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The Role of Digital Literacy and Entrepreneurial Knowledge on Technopreneurship Intention

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Abstract — *The purpose of this research is to prove whether there is an influence of digital literacy and entrepreneurship knowledge on technopreneurship intention moderated by ICT self-efficacy. This research can provide a much better understanding of how an individual can develop the intention to become a technopreneur, along with their digital literacy, entrepreneurship knowledge, and ICT self-efficacy. A survey was conducted with 150 entrepreneurs as respondents. The collected data were analyzed using structural equation modeling (SEM) with SmartPLS, a variance-based structural equation modeling approach.. The results of this study indicate that Digital Literacy has a positive effect on Technopreneurship Intention, Entrepreneurship Knowledge has no effect on Technopreneurship Intention, ICT self efficacy has a positive effect on Technopreneurship Intention, moderation of ICT Self Efficacy fails to strengthen the positive effect of digital literacy on technopreneurship intention, moderation of ICT Self Efficacy fails to strengthen the positive effect of entrepreneurship knowledge on technopreneurship intention. These results can provide an overview of what individuals must do or need to achieve their desire to become a technopreneur. If someone has good digital skills, they will be more confident in finding and utilizing technology business opportunities, it is very important to deeply understand the potential of technology entrepreneurship.*
Keywords: *literacy digital, entrepreneurship knowledge, technopreneurship intention, ICT self-efficacy*

Abstrak — Tujuan Penelitian ini sebagai suatu pembuktian apakah terdapat pengaruh literasi digital dan pengetahuan kewirausahaan terhadap technopreneurship intention yang dimoderasi dengan ICT self efficacy. Penelitian ini dapat memberikan pemahaman dengan jauh lebih baik tentang melihat seorang individu dapat mengembangkan niat menjadi seorang technopreneur, disertai melihat kemampuan indivdu dalam literasi digital mereka, adapun tentang pengetahuan kewirausahaan, serta tingginya ICT self efficacy yang mereka miliki. Penelitian imni menggunakan metode survey. Sebanyak 150 pelaku usaha menjadi responden dalam penelitian ini. Data survey kemudian dianalisis dengan structural equation modeling. Desain penelitian SmartPLS, model persamaan struktural yang mengadopsi pendekatan variance-based atau model persamaan struktural berbasis komponen. Hasil penelitian ini menunjukan bahwa Literasi Digital berpengaruh positif Technopreneurship Intention, Pengetahuan kewirausahaan tidak berpengaruh terhadap Technopreneurship Intention, ICT self efficacy berpengaruh positif terhadap Technopreneurship Intention, moderasi ICT Self Efficacy gagal memperkuat pengaruh positif literasi digital terhadap technopreneurship intention, moderasi ICT Self Efficacy gagal memperkuat pengaruh positif pengetahuan kewirausahaan terhadap technopreneurship intention. Hasil ini dapat memberikan gambaran tentang apa yang harus dilakukan atau dibutuhkan individu untuk meraih keinginannya untuk menjadi seorang technopreneur. Jika seseorang memiliki kemampuan digital yang baik, mereka akan lebih percaya diri dalam menemukan dan memanfaatkan peluang bisnis teknologi, sangat penting untuk memahami secara mendalam potensi kewirausahaan teknologi.
Kata Kunci: literasi digital, pengetahuan kewirausahaan, technopreneurship intention, ICT self-efficacy

INTRODUCTION

In the study of Fitra & Mukaromah (2021) it was stated that economic progress is one of the indicators of community welfare, so it is the government's job to always increase economic growth in various ways, both micro and macro (Fikriawan, 2019). Economic growth in Indonesia in recent years has declined significantly with many causes and effects that have occurred, one of which is the COVID-19 that occurred in 2020. Many employees were laid off from many companies, even some jobs also decreased, namely from the agricultural, trade, and other service sectors (Pusparisa, 2020). In addition, COVID-19 has an impact on socio-cultural changes in society Wignjosasono (2022) stated that the COVID-19 pandemic has caused socio-cultural changes in society. Society inevitably has to be able to adapt to new habits (Murti et al., 2021). Among MSME actors, this adaptation is manifested in increasing the use of technology as part of business operations (Alfrian & Pitaloka, 2020).

The expertise or skills that an entrepreneur must have are not only entrepreneurship, entrepreneurs must also have creativity, innovation, and expertise in using new digitalization technology which is very important and is one of the keys to the success of a business (Hidajat et al., 2024). Therefore, the combination of entrepreneurship with technology plays a very important role at this time. Technopreneurship is an entrepreneurial trend in the current 4.0 era which is a concept that combines entrepreneurship with technology and is also followed by creativity and innovation carried out by entrepreneurs (Alamsyahrir & Ie, 2022). Koe (2020) stated that technopreneurial intention is an indication of the determination of an individual who has a very strong intention to make himself a technopreneurial.

Technopreneurship is a combination of a business or business related to technology, while technopreneurship intention itself leads to an entrepreneur who has the intention to make himself a technopreneurial by having innovation and creativity and is strengthened by having expertise in using new technology. With a high interest in technopreneurship, it will encourage someone to become a technopreneur (Nurhayati et al., 2020). Digital literacy is essential to gain a deep understanding of the potential of entrepreneurial technology and can help businesses implement technology faster (Satjaharuthai & Lakkhongkha, 2023).

Previous studies have shown that entrepreneurship learning increases technopreneurship intentions (Soomro & Shah, 2021). By taking action to encourage students to become entrepreneurs, knowledge about entrepreneurs and technopreneurial intentions have a good and significant effect. A study conducted by Machmud et al. (2020), found that individual ICT effectiveness significantly and positively influences technopreneurship intentions. Digital literacy has a significant positive effect on technopreneurship intentions (Perdana et al., 2023), the ICT Self Efficacy variable does not affect technopreneurship intentions through the motivation mediation variable (Apriani et al., 2024). Conversely, the motivation variable does not directly affect technopreneurship intentions.

Although there have been many studies discussing the factors that influence technopreneurship intentions, there is still a gap in understanding how ICT self-efficacy can moderate the relationship between digital literacy and entrepreneurial knowledge on technopreneurship intentions. This study is expected to fill this gap. Therefore, this study aims to analyze the role of ICT self-efficacy as a moderating variable in the relationship. The research model developed in this study is based on the phenomena that occur, relevant theories, and findings from previous studies, thus providing a comprehensive conceptual framework in understanding the determinants of technopreneurship intention.

LITERATURE REVIEW

Digital literacy is a multidimensional concept that can contain a complex integration of knowledge, skills, attitudes, and cognitive dimensions (Wang & He, 2022). Hidayat & Khotimah (2019), put forward the definition of digital literacy, namely a skill that is important for developing individuals to become critical, creative, and adaptable, in order to gain the ability to filter, assess, and apply information in the digital world more wisely. Intention is defined in the big Indonesian dictionary as a desire in the heart that will be followed by an action. Maziriri et al. (2024) stated that technopreneurship is a combination of technology and entrepreneurship. Strong digital literacy can be a factor in business resilience and encourage the spirit of technopreneurship (Avianti & Pitaloka, 2024). An individual who already has the intention to become a technopreneur must pay more attention to understanding digital literacy at this time (Soomro & Shah, 2021). Because of an individual's desire to become a technopreneur, the individual indirectly learns digital literacy (Gusdinar, 2023; Perdana et al., 2023; Wijayanto et al., 2023).

Erstanding of a very diverse entrepreneurial progress, including knowledge of awareness of the impacts of entrepreneurship that have occurred before (Liao et al., 2022; Sobakinova et al., 2019). Entrepreneurial intention is a psychological responsibility of an individual in establishing a new business or developing an existing business by generating new ideas (Jonathan & Handoyo, 2023). Technopreneurship itself is a combination of technology and entrepreneurship, which can ensure that a business excels in sustainability and can develop communication and information technology to meet consumer needs in the current digital era (Soomro & Shah, 2021). Therefore, a technopreneur must use his entrepreneurial knowledge to develop his business to be more advanced with entrepreneurial intentions

making an individual able to advance his business (Adriani et al., 2024; Alamsyahrir & Ie, 2022).

ICT Self Efficacy is very influential for students, students with higher ICT Self Efficacy tend to have the desire to become technopreneurs when they graduate, because of their very high motivation in the future (Fathonah et al,. 2020). Technopreneurship is a direct entrepreneurship in the context of demanding technology as a combination of technology, entrepreneurial skills, and skills in the transformation of goods and services (Rafiana, 2024). It is important for all individuals in the current digital era to have ICT Self Efficacy within themselves. ICT Self Efficacy has a great influence on technopreneurship, because if someone does not have ICT self-efficacy in themselves, then that person cannot make themselves a technopreneur and even an individual will not have the desire or intention to build a technopreneurship (Apriani et al., 2024; Fathonah et al., 2020; Pirdaus et al., 2022; Turrohmah & Wahyuni, 2023).

ICT or Information communication technology in recent years has become an interesting topic for some researchers and is often associated with self-efficacy (Pirdaus et al., 2022). Digital literacy makes an individual wiser in digesting information from social media and internet networks. Technopreneurship will be a superior competitive source in the long term and sustainable (Rafiana, 2024). This can also be related to the individual's intention to become a technopreneurial, with the instillation of a digital literacy spirit, a person will be wiser and understand how to use technology for their business needs and strengthened by ICT Self Efficacy within themselves (Gusdinar, 2023; Nurhayati et al., 2020).

Internet Self Efficacy or ICT is a belief that an individual can perform different sets of behaviors needed to build, maintain, and utilize the internet effectively (Fathonah et al., 2020). Entrepreneurial knowledge is also emphasized which can contribute to the assessment of a company, industrial growth, region, and economy (Link & Sarala, 2019). Knowledge in entrepreneurship is very important to recognize a new business opportunity and also as a key to entrepreneurial success (Ahadi & Kasraie, 2020). A technopreneur plays a key role in promoting and developing goods and services through ICT innovatively for local markets around the world to meet consumer desires in today's digital economy (Rafiana, 2024). Entrepreneurial knowledge greatly influences Technopreneurship Intention, entrepreneurial self-efficacy provides a strong psychological foundation because it increases self-confidence to face challenges and encourages the development of a more ambitious technology-based business vision (Pham et al., 2023). So that it functions as a strong predictor that can develop technopreneurship. Apart from becoming entrepreneurs, they also intend to become technopreneurs due to the very strong ICT self-efficacy within them (Apriani et al., 2024; Fathonah et al., 2020; Nurhayati et al., 2020; Pirdaus et al., 2022; Turrohmah & Wahyuni, 2023)

Based on the description above, the researcher formulates the following research hypothesis:

H1: Digital Literacy has a positive effect on Technopreneurship Intention.

H2: Entrepreneurial knowledge has a positive effect on Technopreneurship Intention.

H3: ICT Self Efficacy has a positive effect on Technopreneurship Intention.

H4: ICT Self Efficacy moderation strengthens the positive effect of Digital Literacy on Technopreneurship Intention.

H5: ICT Self Efficacy moderation strengthens the positive effect of Entrepreneurial Knowledge on Technopreneurship Intention.

This study can provide a deeper understanding of how someone who has entrepreneurial knowledge can make themselves a technopreneur through ICT Self efficacy. Based on the explanation of the novelty of this study, the study was established by proving the effect of digital literacy and entrepreneurial knowledge on technopreneurship intention with ICT self efficacy as a moderator.

RESEARCH METHOD

This research was conducted using a survey method with a quantitative approach. The survey was conducted on 150 respondents who were MSME founders who had been operating for at least 2 years in Indonesia. The sampling technique was random purposive sampling. The data was then analyzed using the structural equation modeling (SEM) technique.

The SEM model is relevant because the variables studied have variable measurement indicators and moderation effects. Four variables form a study model consisting of two independent variables, one dependent variable and one moderating variable.

The first independent variable is the digital literacy variable, measured by six main indicators. These include knowledge about the business to be started, knowledge about how to start a business, critical thinking skills, creativity, collaboration with others, and electronic security awareness (Naufal, 2021). Four main indicators are used to measure the second independent variable, namely the entrepreneurial knowledge variable. These are knowledge about the business to be started, roles and responsibilities, personality and self-abilities, and knowledge about business management and organization (Noprianto, 2016).

Technopreneurship Intention, the third variable and the dependent variable, is measured by six main indicators, including: creativity, motivation, independence, management, innovation, leadership (Apriani et al., 2024). Fourth, the moderating variable, namely ICT Self Efficacy, is measured by two main indicators, consisting of the ability to use software applications for various purposes, and confidence in

communicating effectively through digital platforms (Fathonah et al., 2020).

This analysis was carried out in several steps. First, it provides an overview of the demographics of the research participants to gain a better understanding of who was involved in the study. Next, it provides an explanation of the descriptive statistics used to show the level of field implications of each variable studied. These statistics consist of the mean, minimum, maximum, and standard deviation of the research data (Hair Jr et al., 2021). Third, a validity test was carried out to ensure the validity of the research questionnaire used. This is done to ensure whether the questionnaire truly represents the research variables. Validity is measured by the score of the loading factor. If the score is > 0.7, the model is considered fit (Hair & Alamer, 2022). Fourth, reliability test to test the reliability of research data, as well as test the consistency of respondents' answers. Data is said to be reliable and reliable if the scores of rho, cronbach alpha, and composite reliability are each > 0.7 (Hair & Alamer, 2022). Fifth, hypothesis test and provide a conclusion whether the hypothesis is accepted or rejected. This research hypothesis uses one tailed, so the hypothesis will be accepted if the t statistic value is > 1.65 and the p values < 0.05 (Hair & Alamer, 2022).

RESEARCH RESULTS AND ANALYSIS

Characteristics of Respondents

A total of 150 people consisting of 95 female respondents (63.3%) and 15 male respondents (63.3%) is 55 (36.7%). Based on age, 97.3% of respondents are in the age range of 25 to 30 years and 2.7% in the range of 31 and 35 years. Based on their education level: High School 94 (62.7%), Bachelor's degree 51 (34%), Postgraduate 5 (3.4%).

SmartPLS Descriptive Statistics Test

The level of usefulness of descriptive statistics, also known as deductive statistics, includes how to collect, organize, organize, process, present, and analyze numerical data (Darwel et al., 2022). This study uses the minimum, maximum, mean, and standard deviation values for each variable: digital literacy, business knowledge, technopreneurship intention, and ICT effectiveness (see Table 1).

Table 1. Descriptive statistic

Variabel	Min	Max	Mean	Std. dev	%
Literasi Digital	1	5	4,21	0,724	84.2 %
Entrepreneurial Knowledge	1	5	4,15	0,649	83%
ICT Self Efficacy	1	5	4,19	0,68	83.8 %
Technopreneurship Intention	1	5	4,2	0,696	84%

Validity and Reliability Test

The results of the validity and reliability tests are shown in Figure 1 and Table 2. X1 in the image above, shows digital literacy, X2 shows knowledge about business, Y shows the desire for technopreneurship, and Z shows one's own ability in information and communication technology. The image of the results of the addition factor above shows that all numbers are above 0.5, which indicates that all indicators are valid. Therefore, it can be concluded that all variable metrics studied in this study are valid.

The results of the Validity and Reliability Test are presented in the Table 2.

Table 2. Validity and Reliability test

Variabel	Cronbach's Alpha	Rho_A	Composite Realibility	Average Variance Extracted (EVE)
X1	0,897	0,899	0,921	0,662
X2	0,917	0,920	0,933	0,636
Y	0,900	0,906	0,923	0,668
Z	0,896	0,898	0,921	0,661
Z*X1	1,000	1,000	1,000	1,000
Z*X2	1,000	1,000	1,000	1,000

Source: Data processing results

Table 2 shows the Average Variance Extracted (EVE), Composite Realibility, and Cronbach's Alpha values, based on the results of the Validity and Reliability Test. The results of the EVE value show that the variables Digital Literacy, Entrepreneurial knowledge, ICT self-efficacy, and Technopreneurship intention obtained a value of more than 0.5, which indicates that the variables are valid and adequate. In addition, the composite realistic value and Cronbach's Alpha achieved a value of more than of 0.7, so the accuracy of this test is reliable and acceptable. This is in line with previous studies. All variables tested—Digital Literacy, Entrepreneurial knowledge, Technopreneurship intention, and ICT self-efficacy—received numbers above 0.7, indicating that overall, these variables have a high level of reliability.

Figure 1 shows that the R-Square value for the Technopreneurship intention variable is 0.799, indicating that Digital Literacy, Entrepreneurial knowledge, and Technopreneurship Intention have a significant effect on ICT Self-Efficacy. The linear regression model has an R-Square value that ranges between 0 and 1, and a higher R-Square value indicates the quality of data explanation.

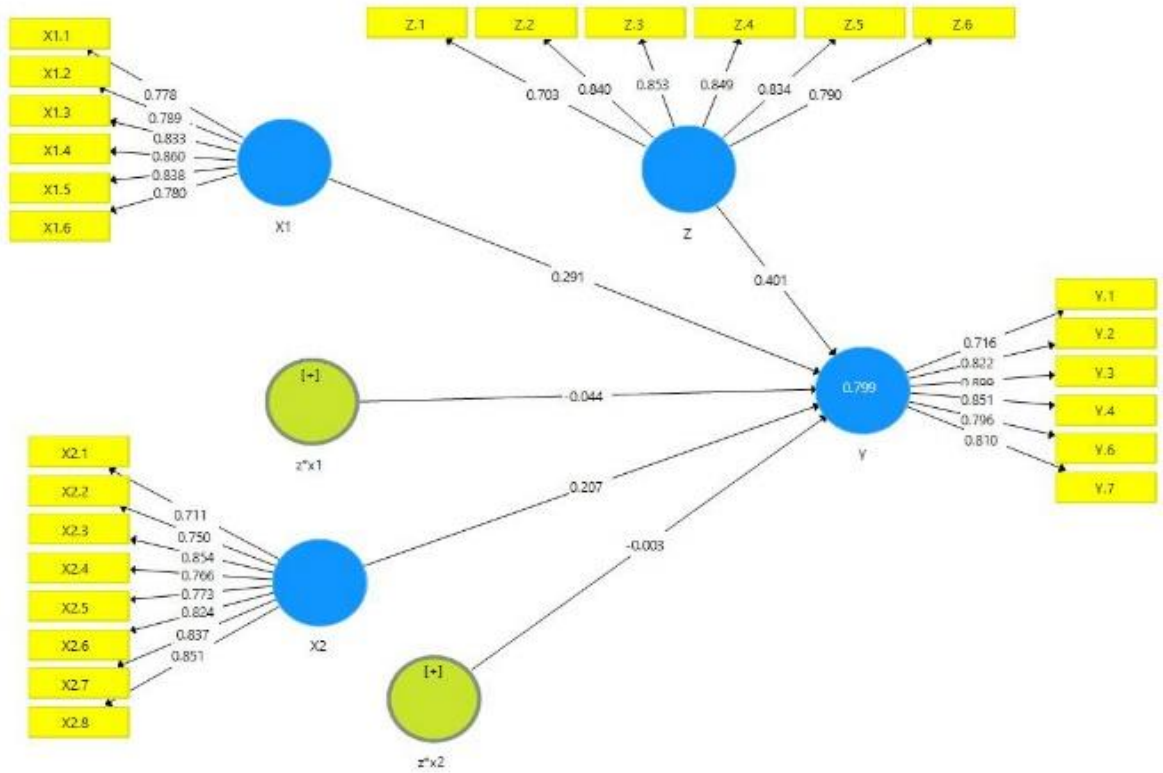

Figure 1. Loading Factor

This finding explains that a large percentage of ICT Self Efficacy is influenced by Digital Literacy, Entrepreneurial Knowledge, and Technopreneurship Intention by 80% and seen from the R-Adjust value of 0.792 or 79.2%, this value or number is classified as good because the R-Adjust value obtained is above 50%.

The F-Square value also affects variables with effect sizes. The F-Square value is 0.02 for small variables, 0.15 for medium variables, and 0.35 for very large variables. Based on the current F-Square value on Table 3, the ICT Self Efficacy variable has a value of 0.181 to 0,353, which is greater than 0.35.

Table 3. F Square Matrix

	X1	X2	Y	Z
X1			0,302	0,181
X2			0,140	0,208
Y				0,353
Z				

Source: Data processing results

Based on the data in the moderating effect, two hypotheses can be obtained, namely: (1) The Moderation of ICT self-efficacy on the influence of Digital Literacy on Technopreneurship Intention has a significant influence. (2) Moderation of ICT Self Efficacy on the influence of Entrepreneurial Knowledge on Technopreneurship Intention has a significant influence.

Hypothesis Testing

Analysis in the model is carried out to ensure that the structural model built is strong and accurate. This analysis can be considered significant if the T statistic value is more than 1.96 and the P value is less than 0.05. Figures and tables of research results that have been tested with PLS for significant and insignificant data are presented in Table 3.

Based on Table 4, it can be concluded that hypothesis research is a hypothesis test. Of the five hypotheses proposed in this study, two hypotheses were accepted (H1 and H3), and four hypotheses were rejected (H2, H4, and H5).

Table 4. Hypothesis Test Results

	Hypothesis	Coefficient Value	T Statistic	P Values
H1	Literasi Digital > Technopreneurship Intention	0,291	2,939	0,002
H2	Entrepreneurial Knowledge > Technopreneurship Intention	0,207	1,648	0,060
H3	ICT Self Efficacy > Tecnopreneurship Intention	0,401	3,586	0,000
H4	ICT Self Efficacy > Literasi Digital > Technopreneurship Intention	-0,044	0,385	0,350

H5	ICT Self Efficacy > Entrepreneurial Knowledge -> Technopreneurship Intention	-0,003	0,029	0,488

Source: Data processing results

Discussion of the First Hypothesis: The Influence of Digital Literacy on Technopreneurship Intention

The results of the hypothesis test show that Digital Literacy has an effect on Technopreneursihp Intention. If an individual has a strong digital literacy spirit, then that individual will be wiser and better at creating or developing a business as a technopreneur. Digital literacy will add to a person's knowledge of how to develop a business with digital technology to find out what consumers want in the current digital era. A person who has the intention of becoming a technopreneur will definitely encourage himself to understand digital marketing concepts. With digital literacy (Soomro & Shah, 2021). In this way, it can make it easier for an individual to search for information, whether information about business, education or anything else. In general, nowadays people all over the world have social media, so from social media someone will get a lot of information or what can be called digital literacy. With the large amount of information they get, it will provide understanding so that it will emerge within them to become a technopreneur.

Digital literacy provides a strong foundation for individuals to understand and utilize digital technology in business development. Digital literacy, which includes knowledge of business, critical thinking skills, to collaboration and electronic security, enables individuals to be more effective in analyzing market needs, creating innovative ideas, and using technology to reach consumers. With this ability, a person can utilize digital platforms, such as social media, to study market trends, promote products, and build relevant relationships, thereby encouraging the creation of more creative business innovations that are responsive to the needs of digital-era consumers.

Research by Wijayanto et al. (2023) shows that digital literacy can encourage technopreneur intention. Digital literacy makes it easier to access information that inspires prospective technopreneurs (Wijayanto et al., 2023). With the increasing availability of digital media, individuals can explore various business opportunities, learn success stories, and develop the digital marketing skills needed to compete. The ability to understand technologies such as e-commerce and data-driven marketing not only increases an individual's confidence in starting a business but also builds a solid foundation to adapt to an increasingly complex business landscape. Thus, digital literacy serves as the main catalyst that drives a person's intention to become a technopreneur, while preparing them to face challenges and opportunities in the era of digital transformation.

Discussion of the Second Hypothesis: The Influence of Entrepreneurial Knowledge on Technopreneurship Intention

The results of the hypothesis test show that entrepreneurial knowledge does not affect Technopreneursihp Intention. Previous research shows that someone who only has knowledge in entrepreneurship does not necessarily want to be an entrepreneur (Bae, et al. 2014) or technopreneur. This is because someone with entrepreneurial knowledge will develop their business in their own way with the knowledge they have without always being technology-oriented. So they do not intend to become a technopreneur because they cannot use technology, information, and communication properly. Basically this happens to most parents who have businesses that are not easy to access social media or digital technology which is currently growing. When they have entrepreneurial knowledge, they will concentrate on entrepreneurship indicators, such as knowledge about the business to be started, roles and responsibilities, personality and self-abilities, and how the business is organized and run.

Entrepreneurial knowledge alone is not enough to motivate individuals to become technopreneurs. Although entrepreneurial knowledge, such as understanding roles and responsibilities, business management, and personal skills, provides a good foundation for running a business, it tends to focus on general business aspects and does not include digital technology skills. This result is in line with (Primadari & Adriayni, 2019) which states that the intention to become an entrepreneur does not necessarily exist in people who have entrepreneurial knowledge.

Good entrepreneurial knowledge can stimulate someone to think more seriously about starting or developing a business, including deciding to become a technopreneur. This is especially true for individuals who feel more comfortable with a conventional business approach and are unwilling to take the risk of changing their business to be technology-based (Koe, 2020). As a result, even though someone has adequate entrepreneurial competence, it does not necessarily motivate them to transform into a technopreneur.

Discussion of the third hypothesis: the influence of ICT Self Efficacy on Technopreneurship Intention

The results of the hypothesis test show that ICT Self Efficacy has an effect on Technopreneurship Intention. An individual who has the intention of becoming a technopreneur needs to instill in the individual ICT Self efficacy or commonly called ICT self-efficacy. If an individual already has ICT Self Efficacy within him/herself, then an individual will find it easier to open a new business with technological innovation in the current digital era (Apriani et al., 2024). ICT Self Efficacy is a belief and self-confidence of an individual, that they can easily run or use information and communication technology. So when an individual has high ICT Self Efficacy, they will also have a high

intention to become a technopreneur. This is based on their ability and confidence in using digital technology. Most of those in the current digital era who have high ICT self efficacy are among teenagers to adults, therefore many graduates intend to become technopreneurs.

These results confirm that individual confidence in their ability to use information and communication technology (ICT) is an important factor in building the intention to become a technopreneur. ICT Self Efficacy includes confidence in using software for various purposes as well as the ability to communicate effectively through digital platforms. Individuals who have high ICT self-efficacy are better able to understand, adapt, and utilize technology in developing business innovations (Apriani et al., 2024). They do not only see technology as a supporting tool, but as the core of their business strategy, thus encouraging them to create relevant business models in the digital era.

This self-confidence is especially seen in the younger generation and young adults who are more familiar with digital technology from an early age. They have the skills to explore market opportunities through digital platforms, such as e-commerce, social media, or other technology-based applications. With high ICT Self Efficacy, individuals are also more confident in facing challenges related to technology implementation (Rafiana, 2024). This creates an environment that supports the intention to become a technopreneur, because individuals feel capable of facing the complexity of technology and see it as an opportunity, not an obstacle. Therefore, the development of ICT Self Efficacy is an important component in building a generation of technopreneurs who are ready to face competition in the era of digital transformation.

Discussion of the Fourth Hypothesis Moderation of ICT Self Efficacy on Digital Literacy Against Technopreneurship Intention

The results of the hypothesis test show that ICT Self efficacy cannot strengthen the influence of digital literacy on technopreneurship intention, in accordance with the results of research by Oladejo et al. (2022), A person with high ICT self-efficacy and high digital literacy, does not necessarily have the intention to become a technopreneur. Most of those who are strongly driven by trust and confidence in using digital technology, they prefer to become influencers, content creators, or even just become famous on social media.

Research also shows that those who know a lot about digital technology feel that there are more jobs that can generate income through social media that are easier without becoming a technopreneur (Sudarmaji & Munirah, 2019). ICT self-efficacy makes someone able to use software applications for various purposes and beliefs to communicate effectively through digital platforms and social media. Therefore, they can determine their choice to become what they want by having high ICT self-efficacy and digital literacy in various jobs through social media or internet media (Tajvidi et al., 2020).

ICT self-efficacy does not strengthen the influence of digital literacy on Technopreneurship intention, which means that these two abilities, although high, do not directly encourage individuals to become technopreneurs. In line with the research of Purwati et al. (2023), which states that although digital literacy is important, its relationship with Technopreneurship intention is unclear. It does not mean that people with high digital literacy and added awareness / ICT self-efficacy always have the intention to become entrepreneurs.

These findings reflect that individuals with good ICT self-efficacy and digital literacy tend to have diverse preferences in utilizing their abilities. They are also not always directed towards technopreneurship. Many of them prefer other career paths, such as becoming influencers, content creators, or professionals in other digital fields that offer faster income and simpler processes than starting a technology-based business. ICT Self-efficacy does not directly strengthen the influence of digital literacy on technological entrepreneurial intentions.

Discussion of the Fifth Hypothesis of ICT Self Efficacy moderation on Entrepreneurial Knowledge towards Technopreneurship Intention.

The results of the hypothesis test show that ICT Self Efficacy cannot strengthen the influence of entrepreneurial knowledge on technopreneurship intention. This means that the combination of entrepreneurial knowledge and self-confidence in using technology does not directly encourage individuals to become technopreneurs. Previous research shows that ICT Self Efficacy cannot simply strengthen Technopreneurship Intention without financial support (Apriani et al., 2024). Technopreneurship Intention studies are considered expensive (Nengomasha, 2018). Financial support, both in terms of capital and financial planning and management capabilities, contributes significantly to business sustainability (Pitaloka & Avianti, 2023).

In addition to the financial aspect, other factors are unsupportive facilities (Fathonah et al., 2020). This finding reflects the lack of integration between traditional entrepreneurial skills and digital technology in creating a strong drive to enter the world of technopreneurship. Individuals with entrepreneurial knowledge tend to focus on conventional business management and operational aspects so that they cannot motivate them to become technopreneurs.

Submit feedbackEntrepreneurial knowledge and ICT self-efficacy also if it does not produce creativity and passion to utilize technology in business or enterprise will not have an impact on technopreneurship intention (Ferreira et al., 2023). While their confidence in using technology (ICT self-efficacy) may not be enough to encourage them to take innovative steps in technology-based businesses.

The lack of integration between technology and entrepreneurship skills, the lack of entrepreneurship and digital technology practitioners, self-confidence issues and some respondents consider it expensive to become a technopreneur are the causes of the weak results of the hypothesis. Therefore, a more holistic approach is needed to integrate entrepreneurship learning with digital technology, as well as training designed to increase individual confidence in taking risks in the world of technopreneurship. This will open up opportunities for individuals with this combination of skills to be more interested and motivated to become technopreneurs.

CONCLUSION

The results of this study indicate that digital literacy has a positive effect on technopreneurship intention, while entrepreneurial knowledge has no significant effect. In addition, ICT self-efficacy has a direct effect on technopreneurship intention, but does not moderate the relationship between digital literacy and entrepreneurial knowledge on technopreneurship intention.

This finding underlines the importance of digital literacy in building technopreneurship intention, where individuals who have good digital skills are more confident in identifying and utilizing technology-based business opportunities. This suggests that technological skills and digital literacy can be the main drivers for prospective technopreneurs to develop businesses based on technological innovation.

The theoretical contribution of this study is to enrich the understanding of the role of digital literacy and ICT self-efficacy in shaping technopreneurship intention. In addition, this study confirms that entrepreneurial knowledge alone is not enough to encourage individuals to become technopreneurs without adequate technological skills support.

This study has several limitations, including limited population coverage and a quantitative approach that has not explored in more depth the psychological factors and motivations of individuals in technopreneurship. Therefore, further research is suggested to expand the sample to be more diverse and combine qualitative methods to explore deeper the factors that influence technopreneurship intention. In addition, further exploration of more complex indicators in measuring ICT self-efficacy and digital literacy will provide richer insights.

Practically, the findings of this study provide implications for the world of technology-based entrepreneurship education and training. Educational institutions are advised to integrate digital literacy and the development of ICT self-efficacy in the entrepreneurship curriculum so that individuals not only understand the basics of business, but are also able to utilize technology in business innovation. For companies and organizations, it is suggested that technology-based training can improve HR competency to develop technopreneurship. In addition, mentoring programs and digital simulations can help individuals overcome obstacles in starting a technology-based business.

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