

**Mohammad Y. ALKHALAILEH**  
University of Debrecen, Hungary

# SYSTEMATIC REVIEW: DIGITAL ENTREPRENEURSHIP INTENTION

Review  
Article

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## Keywords

*Digital Entrepreneurship Intention;  
Cyber Entrepreneurship Intention;  
E-Entrepreneurship Intention;  
Internet Entrepreneurship Intention;  
Systematic Review;*

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## Abstract

*With the widespread use of online platforms and digital technologies, entrepreneurship is gaining tremendous traction, especially in the digital world. However, the entrepreneurship literature is full of studies on traditional entrepreneurship intentions, while little is known about digital entrepreneurs and digital entrepreneurship intentions. Therefore, this study aims to systematically review and structure the existing empirical literature to identify the main factors that positively and significantly influence digital entrepreneurship intentions. The primary data sources in this study were research articles and conference proceedings published in English from (2010 to 2020) on Google Scholar, Web of Science, and ScienceDirect databases. A systematic review approach was used to find a total of 18 related empirical articles. The results show the most common factors that have a positive and significant effect in predicting digital entrepreneurship intention among the reviewed articles. It was also found that few empirical studies have addressed digital entrepreneurship intention. The findings of the study contribute to the current literature in the field of digital entrepreneurship by presenting the significant factors that help students to start their online businesses.*

## INTRODUCTION

Entrepreneurship is the top priority subject for countries around the world, as well as its prominence in the academic field. That is because entrepreneurs not only raise creativity and innovation but also create more jobs and contribute to economic growth. Today, the use of new digital technologies is considered a vital driver to promote entrepreneurship in countries (Hejazinia, 2015). Besides, the internet and technologies have also transformed the way of setting up a business vividly and reshaped the business environment structure that triggers the emerging of entrepreneurship alternative called Digital Entrepreneurship (Nambisan, Lyytinen, Majchrzak, & Song, 2017). The relation between entrepreneurship and the internet has been titled with various concepts as Internet Entrepreneurship or E-Entrepreneurship (Guthrie, 2014), Cyber Entrepreneurship (Wang, Lin, Yeh, Li, & Li, 2016). However, entrepreneurship literature is full of studies regarding traditional entrepreneurship intention, though little is known about digital entrepreneurs and digital entrepreneurial intention. It is obvious from the literature that the digital entrepreneurship field is still in its infancy level and need more understanding and research (Badaruddin, Arokiasamy, Nordin, Yusof, & Zakaria, 2012; Badaruddin & Abdullah, 2018; Bayrakdaroglu & Bayrakdaroglu, 2017; Chang, Wang, Lee, & Yu, 2018; Ismail, Jaffar, Khan, & Leng, 2012; Ullah, Du, & Batool, 2018). As a concept, digital entrepreneurship intention (DEI) refers to "self-acknowledged conviction by a person that they intend to set up a new business venture on the internet and consciously plan to do so at some point in the future" (Hejazinia, 2015, p. 247). Ismail et al. (2012) found that high levels of traditional entrepreneurial intention are related to low levels of cyber entrepreneurial intention. Therefore, the propensity to become a traditional entrepreneur is different from that of becoming a digital entrepreneur, there is a likelihood that the former prefers to explore physical entrepreneurship mode (e.g. retail business). Therefore, the factors that trigger traditional entrepreneurs and digital entrepreneurs to start a business are slightly different (Ismail et al., 2012). However, this study aims to systematically search and structure the existing empirical literature regarding the main factors that positively and significantly affect digital entrepreneurship intention along with the main findings of these studies.

## METHODOLOGY

The following method was used to obtain research articles and conference proceedings with digital

entrepreneurial intention context. The primary resources for this study were peer-reviewed journals from the databases Google Scholar, Web of Science, and ScienceDirect databases. An approach was taken to conduct systematic reviews such as eligibility and exclusion criteria, process reviews such as identification, screening and eligibility steps was adopted. Finally, data abstraction and analysis of the articles was performed.

### Resources

The review included three main journal databases: Google Scholar, Web of Science, and ScienceDirect, the most popular databases for peer-reviewed literature: scientific journals, books, and conference proceedings.

### Eligibility and Exclusion Criteria

Some eligibility and exclusion criteria were established. First, only journal articles and conference proceedings with empirical data were selected, while the review papers, books, book chapters, and non-empirical articles were excluded. Second, the search efforts focused only on English-language papers. Third, the time frame of the search included only a 10-year range (between 2010 and 2020).

### Systematic Review Process

Three stages in the systematic review process were conducted in January 11, 2021. The first stage was to identify the keywords used for the search process based on previous studies, similar keywords related to Digital Entrepreneurship Intention. In the first round, the following keywords were used ("digital entrepreneurship" OR "internet entrepreneurship" OR "cyber entrepreneurship" OR "e-entrepreneurship" + intention). The results were 2720, 14, 49, respectively. In the second round we did narrow down the results by using the following keywords ("digital entrepreneurship intention" OR "digital entrepreneurial intention" OR "e-entrepreneurship intention" OR "e-entrepreneurial intention" OR "internet entrepreneurship intention" OR "internet entrepreneurial intention" OR "cyber entrepreneurship intention" OR "cyber entrepreneurial intention"), the results were 162 for Google scholar, eight for Web of Science, and three for ScienceDirect. After excluding all articles in non-English language and duplicated articles and choosing only the articles and conference proceedings published from 2010 –2020, and chose only empirical studies, the final result was 10, five, and three respectively, therefore the final total was 18 articles assessed in this study. See Figure 1.

## RESULTS AND DISCUSSION

This study aimed to systematically analyze the existing empirical literature on the main factors that affect digital entrepreneurship intention. Table 1 shows that many factors are positively and significantly affect digital entrepreneurship intention such as digital knowledge (Badaruddin, Arokiasamy et al., 2012; Bayrakdaroglu & Bayrakdaroglu, 2017; Millman, Li, Matlay, & Wong, 2010; Mugiono, Prajanti, & Wahyono, 2020; Younis, Katsioloudes, & Al Bakri, 2020), Perceived behavior control (Batool, Rasheed, Malik, & Hussain, 2015; Lai & To, 2020; Ullah et al., 2018; Y. M. Wang & Lin, 2016; Younis et al., 2020), Subjective norms (Alzamel, Nazri, Nor, Binti Omar, & Mohammed, 2019; Badaruddin, Arokiasamy et al., 2012; Lai & To, 2020; Qianying, Brima, & Lingyuan, 2017; Y. M. Wang & Lin, 2016), Entrepreneurial self-efficacy (Batool et al., 2015; Chang, Shu, Wang, Chen, & Ho, 2020; Chang et al., 2018), Attitude toward Entrepreneurship (Badaruddin, Arokiasamy et al., 2012; Younis et al., 2020), resource accessibility (Alzamel et al., 2019), Self-esteem and Creativity (Batool et al., 2015), Self-image and Novelty (Ullah et al., 2018), Career compatibility (Qianying et al., 2017), Risk attitude (Ismail et al., 2012), Gender, Disciplines, and Year (Lin, 2015), Gender, household incomes, student status, studied disciplines, and online shopping experiences (Millman et al., 2010), Online business learning (Mugiono et al., 2020), Need for achievement (Fauzy, Yusof, & Nasurdin, 2020). Figure 2 presents the most frequent variables used by researchers and showed a significant and positive effect on digital entrepreneurship intention.

## RECOMMENDATIONS FOR FUTURE RESEARCH

Based on the 18 reviewed studies, some aspects require attention. First, no studies explain the relationship between intention and behavior, therefore future studies should concentrate on the transition of intention to behavior.

Second, further studies should identify and explore a broad range of factors that affect students' intentions to start a digital business, such as cultural, environmental, personality traits, and demographic factors. Third, future researchers should choose larger and diverse samples and include students from both public and private universities with various disciplines besides business students. Finally, future studies should compare traditional and digital entrepreneurs' characteristics.

## CONCLUSIONS

This study presented a systematic review of existing literature on the outcome of empirical studies on digital entrepreneurship intention by reviewing the latest ten-year published research articles and conference proceedings. A rigorous review sourced from three databases, Google Scholar, Web of Science, and ScienceDirect resulted in finding 18 empirical articles related to the field. This review highlights that the digital entrepreneurship field is still in its infancy and needs more understanding and research from scholars. This review provides scholars or policymakers the trend of digital entrepreneurship intention studies is growing and gaining attention from scholars. The results show the most common factors that have a positive and significant effect in predicting digital entrepreneurship intention among the reviewed articles. It was also found that few empirical studies have addressed the digital entrepreneurship intention. The outcomes of digital entrepreneurship intention review are visibly seen as important in developing the potential of students as digital entrepreneurs.

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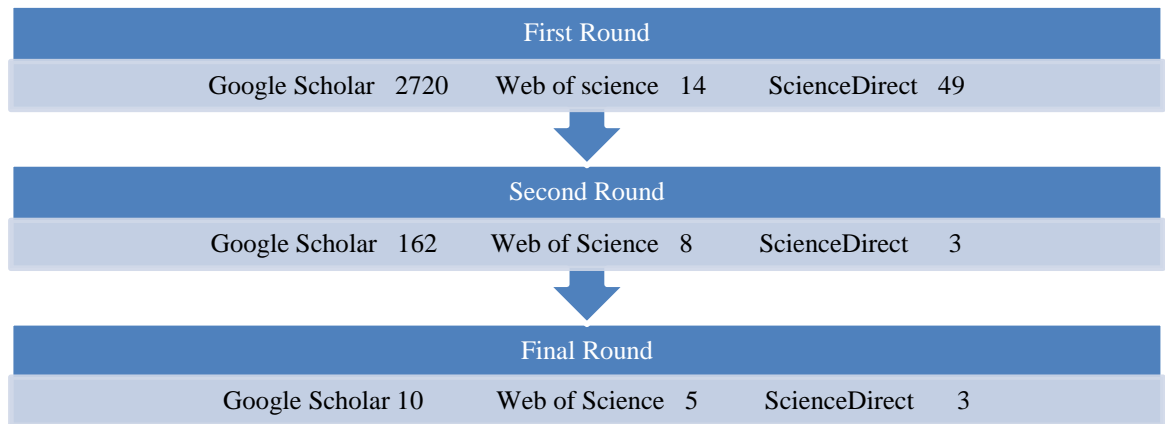


Figure 1  
**Systematic review process**  
Source: The author

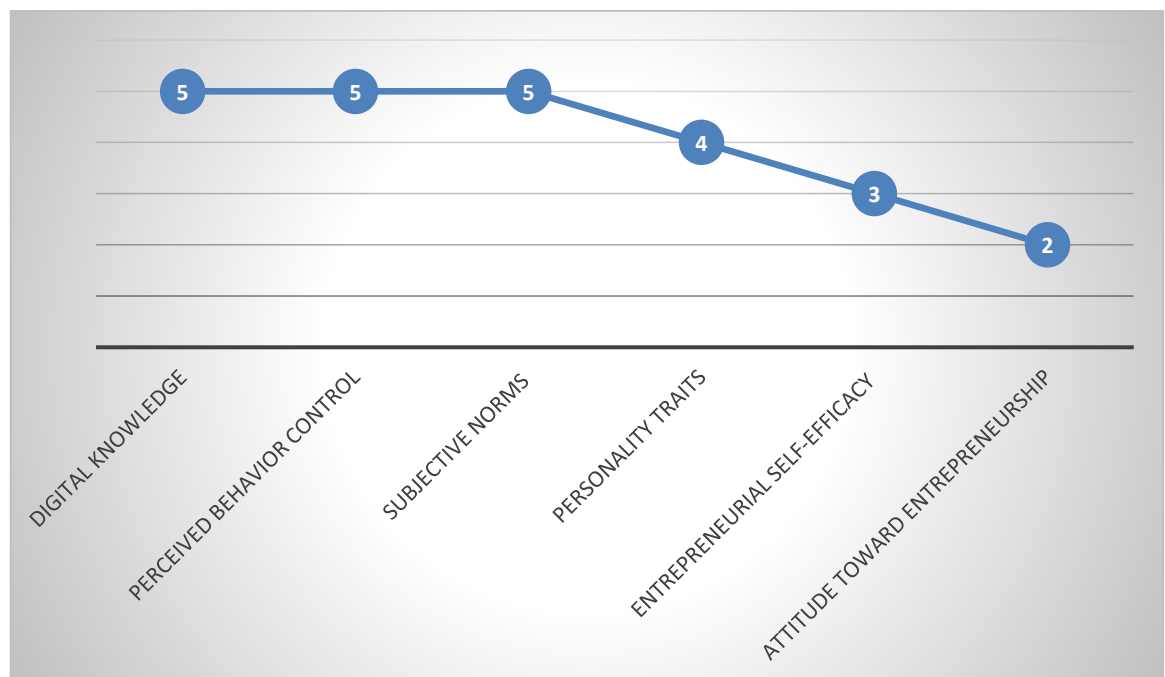


Figure 2  
**Variables Frequency table**  
Source: The author

Table 1  
The summary of systematic review

Study	Study problem	Variables	Method	Main Findings
(Bayrakdaroglu & Bayrakdaroglu, 2017)	Little is known about internet entrepreneurship	*DV: Internet Entrepreneurship Intention **IVs: Financial Literacy & Digital Literacy	Survey data was collected from 175 bachelor students. The research was conducted with two groups based on low/high financial and digital literacy levels	Both financial literacy and digital literacy have a significant positive effect on individuals' intention of internet entrepreneurship, whereas the effect of digital literacy is stronger in comparison to financial literacy.
(Alzamel et al., 2019)	The inspiration behind students' ambitions to start a digital company has yet to be rarely discussed within the literature.	*DV: E-Entrepreneurship Intention **IV: Perceived Social Support ***MEDV: Resource Accessibility	A total of 376 online questionnaires among undergraduate female students studying business-related subjects in public and private universities in Saudi Arabia. Purposive sampling. (PLS-SEM).	Perceived social support has a positive impact on both E-entrepreneurial intention and resource accessibility among the students. Additionally, resource accessibility plays a significant mediating role between perceived social support and E-entrepreneurial intention.
(Badaruddin, Arokiasamy et al., 2012)	There is a huge gap and still in emerging field, therefore, and need more to explore, and understand.	*DV: Cyber Entrepreneurial Intention **IVs: General Attitude, Attitude toward Entrepreneurship, IT Knowledge & Social Background	A total of 296 undergraduates from one public university and one private university in Malaysia. Quota sampling method.	The results indicate that four variables significantly correlated with cyber-entrepreneurial intention.
(Badaruddin & Abdullah, 2018)	Little understanding on the role of mediator in Behavioral framework in testing the Cyber Entrepreneurship (CE) adoption among the undergraduates in Malaysian Higher Education Institutions.	*DV: Cyber Entrepreneurship adoption. **IVs: Perceive Ease of Usefulness, Attitude, & Perceive Usefulness. ***MEDV: The role of Intention.	All the data were collected from 5 public HEIs and the remaining 3 were from private HEIs throughout Malaysia. only 323 samples were applied. Partial Least Square (PLS)	All the constructs show partial mediation exist.
(Batool et al., 2015)	Limited studies clarify the relative contribution of attitudinal factors for students' e-entrepreneurial intentions in a Pakistani	*DV: E-Entrepreneurial Intention **IVs: Achievement, Personal control, Self-esteem, Creativity, and	All business students in top-ranked business institutes, Pakistan. Non-probability purposive sampling. A total of 2000 questionnaires.	Personal control, Self-esteem, and Creativity with mediating role of self-efficacy were found to have significant and positive relationships with E-Entrepreneurial Intention, while Achievement wasn't.

	context.	Self-efficacy ***MEDV: Self-efficacy	PLS (SEM) analysis.	
(Chang et al., 2018)	Lack understanding of the driving factors that influence Cyber-entrepreneurial intentions.	*DV: Cyber Entrepreneurial Intention (CEI) **IV: Cyber Entrepreneurial Self-efficacy (CESE) *** MEDV: Goal Commitment (GC)	279 undergraduate students from several universities in Taiwan— among which 146 were with Entrepreneurial Role Models (ERMs) and 143 were without. Structural equation modeling and multi-group analysis.	GC has a partial mediation effect between CESE and CEI only in the cases of students without entrepreneurial role models (ERMs).
(Chang et al., 2020)	Few studies focus on the effect of lack of cyber-entrepreneurial self-efficacy level non-IT students on their cyber entrepreneurial intention.	*DV: Cyber Entrepreneurial Intention (CEI) **IV: Cyber Entrepreneurial Self-efficacy (CESE) ***MODV: Positive Thinking (PT)	A total of 760 samples (questionnaires) from university students in Taiwan. All participants have taken entrepreneurship or e-commerce courses. Quota sampling method. (PLS-SEM)	CESE has a significant positive effect on CEI while PT does not, and PT also moderates the relationship between CESE and CEI.
(Younis et al., 2020)	Limited studies of the concept of DE's practices in the Middle East, especially in the Gulf Countries.	* DV: Digital Entrepreneurship Intention (DEI) ***IVs: Attitudes towards digital entrepreneurship, Subjective norms, Perceived behavior control, personality traits, Contextual factors, and Digital entrepreneurship knowledge	A total of 203 students in Qatar University with different educational levels from different Colleges. Multiple Linear Regression.	Students' attitudes towards digital entrepreneurship, Perceived behavior control, and Digital entrepreneurship knowledge are significantly correlated with DEI. While the Subjective norms were not statistically significant with DEI.
(Ullah et al., 2018)	E-entrepreneurial intention has been still understudied in developing countries.	*DV: E-Entrepreneurial Intention. **IVs: Triumph, Self-image, Personal control, and Novelty	The sample was commerce students mostly in the last semester of business studies in Pakistan. They were chosen through purposive sampling. A total of 90 questionnaires.	Self-image, Personal control, and Novelty played a significant impact on e-entrepreneurial intention while the sense of triumph insignificantly affected the students' e-entrepreneurial intention.
(Qianying et al., 2017)	Limited studies have concentrated on Internet entrepreneurship intention	*DV: Internet Entrepreneurship Intention **IVs: Relative advantage,	168 usable questionnaires from the university's students in China.	Career compatibility and Subjective norm have a positive and significant effect on Internet entrepreneurship intention. Similarly, the

	among university students and focus on the role of gender.	Complexity, Compatibility, Subjective norms, Perceived behavior control ****MODV: Gender	Correlation and regression analysis.	moderating effects of gender showed positive effect on the Internet entrepreneurship intention for female than male students.
(Ismail et al., 2012)	Many contradict views and a limited study on cyber entrepreneurship.	*DV: Cyber Entrepreneurial Intention. **IVs: Need for achievement, Internal control Risk attitude, and Entrepreneurial intention	A total sample of 155 students in three universities in Malaysia. Data was gathered using a set of questionnaires	Only risk attitude contributes to the prediction of cyber entrepreneurial intention and strong levels of entrepreneurial intention are related to low levels of cyber entrepreneurial intention.
(Lin, 2015)	Few studies on the impact of demography factors on entrepreneurial success.	*DV: Internet entrepreneurship intention **IVs: Gender, Disciplines, Year and Student cadre role	601 Chinese university students. Simple random sampling	Gender, Disciplines, and Year have a significant effect on Internet entrepreneurial intentions except student cadre role.
(Lai & To, 2020)	Limited literature exploring what stimulates young Chinese people to start e-commerce businesses.	*DV: E-Entrepreneurship Intention **IVs: Entrepreneurship policy, Attitude towards e-entrepreneurship, Subjective norms, and Perceived behavior control and E-entrepreneurship education.	220 of final year business students and their young adult friends in China.  Structural equation modelling.	Subjective norms and perceived behavior control have a significant effect on e-entrepreneurial intention. But, people's attitude towards e-entrepreneurship did not have a significant effect on their e-entrepreneurial intention.
(Millman et al., 2010)	A lack of empirical studies that focus on graduate involved in e-entrepreneurship within the Chinese context.	*DVs: Internet Entrepreneurship Intention (IEI) **IVs: gender, annual household incomes, study disciplines and online activities ****CVs: Birthplace and Ages of students surveyed.	The research was studied in two different stages. In the first stage, three focus group studies were conducted at the Chinese researcher's university. Each group contained between 10 to 15 students. In the second stage, a survey was conducted with three universities using the revised questionnaires, A total of 303 students' responses were used. OLS regression analysis.	Demographic factors such as student status, Gender, and household incomes have a positive impact on IEI. The disciplines that a student studies, information, online shopping experiences, and IT courses have a significant impact on IEI.

(Mugiono et al., 2020)	Different results were also found between the studies that became the research gap.	*DV: Online Entrepreneurship Intention **IVs: Digital literacy, Entrepreneurship education, Online business learning, and the Creativity ***MEDVs: Online business learning variables and creativity	160 students using a questionnaire at Marketing Department in Batang Regency, Indonesia.  Structural equation modeling analysis.	Digital literacy and Online business learning have a positive and significant effect on Online entrepreneurship intentions. Online business learning variables and creativity mediate digital literacy towards online entrepreneurial intentions.
(Wang & Lin, 2016)	Internet startups success-rate is very low.	*DV: Intention to Internet Entrepreneurship. **IVs: Relative advantage, Complexity, Compatibility, Subject norm, Perceived behavioral control	A total of 107 business school students.  Multiple regression analysis. A convenience sampling.	Compatibility, Subjective norm, and Perceived behavioral control influence significantly the intention of Internet entrepreneurship. While Relative advantage & Complexity do not show a significant effect.
(Wang et al., 2016)	Lack understanding of disciplinary difference (IT-related vs. non-IT-related) on students' cyber entrepreneurial intention.	*DV: Cyber Entrepreneurial Intention. **IVs: Intrinsic cyber entrepreneurial motivation, Extrinsic cyber entrepreneurial motivation, Conscientiousness, Openness to experience, Agreeableness, Extraversion, Conscientiousness, and Neuroticism ****MODV: Disciplinary difference	450 final-year undergraduates from seven higher education institutions in Taiwan.  Quota sampling method. Structural equation modeling	Both Intrinsic and Extrinsic Cyber Entrepreneurial Motivations have a positive impact on Cyber Entrepreneurial Intention. While, disciplinary difference (IT-related vs. non-IT-related) moderates the impact of extrinsic cyber entrepreneurial motivation on cyber entrepreneurial intention.
(Fauzy et al., 2020)	A thorough investigation on the role of personality traits such as pro-activeness and the need for achievement on cyber entrepreneurial intention has been insufficient.	*DV: Cyber Entrepreneurial Intention. **IVs: Proactiveness, Need for achievement. ***MEDV: Entrepreneurial drive	A total of 238 undergraduate students from public universities in Malaysia answered the questionnaires.	Pro-activeness has no significant effect, while the need for achievement shows a positive effect on cyber entrepreneurial intention. On the other hand, entrepreneurial drive was found to mediate the relationship between the need for achievement and cyber entrepreneurial intention.

***Source: The author***

\*DV: Dependent Variable

\*\*IVs: Independent Variables

\*\*\*MEDV: Mediator Variable

\*\*\*\*MODV: Moderator Variable

\*\*\*\*\*CVs: Control Variables