

Thesis of Doctoral (Ph.D.) Dissertation

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1. INTRODUCTION

1.1 Introduction

The future prosperity of nations depends on the vigor of their youth—a demographic that holds the key to driving economic and social development (Pereznieto & Harding, 2013). In the Middle East and North Africa (MENA) region, where most people are under 35 years old, there is a massive opportunity for growth (The World Bank., 2020). Despite this promising demographic profile, the International Labor Office (2015) highlights alarming youth unemployment rates, particularly in the MENA region. In Jordan, a country deeply committed to progress, the third quarter of 2021 witnessed a concerning unemployment rate of 23.2%, with a noteworthy proportion affecting individuals holding university degrees (Department of Statistics, 2022). These stark figures have prompted the government to take decisive action, recognizing the urgent need to address the unemployment challenge head-on.

As unemployment escalates, entrepreneurship emerges as a potent tool to generate more job opportunities and foster new economic opportunities (Miller et al., 2009). Promoting entrepreneurship is not just a good idea; it is a pivotal strategy to enrich the lives of young people, particularly in developing nations (Setti, 2017). To amplify youth participation in economic development, countries must harness their innovative talents and nurture the entrepreneurial spirit (Mahadea et al., 2011).

Digital technologies like smartphones, the Internet, and various applications are revolutionizing the global economy by reshaping how entrepreneurship works (The World Bank, 2016). The fast spread of digital technologies has significantly changed competitive settings, created new business structures, and opened new doors for young entrepreneurs (Bharadwaj et al., 2013). The utilization of digital networks and the Internet has forged a distinct digital ecosystem for entrepreneurs, facilitating the establishment of businesses founded on digital models (Wetherbe et al., 2006).

In response to the rapid growth of the digital world, the Government of Jordan established a Ministry for Digital Economy and Entrepreneurship. This ministry aims to set up infrastructure for digital entrepreneurship and develop policies to tackle the challenges Jordanian entrepreneurs face (Ministry of Digital Economy and Entrepreneurship, 2019). However, creating such policies cannot be enough without addressing the role of university support systems in promoting digital entrepreneurship. Since universities play a crucial role in shaping students' intentions to become entrepreneurs, universities must go beyond mere educational

support and offer comprehensive assistance, including concept development and business development support (Saeed et al., 2015).

In entrepreneurship research, scholars have employed social cognition models to identify critical factors affecting entrepreneurial intentions and actions (Krueger & Carsrud, 1993; Liñán et al., 2011). Amidst various models, the theory of planned behavior (TPB) has demonstrated its practicality (Ajzen, 1991). At the core of TPB is entrepreneurial intention, which is best predicted by three key elements: attitudes toward entrepreneurship, subjective norms, and perceived behavioral control.

Previous studies aimed to identify the factors influencing entrepreneurial intention. They looked at internal psychological factors (e.g., risk-taking) and external environmental factors (e.g., perceived university support) separately. However, only a few studies simultaneously consider internal and external factors (Karimi et al., 2017).

On the other hand, as the number of internet users increases, digital knowledge and skills can significantly boost the development of digital startups (Gilster, 1997). Conversely, a lack of digital literacy among students can impede the creation of such startups. Thus, digital literacy is crucial, particularly for digital entrepreneurs (Suparno et al., 2020). Surprisingly, few studies delve into how digital literacy shapes the desire to start digital businesses (Ng, 2013).

Moreover, limited empirical studies in developing countries explore the inclination toward digital entrepreneurship among undergraduates (Alkhalaileh, 2021a, 2021b; Alkhalaileh et al., 2023; Al-Mamary et al., 2020; Younis et al., 2020).

Therefore, this study addressed the previous gaps by investigating how internal and external factors and digital literacy impact the students' intention to become digital entrepreneurs.

1.2 Research Objectives

The objectives of the study are listed below:

1. Delve deep into existing research on entrepreneurial intentions, covering theory and empirical findings.
2. Build a conceptual framework based on critical factors identified in the vast literature on entrepreneurial intentions.
3. Undertake an empirical investigation into the multifaceted determinants shaping digital entrepreneurial intentions among students at Jordanian universities.
4. Examine how students' personality traits shape their attitudes toward entrepreneurship and perceived behavioral control within the context of Jordan.
5. Investigate the nuanced effects of the Theory of Planned Behavior (TPB) factors and the university's perceived support of students' digital entrepreneurial intentions.
6. Investigate how digital literacy affects students' digital entrepreneurial intentions in Jordan.

1.3 Research Questions

- 1- What factors stimulate digital entrepreneurship intention among undergraduate students in Jordan?
- 2- Do TPB factors (perceived behavior control, subjective norms, and attitude toward entrepreneurship) positively influence students' digital entrepreneurial intentions?
- 3- Do perceived university support factors positively influence students' digital entrepreneurial intentions?
- 4- Do personality traits positively impact students' perceived behavior control and attitude toward entrepreneurship?
- 5- Does digital literacy positively influence students' digital entrepreneurial intentions?

1.4 Research Hypothesis

H1a: Attitude towards entrepreneurship (ATE) positively influences the digital entrepreneurial intention (DEI) of undergraduate students in Jordan.

H1b: Subjective norm (SN) positively influences the digital entrepreneurial intention (DEI) of undergraduate students in Jordan.

H1c: Perceived Behavioral Control (PBC) positively influences the digital entrepreneurial intention (DEI) of undergraduate students in Jordan.

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

H3a: Perceived educational support positively influences the digital entrepreneurial intention (DEI) of undergraduate students in Jordan.

H3b: Perceived concept development positively influences the digital entrepreneurial intention (DEI) of undergraduate students in Jordan.

H3c: Business development support positively influences the digital entrepreneurial intention (DEI) of undergraduate students in Jordan.

H4a: Risk-taking propensity positively influences students' Attitude toward entrepreneurship (ATE).

H4b: Risk-taking propensity positively influences students' Perceived Behavioral Control (PBC).

H5a: Locus of control positively influences students' Attitude toward entrepreneurship (ATE).

H5b: Locus of control positively influences students' Perceived Behavioral Control (PBC).

H6a: Innovativeness positively influences students' Attitude toward entrepreneurship (ATE).

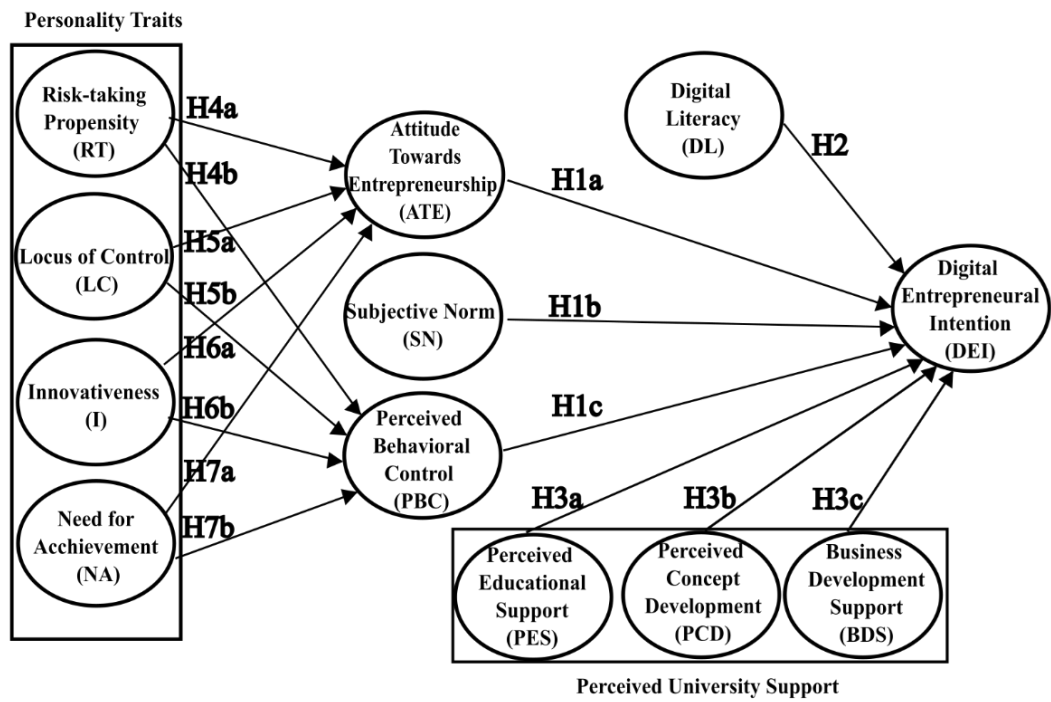
H6b: Innovativeness positively influences students' Perceived Behavioral Control (PBC).

H7a: Need for Achievement positively influences students' Attitude toward entrepreneurship (ATE).

H7b: Need for Achievement positively influences students' Perceived Behavioral Control (PBC).

1.5 Conceptual Framework

FIGURE 1: THE CONCEPTUAL FRAMEWORK



2. MATERIALS AND METHODS

2.1 Research Philosophy and Approach

Entrepreneurship research has traditionally followed a positivist philosophy (McDonald et al., 2015; Tatli et al., 2014). Choosing a theory in research determines the research approach and design. Positivism usually uses a deductive approach where researchers use existing theories to develop hypotheses. It would be possible to test these hypotheses and confirm/reject them, further developing a theory and leading to further research (Saunders et al., 2016). The reason for choosing this approach is supported by entrepreneurship research and mainly entrepreneurial intentions literature (McDonald et al., 2015).

2.2 Research Method and Strategy

The researcher's aim to determine relationships between variables and test the applicability of theories in this dissertation, the study's purpose is explanatory. Examining entrepreneurial intentions and the relationships between the study variables requires a psychological measurement standard. Thus, a mono-method quantitative is needed to answer the research questions and fulfill the research objectives (McDonald et al., 2015; Tatli et al., 2014). Since this dissertation adopts positivistic and deductive research, implementing quantitative research methods is crucial (Babbie, 2013).

2.3 Data Collection and Procedures

2.3.1 Data Collection Strategy

The dissertation uses a deductive approach, and its purpose is to decide whether various theoretical hypotheses can be applied. For this reason, quantitative data collection is essential for examining the proposed relationships among the study variables. Therefore, a questionnaire survey is used to collect the relevant data (Babbie, 2013; Saunders et al., 2016). The questionnaire for this study is self-administered, meaning that participants fill it out independently. The researcher used both offline and online methods to get the data.

2.3.2 Time Horizon

This is a cross-sectional study. Therefore, the researcher collected the data in July 2022 during the summer semester in Jordan.

2.3.3 Sampling Strategy

The targeted population was 15,368 bachelor's business students who enrolled in a Business School degree at those eight universities in Jordan (The Ministry of Higher Education and Scientific Research, 2022). Due to the researcher's inability to obtain a sampling frame, such as a list of eligible students for the study, a nonprobability sampling was applied.

To ensure the variability and representativity of the sample, the researcher targeted all eight universities from different geographical areas in Jordan distributed in three cities in Jordan, namely Amman, Mafrq, and Irbid. According to Krejcie & Morgan (1970), the sample size needed for the total population in this study is 375 units. A quota sampling technique was used to ensure an adequate representation of business students in the study.

2.3.4 Instruments and Measurements

The researcher's primary data source for this study is the questionnaire instrument. The designed instrument used validated and tested scales from previous entrepreneurship literature. The questions follow a five-point Likert scale, with "one" representing the least agreement level and " five " representing the greatest agreement extent. The researcher checked all the scales for internal validity and consistency to ensure they were reliable and valid.

Digital entrepreneurial intention (DEI): Liñán & Chen, (2009) developed a 5-item scale to measure digital entrepreneurial intention. This scale is based on the theoretical background of (Ajzen, 1991). The scale has proven reliable and valid in several contexts (Biswas & Verma, 2021; Chen, 2013). Entrepreneurship intention is considered the best predictor of entrepreneurial behavior. According to TPB, *digital entrepreneurial intention* is defined as the level of an individual's motivation and readiness to create a business online (Liñán & Chen, 2009). As an example of the scale items, "I am ready to do anything to be a digital entrepreneur."

Attitude Toward Entrepreneurship (ATT) refers to the degree to which the individual holds a positive or negative personal valuation about entrepreneurship (Ajzen, 1991). Liñán and Chen, (2009) developed a 5-item scale to measure attitude toward entrepreneurship. The better one's entrepreneurial attitude, the higher one's entrepreneurial intention (Robinson et al., 1991; Utami, 2017). As an example of the scale items, "Being a digital entrepreneur implies more advantages than disadvantages to me."

Subjective Norms (SN): The pressure an entrepreneur perceives from the social environment and the approval he/she receives from influential individuals (Ajzen, 1991). The effects of subjective norms differ from one culture to another. Liñán & Chen, (2009) developed a 3-item scale to measure subjective norms. Researchers proved the scale's reliability and validity (Aleidi

& Chandran, 2019). As an example of the scale items, "If you decide to create a digital firm, your close family will approve of that decision."

Perceived Behaviour Control (PBC) refers to the beliefs someone holds regarding the knowledge, abilities, and skills they need to achieve a particular entrepreneurial goal and whether these skills and resources are likely to hinder or facilitate the achievement of that goal (Liñán & Chen, 2009). This factor appeared to have the most influential impact on entrepreneurial intention (Hassan, 2020; Karimi et al., 2017; Lai & To, 2020). Four items were developed to measure perceived behavior control (Liñán & Chen, 2009). This scale is based on the theoretical background of (Ajzen, 1991). As an example of the scale items, "To start a digital firm and keep it working would be easy for me."

Digital Literacy (DL): According to Martin (2005, p. 135), digital literacy is "Individuals' awareness, attitude, and ability to use digital tools and facilities to identify access appropriately, manage, integrate, evaluate, analyze and synthesize digital resources, construct new knowledge, create media expressions, and communicate with others in specific life situations." Chen, (2014) has found that digital skills can be an essential predictor of entrepreneurs' intention to start their digital businesses. Ng, (2012) adopted nine questions to measure digital literacy. One of the questions in this scale reads: "I can learn new technologies easily."

Perceived University Support (PUS): is defined as the students' perception that their university is helping them pursue an entrepreneurial career (Saeed et al., 2015). The construct has three dimensions. I) Perceived educational support, II) Concept development support, and III) Business development support. These dimensions significantly affected entrepreneurial intention (Saeed et al., 2015). Thirteen items to measure Perceived University Support were adopted by (Kraaijenbrink et al., 2010). An example of the scale items is "My university offers elective courses on entrepreneurship."

Risk-taking propensity (RT) refers to making uncertain decisions or acting regardless of the outcome (Jackson, 1976). Risk-taking propensity is seen as a must-have characteristic of an entrepreneur (Keat et al., 2011). The 4-item scale was used by (Anwar et al., 2021). As an example of the scale items, "I am willing to take higher risks for higher returns."

Locus of Control (LC): The measure shows an individual's beliefs regarding his ability to control events in his life (Hermawan et al., 2016). Zellweger et al., (2011) adopted a 4-item

locus of control scale. One of the questions in this scale reads: " Whether I reach a goal or not mainly depends on me and my behavior."

Innovativeness (I): The process of developing new and creative ideas over time (Koh, 1996). Innovation is a fundamental characteristic of entrepreneurs that enables them to see opportunities others do not, even in the most challenging situations (Robinson et al., 1991). Jackson, (1976) adopted a 4-item scale to measure innovativeness. One of the questions used in this scale reads: "I often surprise people with new ideas."

Need for Achievement (NA): According to McClelland, (1961), the need for achievement is the motive to accomplish something better. Ž. Zovko, (2020) used five items to measure the need for achievement. Entrepreneurs exhibit a greater need for achievement than non-entrepreneurs (Robinson et al., 1991). As an example of the scale items, "My desire to be successful in my work is very high."

2.3.5 Questionnaire Design

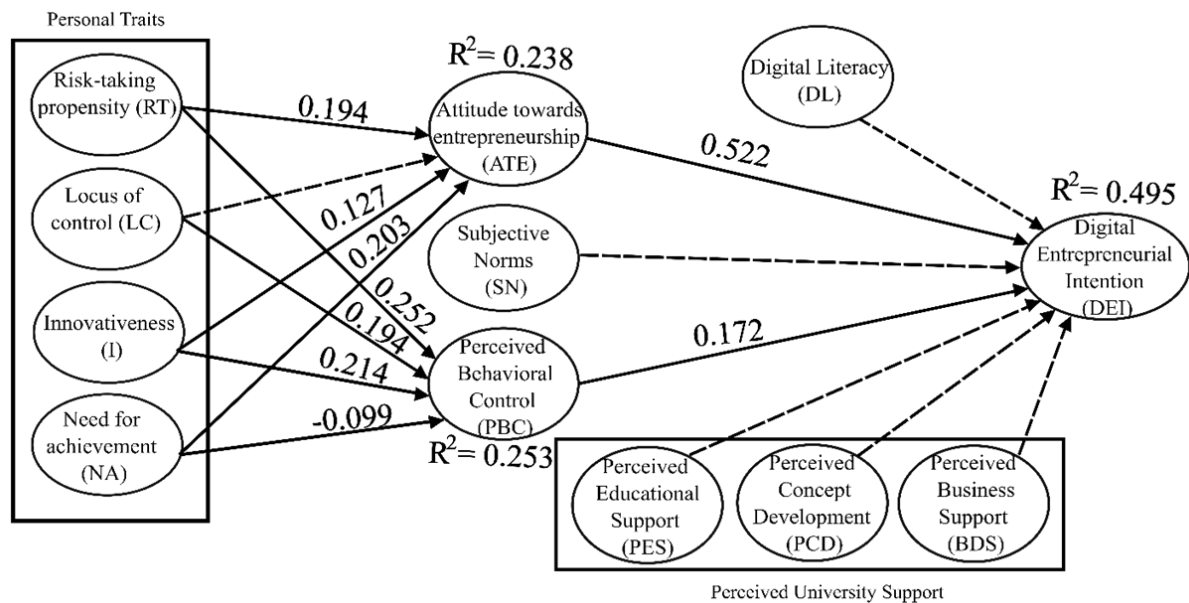
As the study is being conducted in Jordan, translating the questionnaire into Arabic was imperative to ensure participants understood its meaning. The researcher had the questionnaire translated from English to Arabic by a professional translator in Jordan to ensure that the meanings of the questions were not altered by translation. Moreover, the researcher reviewed the Arabic version to confirm the meanings are clear and understandable. The study's survey used validated and tested scales from previous entrepreneurship literature, with some modifications to fit the Jordanian context. The theory of Planned Behaviour (TPB) was considered when designing the questionnaire. Aside from the original constructs used in TPB, more variables were included to give a more comprehensive view of the factors affecting students' intentions in Jordan.

The questionnaire underwent a rigorous validation process to ensure the content validity of its constructs. Thus, the translated questionnaire was sent to a panel of five expert judges in Jordan who specialized in the study topic. Their invaluable insights and critical assessments were instrumental in identifying potential weaknesses and areas for improvement within the questionnaire. Subsequently, a comprehensive revision process was initiated, incorporating the judges' feedback and suggestions.

3. RESEARCH RESULTS AND FINDINGS

After screening the data, removing the suspicious answers and outliers, 399 cases were left for the final analysis. The partial least square path model is the ideal data analysis method for this study due to its adaptability in exploring intricate relationships within a small sample size (Hair et al., 2021). Figure 2 illustrates the graphical model, presenting parameter estimates and R-squared values obtained through bootstrap validation in the Partial Least Squares Structural Equation Modeling (PLS-SEM) framework.

FIGURE 1: THE PLS-SEM MODEL



Source: own calculation 2023, based on research data from 2022

The overall model had a good global fit as the GOF was 0.428, and the standardized root mean square residual was 0.053 (the threshold is 0.08), while the root mean square residual covariance 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=0.032; t=6.63; p<0.001 and 0.238; SE=0.037; t=6.63; p<0.001).

3.1 Hypotheses Testing

3.1.1 Theory of Planned Behaviour Constructs

The results for H1a reveal a highly significant and positive relationship between attitude towards entrepreneurship (ATE) and digital entrepreneurial intention (DEI) among undergraduate students in Jordan. The standardized beta coefficient of 0.522 indicates that ATE

has a substantial and positive impact on DEI, and this relationship is statistically significant (t-Value = 11.35, $p < 0.001$). Therefore, H1a is supported. In the case of H1b, the relationship between subjective norm (SN) and digital entrepreneurial intention (DEI) is not statistically significant. The standardized beta coefficient of 0.046 is small, and the t-value of 0.90 is insignificant at the chosen confidence level. As a result, H1b is rejected. The results for H1c indicate a statistically significant and positive relationship between perceived behavioral control (PBC) and digital entrepreneurial intention (DEI) among undergraduate students in Jordan. The standardized beta coefficient of 0.172 suggests that PBC has a moderate positive impact on DEI, and this relationship is statistically significant (t-Value = 2.73, $p < 0.01$). Thus, H1c is supported.

3.1.2 Digital Literacy

The results for H2 indicate that there is no statistically significant relationship between Digital Literacy (DL) and Digital Entrepreneurial Intentions (DEI) among undergraduate students in Jordan. The standardized beta coefficient of 0.087 is small, and the t-value of 1.89 does not reach statistical significance at the chosen confidence level. Consequently, H2 is rejected.

3.1.3 Perceived University Support

The results for H3a reveal no statistically significant relationship between perceived educational support (PES) and digital entrepreneurial intention (DEI) among undergraduate students in Jordan. The standardized beta coefficient of 0.064 is relatively small, and the t-value of 1.25 is insignificant at the chosen confidence level. Therefore, H3a is rejected. In the case of H3b, the relationship between perceived concept development (PCD) and digital entrepreneurial intention (DEI) is not statistically significant. The standardized beta coefficient of 0.033 is small, and the t-value of 0.46 is insignificant at the chosen confidence level. As a result, H3b is rejected. The results for H3c suggest no statistically significant relationship between business development support (BDS) and digital entrepreneurial intention (DEI) among undergraduate students in Jordan. The standardized beta coefficient of -0.015 is small, and the t-value of -0.26 is insignificant at the chosen confidence level. Consequently, H3c is rejected.

3.1.4 Personality Traits

The results for H4a suggest a statistically significant positive relationship between Risk-taking Propensity (RT) and students' Attitude toward entrepreneurship (ATE). The standardized beta coefficient of 0.194 indicates that RT has a moderate positive impact on ATE, and this relationship is highly significant (t-Value = 3.40, $p < 0.001$). Therefore, H4a is supported. In the case of H4b, the results show a statistically significant and positive relationship between

Risk-taking Propensity (RT) and students' Perceived Behavioral Control (PBC). The standardized beta coefficient of 0.252 indicates that RT substantially positively impacts PBC, and this relationship is highly significant ($t\text{-Value} = 4.42, p < 0.001$). Thus, H4b is supported. The results for H5a indicate no statistically significant relationship between Locus of Control (LC) and students' Attitude toward entrepreneurship (ATE). The standardized beta coefficient of 0.099 is small, and the t -value of 1.87 is insignificant at the chosen confidence level. Consequently, H5a is rejected. In the case of H5b, the results reveal a statistically significant and positive relationship between Locus of Control (LC) and students' Perceived Behavioral Control (PBC). The standardized beta coefficient of 0.203 suggests that LC has a moderate positive impact on PBC, and this relationship is statistically significant ($t\text{-Value} = 2.86, p < 0.01$). Therefore, H5b is supported. The results for H6a suggest a statistically significant positive relationship between Innovativeness (I) and students' Attitude toward entrepreneurship (ATE). The standardized beta coefficient of 0.127 indicates that Innovativeness (I) has a moderate positive impact on ATE, and this relationship is statistically significant ($t\text{-Value} = 2.15, p < 0.05$). Therefore, H6a is supported. In the case of H6b, the results indicate a statistically significant and positive relationship between Innovativeness (I) and students' Perceived Behavioral Control (PBC). The standardized beta coefficient of 0.214 suggests that Innovativeness (I) has a substantial positive impact on PBC, and this relationship is highly significant ($t\text{-Value} = 3.51, p < 0.001$). Thus, H6b is supported. The results for H7a demonstrate a statistically significant positive relationship between Need for Achievement (NA) and students' Attitude toward entrepreneurship (ATE). The standardized beta coefficient of 0.203 suggests that NA has a moderate positive impact on ATE, and this relationship is highly significant ($t\text{-Value} = 3.63, p < 0.001$). Therefore, H7a is supported. H7b's results reveal a statistically significant and negative relationship between the Need for Achievement (NA) and students' Perceived Behavioral Control (PBC). The standardized beta coefficient of -0.099 suggests that NA has a slight negative impact on PBC, and this relationship is statistically significant ($t\text{-Value} = -2.11, p < 0.05$). Thus, H7b is rejected.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

This study examined the variables influencing the intention of 399 Jordanian undergraduate business students to pursue digital entrepreneurship. The findings revealed several significant relationships and shed light on the critical determinants of DEI in this context.

The results indicated that the intention to start a digital company (DEI) was the primary outcome variable with the highest R-squared value (0.495), suggesting that it was strongly influenced by the factors examined in the study. TPB's applicability to Jordan's context reveals that Ajzen's model does not perfectly explain students' entrepreneurial intentions. Only Two antecedents of TPB, namely attitudes toward entrepreneurship and perceived behavioral control, influence entrepreneurial intention significantly.

Attitude Toward Entrepreneurship (ATE), which refers to one's positive or negative evaluation of entrepreneurship, was identified as significantly and positively correlating with the entrepreneurial intention of university students in Jordan. Notably, it emerged as the most influential predictor of entrepreneurial intention, aligning with findings from studies (Aleidi & Chandran, 2019; Anwar et al., 2021). That suggests that university students in Jordan view entrepreneurship positively, which significantly boosts their intention to pursue it.

The second key predictor of entrepreneurial intention among students in Jordan is perceived behavioral control (PBC), which refers to an individual's belief in their ability to perform a specific behavior. That implies that students in Jordan feel confident in possessing the necessary skills and resources to start a digital business. The study's findings highlight a positive relationship between PBC and entrepreneurial intention, consistent with previous research (Hassan, 2020; Karimi et al., 2017).

In line with previous research, the entrepreneurial intentions of Jordanian students are not strongly influenced by societal perceptions around them (Al Saiqal et al., 2019; Su et al., 2021; Younis et al., 2020). In this context, subjective norms made a weak and insignificant contribution to entrepreneurial intention. However, this finding contrasts with other studies (Anwar et al., 2021; Choukir et al., 2019; Lai & To, 2020; Ridha & Burhanuddin, 2017). The study's results suggest that internal factors have a more pronounced impact on students' entrepreneurial intentions than external influences (Yaghoubi Farani et al., 2017).

Surprisingly, the study found that digital literacy (DL) did not significantly impact DEI, indicating that a student's DL level does not determine their choice to pursue digital

entrepreneurship. That contradicts prior research that showed a positive connection between entrepreneurship intention and digital literacy (Bayrakdaroglu & Bayrakdaroglu, 2017; Mudasih et al., 2021). The explanation might be that more than half of Jordanians aged 24 or younger have grown up amidst a significant technological revolution, making them highly connected, educated, and globally aware, positioning them as digitally adept (Innovative Jordan, 2017). This generation, which includes university students often seen as digital natives, may already possess solid technological skills (Kulikowski et al., 2022). However, these findings do not imply that DL is irrelevant to digital entrepreneurship. Although it may not directly influence the intention to engage in digital entrepreneurship, it can still be crucial in helping individuals effectively navigate and leverage digital resources once they decide to pursue entrepreneurial activities (Suparno et al., 2020).

While the university plays a crucial role in promoting students' entrepreneurial endeavors, the study revealed that perceived university support did not significantly impact digital entrepreneurship intention, consistent with previous research (Hassan, 2020; Shen et al., 2017; Yusoff et al., 2016). The results imply that students' interactions with university support services have not fueled their interest in starting a business. Consequently, entrepreneurship support in Jordanian universities may not effectively guide students toward entrepreneurship as a viable career option, nor does it equip them with the necessary skills or assistance for the initial stages of their entrepreneurial journey.

Previous studies have shown that personality traits can affect entrepreneurial actions and intentions, either directly or indirectly (Biswas & Verma, 2021; Munir et al., 2019). In compliance with TPB presented here, personality traits indirectly and positively impact DEI through motivational factors like ATE and PBC (Liñán & Chen, 2009).

This study examined four personality traits. The first trait, Risk-taking propensity (RT), reflects the inclination to take risks in entrepreneurship. The results indicated that RT directly and significantly impacted ATE and PBC. That implies that students in the study were highly willing to take risks, seeing themselves as more capable of engaging in uncertain entrepreneurial activities. These findings are consistent with earlier research (Anwar et al., 2021; Karimi et al., 2017). Additionally, RT had the most substantial indirect effect on Digital Entrepreneurial Intention (Anwar et al., 2021; Karimi et al., 2017).

The second personality trait is Locus of control (LC), which reflects an individual's belief in their ability to control their destiny. The results showed that LC did not significantly affect ATE, aligning with the findings of (Younis et al., 2020). However, it positively and

significantly impacted PBC (Karimi et al., 2017; Shimoli et al., 2020). Students in the study exhibited a high locus of control on perceived behavioral control, indicating they feel empowered and capable of influencing their life events. That suggests they are more likely to take initiative, set ambitious goals, and persist in facing challenges (Munir et al., 2019).

Conversely, Innovativeness positively and significantly influenced the ATE and PBC. That aligns with the idea that individuals with high levels of Innovativeness are more inclined to participate in entrepreneurial activities, consistent with previous studies' findings (Ahmed et al., 2021; Biswas & Verma, 2021).

The fourth personality trait, the Need for Achievement (NA), reflects the desire to excel, accomplish challenging tasks, and outperform others. The study's results revealed that NA positively impacted ATE, similar to the findings of (Karimi et al., 2017; Younis et al., 2020). That suggests that students with a high NA often find entrepreneurship attractive. However, the Need for achievement negatively affected perceived behavioral control, indicating that students with a high need for achievement may not perceive entrepreneurship as easy. This finding aligns with a previous study (Shimoli et al., 2020).

This study provides valuable insights for academia and policymakers, offering a more nuanced understanding of the factors influencing digital entrepreneurial intention among Jordanian students. The theoretical insights and policy implications converge to lay the groundwork for a dynamic, supportive, and transformative educational environment. This environment aims to nurture the next generation of digital entrepreneurs, contributing to innovation and economic growth within the nation.

4.2 Recommendations

The government of Jordan has actively promoted digital entrepreneurship through various initiatives, such as establishing technology parks, incubators, accelerators, and the Ministry for Digital Economy and Entrepreneurship to create a favorable environment for digital entrepreneurs. Despite these attempts, Jordanian universities have slowly embraced and incorporated digital entrepreneurship into their educational programs and offerings. Therefore, several recommendations are proposed.

1. Integrate digital entrepreneurship into universities' educational programs to better prepare students for the digital entrepreneurship landscape.

2. Add skill development programs within universities to increase students' confidence in their abilities and provide the necessary skills and resources for succeeding in digital entrepreneurship.
3. Provide hands-on guidance, mentorship, and resources that empower students to actualize their digital entrepreneurial aspirations.
4. University support programs should address students' needs and challenges when pursuing entrepreneurial endeavors. That involves reevaluating existing support mechanisms to ensure they effectively inform and assist students in establishing themselves during the early stages of their entrepreneurial careers.
5. Promoting a positive entrepreneurial image is essential, achieved through awareness campaigns and programs that showcase entrepreneurship as an attractive and rewarding career choice.
6. Highlighting the impact of personality traits on digital entrepreneurial intention underscores the need for specific personality development programs. Such programs can address these traits, fostering the development of well-rounded, self-assured, and innovative digital entrepreneurs equipped to navigate the complexities of the modern business landscape.

5. MAIN CONCLUSIONS AND NOVEL FINDINGS OF THE DISSERTATION

The dissertation has yielded significant conclusions and novel findings that contribute to understanding digital entrepreneurship intentions among university students in Jordan.

1. While previous studies examined internal psychological factors (e.g., locus of control) and external environmental factors (e.g., university support) separately, this study simultaneously focused on internal and external factors.
2. Subjective Norms exhibit a weak and insignificant contribution to entrepreneurial intention among Jordanian students, indicating that internal factors influence students' entrepreneurial intentions more than external ones.
3. Although digital literacy does not directly impact digital entrepreneurship intention, it was found to be a crucial enabling factor. While it may not influence the decision to pursue digital entrepreneurship, it plays a significant role in equipping individuals to navigate and leverage digital resources effectively once they engage in entrepreneurial activities.
4. Contrary to conventional belief, perceived university support showed no tangible effect on DEI among Jordanian students.
5. The discovery of the limited effect of university support on DEI highlights the need for a more robust, tailored, and proactive approach.
6. Personality traits (Risk-taking propensity, Locus of control, Innovativeness, and Need for achievement) emerged as a strong influencer, directly impacting attitudes toward entrepreneurship and perceived behavioral control. They also indirectly and positively impact digital entrepreneurial intention through motivational factors like attitudes toward entrepreneurship and perceived behavioral control.

This study is a unique and pioneering exploration of digital entrepreneurship intentions among university students in Jordan. While various studies have investigated entrepreneurial intentions globally, there is a notable dearth of research explicitly focusing on the context of Jordan.

These findings underscore the complex interplay of internal psychological factors, external factors, and digital literacy in shaping entrepreneurial intentions among Jordanian university students.

SUMMARY

The study addressed the literature gaps by investigating how internal and external factors and digital literacy impact the students' intention to become digital entrepreneurs. In addition, the study examined the intricate interplay between students' personality traits, specifically their impact on shaping attitudes toward entrepreneurship and perceived behavioral control within the context of Jordan.

The final sample, meticulously chosen, comprised 399 undergraduate business students from eight universities in Jordan. A non-probability sampling method, specifically quota sampling, was employed, ensuring a diverse and representative sample. The study analyzed the data using two pieces of software: IBM SPSS (version 21) software to clean the data, find the sample frequency distribution, and conduct the descriptive analysis, and R 3.4.4 software to examine the relationships between the study's constructs (Employing the Partial Least Squares Structural Equation Modeling—PLS-SEM).

The findings demonstrate that the factors under investigation significantly impact digital entrepreneurship intention (DEI). More specifically, attitudes toward entrepreneurship and perceived behavioral control positively and significantly impacted DEI. On the other hand, subjective norms had no noticeable impact on DEI. Interestingly, contrary to prior research, digital literacy did not show a significant impact on DEI.

Surprisingly, the perceived influence of university support on Digital Entrepreneurial Intention appears insignificant among Jordanian students. Moreover, the intricate interplay of personality traits—risk-taking propensity, locus of control, innovativeness, and need for achievement—manifests varied effects on Attitude Toward Entrepreneurship and Perceived Behavioral Control, accentuating their indirect impact on DEI. In conclusion, this dissertation advances our understanding of the factors influencing digital entrepreneurship intentions in the Jordanian context, offering valuable insights for policymakers, educators, and support organizations aiming to nurture a vibrant culture of digital entrepreneurship among university students.

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- Alkhalailah, M. Y. (2021a). Systematic Review: Digital Entrepreneurship Intention. *Network Intelligence Studies*, 9(17), 25–34.
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