

FACTORS INFLUENCING DIGITAL ENTREPRENEURSHIP INTENTION AMONG UNDERGRADUATE BUSINESS STUDENTS IN JORDAN

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Abstract: *The digital revolution has completely changed the business structure, offering entrepreneurs and economies tremendous opportunities. The Jordanian government and universities recognized this potential and took steps to foster a digital entrepreneurship culture. However, despite these efforts, universities in Jordan have been relatively slow in supporting and integrating digital entrepreneurship culture. This study investigated the factors influencing digital entrepreneurship intention among 399 undergraduate students in Jordan. Partial Least Squares Modeling was used to analyze the data. The empirical findings indicated that digital entrepreneurship intention is directly influenced by attitude towards entrepreneurship and perceived behavioral control and indirectly by personality traits. However, subjective norms, digital literacy, and perceived university support did not significantly impact it. The findings of this study contribute to the growing body of knowledge on the role of digital literacy and socio-psychological factors in driving digital entrepreneurial intentions, offering valuable insight for future policy initiatives and educational strategies.*

Keywords: *Digital entrepreneurship intention, personality traits, digital literacy, perceived university support, entrepreneurship in Jordan.*



INTRODUCTION

In the contemporary landscape of global economies, nations grappling with high unemployment rates encounter multifaceted challenges that extend beyond economic concerns. The issue of unemployment, especially among the youth population, is not only a matter of economic stagnation but also a social and political predicament (Ahmed et al., 2017). In this context, entrepreneurship alleviates unemployment woes and contributes to holistic economic and societal development (Mahadea et al., 2011). Digital technologies have revolutionized the entrepreneurial sphere in recent decades, redefining traditional practices and opening new opportunities (Hull et al., 2007; Rippa & Secundo, 2019). In the digital realm, entrepreneurs now access an interconnected ecosystem, empowering them to connect, network, and operate their businesses more efficiently and effectively (Kovács et al., 2022; Turban et al., 2006). This digital transformation has democratized access and significantly lowered entry barriers, allowing aspiring entrepreneurs to launch and grow their ventures with limited resources (Youssef et al., 2020). As a response, the Government of Jordan has established a Ministry for Digital Economy and Entrepreneurship to facilitate the digital transformation process (*Minister of Digital Economy and Entrepreneurship*, 2019). However, this initiative requires collective efforts of all stakeholders. Universities play a vital role in equipping students with the skills and mindset required to seize digital entrepreneurship opportunities and overcome unemployment challenges (Saeed et al., 2015).

Researchers have employed the theory of planned behaviour (TPB) to identify the driving force of entrepreneurial intentions and actions (Liñán & Chen, 2009). This theory revolves around three essential elements, namely attitudes towards entrepreneurship, subjective norms and perceived behavioral control (Ajzen, 1991). Internal (like personality traits) or external factors (like perceived university support) have been studied separately but not in a combined way (Karimi et al., 2017). Despite digital literacy presents a vast opportunity for success in digital startups (Mudasih et al., 2021), only a few articles have studied the impact of digital literacy on digital entrepreneurship (Suparno et al., 2020). This research aimed to fill the previous gaps by examining the effect of internal and external factors and digital literacy on young individuals' digital entrepreneurial intention (DEI). The article followed this structure: literature review, methodology, results, discussion, conclusion, and implications.

LITERATURE REVIEW

Digital Entrepreneurship in Universities

Information and communication technologies (ICTs) have changed business practices recently (Farani et al., 2017). The wide spread of digital technologies removes entry barriers and unnecessary sunk costs, reduces the risk of creating a new business, and provides new opportunities to entrepreneurs (Hull et al., 2007; Youssef et al., 2020). Digitalization creates new market needs for new types of businesses and entrepreneurs, making it more feasible for many people to engage in entrepreneurial activities.

Digital entrepreneurship has a profound impact on universities and students alike. For universities, it necessitates rethinking educational approaches to ensure that students are equipped with the skills and knowledge required to thrive in the dynamic digital landscape (Sousa et al., 2019). That often involves integrating entrepreneurship and digital literacy into the curriculum, fostering innovation hubs, and establishing strong industry partnerships. Universities become hubs for fostering innovation and incubating digital startups (Liñán & Chen, 2009). Digital entrepreneurship offers students a unique avenue to apply their classroom knowledge to real-world scenarios. It empowers them to become proactive creators rather than passive consumers of technology (Turban et al., 2006). Through digital entrepreneurship, students gain practical experience, develop problem-solving skills, and have opportunities to launch their businesses while still in school, enhancing their career prospects and contributing to economic growth and innovation (Suparno et al., 2020). Digital technologies also allow students to start their businesses while still in school, opening the possibilities to turn the education period into a successful business venture (Rippa & Secundo, 2019; Youssef et al., 2020).

The Theory of Planned Behavior

The Theory of Planned Behavior (TPB) is widely accepted in social psychology, explaining the relationship between attitudes, intentions, and behavior (Ajzen, 1991). TPB has been notably used in entrepreneurship to comprehend the driving forces behind entrepreneurial actions (Krueger & Carsrud, 1993). TPB posits that an individual's intentions are influenced by three critical components: attitude, subjective norms, and perceived behavioral control (Ajzen, 1991). Specifically, in this study, DEI refers to a person's desire and motivation to begin an online business utilizing digital technology, social media, and e-commerce to gain visibility and access a larger customer base (Al-Mamary & Alraja, 2022).

Attitude Towards Entrepreneurship

Attitude Towards Entrepreneurship (ATE) is defined as a person's positive/negative evaluation of a behavior (Liñán & Chen, 2009). Entrepreneurship studies have consistently proved the pivotal role of attitudes in shaping entrepreneurial intentions (Fatoki, 2020). A positive attitude toward entrepreneurship is associated with a higher chance of starting one's business (Anwar et al., 2021). Moreover, a favorable attitude towards entrepreneurship positively influences the perception of entrepreneurship as an appealing career choice, reinforcing the notion that attitudes play a crucial role in guiding individuals' aspirations (Alkhalaileh, 2021). Studies showed that women's digital intentions in Saudi Arabia are majorly influenced by their attitudes (Aleidi & Chandran, 2019; Alzamel et al., 2019).

Subjective Norms

Subjective norms (SN) represent the perceived social pressure to perform any behavior (Liñán & Chen, 2009). Individuals are more inclined to engage in a particular behavior if they perceive that it is socially approved by their immediate social circle (Ajzen, 1991). This concept aligns well with the notion that societal norms can significantly sway individual intentions in

entrepreneurship (Begley & Tan, 2001; Mueller & Thomas, 2001). Empirical research by Begley and Tan (2001) found that perceived support from family and friends positively influenced individual intentions toward entrepreneurship. Similarly, Biswas & Verma, (2021) identified a positive relationship between social support and entrepreneurial intentions. These findings collectively suggest that individuals are more likely to pursue entrepreneurial paths when they perceive social and environmental support.

Perceived Behavioral Control

Perceived Behavioral Control (PBC) reflects the level of confidence an individual has in their capability to overcome obstacles and successfully engage in the intended behavior. This concept is crucial in understanding DEI as the perceived ease/difficulty of starting a digital business can strongly influence motivation (Hassan, 2020; Karimi et al., 2017). Ajzen (1991) states that higher perceived control over a behavior leads to stronger intentions. That aligns with the entrepreneurial context, where individuals with greater perceived control over the challenges are likelier to start a business (Alzamel et al., 2019). Studies have consistently demonstrated that PBC significantly predicts entrepreneurial intentions. Hassan (2020) and Karimi et al. (2017) found that individuals who perceived themselves as possessing the necessary skills, resources, and opportunities were more likely to express intentions to engage in digital entrepreneurial activities. TPB provides a framework for understanding and predicting entrepreneurial intentions through ATE, SN, and PBC. Therefore, the following hypotheses were formed:

H1: ATE (a), SN (b), and PBC (c) influence the DEI of undergraduate students in Jordan.

Digital Literacy

Digital Literacy (DL) and entrepreneurial intent have been widely studied in the Information and Communication Technology field (Mudasih et al., 2021). Digital literacy involves obtaining, analyzing, and conveying information using digital tools and networks (Warschauer et al., 2010), which is essential for the success of digital entrepreneurs (Suparno et al., 2020). These skills are important in different relations in e-society, including those typical for business communications with authorities (Bilan et al., 2023) and use of financial services for business (Pakhnenko et al., 2021; Straková et al., 2022). The relationship between digital literacy and entrepreneurial intention has been the subject of numerous research. In their article, Bayrakdaroglu and Bayrakdaroglu (2017) found that digital literacy substantially influences internet entrepreneurship intentions more than financial literacy. This assertion resonates with the findings of Suparno et al., (2020), who illuminated a positive correlation between students' aspirations for digital business ventures and their creativity and digital literacy levels. In alignment with that, the following studies also found a positive correlation between entrepreneurship intention and digital literacy across diverse contexts (EL-SISI, 2022; Hardika et al., 2022). Therefore, the following hypothesis was investigated:

H2: Digital Literacy influences the digital entrepreneurial intentions (DEI) of undergraduate students in Jordan.

Perceived University Support

Universities have become increasingly vital in creating a supportive ecosystem to nurture entrepreneurial culture in societies (Guerrero et al., 2016; Volchik et al., 2018). Several studies have linked various facets of perceived university support (PUS) to entrepreneurial activity, making PUS an essential factor in entrepreneurial intention (Kraaijenbrink et al., 2010). While educational support is undoubtedly pivotal, a more comprehensive approach is required. Cultivating a conducive environment for entrepreneurship, encompassing conceptualization and business development support, becomes imperative in changing students' intent to start their businesses (Saeed et al., 2015).

According to Saeed et al. (2015), perceived educational support (PES) measures how much students perceive their academic institution offers tools, mentorship, and advice to nurture entrepreneurial knowledge and skills. That was exemplified by the work of Nguyen and Duong, (2021) highlighting the strong correlation between PES, subjective norms, entrepreneurial self-efficacy, and EI among Vietnamese students. In a similar vein, Shi et al., (2020) discovered that PES had a direct impact on independence- and growth-oriented intentions, underscoring the broader influence of perceived support on different facets of intention. In the context of digital entrepreneurship among undergraduate students in Jordan, perceived educational support gains heightened relevance. As students navigate the complexities of digital business ventures, the availability of resources, mentorship, and advice within the academic environment could significantly mold their intentions to engage in digital entrepreneurial activities.

Saeed et al. (2015) described that Perceived Concept Development (PCD) measures how much students believe their academic institution offers opportunities to develop and polish their entrepreneurial ideas. PCD has been recognized as a critical element in forming entrepreneurial intentions. For instance Mustafa et al., (2016) demonstrated that perceived concept development and proactive personality traits significantly influenced entrepreneurial inclination. That underscores the integral connection between the availability of opportunities for idea development and the formation of entrepreneurial intentions. Additionally, research by Lestari et al., (2022) found that perceived concept development support positively affects self-efficacy, which, in turn, influences students' intentions to embark on entrepreneurial endeavors. That links the availability of concept development support and the psychological factors that drive intentions.

As Kraaijenbrink et al. (2010) articulated, Business Development Support (BDS) relates to how students feel their university offers resources and advice for the practical aspects of beginning a business, such as funding and legal concerns. BDS has been recognized as a significant predictor of EI in numerous research. For instance, Su et al. (2021) demonstrated the substantial impact of BDS on the perception of behavioural control and attitudes toward entrepreneurship. That underscores the influential role of practical support in shaping perceptions and attitudes that ultimately influence entrepreneurial intentions. According to other studies (Lestari et al., 2022; Saeed et al., 2015), perceived concept development support positively impacts self-efficacy, indirectly influencing students' intention to start their own businesses.

In conclusion, universities can be essential in developing and supporting the next generation of entrepreneurs. By actively fostering an entrepreneurial mindset and creating a

supportive ecosystem, universities have the unique opportunity to cultivate the knowledge, skills, and attributes required for entrepreneurial success. Therefore, the following hypotheses were proposed:

H3: PES (a), PCD (b), BD (c) influence DEI of undergraduate students in Jordan.

Personality Traits

The interplay between personality traits and entrepreneurial intentions has garnered considerable attention in scholarly discourse, offering insights into the complex dynamics that influence individuals' inclination to engage in entrepreneurial activities (Tran & Korfflesch, 2016). The history of research in this area may be traced to the ground-breaking work of David McClelland in the middle of the 20th century, highlighting the pivotal role of personality traits, particularly the need for achievement, in driving business success (McClelland, 1961). Subsequent research explored various traits' links to entrepreneurial intention, including risk-taking, locus of control, and innovativeness (Anwar et al., 2021; Roy et al., 2017). Risk-taking propensity (RT) is the willingness to take risks and tolerate ambiguity (Jackson, 1979). RT is one of the most widely studied personality traits influencing the decision to start a business (Vodă et al., 2019). High-risk takers are more inclined to engage in entrepreneurial activities, ready to take calculated risks and embrace uncertainty (Keat et al., 2011). This trait enables individuals to identify entrepreneurial opportunities that others might overlook and motivates them to take action upon those opportunities (Vodă et al., 2019).

According to Hermawan et al. (2016), the locus of control (LC) is the degree to which a person believes they have control over their own fate. People with an internal locus of control think that their choices and actions directly affect the results they get (Mueller & Thomas, 2001). As opposed to this, people with an external locus of control blame luck or fate for their triumphs and failures (Hermawan et al., 2016). Innovativeness (I) refers to an individual's ability to generate new ideas and think creatively (Robinson et al., 1991). Individuals with high levels of innovativeness are more likely to engage in entrepreneurial activities because they can better identify new and innovative business opportunities (Biswas & Verma, 2021). Innovativeness is also associated with a willingness to take risks and experiment with new ideas, which is essential for entrepreneurial success (Ahmed et al., 2019). The need for achievement (NA) is a critical personality attribute that affects entrepreneurial intention. According to McClelland (1961), NA is the desire to perform above average, complete challenging tasks, and outperform others in performance. Individuals with high levels of need for achievement are more likely to engage in entrepreneurial activities because they are driven to succeed and achieve their goals (Batoool et al., 2015; Ž. Zovko, 2020). However, they may also be more risk-averse and less willing to take calculated risks. The need for achievement is crucial when examining entrepreneurial intentions, but it should be considered along with other factors to ensure success (McClelland, 1961).

Prior research has demonstrated that personality traits can impact entrepreneurial behavior and intentions, either directly or indirectly (Biswas & Verma, 2021; Munir et al., 2019). For instance, a study conducted on 261 business stream students in Saudi Arabia reported that risk-taking directly and positively affected entrepreneurial intention. Furthermore, a study of 663 students from Indian universities found that risk-taking, locus of control, and innovativeness positively impacted the attitude toward entrepreneurship, perceived behavioral control, and

entrepreneurial intention directly (Anwar et al., 2021). Karimi et al. (2017) investigated the relationship between personality characteristics, contextual factors, and entrepreneurial intentions in Iran. The study found that the need for achievement, locus of control, and risk-taking are directly related to ATE and PBC. The study by Mahmood et al., (2019) reinforced these connections by showcasing the positive and significant impact of the need for achievement, locus of control, proactive personality, and innovativeness on attitude toward entrepreneurship among Asnaf millennials, a group of socially disadvantaged people in Malaysia. In summary, empirical research provides robust support to the interplay between personality traits and entrepreneurial intentions, as evidenced in diverse contexts, underscores the significance of these traits in shaping individuals' propensities to engage in entrepreneurial endeavors.

As a result, we proposed the following hypothesis: RT (H4), LC (H5), I (H6), NA (H7) have an influence on both ATE (a) and PBC (b). All hypotheses were summarized in Figure 1.

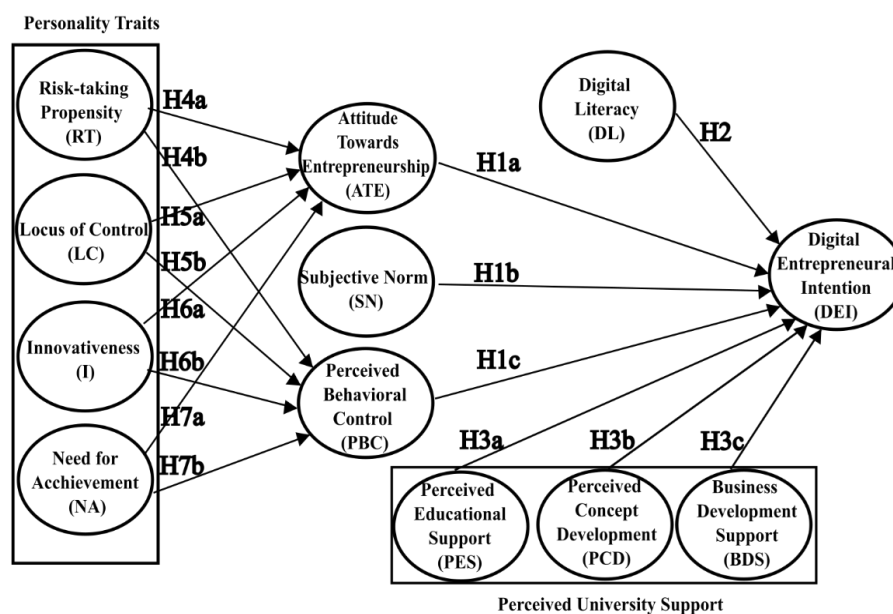


Figure 1. Conceptual Framework
[Source: Mohammad Younis Al Khalaileh PhD research, 2022]

METHODOLOGY

This study investigates the digital entrepreneurial intentions among Business students in Jordan as they often choose business-related careers due to their enrolment in various business programs (Millman et al., 2010; Yordanova et al., 2020). The study used a quantitative research approach and a survey to collect data. The population comprises 15,368 bachelor's business students who enrolled in a Business School degree at eight universities offering entrepreneurial education and incubation services (The Ministry of Higher Education and Scientific Research, 2022). The required sample size needed for this study was 375 units (Krejcie & Morgan, 1970) and the actual sample size was 399. A quota sampling technique was used to select the

participants. The sample was stratified based on the university to ensure that the participants' distribution was proportional to the total population. The survey used in this study was designed based on a literature review of the internal and external factors that influence digital entrepreneurial intentions. DEI and ATE were developed on a 5-item scale, PBC on a 4-item scale, and SN on a 3-item scale by (Liñán & Chen, 2009). At the same time, DL was developed as a 9-item scale (Ng, 2012). Moreover, PUS was developed on a 13-item scale by Saeed et al. (2015). RT, LC and I were all developed on a 4-item scale and adopted by Anwar et al. (Anwar et al., 2021), Zellweger et al. (2011) and Jackson (1979). Finally, Zovko et al. (2020) used five items to measure NA.

The survey consists of eight sections. The first section collects demographic information such as age, gender, and university. In the following sections, 56 items measured seven primary constructs. The items were measured using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). For this study, a self-administered questionnaire was used, filled out independently by all participants. The data was collected through both online and offline methods. For the online approach, instructors received a link to an electronic copy of a questionnaire and emailed it to the students. The offline method involved a supporting letter from the researcher's supervisor introducing the study and assuring confidentiality and anonymity. The letter was sent to universities, and instructors facilitated data collection during lectures. All data were collected in Jordan during the summer semester of 2022/2023.

The Partial Least Square Path Model (PLS-PM) was the ideal method for this study due to its adaptability in exploring intricate relationships within a smaller sample size (Hair Jr et al., 2021). Its focus on predictive modelling, capacity to handle complex constructs, and suitability for non-normal data distributions makes it the optimal choice for unravelling the interplay of digital literacy, university support, personality traits and TPB factors in shaping DEI. Thus, the authors applied PLS-PM to assess the inner and outer relationships between several blocks of variables and to represent the blocks in a path diagram graphically (Chin, 1998; Wold, 1982). The PLS-PM procedure is a handy tool for constructing latent variables (LV) for each block. The model was built using 12 blocks identified through a multi-step procedure for constructing models. Some items were excluded from the model in step 1 because their factor loadings were less than 0.7. The reflective model was employed for index development, although both the formative model (Fornell & Larcker, 1981) and the reflective method of modelling LVs (Diamantopoulos, 1999) could be supported. The overall model fit was evaluated according to the Goodness-of-Fit (GOF) (Tenenhaus et al., 2004), standardized root mean square residual /SRMR/ (Hair Jr et al., 2021) and the root mean square residual covariance /RMR/ (Hair Jr et al., 2021). A bootstrapping was applied to validate the model parameters, according to Chin (1998). The mean and standard error of the estimates were calculated from 500 bootstrap samples. As a rule of thumb, the path coefficient can be considered significant if the standard error is less than half of the mean. Hence, standard errors and t statistics will also be reported together with the estimate. The GOF of 0.10; 0.25; 0.36 can be considered an adequate, moderate and good global fit (Wetzels et al., 2009). The thresholds for SRMR and RMR values are 0.08 and 0.12. Dillon Goldstein's rho indices tested the composite reliability of the blocks. The identified dimensions should have reliability above the recommended 0.7 and most of the factor loadings should be greater than 0.7 (Hair Jr et al., 2021). R-squared values measured the assessment of structural model quality. According to Cohen (1988), the values of 0.02, 0.15, and 0.35 can be regarded as having small, medium, or significant effects. The model's

discriminant validity was evaluated using the Fornell and Larcker criterion (1981). An LV's Average Variance Extracted (AVE) should always be greater than the variance in another latent construct that this LV contributes to explaining. All calculations were performed by R 3.4.4 software (R. Core Team, 2022) using the “plspm” package (Sanchez, 2013) and “olsrr” packages for the calculation of Variance Inflation Factor /VIF/.

EMPIRICAL RESULTS

The data consisted of 399 respondents and satisfied the sample size requirements proposed by leading authors in partial least squares (Hair Jr et al., 2021; Sanchez, 2013; Vinzi et al., 2010). The following blocks were examined on a 5-point Likert scale: DEI (5 items), ATE (5 items), SN (3 items), PBC (4 items), DL (9 items), PES (6 items), PCD (4 items), PBD (3 items), RT (4 items), LC (4 items), I (4 items), NA (5 items). Composite Reliability was measured by Dillon Goldstein's Rho value which was higher than 0.7 for all the latent variables indicating good composite reliability. Only those items were kept whose loading was greater than or around 0.7. For this reason, DEI1, ATE1, DL1 and DL6-9, PES4, RT3 and LC1 must be removed from the final model (Table 1 and 2). The model-building process and composite reliability assessment (loadings, Dillon Goldstein's Rho, VIF indices) can be seen in Table 1 and 2. Table 1 presents the main influential factors (ATE, SN, PBC, DL) on DEI.

Table 1. Composite Reliability of The Studied Items and Model Building I. [Source: Authors' Calculation.]

Item	Latent variable	Manifest variables	Loading before exclusion	Loading after exclusion	VIF (DEI)*	DG Rho/ AVE**
Online venture	Digital Entrepreneurial Intention (DEI)	DEI1	0.676		0.805	0.861 (60.4%)
Become a digital entrepreneur		DEI2	0.746	0.747	0.828	
Doubts		DEI3	0.681	0.697	0.873	
Digital company		DEI4	0.855	0.859	0.702	
Professional goal		DEI5	0.760	0.799	0.722	
More benefits	Attitude toward entrepreneurship (ATE)	ATE1	0.644		1.71	0.852 (59.9%)
Career		ATE2	0.767	0.749	2.06	
Start a firm		ATE3	0.714	0.744	1.70	
Great satisfaction		ATE4	0.808	0.838	2.14	
A good option		ATE5	0.742	0.763	1.86	
Approval of family	Subjective Norms (SN)	SN1	0.857	0.855	1.61	0.848 (70.6%)
Approval of friends		SN2	0.849	0.844	1.87	
Approval of peers		SN3	0.819	0.822	1.71	
Practical details	Perceived Behaviour Control (PBC)	PBC1	0.755	0.759	2.08	0.859 (60.7%)
Control of the process		PBC2	0.808	0.813	2.09	
Ease of operating a firm		PBC3	0.802	0.803	2.25	
High probability of success		PBC4	0.748	0.742	1.64	
Technical problems	Digital Literacy (DL)	DL1	0.505		1.67	0.854 (56.3%)
Different technologies		DL2	0.703	0.769	2.37	
Latest technologies		DL3	0.655	0.751	2.09	
Learn new technologies		DL4	0.669	0.743	1.75	
Technical skills		DL5	0.711	0.738	1.94	
Obtaining information from the internet		DL6	0.648		1.64	
Web-based activities		DL7	0.569		1.64	
ICT collaboration		DL8	0.560		1.72	
Obtain help		DL9	-0.168		1.26	

Note: *: Variance Inflation Factor (VIF) values should be lower than 5 in order to avoid multicollinearity; DEI: Digital Entrepreneurial Intention. **: Dillon Goldstein's Rho value and Average Variance Extracted.

Table 2 shows the other factors (Perceived University Support, Personal Traits) of the model.

Table 2. Composite Reliability of The Studied Items and Model Building II.

[Source: Authors' Calculation]

Item	Latent variable	Manifest variables	Loading before exclusion	Loading after exclusion	VIF* (ATE)	VIF* (PBC)	VIF* (DEI)	DG Rho/ AVE**
Elective courses	Perceived Educational Support (PES)	PES1	0.775	0.794			1.94	0.897 (60.0%)
Project work		PES2	0.772	0.807			2.50	
Internship		PES3	0.725	0.747			2.54	
Bachelor/master study		PES4	0.663				1.58	
Conferences/Workshops		PES5	0.769	0.748			2.09	
Contact with other students		PES6	0.761	0.774			3.10	
Career choice awareness	Perceived Concept Development (PCD)	PCD1	0.799	0.796			2.96	0.923 (72.2%)
Motivation for a new firm		PCD2	0.882	0.886			3.17	
Ideas to start a firm		PCD3	0.863	0.862			3.47	
Knowledge to start a firm		PCD4	0.851	0.854			3.73	
Financial means	Business Development Support (BDS)	BDS1	0.853	0.850			2.65	0.913 (69.0%)
Reputation support		BDS2	0.763	0.755			2.98	
Lead customer		BDS3	0.869	0.881			2.97	
Higher risks for higher returns	Risk-Taking propensity (RT)	RT1	0.774	0.799	1.58	1.58	1.78	0.836 (64.3%)
New riskier experiences		RT2	0.831	0.844	1.79	1.79	2.00	
Risk of failure is not a concern		RT3	0.634		1.38	1.38	1.57	
High returns over security		RT4	0.735	0.760	1.40	1.40	1.64	
Behaviour control	Locus of Control (LC)	LC1	0.631		1.33	1.33	1.49	0.771 (57.2%)
Plans will be realized		LC2	0.742	0.766	1.51	1.51	1.62	
Self-awareness		LC3	0.732	0.762	1.33	1.33	1.54	
Personal commitment		LC4	0.709	0.741	1.24	1.24	1.45	
Novel ideas	Innovativeness (I)	I1	0.703	0.700	1.61	1.61	1.79	0.855 (59.9%)
Creative thinking		I2	0.778	0.783	1.86	1.86	2.26	
Help in creative activities		I3	0.790	0.790	1.62	1.62	2.00	
Original ideas		I4	0.821	0.820	1.69	1.69	1.92	
Success in work	Need for Achievement (NA)	NA1	0.753	0.752	1.87	1.87	2.29	0.898 (66.1%)
Master of things		NA2	0.858	0.857	1.94	1.94	2.20	
Do the very best		NA3	0.787	0.786	1.88	1.88	2.10	
More successful than others		NA4	0.830	0.828	2.00	2.00	2.22	
Targets above standards		NA5	0.833	0.837	2.37	2.37	2.62	

Note: *: Variance Inflation Factor (VIF) values should be lower than 5 to avoid multicollinearity; ATE: Attitude Toward Entrepreneurship; PBC: Perceived Behaviour Control; DEI: Digital Entrepreneurial Intention. **: Dillon Goldstein's Rho value and Average Variance Extracted (in %).

DEI was best described by intention to start a digital company (0.859), ATE was best represented by great satisfaction (0.838), and the main item on PBC was the control of the process (0.813). Among DL items, technology-related items were the most influential. PES was best described by elective courses (0.794) and project work (0.807), BDS was best related to financial means (0.850) and lead customer status of the university (0.881). RT was about taking new, riskier experiences (0.844), while Innovativeness depended mostly on original ideas (0.821). NA was well defined by being a master in all things (0.858) and reaching targets above standards (0.833).

Figure 2 shows the graphical model, the parameter estimates and R-squared values from the bootstrap validation. The PLS-PM model is an iterative and explanatory technique; therefore, it can identify irrelevant relationships. For better understanding, only the statistically significant path coefficients were depicted and dashed lines denoted non-significant paths. All given values were significant at a 5 per cent significance level.

The overall model had a good global fit as the GOF was 0.428, and the SRMR was 0.053 (the threshold is 0.08), while the RMR was 0.118 (the threshold is 0.12). The primary outcome variable, DEI, had the largest R² value (0.495, SE=0.049; t=11.17; p<0.001) but the prediction of the secondary outcomes, PBC and ATE, also had substantial R² value (0.253; SE=0.037; t=6.63; p<0.001 and 0.238; SE=0.037; t=6.63; p<0.001). The strongest relationship could be seen between ATE and DEI (B=0.522; SE=0.046; t=11.35; p<0.001) and between RT and PBC (B=0.252; SE=0.057; t=4.42; p<0.001) and between I and PBC (B=0.214; SE=0.061; t=3.51; p<0.001). Results suggested that a higher level of PBC and ATE increased the DEI and RT, and I boosted PBC. See Figure 2 below, which shows the PLS-SEM model.

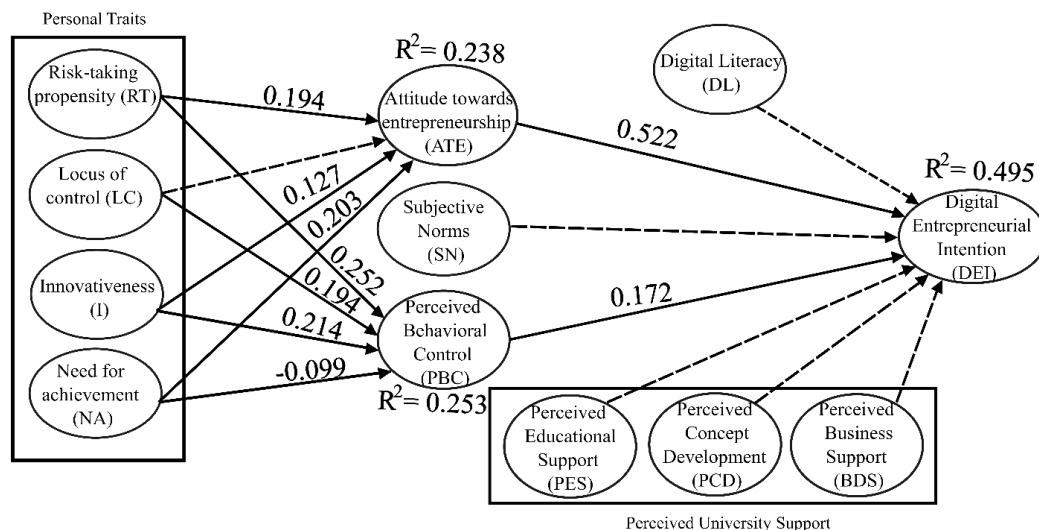


Figure 2. The PLS-SEM Model
[Source: Authors' Design]

On the other hand, NA had a positive influence on ATE (B=0.203; SE=0.056; t=3.63; p<0.001) and a negative effect on PBC (B=-0.099; SE=0.047; t=-2.11; p=0.035). Also, LC only impacted PBC (B=0.203; SE=0.071; t=2.86; p=0.005). I and RT also had a weaker but

significant effect on ATE ($B=0.127$; $SE=0.059$; $t=2.15$; $p=0.032$ and $B=0.194$; $SE=0.057$; $t=3.40$; $p<0.001$). On the other hand, LC did not affect ATE and NA didn't affect PBC.

DISCUSSION

A strong and positive relationship have been found between ATE and DEI in great balance with previous studies (Aleidi & Chandran, 2019; Anwar et al., 2021). Our findings revealed that internal factors seem more influenced by students' entrepreneurial intentions than external ones, like social norms (Farani et al., 2017). PBC is positively related to DEI which is aligned with previous studies (Hassan, 2020; Karimi et al., 2017). Surprisingly, DL had no significant effect on DEI that contradicted previous studies reporting a positive correlation between the two factor (EL-SISI, 2022; Hardika et al., 2022). The reason might be that over half of Jordanians aged 24 or younger have grown up amid a notable technological revolution; they are highly connected, educated, and globally aware, poised to be digitally literate (Innovative Jordan, 2017). This generation includes university students often perceived as digital natives and technologically savvy (Kulikowski et al., 2022). DL may not directly influence the intention to engage in digital entrepreneurship, but it still plays a crucial role in pursuing entrepreneurial activities.

The findings suggested that students' experience with university support conditions had not spurred their desire to start a business. As a result, we found that entrepreneurship university support in Jordan universities does not adequately inform students of entrepreneurship as a career choice. These findings are consistent with previous research (Ambad & Damit, 2016). Prior research has demonstrated that personality traits can impact entrepreneurial behavior and intentions, either directly or indirectly (Biswas & Verma, 2021; Munir et al., 2019). According to the model derived from the TPB and expanded upon here, exogenous personality characteristics indirectly and positively influence DEI through motivational antecedents ATE and PBC (Liñán & Chen, 2009). RT directly and significantly impacted ATE and PBC which was aligned with previous studies (Anwar et al., 2021; Karimi et al., 2017). Our results showed that LC had no significant effect on ATE, paralleled with (Younis et al., 2020). It also positively and significantly affected PBC (Karimi et al., 2017; Shimoli et al., 2020). On the other hand, Innovativeness showed a positive and significant effect on both ATE and PBC, which can be confirmed by previous studies (Anwar et al., 2021; Karimi et al., 2017). The last personality trait was Need for achievement (NA), which represented the desire to excel, accomplish complex tasks, and surpass others in performance. Our results found that NA positively impacted ATE, parallels with (Younis et al., 2020). It also negatively impacted PBC, agreeing with an earlier study (Shimoli et al., 2020).

This study exhibits several limitations. Firstly, its scope is restricted to undergraduate business students in Jordan, thus constraining the applicability of the results to other student populations or diverse contexts. Future investigations could enhance comprehensiveness by incorporating students from varied disciplines, educational levels, and regions to understand digital entrepreneurship intentions better. Secondly, the study's cross-sectional design hinders establishing causal relationships between the variables under examination and digital entrepreneurship intention. Utilizing longitudinal designs in future research may yield more robust evidence of causality and illuminate the dynamic nature of these relationships over time.

Thirdly, using a quota sampling method may introduce selection bias, resulting in a sample that only partially reflects the broader population of undergraduate business students in Jordan. Lastly, the study's reliance on a relatively small sample size of 399 students may compromise the analysis's statistical power, limiting the findings' precision and reliability. Therefore, caution is advised in interpreting and applying the study's results. Subsequent research endeavors with more extensive and diverse samples are warranted to validate and broaden the current findings.

CONCLUSIONS

This study explored the factors influencing digital entrepreneurship intention (DEI) among undergraduate business students in Jordan. The findings indicate that DEI is positively influenced by attitude towards entrepreneurship (ATE). At the same time, subjective norms (SN) did not significantly influence DEI, suggesting that entrepreneurs rely more on internal drive and support than social support. Perceived behavioral control (PBC) was positively related to DEI, suggesting that students perceived to have the necessary skills and resources were more likely to engage in digital entrepreneurship. On the contrary, digital literacy and perceived university support did not significantly affect DEI, indicating a need for tailored entrepreneurship support for Jordanian students. Personality traits, such as risk-taking propensity, locus of control, innovativeness, and need for achievement, also showed varying effects on ATE and PBC with an indirect influence on DEI. The Government of Jordan has been taking significant steps to foster digital entrepreneurship, such as establishing technology parks, incubators, and accelerators have been launched to provide a supportive ecosystem for digital entrepreneurs.

However, despite these efforts, universities must align their curriculum, research, and support services with the demands and opportunities of digital entrepreneurship. By enhancing collaboration between the government, industry, and higher education, universities can play a vital role in equipping students with the necessary knowledge, skills, and resources to thrive in the digital economy and contribute to the growth of digital entrepreneurship in Jordan. The authors concluded that internal psychological factors could significantly and directly shape perceived behavior control and the attitude towards entrepreneurship among the students facilitating the start of a digital business. Based on the authors' experience, university support as an external environment can help develop internal factors.

THE THEORITICAL AND PRACTICAL IMPLICATIONS

The implications are transformative at a policy level, urging university support structures for entrepreneurial students to recalibrate. It emphasizes the need for a comprehensive approach, including theoretical knowledge, guidance, mentorship, and resources to empower students in digital entrepreneurship. The study highlighted the importance of personality traits in digital entrepreneurship and emphasized the need for tailored personality development programs. Educational institutions can facilitate the emergence of well-rounded, confident digital entrepreneurs. In conclusion, the study advanced the understanding of digital entrepreneurial intention among Jordanian students and laid the groundwork for an ecosystem that nurtures innovation and economic growth.

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