFERENCES

Achmad, A., Karto, A., & Asril, A. (2024). Small Business Empowerment Strategy in the Agricultural Sector Through Digital Entrepreneurship. *International Journal of Management Science and Information Technology,* 4(2), 326-335. https://doi.org/10.35870/ijmsit.v4i2.3097

Ali, S. A. M., Kassim, E. S., Shahrom, M., Humaidi, N., & Zamzuri, N. H. (2020). Fostering digital entrepreneurship capabilities at rural schools: A Malaysian case study. *Malaysian Journal of Consumer and Family Economics*, 24, 243–260. https://majcafe.com/wp-content/uploads/2022/11/Vol-24-2020-Paper-10.pdf

Belas, J., Metzker, Z., & Hotkova, A. (2024). The Impact of Human Resource Management Factors on Business Sustainability in the Manufacturing Sector: A Comparative Study of SMEs in the Visegrad Four Countries. *Journal of Organizations, Technology and Entrepreneurship,* 2(3), 175-186. https://doi.org//10.56578/jote020304

Chen, C.-L., Lin, Y.-C., Chen, W.-H., Chao, C.-F., & Pandia, H. (2021). Role of Government to Enhance Digital Transformation in Small Service Business. *Sustainability*, 13(3), 1028. https://doi.org/10.3390/su13031028

Duc, N. M., Nhuan, N. H., Huong, T. T. T., Hai, N. M., & Vien, T. D. (2024). Revolutionising agriculture and rural economy through digital transformation: Bridging theory with practice. *The VMOST Journal of Social Sciences and Humanities,* 66(2), 20-29. https://doi.org/10.31276/VMOSTJOSSH.2024.0022

Firmansyah, D., Wahdiniwaty, R., & Budiarti, I. (2023). Entrepreneurial Performance Model: A Business Perspective in the Digital Economy Era. *Jurnal Bisnis, Manajeman, Dan Ekonomi*, 4(2), 125–150. https://doi.org/10.47747/jbme.v4i2.1106

George, D., & Mallery, P. (2019). *IBM SPSS Statistics 26 Step by Step*. Routledge. https://doi.org/10.4324/9780429056765

George, N., & Edghiem, F. (2023). *Digital Entrepreneurship*, 56–78. https://doi.org/10.4018/978-1-6684-7416-7.ch003

Huseyn, A., Abasova, Y. (2024). Ecological entrepreneurship: Empirical research on the sustainable development of ecotourism in Azerbaijan. *Collection of papers new economy*, 2, 1–13. https://doi.org/10.61432/CPNE0201001h

Ibrahim, M. Y. (2010). Research Data Analysis for Education & Social Sciences. Bandar Ilmu.

Jayeola, O., Sidek, S., Sanyal, S., Hasan, S. I., An, N. B., Mofoluwa Ajibade, S. S., & Phan, T. T. H. (2022). Government financial support and financial performance of SMEs: A dual sequential mediator approach. *Heliyon*, 8(11), e11351. https://www.cell.com/heliyon/fulltext/S2405-8440(22)02639-1

Ji, S., & Zhuang, J. (2023). The Impact Path of Digital Literacy on Farmers' Entrepreneurial Performance: Based on Survey Data in Jiangsu Province. *Sustainability*, 15(14), 11159. https://doi.org/10.3390/su151411159

Kollmann, T., & Jung, P. B. (2022). What is Digital Entrepreneurship? Fundamentals of Company Founding in the Digital Economy. *Edward Elgar Publishing*. https://www.digital-entrepreneurship.com/#:~:text=reference%20for%20establishing%20the%20company,factor%20within%20the%20Digital%20Economy.&text=Economy

Kulub Abd. Rashid, N., Muhamad, S., Hussain, N. E., Mohamad Akhir, N. H., Ahmat, N., & Yulita. (2022). Single Mother in The Digital Economy: Stimulating Entrepreneurship & Covid-19 Challenges. *Malaysian Journal of Consumer and Family Economics*, 29, 483–507. https://majcafe.com/wp-content/uploads/2022/11/PAPER19-MAJCAFE-VOL29a.pdf

Matviienko-Biliaieva, G., Krasnorutskyy, O., Salionovych, L., Serhii, V. Larina, T. (2023). The Importance of Digitization in the Post-War Recovery of the Economy. *Collection of papers new economy,* 1. 42-63. https://doi.org/10.61432/CPNE0101042m

Mićić, L., & Mastilo, Z. (2022). Digital workplace transformation: Innovative approach after covid-19 pandemic. *Economics-Innovative and Economics Research Journal,* 10(2), 63-76. https://doi.org/10.2478/eoik-2022-0014

Mian, S., Lamine, W., & Fayolle, A. (2016). Technology Business Incubation: An overview of the state of knowledge. *Technovation*, 50–51, 1–12. https://doi.org/10.1016/J.TECHNOVATION.2016.02.005

Milošević, I. M., Plotnic, O., Tick, A., Stanković, Z., & Buzdugan, A. (2024). Digital Transformation in Manufacturing: Enhancing Competitiveness Through Industry 4.0 Technologies. *Precision Mechanics & Digital Fabrication,* 1(1), 31-40. https://doi.org/10.56578/pmdf010104

Mishra, P. (2023). *Digital Entrepreneurship* (pp. 11–26). https://doi.org/10.4018/978-1-6684-5871-6.ch002

Montgomery, D. C., Peck, E. A., & Vining, G. G. (2021). *Introduction to Linear Regression Analysis* (Sixth). John Wiley & Sons, Inc. https://content.e-bookshelf.de/media/reading/L-16125104-1a3a7c5bd1.pdf

Morgan, G. A., Barrett, K. C., Leech, N. L., & Gloeckner, G. W. (2019). *IBM SPSS for Introductory Statistics: Use and Interpretation*. Routledge. https://doi.org/10.4324/9780429287657

Mulyati, S. (2023). Pengaruh Pendidikan Kewirausahaan dan Digital Literacy Terhadap Minat Berwirausaha Mahasiswa Dengan Efikasi Diri Sebagai Mediator. *Jurnal Pendidikan Ekonomi (JUPE)*, 11(2), 222–230. https://doi.org/10.26740/jupe.v11n2.p222-230

Pallant, J. (2020). *SPSS Survival Manual*. Routledge. https://doi.org/10.4324/9781003117452

Pamučar, D., Božanić, D., Puška, A., & Marinković, D. (2022). Application of neuro-fuzzy system for predicting the success of a company in public procurement. *Decision Making Applications in Management and Engineering*, *5*(1), 135-153. https://doi.org/10.31181/dmame0304042022p

Patru, L., Birchi, F. A., & Patru, C. L. (2023). The Relationship between Digital Technology and the Development of the Entrepreneurial Competencies of Young People in the Medical Field. *Electronics 2023,* 12(8), 1796. https://doi.org/10.3390/ELECTRONICS12081796

Sariwulan, T., Suparno, S., Disman, D., Ahman, E., & Suwatno, S. (2020). Entrepreneurial Performance: The Role of Literacy and Skills. *The Journal of Asian Finance, Economics and Business*, 7(11), 269–280. https://doi.org/10.13106/jafeb.2020.vol7.no11.269

Sarstedt, M., & Mooi, E. (2019). *Regression Analysis,* 209–256. https://doi.org/10.1007/978-3-662-56707-4_7

Setiawati, R., Adriani, Z., & Wediawati, B. (2022). Entrepreneurial interest in startup business based on entrepreneurial literacy and digital literacy. *Jurnal Perspektif Pembiayaan Dan Pembangunan Daerah*, 10(4), 235–250. https://doi.org/10.22437/ppd.v10i4.18819

Simovic, V., Safi, M., Bradi´c, A., Martinovi´c, B.-M., Sarhan, H., Bhagat, R., & Ivanovic, D. (2023). How Competent Are Our Students in Digital Entrepreneurship? *Proceedings 2023,* 85(1), 18. https://doi.org/10.3390/PROCEEDINGS2023085018

Singh, R., Kumar, V., Singh, S., Dwivedi, A., & Kumar, S. (2024). Measuring the impact of digital entrepreneurship training on entrepreneurial intention: the mediating role of entrepreneurial competencies. *Journal of Work-Applied Management*, 16(1), 142–163. https://doi.org/10.1108/JWAM-11-2022-0076/FULL/PDF

Triyono, M. B., Mutohhari, F., Kholifah, N., Nurtanto, M., Subakti, H., & Prasetya, K. H. (2023a). Examining the Mediating-Moderating Role of Entrepreneurial Orientation and Digital Competence on Entrepreneurial Intention in Vocational Education. *Journal of Technical Education and Training*, 15(1), 116–127. https://doi.org/10.30880/jtet.2023.15.01.011

Triyono, M. B., Mutohhari, F., Kholifah, N., Nurtanto, M., Subakti, H., & Prasetya, K. H. (2023b). Examining the Mediating-Moderating Role of Entrepreneurial Orientation and Digital Competence on Entrepreneurial Intention in Vocational Education. *Journal of Technical Education and Training*, 15(1). https://doi.org/10.30880/jtet.2023.15.01.011

Xie, J. L., Yang, Y. J., & Chen, J. L. (2023). Mechanisms of Digital Economy Empowering High-Quality Development in Manufacturing: A Case Study of Hebei Province, a Traditional Manufacturing Powerhouse in China. *Journal of Organizations, Technology and Entrepreneurship,* 1(1), 47-57. https://doi.org/10.56578/jote010104

ZHAO, F., & Collier, A. (2016). Digital Entrepreneurship: Research and Practice. *Innovation, Entrepreneurship and Digital Ecosystems. 9th Annual Conference of the EuroMed Academy of Business*, 2173–2182. https://eprints.staffs.ac.uk/id/eprint/6274