



Research/Review

Student Online Business Readiness in the Perspective of Digital Mindset: Phenomenological Study on Students in Malang

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Abstract: The development of digital technology has changed global business patterns, including in Indonesia, through the growth of e-commerce, social media, and online platforms. This change opens up great opportunities for students as the educated young generation to develop online businesses. This research aims to explore students' online business readiness from a digital mindset perspective through a phenomenological study approach among students in Malang. The research focuses on online business readiness, digital mindset, attitudes towards technology, and the contribution of entrepreneurship learning, which are analyzed using the Theory of Planned Behavior framework (Ajzen, 1991) and Entrepreneurial Mindset Theory. The research used qualitative methods with in-depth interviews with online business students. The results show that students have a basic understanding of digital business, especially in utilizing social media and marketplaces. A positive attitude towards technology has been formed, indicated by perceived benefits and ease of use. However, a gap emerges between technical skills and long-term strategic planning capabilities. Innovation and problem-solving tend to be reactive, simply following trends, while psychological resistance such as fear of fraud and data security remain barriers. This research confirms that online business readiness is not only determined by technical skills, but also by the strengthening of an adaptive, innovative digital mindset. This research confirms that online business readiness is not only determined by technical skills, but also by strengthening an adaptive, innovative, and resilient digital mindset. The novelty of this research is the integration of TPB and Entrepreneurial Mindset Theory to understand students' readiness to face digital business challenges.

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1. Introduction

The development of digital technology has driven a major transformation in global business. E-commerce is now mainstream with a market value estimated to reach more than USD 6.5 trillion by 2025 and potentially grow to USD 75 trillion by 2034 (Andriana, 2021; Hussain et al., 2020). The number of online shoppers has also increased sharply

to more than 2.5 billion users, with transaction value reaching USD 4.12 trillion by 2024 (Nugroho, 2020). This growth is reinforced by the adoption of technologies such as Artificial Intelligence, automation, and social commerce, where 69 percent of consumers in the United States have shopped through social media (Sakitri, 2021; Suryadharma et al., 2023). Changes in consumer behavior further emphasize the importance of digitalization. Consumers demand fast, personalized, and flexible services, ranging from free shipping, real-time tracking, to easy return policies. Mobile shopping trends are also increasingly dominant, with nearly 80 percent of online store traffic coming from smartphones. This phenomenon shows that the success of modern businesses is largely determined by the digital mindset (Thesis et al., 2019, 2020). Not just technical skills, but adaptive, innovative, and strategic thinking in responding to changes in technology and consumer behavior. This is an important basis for students who want to build an online business to be able to compete in an increasingly competitive digital era.

In Indonesia, the development of online businesses also shows very rapid growth. Bank Indonesia data recorded that the value of e-commerce transactions in 2024 reached more than Rp 500 trillion, an increase of around 20 percent compared to the previous year (Suryadharma et al., 2023). This trend is in line with the Indonesian E-Commerce Association (idEA) report which states that Indonesia is one of the largest digital markets in Southeast Asia, with more than 210 million internet users. Post-pandemic changes in people's behavior have further strengthened the dominance of online shopping, where consumers now prioritize convenience, speed of service, and a practical shopping experience.

Malang, as one of the largest education cities in Indonesia, has also experienced this phenomenon. With hundreds of thousands of students, Malang is a potential ecosystem for the growth of youth-based online businesses. Many students have started digital businesses, such as culinary, fashion, creative products, and services based on online platforms (Fatemi et al., 2023; Sun & Moon, 2024). However, many of them still face challenges in the form of limited strategies, lack of consistency, and not optimal in utilizing digital technology to support business sustainability. This phenomenon shows a gap between the great opportunities offered by e-commerce development and the real readiness of students to face it (Adikoeswanto et al., 2022; Yuviler-Gavish et al., 2024). This condition emphasizes the need for a digital mindset as the main capital, so that students do not just follow trends, but are truly able to adapt, innovate, and compete in digital business (Priyono & Hidayat, 2024; Taub et al., 2024).

Ideally, students as the educated young generation in the digital era are required to have a digital mindset that not only master technical skills, but also an open, adaptive, innovative mindset (Bashir et al., 2023; Zhou et al., 2021), and dare to take opportunities from technology. Huang et al. (2020) mentioned that Digital mindset is understood as a set of attitudes and behaviors that allow individuals to see the potential of data, algorithms, and artificial intelligence to create new opportunities, be curious about technological developments, dare to experiment, be able to collaborate across fields, and make data-based decisions. In a global context, the urgency of this mindset is increasingly clear, considering the number of world internet users and digital consumption trends continue to increase (Li et al., 2022; Mugiono et al., 2020).

But in reality, even though students are considered the digital native generation, the internalization of digital mindset in the context of online business still faces many obstacles. Research at STEKOM University shows that students' intention to start an online business is strongly influenced by business education and global mindset, and is significantly aided if they adopt digital marketing technology as a mediator between mindset and business intention, but only in the realm of digital marketing adoption, not financial technology such as fintech. This suggests that while the mindset is established, the technical skills to deliver the latest digital strategies are often inadequate (چاسماد مدد س ل يد مان ف همي, 2024).

More broadly, a national survey of MSMEs often run by the student segment revealed that the majority are still at the “learner” level in terms of digital readiness. This means that they only utilize basic features such as marketing via social media or e-commerce without being supported by further digital strategies or real innovation (Fragoso et al., 2020; Luyu Li & Wu, 2019). This study is an indication that the mindset of digital as a long-term strategy is not yet firmly entrenched, so many businesses only develop briefly and are not sustainable (Priyono & Hidayat, 2024; Zhou et al., 2021).

Thus, the reality on the ground shows an inconsistency: students may have basic digital literacy and entrepreneurial intentions, but the internalization of a digital mindset that includes the courage to innovate, make data-driven decisions, and implement a mature digital strategy is uneven (Singh et al., 2024; Zou, 2022). As a result, their business continuity is often interrupted, only survives on the surface, and has not achieved long-term stability or growth (Bachnik et al., 2023; Ispim et al., 2024).

From the problems described above, researchers try to provide strategies to improve students' digital mindset, which can be started from the integration of a more contextual and technology-centric curriculum (Aminoff & Pihlajamaa, 2020; Bashir et al., 2023). For example, research conducted at Jambi University revealed that developing digital literacy is not only through theory, but also requires strengthening facilitators, access to quality learning resources, and active public involvement, emphasizing that students need to be directly involved in the process, not just as passive recipients of knowledge (Arsakiyana & Sulistyowati, 2022; Nurhayati et al., 2020). In addition, other studies mention that students' critical thinking skills can improve significantly when digital literacy is applied in learning, such as the use of interactive digital learning media in certain courses that can encourage deeper understanding (Aziz et al., 2023; Bachmann et al., 2024).

On the entrepreneurship development side, research at UMTS states that entrepreneurial literacy has a strong effect on students' readiness to start a business in the digital era, indicating that entrepreneurship-based training programs should also include a strong and applicable digital component. Given the reality of students in Malang who often start digital businesses but their businesses do not last long due to a lack of mature strategies, the solution can be the launch of a local digital incubator. For example, Muhammadiyah Purworejo University has developed a Student Digital Market (PadiMas) that serves as a specialized e-commerce platform for student products, bypassing the competition phase and opening up real market opportunities for their products. This model can be applied in Malang to extend the life cycle of student businesses after the competition or competitive program is over.

In addition, the collaborative approach between students and local digital startups and MSMEs can be an arena for contextual learning (Anser et al., 2020; Owan, 2019). Although

there is not much explicit research in Malang, this collaborative principle is in line with approaches found in various research literature, namely the importance of involving hands-on practice through technology-based training, mentoring and incubation (Lifu Li & Kang, 2023; Sansone et al., 2021). For example, digital literacy education strategies that involve collaboration between educators, parents and policymakers have proven effective in equipping young people with ethical and critical digital competencies (Wang et al., 2022; Yan et al., 2023).

Thus, combining the three core strategies of 1) strengthening digital literacy through access to interactive learning and trained facilitators, 2) integrating digital literacy in entrepreneurship education to build real online business readiness, and 3) developing local digital incubators such as the PadiMas platform will be able to foster an adaptive, creative, and applicable digital mindset in students in Malang (Donaldson, 2019; Liao et al., 2022). This will ensure not only technical, but also mental and strategic readiness in building and sustaining digital businesses in this changing era (Nájera-Sánchez et al., 2023; Tetteh et al., 2024).

While there have been a number of studies reviewing the role of business education and global mindset in triggering students' intention to start an online business such as the findings from STEKOM University that show the effectiveness of digital marketing adoption as a mediator in this relationship, these studies are limited to the context of business programs, small samples, and quantitative approaches that do not explore students' subjective experiences in depth. Moreover, it has not examined how digital mindsets are formed, tested and applied in the actual practice of students' online businesses, where sustainability aspects and psychological and structural constraints play a critical role.

Meanwhile, research by Maula et al. (2025) and Setyawati et al. (2024) shows the importance of digital literacy and entrepreneurship courses in preparing students for entrepreneurship, but also still quantitative and has not explored local contexts such as in Malang, where the student business ecosystem is very unique because it is related to the character of the city of education as well as the dynamics of student community-based digital businesses. In addition, studies on mindsets such as grit and growth mindset show significant contributions to Generation Z's work readiness, but still cover the general context of the world of work, not specifically online business readiness or digital entrepreneurship in the academic environment in Malang. Thus, there is an important research gap to fill: there is no phenomenological study that explores in depth how Malang students understand, experience, and apply digital mindset in starting and maintaining their online business. This gap includes: (1) students' subjective experiences, (2) the mental strategies and adaptations they make, (3) the psychological and structural barriers they face, and (4) the local context of Malang, which is unique. All of these aspects have not been touched by previous studies that are more focused on intention, literacy, or work readiness in general.

In addition, while a number of studies have shown the importance of entrepreneurship education, digital literacy, and self-efficacy to increase digital business intentions, most are correlational and do not reveal the complicated narratives of students in education cities such as Malang, which has a unique ecosystem character. The context of Malang with great potential from thousands of students, but the reality of their businesses is often seasonal and their digital strategies have not developed and have not been the subject of in-depth qualitative studies. So, the phenomenological approach of this research offers a new contribution:

understanding the psychological realities, obstacles, language of experience, and strategic meanings built by students in forming a digital mindset.

The grand theory relevant to this study is based on two complementary grand theoretical frameworks, namely the Theory of Planned Behavior (TPB) developed by Ajzen (1991) and the Entrepreneurial Mindset Theory proposed by McGrath & MacMillan (2000). TPB explains that a person's behavior, including in the context of students' readiness to run an online business, is determined by intentions which are influenced by three main components: attitude toward the behavior, subjective norms, and perceived behavioral control (Handayati et al., 2020). In this study, students' digital mindset can be understood as a psychological factor that forms a positive attitude towards technology utilization, influences social norms through exposure to digital communities, while increasing perceived control over their ability to manage online-based businesses.

Meanwhile, Entrepreneurial Mindset Theory emphasizes the importance of an entrepreneurial mindset characterized by risk-taking courage, ability to recognize opportunities, innovative thinking, and agility in action (Ping, 2024; Zhang et al., 2022). This theory is particularly relevant in the context of university students in Malang, where online business challenges demand not only mastery of digital skills, but also the courage to experiment, the ability to create differentiation, and flexibility in adjusting to changes in the digital market. By combining these perspectives, research can examine how students' digital mindset not only shapes their intention to do business online (as described by TPB), but also plays a role in internalizing an entrepreneurial mindset that allows them to survive and thrive amid digital competition.

The use of TPB provides a theoretical foundation to understand the process of forming students' intention and behavior in running an online business, while Entrepreneurial Mindset Theory enriches the analytical framework by emphasizing the role of digital entrepreneurial mindset in realizing real readiness. The combination of the two allows this study to more comprehensively uncover the relationship between digital mindset, intention, and strategy in managing an online business, while offering a new contribution to the literature on digital entrepreneurship among university students. From the psychological side, the Theory of Planned Behavior (TPB) framework is used to explain how students' attitudes towards online business, the social norms that influence them, and perceived control over digital capabilities shape their intention to engage in online entrepreneurship. Meanwhile, from the entrepreneurial side, Entrepreneurial Mindset Theory puts emphasis on entrepreneurial mindsets such as risk-taking courage, ability to innovate, adaptivity, and opportunity orientation, which are important factors in turning intentions into actual behavior.

Furthermore, this phenomenon is evident in the emergence of business trends based on TikTok Shop and marketplaces such as Shopee and Tokopedia, which are widely used by students to sell fashion products, food, and creative services. The support of campus entrepreneurial communities, such as the Studentpreneur Community in several universities in Malang, also forms a social norm that encourages other students to try digital businesses. However, many students still face obstacles, such as limited digital literacy, lack of understanding of online marketing strategies, and difficulty maintaining business consistency amid fierce competition. Using a phenomenological approach, this study explores in depth the experiences of students in dealing with these dynamics, including the adaptation strategies

they carry out. This integration strengthens the relevance of the research because it connects the global context of digitalization, the local dynamics in Malang as the growth center of the digital business ecosystem, and the personal experiences of students as actors. Thus, this integrative approach provides a holistic picture, bringing together the cognitive process of intention formation, entrepreneurial mindset, and real implementation in online business, while generating practical implications for curriculum development, training, and business incubation in higher education.

Based on the description above, this research provides novelty with an in-depth phenomenological approach to understanding students' digital mindset subjectively including how they experience, formulate, and apply digital mindset in online business practices in Malang. Previously, many quantitative studies have only examined the influence of business education, global mindset, and digital technology adoption on online business intentions, with samples limited to one study program and did not explore the psychological context or real experiences of students. Research at other university levels such as Jakarta and Malang itself tends to focus on variables of motivation, inspiration, or digital literacy, but remains within a quantitative framework and does not explore the process of mindset formation in depth (Wardana et al., 2023).

The urgency of this research is very high, because the development of Indonesia's digital economy continues to accelerate significantly, making the mastery of digital mindset among students not only important, but very urgent. E-commerce platforms have made a real impact: more than 1 billion MSME products were sold through Shopee Live throughout 2024, and campus digital ecosystems such as Shopee MSME Campus are present even in education cities such as Malang to improve the digital skills of young entrepreneurs. On the other hand, Indonesia faces a huge challenge in terms of digital talent: the estimated need of 9 million to 12 million digital workers by 2030 is much higher than the number available today.

2. Preliminaries or Related Work or Literature Review

Table 1. Interview Guidelines.

Variable	Indicator	Interview Questions	Source
Online Business Readiness	Knowledge about online business	What is your understanding of online business and its current opportunities?	(Gomes et al., 2023), (Arora et al., 2022)
		How do you obtain information related to online business?	
	Technical ability (platform, tools, digital marketing)	What digital platforms do you use to run an online business?	
		To what extent are you able to use social media, marketplaces, or digital marketing tools (e.g. SEO, ads, content management)?	

	Mental readiness (motivation, confidence, risk-taking)	What motivated you to start an online business? How do you deal with risks or failures in digital business?	
	Financial readiness and resources	Where did you source your initial capital to start an online business? Are financial limitations a major obstacle in running a business?	
	Business planning (idea, strategy, target market)	How do you plan your online business, from idea, promotion strategy, to target market?	
Digital Mindset	Adaptive mindset to technology	How have you responded to the emergence of new technologies in online business?	(Giordano, 2013), (Chandratreya, 2025)
	Willingness to learn new things digitally	What are your recent experiences in learning digital skills that support business?	
	Creativity in utilizing technology	How do you use technology to enhance product/service creativity?	
	Innovation and digital-based problem-solving	Can you tell us about an experience when you used technology to solve a problem in your business?	
	Speed of adapting to digital changes	How quickly do you think you can adapt to changes in platform algorithms (e.g., Instagram, TikTok or marketplaces)?	
Entrepreneurship Learning	Model or method of entrepreneurship learning	How was your experience with entrepreneurship courses/training? What methods were the most memorable?	UNESCO (2023) <i>Entrepreneurship Education for the Digital Age</i> , BPS (2023) <i>Indeks Pembangunan Digital Indonesia</i> .

	The role of lecturers and facilitators in fostering entrepreneurial spirit	To what extent do lecturers or mentors motivate you to do business online?	
	Entrepreneurial practice experience (project, business simulation, internship)	Tell us about your experience in participating in business projects, entrepreneurship simulations, or internships related to digital business.	
	Technology-based learning (e-learning, digital simulation, marketplace project)	Have you ever participated in technology-based entrepreneurship learning? How did it impact your understanding?	
	Impact of entrepreneurial learning on business motivation	Has entrepreneurship learning made you more confident to do business online?	
Attitude Toward Using	Perceived usefulness	To what extent do you think technology helps increase the productivity of your online business?	<i>Acceptance Model (TAM), Statista (2024) Digital Payment & E-commerce Adoption in Indonesia.</i>
	Perceived ease of use	Do you find it easy to use marketplace apps, social media or digital finance apps?	
	Comfort level using online platforms	What platform are you most comfortable using to do business, and why? Do you accept feedback from customers? How do you act on it?	
	Resistance or psychological barriers to technology	Do you ever feel anxious or have difficulty using new technology? How do you overcome them?	

Source: processed research, 2024.

3. Proposed Method

This research uses a qualitative approach with a phenomenological study design, because the main focus of the research is to explore the subjective experiences of students in Malang in internalizing the digital mindset and how it affects their readiness to run an online business. Malang City was chosen as the research location because it is known as an educational city with a large number of students and has a rapidly growing digital business ecosystem through e-commerce, social media, and digital MSMEs. The research process began with a literature study, preparation of interview guidelines, and technical preparation for field observation and documentation.

Primary data was obtained through semi-structured interviews with 10-15 students as informants, the informants selected were active students who did not or had run an online business. Informants were selected using purposive sampling technique with the following criteria: active students (S1), have experience in online business or who want to run an online business, have attended entrepreneurship courses or training, and are willing to share their experiences in depth. The research data were obtained from two sources, namely primary and secondary. Primary data was collected through in-depth interviews, participatory observation, and documentation of students' online business activities. Structured interviews were designed not only to explore students' experiences in managing digital businesses, but also how the entrepreneurship learning they participated in (both in lectures, workshops, and incubation programs) influenced the way they built a digital mindset. Observations were made by observing digital marketing strategies, the use of e-commerce platforms, and the application of entrepreneurship materials in business practices. Documentation such as entrepreneurship modules, training notes, and screenshots of online stores were also collected to strengthen the findings.

Data analysis was carried out by following Moustakas' (1994) phenomenological model which includes: epoche (postponing the researcher's assumptions), horizontalization (identifying important statements), clustering (grouping themes), textural description (explaining what is experienced), structural description (explaining how the experience occurs), to find the essence of student experiences related to the relationship between digital mindset, online business readiness, and entrepreneurship learning outcomes. To maintain research validity, source triangulation techniques (students, entrepreneurship lecturers, business mentors), triangulation techniques (interviews, observations, documentation), and member checking by asking participants to verify the results of the researcher's interpretation are used.

By including aspects of entrepreneurship learning, this research is expected to provide a comprehensive picture of how formal and non-formal education contribute to shaping students' digital mindset. The research results not only enrich academic studies, but can also be an input for universities in designing entrepreneurship curriculum that is more adaptive to the needs of the digital era, as well as encouraging Malang students to be more prepared and competitive

Algorithm/Pseudocode

Algorithm 1. Analysis of Students' Online Business Readiness.

INPUT: Interview data of students, interview guidelines

OUTPUT: Findings on online business readiness and students' digital mindset

- 1: Initialize informants as an empty list
 - 2: Initialize themes as an empty list
 - 3: For each informant in interview_data
 - 4: Conduct an interview using interview_guidelines
 - 5: Store the interview results in data_informant
 - 6: For each data_informant
 - 7: Remove irrelevant information
 - 8: Normalize the data
 - 9: For each data_informant
 - 10: Identify key statements and store them in important_statements
 - 11: Group important_statements by themes
 - 12: Store the themes in themes
 - 13: For each theme
 - 14: Create a textual description of the experiences expressed by informants
 - 15: Find the essence of students' experiences related to digital mindset and business readiness
-

-
- 16: Store the analysis results in final_report
 - 17: Distribute final_report to relevant parties
-

Understanding Digital Mindset

The concept of a digital mindset is crucial for students aiming to succeed in online business. It encompasses various attitudes and skills, including :

1. Adaptability to Technology, Students must be willing to embrace new digital tools and platforms.
2. Innovative Thinking, A creative approach to problem-solving is essential for navigating challenges in the digital landscape.
3. Data-Driven Decision Making, The ability to analyze data and make informed decisions is vital for business success.

Numbered lists can be added as follows:

1. Entrepreneurship Education
2. Practical Learning Experiences
3. Mentorship and Guidance

4. Results and Discussion

In this section, the author needs to explain the hardware and software used, dataset sources, initial data analysis, results, and results analysis/discussion. Presenting the results with pictures, graphs and tables is highly recommended. Formulas or evaluation measuring tools also need to be included here. There must be discussion/analysis, and you can't just rewrite the results in sentence form, but you need to provide an explanation of their relationship to the initial hypothesis. In addition, this section needs to discuss and elaborate on important findings.

Results

This study aims to analyze students' knowledge of online business and to examine the entrepreneurial mindset held by students in that context. In today's digital era, an understanding of online business is crucial, especially for university students who are the younger generation and future entrepreneurs (Jingzu et al., 2024; Murad et al., 2021). In addition, this study will also explore the benefits that students get from entrepreneurship learning organized in their educational institutions.

Most students have a basic understanding of online business, especially through social media (Instagram, TikTok, WhatsApp Business) and marketplaces such as Shopee and Tokopedia (Amofah & Saladrigues, 2022; Bazan et al., 2020). They realize that online businesses provide vast market opportunities with relatively small capital. However, more technical knowledge, such as digital stock management, paid advertising management, or the use of analytic tools, is still limited (Lifu Li & Kang, 2023; Wang et al., 2022). "I learned to sell from Instagram and TikTok, so I know how to upload products and create content. But I don't understand more complicated strategies like SEO." (Code W/01/002/IK 1/IK). From the results of these interviews it can be said that students obtain online business knowledge by themselves, the main source of learning is from digital media, not from the formal curriculum.

In terms of technical skills, students are able to use basic platforms for promotion, but most are not optimally utilizing SEO, Google Ads, or TikTok Ads (Sansone et al., 2021; University of Ruhuna Sri Lanka Proceedings of 1, 2022). In terms of mental readiness, students' biggest motivations are financial independence and time flexibility, but there is hesitation in facing risks, especially when sales decline or social media algorithms change (Miloradovic et al., 2024; Oyekunle & Tihamiyu, 2022). "I can create content on TikTok, but I'm still confused about paid advertising like FB Ads." (Code W/02/003/IK 2/IK). From the interview results, most students master basic promotional skills, but have not explored more complex digital marketing tools. Financial readiness also varies. Some students use personal capital or parental support, while others utilize a pre-order system to reduce the risk of loss. Business planning is still simple, usually in the form of marketing strategies through content and discount promotions, but not many have developed long-term business plans.

“My initial capital came from my parents, but now I'm trying to use the pre-order system to avoid losses.” (Code W/04/007/IK 2/IK). Limited capital makes students choose low-risk strategies such as pre-orders.



Figure 1. Interview results.

In terms of Digital Mindset, the interviews revealed that students are quite adaptive to new technologies, especially in utilizing trends such as live streaming commerce on TikTok. They have a willingness to learn independently, usually through YouTube, online courses, or student business communities. “I often create content using viral music to make my products more recognizable.” (Code W/06/010/IK 4/IK). The interview results illustrate that student creativity is seen in the utilization of digital trends for product branding. Creativity is seen in the use of short video content, storytelling, and attractive visual design to attract buyers. Some informants even mentioned that they tried product branding by utilizing meme trends or viral music.

However, challenges arise in terms of innovation and problem-solving. For example, when there was a drop in sales due to changes in Instagram's algorithm, some students struggled to find solutions other than lowering prices. Despite this, they still showed adaptability by switching to other platforms (e.g. from Shopee to TikTok Shop). This was obtained from the interview results conveyed by the informant “When the Instagram algorithm changed, I was confused, finally slamming prices to sell.” (Code W/06/013/IK 4/IK). This shows that problem-solving students tend to be reactive (lowering prices) rather than being innovative.

From the results of learning conducted at the campus, most students have attended entrepreneurship courses on campus. They consider the practice of business simulations and group projects to help increase confidence in running a business. However, learning methods that are too theoretical are considered less effective. “When I took the entrepreneurship course, the most helpful thing was the group selling project. It made me more courageous.”. (Code W/03/015/IK 5/IK). This shows that practical learning methods such as project-based learning are more effective than lectures.

In addition to practical learning methods, the role of lecturers and facilitators is also considered important. Students who have lecturers actively providing business guidance feel more motivated than those who only receive one-way lectures (Bachnik et al., 2023; Ispim et al., 2024). In addition, students who participated in the campus business incubation program in Malang (at Machung or UM) claimed to be more mentally and strategically prepared than those who did not. “My lecturers often motivate me to continue selling online, it makes me

excited.” (Code W/03/016/IK 5/IK). This shows that lecturer support plays an important role in fostering student motivation for entrepreneurship.

Technology-based learning has also begun to be applied, for example through the use of marketplace simulations or online sales projects. The impact is quite significant on student motivation, because they can immediately see the results of real sales (Singh et al., 2024; Zou, 2022). “During the marketplace simulation in class, I understood how to manage an online store.” (Code W/03/017/IK 5/IK). This shows that technology integration in entrepreneurship learning improves students' practical skills.

In the Attitude Toward Using variable, the results show that students generally have a positive perception of the benefits of technology, especially in terms of expanding the market and efficiency of promotional costs. They feel that the use of social media is very helpful to reach new consumers without having to open a physical store. “Selling online is much easier, you can reach many people without renting a shop.” (Code W/04/018/IK 6/IK). This shows that students view technology as a means of increasing business efficiency.

In terms of ease of use, the majority stated that marketplace applications are quite easy to operate, although some advanced features (for example, analytic dashboards) are still rarely used. The level of convenience is quite high, with the main preference being Instagram for promotions and Shopee/Tokopedia for transactions. “Using Shopee is easy, but the analytics feature is complicated so I rarely use it.” (Code W/04/019/IK 7/IK). This shows that students find it easy to use the platform, but have not utilized advanced features.

In addition to students' perceptions of the ease of doing business online, resistance also arises, especially in the form of anxiety about online fraud, the complexity of digital payments, and data privacy concerns. These psychological barriers make some students more cautious in expanding their business. “Sometimes I am afraid too, because there have been fictitious buyers who cheat.” (Code W/04/020/IK 8/IK). This shows that psychological barriers related to digital security are still a challenge that reduces students' confidence to run an online business.

Dicussion

Students' Online Business Readiness

The interview results show that students in Malang already have a basic understanding of online business, especially through the use of social media such as Instagram and TikTok, as well as marketplaces such as Shopee and Tokopedia. These platforms were chosen because they are considered easy to use, have a wide reach, and have minimal capital to start. However, this understanding is still limited to simple technical skills, such as uploading products, creating promotional content, or managing transactions. Meanwhile, more complex aspects such as market analysis, digital financial management, product differentiation strategies, and supply chain management have not been mastered by many students. As a result, long-term business strategies have not been widely implemented, so that business sustainability tends to be unstable and only follow momentary trends.

This gap confirms that students' online business readiness is more at the technical operational level, not at the managerial strategic level. In fact, in the digital era, the success of online businesses is not only determined by technical capabilities, but also by analytical skills, strategic decision making, and understanding of the digital ecosystem. This is in line with the report by Khatib et al. (2024), which states that young people in Indonesia, especially Gen Z, are more technically proficient in using digital tools, but are still weak in analytical skills, strategic planning, and the courage to make data-based decisions.

This finding is also relevant to the Theory of Planned Behavior perspective (Ajzen, 1991), where digital entrepreneurial intentions are not only influenced by positive attitudes towards technology, but also by perceived behavioral control, which is the belief in one's ability to manage business challenges in a sustainable manner. This means that although students have positive attitudes and basic technical skills, limitations in strategic abilities make them less confident in facing market uncertainty.

Thus, it can be understood that although students are on the right track by utilizing online business opportunities, they still face serious challenges in building a long-term oriented, innovative, and highly competitive business. This limitation opens room for

intervention through digital mindset-based entrepreneurship learning, which not only teaches technical skills, but also hones analytical abilities, innovation, and more comprehensive digital business strategies.

Digital Mindset of Students in Starting an Online Business

The interview results show that students show high adaptability to the development of digital technology, for example by quickly utilizing new features such as TikTok Shop and live shopping. This reflects an openness to change and the ability to quickly adjust to the dynamic digital business environment. However, students' innovation and problem-solving tendencies are still reactive, i.e. simply following market trends or lowering prices when sales decline, without being accompanied by sustainable long-term innovative strategies. This condition illustrates that students have only reached the early stages of the digital mindset, where adaptive abilities have emerged, but other aspects such as creativity, innovation, and proactivity are still not optimally developed. In fact, according to Nadlifatin et al. (2021), a mature digital entrepreneur should have the ability to think visionary, anticipate changes, and create innovative solutions in the face of uncertainty. In other words, rapid adaptation without being balanced with innovative strategies will only put students in a position as “trend followers” and not “opportunity creators”.

Recent research also supports these findings. For example, a study by Krichen & Chaabouni, (2022) emphasized that young Indonesians still lack complex problem-solving and innovative skills, even though they are quick to master the use of digital technology. Similarly, research by Martins & Perez, (2020) found that although university students have a high interest in digital businesses, most have not been able to design sustainable creative strategies, so their ventures are easily stalled when market trends shift. In addition, a report by Darmasetiawan, (2019) showed that the skills most needed in the digital economy are analytical thinking, creative problem-solving, and digital innovation skills, which are currently the main weaknesses of young people in Southeast Asia. This fact strengthens the argument that students in Malang, although technically adaptive, still need to strengthen their digital entrepreneurship mindset so that they are not only reactive to trends, but also able to create sustainable competitive advantages.

Thus, this discussion confirms that the readiness of Malang students in the digital mindset perspective is still limited to the adaptation dimension. To be able to reach the mature stage of digital entrepreneurship, students need to be strengthened through a digital innovation-based entrepreneurship learning approach that not only emphasizes technical mastery, but also encourages creativity, analytical skills, and the courage to make strategic decisions in the face of market dynamics.

How Does the Role of Entrepreneurship Learning Strengthen Students' Readiness to Do Online Business?

In this study, entrepreneurship learning is proven to have a significant contribution in strengthening students' readiness to do business online. Through project-based learning and marketplace simulation methods, students not only gain theoretical knowledge, but also practical experience that encourages motivation, courage to take risks, and confidence in facing digital business dynamics. This process is in accordance with Kolb's (1984) view in Experiential Learning theory, which emphasizes that effective learning occurs through a cycle of real experience, reflection, conceptualization, and active experimentation. In other words, entrepreneurial practices integrated in the curriculum make students learn not only “from class”, but also “from experience”.

The role of lecturers as facilitators also proves crucial. Lecturers no longer only function as material providers, but as mentors who encourage the exploration of ideas, provide motivation, and guide students to face real challenges in digital entrepreneurship. This is consistent with Jazuli Jazuli et al. (2023), who emphasized that practice-based learning can improve students' skills, confidence, and motivation to actually enter the business world.

Recent research also reinforces these findings. According to (2023), students who were involved in an experiential entrepreneurship program had a higher level of entrepreneurial intention than those who only received theory. Similarly, a study by (Sansone et al., 2021) showed that e-learning based on digital entrepreneurship was able to improve students' understanding of online business strategies while strengthening their motivation to open their own business. In fact, according to the World Bank (2023), entrepreneurship learning integrated with digital technology can be one of the solutions to overcome the digital talent gap in Indonesia, which is projected to still lack 9 million talents until 2030.

Thus, entrepreneurship learning plays a dual role, namely as a means to hone hard skills (technical knowledge, digital business management, online marketing strategies) as well as soft skills (self-confidence, resilience, courage to take risks). This dual role makes students not only ready as online business actors, but also have an innovative and adaptive digital mindset, so that they are better prepared to face the challenges of digital businesses that are full of uncertainty

What is the Student's Attitude Towards Technology (Attitude Toward Using)?

In this study, students showed a positive attitude towards technology, mainly because they perceived usefulness and perceived ease of use of various digital platforms, such as marketplaces and social media. This is in line with the Theory of Planned Behavior (TPB) framework - Ajzen (1991), which asserts that a positive attitude towards a behavior will increase the intention to do it, which in turn affects actual behavior. In the context of online business, students' positive attitude towards technology is a driving factor in the formation of strong intentions to start and manage digital businesses.

However, the reality is that there are still psychological resistances that hinder entrepreneurial consistency. Students often feel worried about the risk of fraud, data security, and the uncertainty of changing digital platform policies. This condition shows the existence of an "attitude-behavior gap," where even though positive attitudes have been formed, external and psychological factors are still a barrier to maintaining digital entrepreneurial behavior in a sustainable manner. This finding is in line with the study of Venkatesh et al. (2003) in the Unified Theory of Acceptance and Use of Technology (UTAUT), which emphasizes that in addition to benefits and convenience, trust and perceived risk factors are also very influential on technology acceptance. More recently, Kayed et al. (2022) reported that young people in the Asia-Pacific region, including Indonesia, have high enthusiasm for digital technology, but low levels of trust in the security of online platforms, which impacts the sustainability of their digital businesses.

Research by Adikoeswanto et al. (2022) in Indonesia also found that although university students have a high level of technology adoption, concerns about the security of online transactions and the risk of platform uncertainty remain significant barriers to sustaining digital-based ventures. Thus, it is important for entrepreneurship learning to not only focus on the technical aspects of using platforms, but also provide digital literacy and risk management, so that students are able to build trust, security, and digital resilience in running online businesses.

5. Conclusions

This research shows that the online business readiness of students in Malang in the digital mindset perspective is still at an early stage of development. Students already have a basic understanding of digital business, especially in utilizing social media and marketplaces, and show a positive attitude towards technology with high perceived benefits and ease of use. This is an important asset where positive attitudes encourage entrepreneurial intentions.

However, the research findings also show a gap between technical knowledge and long-term strategic planning skills. Students tend to reactively follow trends without continuous innovation, which indicates that they have only reached the initial adaptation stage of the entrepreneurial mindset but have not yet fully internalized innovative, proactive, and solutive attitudes. Psychological resistance factors, such as concerns about the risk of fraud, data security, and the uncertainty of digital platforms, are also still obstacles in building business sustainability. On the other hand, entrepreneurship learning has proven to make a significant contribution in strengthening student readiness, especially through practice-based methods such as project-based learning, marketplace simulations, and e-learning. Lecturers act as facilitators who can foster students' courage, motivation, and confidence to face digital business challenges.

Thus, this study confirms that students' online business readiness is not enough with technical skills, but is highly dependent on strengthening digital mindset, digital entrepreneurial literacy, and applicable learning. The novelty of this research lies in the integrative approach between TPB and Entrepreneurial Mindset Theory, which provides a comprehensive understanding of the factors of attitude, intention, and digital mindset in building student online business sustainability. The urgency of this research is even stronger considering the needs of the business world and industry that require the younger generation to be not only adaptive, but also innovative, resilient, and ready to face risks in the digital ecosystem.

References

- Arora, S., Chu, F., Melkinov, S., & Zhang, L. (2022). *E-commerce is entering a new phase in Southeast Asia: Are logistics players prepared?* McKinsey & Company, December, 1–9.
- Aziz, K. A., Zulkifle, A. M., & Sarhan, M. H. D. L. (2023). Social entrepreneurship for sustainable community development: Investigating the determinants for youths' readiness. *Journal of System and Management Sciences*, 13(1), 444–666. <https://doi.org/10.33168/JSMS.2023.0124>
- Bachmann, N., Rose, R., Maul, V., & Hölzle, K. (2024). What makes for future entrepreneurs? The role of digital competencies for entrepreneurial intention. *Journal of Business Research*, 174, 114481. <https://doi.org/10.1016/j.jbusres.2023.114481>
- Bachnik, K., Misiaszek, T., & Day-Duro, E. (2023). Integrating corporate social challenge, learning and innovation in business education. *Journal of Business Research*, 159, 113700. <https://doi.org/10.1016/j.jbusres.2023.113700>
- Chandratreya, A. (2025). Digital transformation and the future workforce. In *Transforming the service sector with new technology* (pp. 19–40). IGI Global. <https://doi.org/10.4018/979-8-3693-7447-4.ch002>
- Giordano, G. (2013). Jobs outlook. *Plastics Engineering*, 69(4). <https://doi.org/10.1002/j.1941-9635.2013.tb00985.x>
- Gomes, S., Ferreira, J. J., & Lopes, J. M. (2023). Entrepreneurial conditions and economic growth in entrepreneurial ecosystems: Evidence from OECD countries. *International Journal of Entrepreneurship and Innovation*. <https://doi.org/10.1177/14657503231156340>
- Ispim, X., Conference, I., Xamk, A. S., & Sciences, A. (2024). Innovation and learning as the basis of successful service business. *Proceedings of the ISPIM Conference*, June.
- Li, X., Qiang, Q., Huang, L., & Huang, C. (2022). How knowledge sharing affects business model innovation: An empirical study from the perspective of ambidextrous organizational learning. *Sustainability (Switzerland)*, 14(10), 6157. <https://doi.org/10.3390/su14106157>
- Mugiono, M., Prajanti, S. D. W., & Wahyono, W. (2020). The effect of digital literacy and entrepreneurship education towards online entrepreneurship intention through online business learning and creativity at marketing department in Batang Regency. *Journal of Economic Education*, 10(1), 21–27.
- Nájera-Sánchez, J. J., Pérez-Pérez, C., & González-Torres, T. (2023). Exploring the knowledge structure of entrepreneurship education and entrepreneurial intention. *International Entrepreneurship and Management Journal*, 19(2), 771–796. <https://doi.org/10.1007/s11365-022-00814-5>
- Tetteh, C., Tasavori, M., Bhattarai, C. R., Zaefarian, R., & Rajwani, T. (2024). How do environmental factors shape entrepreneurial intention? A review and future research. *International Entrepreneurship and Management Journal*, 20(4), 2955–2977. <https://doi.org/10.1007/s11365-024-01002-3>
- Wang, M., Soetanto, D., Cai, J., & Munir, H. (2022). Scientist or entrepreneur? Identity centrality, university entrepreneurial mission, and academic entrepreneurial intention. *Journal of Technology Transfer*, 47(1), 119–146. <https://doi.org/10.1007/s10961-021-09845-6>
- Wardana, L. W., Ahmad, Indrawati, A., Maula, F. I., Mahendra, A. M., Fatihin, M. K., Rahma, A., Nafisa, A. F., Putri, A. A., & Narmaditya, B. S. (2023). Do digital literacy and business sustainability matter for creative economy? The role of entrepreneurial attitude. *Helixyon*, 9(1), e12763. <https://doi.org/10.1016/j.helixyon.2022.e12763>
- Yan, J., Huang, T., & Xiao, Y. (2023). Assessing the impact of entrepreneurial education activity on entrepreneurial intention and behavior: Role of behavioral entrepreneurial mindset. *Environmental Science and Pollution Research*, 30(10), 26292–26307. <https://doi.org/10.1007/s11356-022-23878-w>
- الادب تداثي (3، 2، 1) ال صد فوف ل تلامبذ الحركية ال قدرات لمسد توى ت قويمى نظام. ا. ع. جاسم احمد & ح. سد ليمان ف همي *Sports Culture*, 15(1), 72–86. <https://doi.org/10.25130/sc.24.1.6>