

## Personality traits, individual resilience, openness to experience and young digital entrepreneurship intention

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### CHRONICLE

### ABSTRACT

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Digital entrepreneurship can be a potential alternative solution for addressing challenges faced by young people and future workers in Asia. Additional studies are required to enhance comprehension of digital entrepreneurship given the insufficiency of research conducted in this domain. This research seeks to uncover possible determinants that could impact the desire to engage in digital entrepreneurship, with a specific focus on personal traits, resilience, and the level of educational services. The participants in this study are university students as they represent the potential future workforce and potential digital entrepreneurs. A total of 517 sample data (212 Malaysian, 305 Indonesian) were collected through online surveys towards students in Malaysia and Indonesia. The study used a brief version of The Big Five Personality Traits, CD-RISC resilience scale, Liñán & Chen entrepreneurship intention scale, and Parasuraman, Zeithaml, Berry SERVQUAL to gather data. To analyze the data, the study employed structural equation modeling. The results suggest that the intention to pursue digital entrepreneurship is affected by both an individual's openness to experience and their resilience. Additionally, the study revealed that service quality is a factor that affects both digital entrepreneurship intention and resilience. This study provides new understanding of digital entrepreneurship intention antecedents and implies that improvement on education quality service can foster student's intention to digital entrepreneurship and their resilience.

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## 1. Introduction

The COVID-19 pandemic has posed a significant challenge to the employment prospects of young individuals in Asia and the Pacific (Asian Development Bank & International Labour Office, 2020). Around 220 million young laborers aged 15 to 24 years old in the region are at a heightened risk due to the pandemic, given their limited job experience, employment in sectors severely affected by the pandemic, and their reliance on precarious informal employment for their livelihood (Asian Development Bank & International Labour Office, 2020). This group might be impacted not only during a pandemic but also for a long time. However, the pandemic has driven and speeded up the usage of information technology that creates high potentials for digital business which in turn might give other opportunities for young people through digital entrepreneurship. Entrepreneurship has been studied extensively and mostly shown to have a positive impact on economic development (Neumann, 2021). Researchers also extend studies on its importance to social and environmental welfare. Therefore,

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entrepreneurship can be a prospective way of addressing the disadvantages faced by young and future workers (students) during and after pandemic.

Digital entrepreneurship gains great attention from society because of its huge potential for the world economy. Despite the growing importance of digital entrepreneurship, research in this area is still at an early stage (Alkhalaileh, 2021). In their review, Krauss et al. outline five levels of analysis for investigating digital entrepreneurship, encompassing cultural, inter/national versus regional clusters, industry, organizational, and individual. They highlight that at the individual level, demography, psychological traits such as skills, cognitive abilities, personality, motives, and values, known as the entrepreneurial mindset, as well as entrepreneurship education, expertise, industry knowledge, and personal networks, are variables worth considering. Satalikina and Steiner (2020) state that the analysis of digital entrepreneurship revolves around three fundamental elements: the Entrepreneur, the Entrepreneurial Process, and the Ecosystem. The Entrepreneur aspect mainly focuses on digital behavioral patterns, social impact, knowledge, and the inclination to establish a digital enterprise.

Krueger et al. (2000) assert that entrepreneurial intention is closely linked to an individual's cognitive processes and is a critical element in starting a new business. Intentions are considered the most reliable indicator of any planned behavior, including entrepreneurship, and a greater understanding of the factors that shape these intentions can improve our understanding of the intended behavior. Several studies have highlighted the significance of forecasting entrepreneurial actions before their actual occurrence (Pruett et al., 2009; Krueger et al., 2000). This highlights the need for recognizing the factors that drive digital entrepreneurial intentions, which will broaden our understanding of digital entrepreneurial initiatives.

Intentions (and attitudes) are influenced by both the situation and the individual. According to Krueger et al. (2000), models of intentions have a stronger ability to predict behavior compared to either individual or situational variables on their own. Like studies on conventional entrepreneurship intention, some research on digital entrepreneurship intention refers to Theory of Planned Behavior. Alkhalaileh's (2021) review on antecedents of digital entrepreneurship show that variables such as perceived behavioural control and subjective norms have been quite frequently studied beside digital knowledge. The author suggests exploring a wide range of additional factors that impact students' intentions to launch a digital business, such as personality traits, demographic factors, cultural background, and environmental factors. This indicates the importance of researching both individual and situational variables.

Although research on the impact of personality as an individual factor to entrepreneurship intention have been conducted extensively, its influence on digital entrepreneurs might be different. Since investigation on digital entrepreneurship intention is still limited, Alkhalaileh's suggestion to study personality variables is appropriate. Resilience is another individual factor assumed to influence entrepreneurship intention. Some research has shown positive effects of resilience to entrepreneurship, but also revealed that there is no correlation of the two variables among students' entrepreneurial intentions. Meanwhile, how resilience affects digital entrepreneurship intention still needs to be studied.

Service quality is a situational factor, a part of the environment, which might influence student's intention toward digital entrepreneurship especially because they are strongly exposed to online learning during a pandemic. This is in line with the findings of Sahrah & Dewi (2021) which said that there were differences in perceptions of the quality of academic services between students who received learning before the COVID-19 pandemic and during the COVID-19 pandemic. For this, examination on such variables is also worthed. In summary, the objective of this research is to explore the correlation between personality, resilience, and service quality, and how they impact the digital entrepreneurship intentions of university students in Indonesia and Malaysia, located in Southeast Asia.

This article is presented in five sections. First section reviews relevant literatures and develops hypotheses based on this review, second part describes the method and procedures of the research, third section presents result of the study, fourth part discusses the results and implication and last part explains limitation of this research.

## **2. Literature review**

### *2.1 Digital Entrepreneurship Intention (DEI)*

According to Davidson and Vaast (2010), digital entrepreneurship refers to the recognition and exploitation of opportunities through the application of digital media, information, and communication technologies. The European Commission (2015) defines digital entrepreneurship as the utilization of innovative digital technologies to create and contribute to economic and social value. This definition includes the establishment of new ventures as well as the transformation of established businesses. Guthrie (2014) describes digital entrepreneurship as an entrepreneurship category that involves utilizing digital aspects to produce new value, such as digital products or services, through digital channels or a combination of such factors in a digital environment. Hull et al., (2007) characterize digital entrepreneurship as a subcategory of entrepreneurship where traditional business components are transformed from physical to digital formats.

Different terminology is used to describe the concept of digital entrepreneurship, including e-entrepreneurship, web-entrepreneurship, internet entrepreneurship, and digital entrepreneurship (Guthrie, 2014). Carrier et al., (2004) referred to digital entrepreneurship as cyber-entrepreneurship. Previous studies have viewed the term “digital entrepreneurship” as encompassing all business processes, from production to marketing to distribution. This paper adopts the broad definition provided by Davidson and Vaast (2010). Satalkina and Steiner (2020) identify three central components in the study of digital entrepreneurship: the Entrepreneur, the Entrepreneurial Process, and the Ecosystem, which are part of the innovation system. The Entrepreneur component centers on digital behavior patterns, social impact, and knowledge, including the intention to initiate a digital business.

The idea of intention pertains to the cognitive state of an individual that is directed towards accomplishing a specific goal. Various intention models have been developed in prior studies. According to Peterman and Kennedy (2003), most entrepreneurial intention models focus on pre-entrepreneurship events and employ theories of attitude and behavior (Ajzen, 1991). The study of intentions is an important aspect of predicting planned behavior, particularly in regard to rare or difficult to observe actions. According to Krueger et al. (2000), intention is seen as the strongest predictor of planned behavior, including in the realm of entrepreneurship. The central focus of Ajzen's Theory of Planned Behavior (TPB) is the individual's intention to engage in a specific behavior, which is the driving force behind the behavior itself. Therefore, the study hypothesizes that intention plays a crucial role in the motivation for digital entrepreneurial behavior, with a stronger intention leading to a higher likelihood of engaging in such behavior. There are three components to intention, according to Armitage and Conner which are desire, self-forecast, and behavioral intention. Of these three, behavioral intention has been found to be the best predictor making it the aspect utilized in current research.

Research on factors influencing entrepreneurship intention has been conducted quite long. Many show factors that influence entrepreneurship intention as suggested by TPB include subjective norm, entrepreneurial attitude, individual control (Peng et al., 2012; Nguyen, 2017; Al-Jubari, 2019). A review of twenty research worldwide (Wahidmurni et.al, 2020) also supports TPB. However, this theory explains partly entrepreneurial intention ( $R^2 = 0.30 - 0.55$ ) (Nguyen, 2017). Other factors that can influence intention are various personal characteristics, such as entrepreneurial experience and competence, risk taking tendencies, sense of control, desire for success, personality traits, and being innovative (Peng et al., 2012; Mendoza & Lacap, 2015). On the other hand, research on variables influencing digital entrepreneurship is quite new. As for conventional entrepreneurship, a study by Suwandi et al., (2021) concludes that a student's knowledge influences digital entrepreneurship intention. According to TPB, it found that an individual's attitudes towards digital entrepreneurship and their perceived control over the behavior significantly impact their intentions to engage in it. found that factors such as agility, entrepreneurial alertness, and entrepreneurial traits, such as resources, experience, human capital, culture, and risk, influence the development of entrepreneurial intention. found that innovativeness had the strongest impact on individuals' plans to create new digital businesses, followed by the availability of role models and digital technology proficiency.

A review towards 18 studies on digital entrepreneurship intention by Alkhalailah (2021) summarizes that factors quite frequently influence positively digital entrepreneurship intention are digital knowledge (5 studies), perceived behavior control (5), subjective norms (5), personality traits (4), entrepreneurial self-efficacy (3), and attitude towards entrepreneurship (2). This review suggests future research should study factors that affect digital entrepreneurship intention covering cultural, environmental, personality traits, and demographic factors.

The above literature review indicates that like other intentional behavior, digital entrepreneurship intention depends on the situation and person. Besides variables appearing in the planned behavior model, many other individual and situational factors seem to influence digital entrepreneurship intention as well and still needs further research. The current research investigates personality as one of individual factors, since this variable appears to have different effects on digital entrepreneurship compared to conventional entrepreneurship. The same reason also applies to resilience. Service quality is assumed to have an impact on a student's digital entrepreneurship intention as a situational factor because it influences student's commitment, academic engagement, and performance.

## 2.2 Personality Traits

According to McCrae (2002), personality is defined as the dimension in which individuals differ in their propensity to exhibit stable patterns of thought, emotion and behavior. Meanwhile Larsen and Buss view personality as a well-organized and relatively stable set of psychological traits and mechanisms that influence their interactions and adapt to their internal physical and social environment. These traits serve as distinct psychological attributes that set one person apart from others (Griffin et al., 2020, p. 87). Although the definitions may differ in wording, the central idea remains unchanged: personality is an organized system of elements that develop over time and are expressed in a person's behavior and are relatively enduring.

Personality has been a topic of interest for many centuries. One approach to the study of personality, known as trait theory, dates to the work of Gordon Allport and Henry Odbert in 1936. Trait theory proposes that personality traits are organized in a hierarchical fashion with specific narrow traits shaping broader global factors. (Costa & Johnson, 1995). The Big Five Personality Model posits five basic dimensions that underlie all other personality traits and explain most variation in human

personality (Robbins and Judge, 2019 p.146). The Big Five personality model has a long history of supporting evidence since D.W. Fies in 1949 (McCrae, 2002). Since then many other researchers have contributed to the development and extension of the model including Tupes and Smith (2013), Goldberg According to McCrae (2002) the five factor model of personality can effectively describe the structure of personality in different cultures and the structure of personality traits is universal. Research on this model has also used a variety of evaluation methods including case studies (Costa & Johnson, 1995). The Big Five personality model consists of five dimensions, one of which is openness to experience. This aspect represents the breadth and curiosity of your personal interests and your appreciation for the new and unique. People who score high on this dimension are imaginative, curious, and interested in the arts (Robbins & Judge, 2019 p.147). Individuals who possess high levels of openness to experience consistently pursue a range of diverse experiences and are drawn to new and unique things. They are characterized as being curious and creative, and they enjoy exploring and trying new things (Feist & Feist, 2009 p. 423). Fewer people get this reason and find comfort in familiar people and things (b) Conscientiousness – the sense of being associated with a person who can take the cause of actions (Griffin, et al. 2020 p. 90). People with strong conscientiousness are disciplined, organized, ambitious, results-oriented and self-disciplined. They work hard, punctual, and hardworking. Conscientious people on the other hand tend to be disorganized, careless, aimlessly lazy and give up when faced with difficulties (Feist and Feist, 2009 p.423), (c) Extraversion – The Extraversion dimension reflects your connection to the social world. Extroverts are sociable, confident, and sociable. The entrance is more thoughtful, shy, and quiet (Robbins & Judge, 2019 p.147). Extroverts are also lively and playful while introverts are quiet and reserved (McCrae, 2002). Extroversion is characterized by a propensity to be aggressive and surprise-seeking. Extroverts display positive emotions and need more stimulation. Extraversion is common with optimism (Costa & McCrae, 1992 in Bakker et al., 2002). Moreover, extraversion is often associated with rational coping and problem-solving strategies and seeking social support and positive reappraisal (Dorn & Matthews, 1992; Watson & Hubbard, 1996 in Bakker et al., 2002), (d) Agreeableness – This aspect refers to a person's disposition towards others. Good people cooperate strongly and trust each other (Robbins & Judge, 2019 p.147). Caring and concern for altruism as opposed to indifference towards others reflects selfishness and maverick agreeableness (Bakker et al., 2002), (e) Neuroticism – Neuroticism refers to a person's ability to cope with stress. Neurotic people are more likely than non-neurotic people to experience unpleasant emotions such as anger, anxiety, depression, and defenses (Griffin et al., 20120 p. 90). People with low neuroticism are generally calm, do not get angry easily and are complacent and cold-hearted (Feist & Feist, 2009, p. 428). Extraversion is a strong and common personality trait along with neuroticism (Feist & Feist, 2009, p. 427, Howard & Boudreaux, 2021).

**Personality Traits of Entrepreneurs** One of the oldest topics in entrepreneurship research is how these traits predict entrepreneurial outcomes such as attitude and entrepreneurial orientation and performance (Howard & Boudreaux, 2021). Kerr et al. (2018) acknowledge that many conceptual challenges were encountered in the early decades when researchers sought to develop robust theoretical frameworks and appropriate measures. Several researchers in the 1980s concluded that there was no relationship between personality and entrepreneurship. However, in the early 21st century entrepreneurial personality literature has enjoyed a resurgence and convergence with significant knowledge in innovation policy and business education (Kerr et al., 2018).

A meta-analysis conducted by Zhao et al., (2010) found a positive relationship between personality and entrepreneurial intentions. The analysis suggests that the same characteristics that draw people to entrepreneurship lead to greater success in the field and develop the person-environment fit theory (Zhao et al., 2010). More recent studies reported such a relationship. However, the dimensions of personality traits associated with entrepreneurship are quite different among researchers. A meta-analysis by Zhao Seibert and Lumpkin showed that a single consensus was not associated with entrepreneurial intentions. Mendoza and Lacap (2015) reports agreeableness and other dimensions have relationship with entrepreneurship intention except extraversion. reveal conscientiousness influences entrepreneurship intention. Awwad and Al-Aseer, (2021) indicate openness to experience and conscientiousness have an impact on entrepreneurship intention.

Research on the relationship of personality traits and digital entrepreneurship has also emerged as digital business becomes significant for the world economy. One of the goals of this study is to understand how digital entrepreneurs differ from traditional entrepreneurs. According to Bandera and Passerini (2018) research, conventional entrepreneurs who experience anxiety are likely to have a strong positive correlation with risk and a negative correlation with firm performance. However, their study also found that in the case of digital entrepreneurs, anxiety has a strong positive correlation with firm performance. suggests that the strongest factor influencing entrepreneurial intent and starting new digital businesses is awareness of internal professional business reasons. While researching the effects of personality traits on digital entrepreneurial intent there is little research on this factor.

### 2.3 Resilience

Smith (2013) defines resilience as an individual's ability to manage and recover from experiencing adversity. Resilience refers to the dynamic process of positive adaptation or growth in the face of significant adversity (Luthar et al., 2000). It is a positive adaptive or developmental pattern that becomes apparent in the context of adverse experiences (Masten & Gewirtz, 2006). Two conditions are important to this concept. (1) exposure to serious threats or serious illness; (ii) achieve positive adaptation despite major setbacks in the development process (Luthar et al., 2000). Perceptions of resilience can be viewed as absolute

or relative and can change over time (Luthar et al., 2000). But resilience is better thought of as a developmental process or dynamic capacity rather than a fixed or known outcome. Several key ingredients of resilience have been identified in research, and seven of them can be easily taught. These ingredients include: (a) Emotion Awareness and Control, in which resilient individuals have a good understanding of their emotions and can control them when necessary; (b) Impulse Control, which involves stopping oneself from acting on every impulse and using simple strategies to handle situations better; (c) Realistic Optimism, which entails seeing oneself and situations as optimistically as possible within the bounds of reality; (d) Flexible Thinking, which involves generating different ways to handle a situation and viewing problems from multiple perspectives; (e) Self-efficacy, which refers to a belief in one's own effectiveness and relying on strengths to navigate life's challenges; (f) Empathy, which involves connecting with others and forming strong social relationships; and (g) Reaching Out, in which resilient individuals take risks and try new things, fueled by their optimism and self-efficacy, even when there is a risk of failure. Resilience is among individual entrepreneur characteristics believed to influence entrepreneurship. Studies reveal that individual resilience positively impacts and predicts entrepreneurial success (Walsh & Mccollum, 2020; Emueje et al., 2020) and individual success (Fatoki, 2018). Awotoye and Singh (2017) suggest that there is a positive relationship between entrepreneurial resilience and both firm survival and success. Resilient entrepreneurs may be better equipped to develop effective strategies in response to environmental challenges, which could contribute to positive and sustainable long-term performance and survival of their businesses (Sabatino in Moreno, 2021). An entrepreneurship education intervention designed to increase resilience conducted by has shown its effect on entrepreneurial intention. A study by Bullough, on entrepreneurship intention in adverse conditions like war suggests that even under such conditions, individuals develop entrepreneurial intentions if they are resilient. reported that there was significant correlation between resilience and entrepreneurial intention of employees, although no significant correlation among students. However, the current situation could be changed as it comes to the digital economy. Students' resilience might influence their intention to be digital entrepreneurs as they grow in the digital era and lately intensively exposed to online learning because of the pandemic.

#### 2.4 Service Quality

According to consumers, service quality is determined by comparing their expectations of the service provider and their perception of the service provider's actual performance (Parasuraman et al., 1988). A service is considered satisfactory if the service experience matches or exceeds the expected quality of service. Such services are considered to be quality and ideal services (Parasuraman et al., 1988). There are five dimensions of service quality proposed by researchers: (a) Tangibles - Tangibles include physical facilities equipment and appearance of people; (b) Reliability - Reliability means the ability of a service provider to perform promised services reliably and accurately; (c) Responsiveness - Responsiveness is the suppliers willingness to assist customers and provide timely service; (d) Assurance - Assurance includes the knowledge and courtesy of employees and their ability to instill trust in customers; and (e) Empathy - Empathy includes the personal care and concern that a company provides to its customers.

In the educational context there is substantial evidence that service quality translates to student satisfaction (Martínez-Argüelles & Batalla-Busquet, 2016; Chandra et al., 2018; Lee & Seong, (2020) which in turn improve their loyalty (Martínez-Argüelles & Batalla-Busquet, 2016; Pham et al., 2019; Rama et al., 2020; Ali et al., 2022), retention (Lee & Seong, 2020, Azam, 2018), commitment, academic engagement (Rodie & Kleine in Bakrie, Sujanto, & Rugaiyah, 2019; Lee & Seong, 2020; Ali et al., 2022) and performance (Lee & Seong, 2020). The report suggests that universities can influence their students' entrepreneurial engagement and engagement by incorporating entrepreneurial values into their curriculum. Although there is limited research on the link between service quality and entrepreneurship, a single study proposes that the quality of entrepreneurship education services may impact the association between barriers to entrepreneurship and entrepreneurial intention (Shamsudin et al., 2017). The statement implies that universities can have a favorable impact on students' entrepreneurial intentions by delivering excellent entrepreneurship education that focuses on typical barriers to initiating a business, such as insufficient social capital and experience. Nonetheless, there is insufficient investigation into the potential influence of service quality, mainly in digital entrepreneurship education, on entrepreneurial intention. Consequently, additional research is required to comprehend the prospective correlation between service quality in digital entrepreneurship education and entrepreneurial intention.

### 3. Research Hypotheses

Drawing from the literature review, this study puts forth the following hypotheses:

**H<sub>1</sub>:** Personality factors influence student's digital entrepreneurship intention specifically:

- a. Openness to experience positively influences a student's digital entrepreneurship intention.
- b. Conscientiousness positively influences a student's digital entrepreneurship intention.
- c. Extraversion positively influences student's digital entrepreneurship intentions.
- d. Agreeableness positively influences a student's digital entrepreneurship intention.
- e. Neuroticism negatively influences student's digital entrepreneurship intentions.

**H<sub>2</sub>:** Personality factors influence student's resilience as the followings:

- a. Openness to experience positively influences a student's resilience.
- b. Conscientiousness positively influences a student's resilience.
- c. Extraversion positively influences student's resilience.
- d. Agreeableness positively influences a student's resilience.
- e. Neuroticism negatively influences student's resilience.

**H<sub>3</sub>:** Resilience positively influences student's digital entrepreneurship intentions.

**H<sub>4</sub>:** Academic service quality positively influences student resilience.

**H<sub>5</sub>:** Academic service quality positively affects students' digital entrepreneurship intentions.

## 4. Method and procedure

### 4.1 Research variables and measurements

The variable personality traits in this research adopt the five-trait model of personality which is widely used and considered valid. The measurement of this model uses IPIP BFM which has been adopted and validated by Akhtar & Azwar (2018). Service Quality scale is modified from 22 items of Parasuraman et al. (1988) SERVQUAL into 25 items adapted to the education institution environment. Online resources including websites, digital learning materials, academic information systems, and digital libraries are included in the term "tangible". Additionally, qualities such as dependability, promptness, trustworthiness, and compassion are expected from both academic and non-academic personnel. We developed the CD-RISC, a 10-item scale used to assess resilience. In contrast, the scale used to measure digital entrepreneurship intention comprises six items and was created by Francisco Liñán and Yi-Wen Chen (2009). SmartPLS 3.0 was employed to evaluate the validity of the measurements. To assess convergent validity, the outer loading factor of each construct was scrutinized, which should surpass the minimum threshold of 0.7 (Table 1). Additionally, the Average Variance Extracted (AVE) value should be at least 0.5. All constructs in the study met the standard, with a loading factor ranging from 0.708 to 0.917 and AVE values ranging from 0.589 to 0.769. Discriminant validity was examined using the Fornell-Larcker criterion and cross-loading, and all the criteria were satisfied (Table 2).

**Table 1**

Outer Loadings

Variables	DEI	PAgre	PCons	PExtra	PInte	PNeur	RES	SQ
D1	0.826							
D2	0.881							
D3	0.890							
D4	0.889							
D5	0.897							
D6	0.879							
PAgre1		0.848						
PAgre2		0.852						
PAgre4		0.770						
PCons1			0.909					
PCons4			0.768					
PExtra1				0.745				
PExtra2				0.817				
PExtra4				0.782				
PInte2					0.819			
PInte5					0.763			
PNeur1						0.917		
PNeur4						0.783		
R1							0.781	
R2							0.727	
R4							0.708	
R5							0.825	
R6							0.786	
R7							0.730	
R8							0.822	
R9							0.753	
S1								0.747
S2								0.854
S3								0.826
S4								0.879
S5								0.836

Note: Pextra: Personality Extraversion, PAgree: Agreeableness, PCons: Conscientiousness, PNeur: Neuroticism, PInte: Intelligence/openness to experience, SQ: Service Quality, RES: Resilience, DEI: Digital Entrepreneurship Intention

Reliability of instruments is examined from composit reliability and Cronbach Alpha. The composit reliability values are above minimum standard 0.7 ranging from 0.77 – 0.952. Average Variance Extracted values as mentioned above are fulfilling the requirement. Alpha Cronbach value of Digital Entrepreneurship, Resilience and Service Quality construct are 0.940, 0.900, 0.886 respectively. However, one personality dimension which is Openess to Experience/Intelligence shows Alpha Cronbach's value 0.406, while other presonality dimensions show values from 0.603 to 0.763 (Table 3).

**Table 2**

Discriminant Validity: Fornell-Larcker Criterion

Variables	DEI	PAgre	PCons	PExtra	PInte	PNeur	RES	SQ
DEI	0.877							
PAgre	0.375	0.824						
PCons	0.350	0.525	0.842					
PExtra	0.356	0.453	0.426	0.782				
PInte	0.291	0.419	0.285	0.297	0.792			
PNeur	0.071	-0.009	0.047	-0.061	-0.038	0.852		
RES	0.496	0.657	0.522	0.441	0.406	-0.127	0.768	
SQ	0.551	0.418	0.401	0.399	0.227	0.074	0.551	0.829

Note: Pextra: Personality Extraversion, PAgree: Agreeableness, PCons: Constientiousness, PNeur: Neurotism, PInte: Intelligence/openess to experience, SQ: Service Quality, RES: Resilience, DEI: Digital Entrepreneurship Intention

**Table 3**

Coefficient Reliability &amp; Average Variance Extracted (AVE)

Variables	Cronbach's Alpha	rho A	Composite Reliability	Average Variance Extracted (AVE)
DEI	0.940	0.940	0.952	0.769
PAgre	0.763	0.769	0.864	0.679
PCons	0.603	0.678	0.828	0.708
PExtra	0.686	0.697	0.825	0.611
PInte	0.406	0.409	0.770	0.627
PNeur	0.639	0.724	0.841	0.727
RES	0.900	0.903	0.920	0.589
SQ	0.886	0.887	0.917	0.688

Note: Pextra: Personality Extraversion, PAgree: Agreeableness, PCons: Constientiousness, PNeur: Neurotism, PInte: Intelligence/openess to experience, SQ: Service Quality, RES: Resilience, DEI: Digital Entrepreneurship Intention

#### 4.2 Method

This research surveys undergraduate and graduate students from two universities in two countries, which are Universitas Mercu Buana Yogyakarta, Indonesia, and Universiti Malaysia Kelantan, Malaysia. A questionnaire which consists of the four measurement scales are constructed and distributed to students from various majors through the internet. 517 responses are collected (Table 4) which exceed the minimum sample size standard (348) for a population of 22.000 university students. The composition of research subjects based on gender and university origin can be seen in Table 4.

**Table 4**

Demographic Characteristics of Respondents

Characteristics	Malaysia	Indonesia	Total	%
<i>Gender:</i>				
Male	151	123	274	52.99
Female	61	182	243	47.00
	212	305	517	
<i>Subject:</i>				
Finance	29	Psychology	140	
Entrepreneurship	31	Economics	75	
Wellness	38	Information Technology	36	
Hotel Management	85	Agroindustry	25	
Tourism	29	Post – Graduate	20	
		Communication	9	

The hypotheses were evaluated using structural equation modeling with SmartPLS 3.0. The assessment of the model was based on criteria for partial least squares structural equation modeling, which included a blindfolding procedure. The results indicated that the model had a satisfactory predictive relevance, as demonstrated by a Q2 value greater than 0.

#### 5. Results

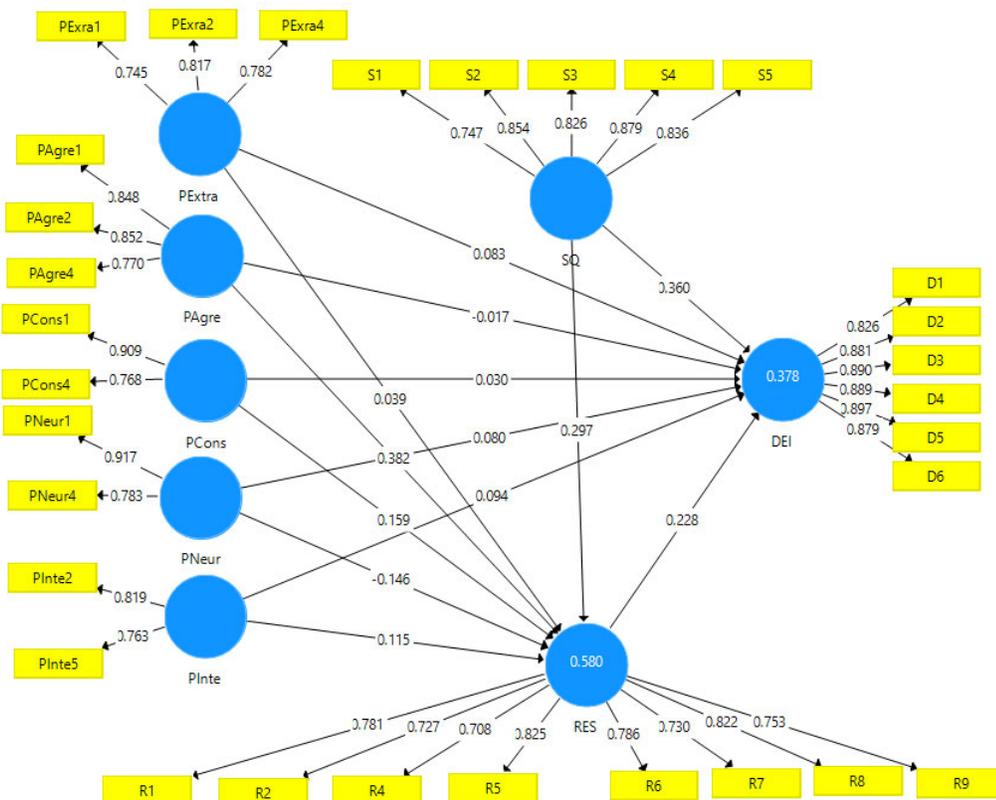
The results of structural equation modeling are presented in Fig. 1, the coefficients and significance of each path analysis can be seen in Table 5, and the decision to support or not support the hypothesis can be seen in Table 6. This research shows only one dimension of personality traits that directly influences entrepreneurial intentions digitally significantly ( $p < 0.05$ ). As

hypothesis H1a states that openness to experience has a positive direct effect on digital entrepreneurial intentions even though the impact is very weak. In contrast to the hypotheses (H1b, H1c, H1d, H1e) each of the other dimensions, Conscientiousness, Extraversion, Agreeableness and Neuroticism have no effect on digital entrepreneurship intention. Meanwhile, the four dimensions of personality traits, namely Openness to experience, Conscientiousness, Agreeableness and Neuroticism, have an effect on student resilience as hypothesized (H2a, H2b, H2d, H2e).

**Table 5**  
Path Coefficient of Research Variables

		Digital Entrepreneurship Intention		Resilience	
		Coeff	p Value	Coeff	p Value
PAgre	→	-.017	.737	.382	.000
PCons	→	.030	.534	.159	.000
PExtra	→	.083	.071	.039	.306
PInte	→	.094	.022	.115	.001
PNeur	→	.080	.053	-.146	.000
RES	→	.228	.000	-	-
SQ	→	.360	.000	.297	.000

The first three dimensions have a positive influence on a student's resilience, but neuroticism has a negative effect. However, the influence is also very weak except agreeableness shows path coefficient 3.82 (weak). Hypothesis three (H3) is also proven in this study but again the effect of resilience on digital entrepreneurship is weak. Situational factor i.e., academic service quality shows direct impact on student's resilience as stated in H4. This factor appears to influence student's digital entrepreneurship intentions as well (H5). According to the study results, the combined effects of personality traits, resilience, and service quality contribute up to 37.8% in explaining the factors that influence digital entrepreneurship intention. Meanwhile personality and service quality together explain 58% of factors impacting student's resilience.



**Fig. 1.** Structural Equation Model of Personality Traits, Resilience and Academic Service Quality Influence on Digital Entrepreneurship Intention

**Table 7**  
Hypotheses Testing

		Coefficient	p Value	Decision
<i>H1</i>	<i>Personality factors and DEI</i>	-	-	-
<b>H1a</b>	POpen positively influences student's DEI	.094	.022	Supported
<b>H1b</b>	PCons positively influences student's DEI	.030	.534	Unsupported
<b>H1c</b>	PExtra positively influences student's DEI	.083	.071	Unsupported
<b>H1d</b>	PAgre positively influences student's DEI	-.017	.737	Unsupported
<b>H1e</b>	PNeur positively influences student's DEI	.080	.053	Unsupported
<i>H2</i>	<i>Personality factors and student's resilience</i>	-	-	-
<b>H2a</b>	POpen positively influences student's resilience	.115	.001	Supported
<b>H2b</b>	PCons positively influences student's resilience	.159	.000	Supported
<b>H2c</b>	PExtra positively influences student's resilience	.039	.306	Unsupported
<b>H2d</b>	PAgre positively influences student's resilience	.382	.000	Supported
<b>H2e</b>	PNeur positively influences student's resilience	-.146	.000	Supported
<b>H3</b>	Resilience positively influences student's DEI	.228	.000	Supported
<b>H4</b>	Academic services quality influences resilience	.297	.000	Supported
<b>H5</b>	Academic service quality affects students DEI	.360	.000	Supported

## 6. Discussion and implications

Several studies have revealed that personality factors are one of the antecedents of entrepreneurial intentions, although the dimensions differ between studies (Zhao et al., 2010; Mendoza and Lacap, 2015; Awwad and Al-Aseer, (2021). This seems to also apply to digital entrepreneurial intentions.

The results of this study indicate that the personality dimension of Openness to Experience has an important influence on the intention to engage in digital entrepreneurship. The findings of this study are different from the research which shows that agreeableness, conscientiousness, and neuroticism have a positive effect on DEI among students in China, and also with which examines the tendency of digital entrepreneurship among community students. College towards digital entrepreneurship careers. Puthong (2019) suggests that the personality factor is Conscientiousness which is the personality trait dimension that has the most influence on digital entrepreneurial intentions. This difference may occur because the influence of personality trait dimensions is very small, as shown by the results of this study.

When viewed from a number of studies regarding the influence of personality factors on digital entrepreneur intention, the open to experience factor is indeed a factor that is more stable in influencing digital entrepreneur intention than the personality factors of extraversion, agreeableness, neuroticism, and conscientiousness. This finding is justified, because the digital world is relatively new and constantly changing. Therefore, only individuals who are highly open to experience and consistently seek diverse and varied experiences are more likely to be attracted to this career. This statement is supported by a number of the following studies: (1) Qureshi and Siddiqui's (2021) which shows that openness to experience and agreeableness have a positive effect on DEI among students in Pakistan; (2) research by Ong et al. (2020) showed that openness to experience, conscientiousness, and extraversion had a positive effect on DEI among high school students in Malaysia; (3) Research by Chen et al. (2018) discusses the influence of personality and self-efficacy on intentions to become entrepreneurs among college students in China, the results of which show that the personality dimensions of openness to experience and agreeableness have a significant positive effect on intention being an entrepreneur, whereas neuroticism has a significant negative effect on the intention to become an entrepreneur; (4) Research by Verheul et al. (2010), which collected data through a survey of 42,602 respondents from 29 countries. This study discusses the relationship between the intention to become an entrepreneur and personality factors and cultural factors, the results of which show that the personality factors of openness to experience, conscientiousness, and neuroticism have a significant effect on the intention to become an entrepreneur, while agreeableness and extraversion do not have a significant effect.

The results of this study can provide insight for people who are interested in becoming digital entrepreneurs, especially those who have a high level of openness to experience. However, it should be remembered that even though this study concluded that there was a significant influence of openness to experience personality on DEI and there was no significant effect on the personality dimensions of conscientiousness, agreeableness, neuroticism, and extraversion in terms of influencing DEI in this study, still it is possible that other factors can influence a person's tendency to become a digital entrepreneur as described above. Therefore, further research is needed to identify other factors that might contribute to a person's intention to become a digital entrepreneur, for example as was done by Liang, Li, & Sun (2020) discussing the factors that influence the intention to become a digital entrepreneur. among students in China. This is very important because this understanding can help educational institutions and the government to develop programs and policies that support the development of digital entrepreneurship among students. The very weak influence of personality dimension in this study indicates other factors are more powerful in driving a student's digital entrepreneurship intention. Individual resilience and service quality are among factors that have a higher contribution to a student's digital entrepreneurship intention.

In this case it can be added that the practical and contextual implicits of the research results are as follows. First, this study shows that personality factors, although they have a small influence, are still factors that need to be considered in encouraging digital students' entrepreneurial intentions. Openness to experience seems to be the most significant dimension in this regard. Several previous studies have also shown that personality factors influence entrepreneurial intentions. An illustration of this can be seen in studies carried out by Zhao et al. (2010) and Mendoza and Lacap (2015), where it was discovered that entrepreneurial intentions can be influenced by personality traits such as neuroticism, extraversion, openness, agreeableness, and conscientiousness. However, most of these studies do not focus on digital entrepreneurship. Thus, the findings of this study regarding experience as a personality dimension that is significant in influencing digital students' entrepreneurial intentions can be an additional contribution of knowledge.

Second, this study shows that other factors, such as individual resilience and service quality, have a higher contribution to digital students' entrepreneurial intentions. Febriyanti and Arvianto (2019) suggest that education should prioritize enhancing service quality and building individual student resilience in order to boost student entrepreneurship. They also propose that the soft skills approach can be an effective means of improving these skills. Third, this study provides additional explanations for many previous individual factors (resistance) and situational factor (service quality) studies on digital entrepreneurship that play an important role in promoting digital student entrepreneurship. This is of course confirmation of research from Rahmawati and Retnawati (2021), regarding the important role of Entrepreneurial Resilience in Digital Entrepreneurship Intentions Among University Students.

## 7. Conclusion

The results suggest that the intention to pursue digital entrepreneurship is affected by both an individual's openness to experience and their resilience. In addition, the findings demonstrated that service quality is a factor that affects both digital entrepreneurship intention and resilience. This study provides new understanding of digital entrepreneurship intention antecedents and implies that improvement on education quality service can foster student's intention to digital entrepreneurship and their resilience. The results of this study show that in a practical context education should consider the quality of services offered to students especially with the development of digital entrepreneurs. Feedback Factors such as trust and confidence are important factors that need to be strengthened to support and encourage students to become digital entrepreneurs. Overall, this study can make an important contribution to understanding the factors influencing student digital entrepreneurship and provide practical guidelines for educational institutions to improve service quality and support the development of student's digital entrepreneurship. The current research has direct implications on education practice. To be able to drive student's digital entrepreneurship intention, service quality has to be strengthened, including dimension of tangible, reliability, responsiveness, assurance and empathy of academic and nonacademic staff. Improving service quality can also affect student resilience. This is an important implication because resilience in turn influences digital entrepreneurship intention beside personal success as indicated by other studies. This study offers further insight into the factors that drive digital entrepreneurship intentions. It expands on previous research, which has identified digital knowledge, self-efficacy, perceived behavioral control, and subjective norms as antecedents, by introducing individual factors such as resilience and situational factors such as service quality to the explanation. As limitations, this research does not analyze the impact of a student's tenure and field of study. It is also limited to only students from the two universities in Indonesia and Malaysia. Students with longer tenure would have internalized the entrepreneurial value of the universities therefore might have higher entrepreneurial intention. Some majors like Information Technology and Business Management might also influence student's knowledge in the digital or business environment that in turn affect their intention to be a digital entrepreneur. Further study should analyze the tenure and field of studies as they might influence the digital entrepreneurship intention. Different university environments (for example those that do not embrace entrepreneurship value) might show different results.

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