

Factors Influencing Student Entrepreneurial Intentions With The Moderating Role Of COVID-19: A Comparison Study

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Abstract

This research aims to investigate the factors influencing entrepreneurial intentions that exist among undergraduates in Jordan and Germany during the current COVID-19 pandemic. A quantitative data collection approach was employed, and a five-point Likert scale survey was administered to students at three Jordanian universities and three German universities, yielding a valid sample of 454 surveys. The hypotheses were tested using the SPSS V23. The results of this testing indicate that the two variables (personal factors and environmental factors) and two sub-dimensions (need for achievement and locus of control) have a significant impact on entrepreneurial intentions. The moderating role of COVID-19 also prevailed to have a significant effect on the relationship between the independent variables and entrepreneurial intentions. The testing showed that there is no significant difference between entrepreneurial intentions between Jordanian and German students. As a result, this research should be used to map a road for policy makers to facilitate entrepreneurial engagement activities and for educational institutions to develop entrepreneurial education. This research adds to the body of knowledge by exploring how various variables are shaping individuals' entrepreneurial intentions during the COVID-19 pandemic. This study has been conducted on students' intentions to become entrepreneurs in a turbulent context such as COVID-19 pandemic, in a comparison setting between two countries; thus, this study will fill a gap in the current entrepreneurship literature.

Keywords: Entrepreneurial intentions, personal factors, environmental factors, undergraduates, Jordan, Germany.

I. Introduction

Entrepreneurship, across the world, has been recognized as an efficient and viable approach for progress, economic growth through creating new job opportunities, inspiring social change, and helping societies to recover from downturns and conflicts (AL-Qadasi & Gongyi, 2020). Romer (1994) suggested that, on the long run, entrepreneurship practices are successful determinants of economic growth, especially during sustained economic downturns. With their

important role in creating new businesses, which creates new jobs, spreads innovation, and helps in supporting and strengthening the domestic economy (Engle et al., 2010; Ahmed et al., 2010). For the last decade, almost 1.5 trillion dollars has been invested in new startups around the world (Rowley, 2020). On the other hand, the very first step in the process of entrepreneurship is intentions which are in other words, feeling prepared to launch a business. In the same process, the last step is the ability to transform

this idea into a viable business by taking actions and addressing entrepreneurial activities (Gieure et al., 2020). Furthermore, creative ventures and startups are the results of individuals' intentions and subsequent behaviors being translated into successful market concepts (Van Gelderen et al., 2015).

Conflict, crises, and unstable conditions are seen as the most pressing challenges confronting entrepreneurship in today's world. These problems differ and change between different countries, societies, and nations, as well as from one event to the next; thus, in those various contexts, they have their own unique facets that must be carefully investigated (AL-Qadasi & Gongyi, 2020). Encouragement and support of entrepreneurship has become particularly significant through periods of recession and their effect on the global economy, as its outcomes vary from ending unemployment for young entrepreneurs on the individual level to job creation through active business production on the macro-level (Mühlböck et al., 2017). However, academic research into entrepreneurship problems during times of crisis, including political and economic instability, is still in its early stages (Aldairany et al., 2018). Hence, this study targets university students both in Jordan and in Germany as it investigates the impact of different factors, namely: environmental and personal factors on the entrepreneurial intentions during the time of COVID-19 Pandemic of targeted students. The decision to focus on young individuals who are educated and who have strong potential to become entrepreneurs derives from the fact that they may be the most attractive portion of the entrepreneurial supply in the future, and their reaction to the current pandemic could have important policy implications (Arrighetti et al., 2016; Abuhashesh et al., 2021).

As reported by GEM (2020) "COVID-19 was initially reported to the World Health

Organization (WHO) on 31 December 2019. It was declared as a global health emergency on 30 January 2020 and a global pandemic on 11 March 2020". The "COVID-19 Pandemic" had a significant effect on the global economy, with the greatest impact on entrepreneurial, small, and medium-sized businesses, which faced significant repercussions. Therefore, this research tries to predict the entrepreneurial intentions of undergraduates in both Jordan and Germany, by considering many factors that might affect these intentions in the time of COVID-19 pandemic and its many effects worldwide. This research aims to study the factors (personal and environmental) influencing entrepreneurial intentions of undergraduate students in both Jordan and Germany with the moderating role of situational factors. This research tries to answer one major question, which is "how entrepreneurial intentions are impacted by personal and environmental factors during "COVID-19 pandemic?"

5. Literature Review

The field of entrepreneurship is characterized by generating new ideas that create value for organizations and society members (Fisher et al., 2020). Intentions play a key role in the decision to launch a new enterprise (Kautonen et al., 2015). The history of entrepreneurial intentions has been thoroughly explored by entrepreneurship scholars resulting in popular agreement on the role of cognitive influences in influencing the desire to become an entrepreneur (Schlaegel & Konig, 2014). However, the variables that affect entrepreneurial intentions in non-Western societies and developing countries are less well known (Karimi et al., 2017). Entrepreneurship scholars have called for further cross-cultural analyses so that the impact of various societies and beliefs on entrepreneurial intentions can be properly interpreted (Linan & Chen, 2009).

2.1 Antecedents of Entrepreneurial Intentions

Entrepreneurial intention as defined by (Bird, 1988) “is an individual’s intent to engage in entrepreneurial behavior”. The field of Entrepreneurial Intentions is becoming highly and rapidly evolving as an increasing number of researchers use entrepreneurial intention as a solid and powerful theoretical framework (Liñán & Fayolle, 2015).

Several theories, which are derived from social-psychological backgrounds, have been used widely to predict intentions. The Theory of Planned Behavior (TPB) (Ajzen, 1991) is also derived from the Theory of Reasoned Action (TRA). The Theory of Reasoned action tries to predict behavioral intentions and behaviors as well as it claims that the precursors to behavior are: 1) the behavioral beliefs that affect the attitude of individuals towards performing a certain behavior and 2) the “normative beliefs” that affect social norms of individuals that are related to performing the behavior. The TPB is different than TRA in that it includes perceived behavioral control (PBC) which is considered as the extent to which individuals have controls over necessary to perform actions. This dimension does not only affect intentions, rather the implementation of intention as well (Gieure et al., 2020).

Literature in the field of entrepreneurial intentions addresses two highly corresponding models of individual behavior: Ajzen’s (1991) “theory of planned behavior” and Shapero and Sokol’s (1982) “entrepreneurial event model. In the past, research was conducted to further understand the factors influencing the decision to launch a new business and thereby becoming an entrepreneur, with a focus on psychological physiognomies such as personality traits, the desire for success, and the willingness to take risks. The early features of entrepreneurship analysis, as well as later demographic methods, were all calculated since they had low predictive

value and, as a result, explanatory capacity. As a result, they had major philosophical and methodological shortcomings. In addition, researchers propose that the “Theory of Planned Behavior” could be used to predict career intentions in any country (Moriano et al. 2012).

1.1.1 Theory of Reasoned Action (TRA)

The Theory of Reasoned Action (TRA), which was based on the study of behavioral attitude, focused on the motivational forces that influence people’s conduct. People are rational, according to TRA, and they have beliefs and information that they have accumulated in a structured fashion from a variety of sources, including personal knowledge, formal exposure to school, media, and interaction with relatives and friends with whom they are in contact, but they often understand and recall this knowledge (Fishbein & Ajzen, 2011). The core aspect of the depiction of real behaviors, behavioral motive, is influenced by an individual’s mood and subjective standards of behavior. Behavioral beliefs are calculated in the expectancy-value model based on a variety of consequences and human interactions (Fishbein & Ajzen, 2011). As a result, the formation of expectations regarding the possible outcomes of behaviors, as well as the appraisal of those consequences, establish an overall positive or negative assessment of the behaviour, which can influence the behavioral purpose (Fishbein & Ajzen, 2011). Subjective norms, on the other hand, are individuals’ moral opinions on others’ desires or choices to join or not participate in actions. To put it another way, individuals’ external obligation to perform or not perform behavior is viewed. Importantly, subjective standards refer to the beliefs of individuals who want to behave, rather than what some believe.

1.1.2 Theory of Planned Behavior (TPB)

Ajzen (1985) developed the TRA theory and added a component to the Theory of Planned Behavior, namely, that behavior requires

perceived behavioral control (PBC). The boundary position of the basic volition control described by the TRA is expanded with this model, when people have a strong urge to do something; the chances of the behaviour being carried out are high. There are, however, certain elements that are meant to organize the acts such as behaviours, subjective standards, and assumed behavioral control are the three elements.

The understanding of how easy or difficult it is to carry out an action is known as perceived behavioral control (Ajzen, 1991). TPB argues that attitudes and subjective standards are insufficient to explain behavioral motivations, and that they are often influenced by a sense of control over actions (Fishbein & Ajzen, 2011).

Perceived behavioral control influences behavior implicitly through behavioral intent, if individuals believe they have little or no control over behavioral success due to poor environments, they are unable to engage in behavioral actions, even if their attitudes and subjective standards are positive. As a result, the importance of these components in defining behavioral motivations varies depending on the context (Ajzen, 1991). TPB recognizes both social and psychological factors in the individual decision-making process and has been adopted and used to forecast people's actions in destination, choice of accommodation and social psychology studies. The theory was particularly important in identifying behaviors that were mainly controlled by volition (Ajzen, 1991).

1.1.3 Shapero's Model of Entrepreneurial Event (MEE)

Shapero and Sokol (1982) developed the MEE, which is a framework that is used to determine the EI rather than forecast any intention. According to the Entrepreneurship Event Theory, two prerequisites must be fulfilled before a new business can launch. To begin, a person must believe in the concept of starting a company, that is, he or she must believe it is both appealing and

feasible. Second, any kind of displacement incident, which can take the form of neutral, negative, or positive interactions, triggers the start of a company. The person's actions will change as a result of the displacement, because if the individual believes the notion of beginning a company is credible, he or she will act on it. The Entrepreneurship Event occurs when the perceived viability, desirability, and willingness to act affect an individual's intent and, as a result, actions to start a company (Shapero & Sokol, 1982). Shapero and Sokol's (1982) entrepreneurial event model consists of three components that contribute to intention formation: "displacement, perceived desirability, and perceived feasibility." Human action is driven by persistence, according to Shapero's model, before something disturbs or displaces it. Displacement is the trigger for behavioural transformation (Shapero & Sokol, 1982). According to Ayob et al. (2013), this change may be detrimental, resulting in a loss of work fulfillment or favorable incentives. Although perceived desirability is an individual's perception of his or her ability to start a business, perceived viability is an individual's perception of his or her ability to start a business (Shapero & Sokol, 1982). Specific perceptions, beliefs, and emotions resulting from an individual's social context, such as relatives, peers, and coworkers, affect one's sense of desirability (Shapero & Sokol, 1982). Information, physical, and financial capital, on the other hand, influence presumed feasibility (Shapero & Sokol, 1982).

1.2 Personal Factors

Finogenow (2017) has studied Personal Factors with its following dimensions: "Need for Achievement", which is defined as "The desire to obtain excellent results by setting high standards and striving to accomplish them. It is a consistent concern with doing things better" And "Locus of control". According to Finogenow (2017) one's general predisposition to perceive control, or lack

thereof, across various situations.” Moreover, Risk-Taking Propensity which means “a person’s orientation to take risks” as posited by (Antoncic et al., 2016). Successful entrepreneurs are distinguished from unsuccessful ones. Karabulut (2016) investigated the fourth dimension of personality aspect, “entrepreneurial alertness,” which leads an individual to establish his or her entrepreneurial purpose.

According to the book “Need for Achievement,” the desire for perfection, achievement, and accomplishment both come into the category of “Need for Achievement” (Nasip et al., 2017). The need to succeed is the most important aspect of human personality (Elali & Al-Yacoub, 2016). Moreover, “proactiveness” falls under the umbrella of personality characteristics that play a significant role in career choosing, because of their personality and attitudes, some students are strongly encouraged to become entrepreneurs because they are dictatorial and dislike routine jobs. Similarly, several students refuse to adhere to a nine-to-five schedule (Alshurideh et al., 2021). The proactive individual, according to Kozubkova et al (2018), is “the one who displays initiative, acts on chances that he or she senses and perseveres until the target is achieved.”

The individual factor model, also known as the traits model, focuses on business people’s character traits (Popescu et al., 2016). This model is based on the assumption that business visionaries possess unique characteristics, values, and perceptions that distinguish them from others. Gürol and Atsan (2006) used this model to investigate business projects and considered it to be very useful. Various studies have used this model to examine certain characteristics of business visionaries (Gürol & Atsan, 2006; Karabulut, 2016; Popescu et al., 2016). For example, the use of locus of control, need for achievement, risk-taking tendency, progress, fearlessness, and resistance to vagueness as determinants of the expectation to become

business visionaries are not surprising in the above studies.

Entrepreneurs, according to some researchers, entrepreneurs are normally intellectually distinct from managers (Shane et al., 2003). Researchers looked at the association between personality and entrepreneurship intentions using meta-analyses. As a consequence, these traits can cause people to place a higher emphasis on entrepreneurship activities, increasing their likelihood of starting a new business and becoming an entrepreneur (Zhao et al., 2010). The significant link between Big-Five personality traits and behavior has been discovered, and it has been validated in previous studies (Yusuf & Kamil, 2015). Simon et al. (2000) discovered that the five personality traits paradigm influenced founder mindsets. Entrepreneurs’ interactions with external environments and circumstances are particularly complex. Due to the structure of the organization and the comparatively small number of staff, founders usually spend a lot of time interacting with their partners and employees. Furthermore, extraversion is a reliable predictor of such behavioral interactions. Previous research has shown that being open to new approaches is one of the most important factors in problem solving, positive change management, and developing new marketing strategies, products, and services (Yap et al., 2012). According to certain experts, entrepreneurs who have faith hope to be able to manipulate the outcomes of their environment (Zhao & Seibert, 2010). Entrepreneurs have a high degree of conscientiousness, according to previous research, so they are guided to accomplish a goal (Saeed et al., 2013). Other research has found that being open to fresh experiences and outgoing personality traits lead to entrepreneurial intentions (Ismail et al., 2010). As a result of the previous literature, this analysis proposed the first hypothesis. As a result the following hypothesis is developed:

H1: Personality factors have a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

1.2.1 Need for Achievement

According to Zeffane (2013), the need for achievement is the most common impact on entrepreneurial intentions because it increases entrepreneurs' likelihood to participate in competitive and profitable business practices. According to Eisenberger et al., (2005), maintaining a positive attitude, interpersonal orientation, and task interest is correlated with having a need for accomplishment, which is described as "one's obligation for participation in activities to achieve one's desired outcome."

Many studies have found a connection between the desire for success and the entrepreneurial intentions needed to improve business practices in entrepreneurial settings. McClelland was the first to make an analytical connection between the desire for achievement (N-Ach) as a personal trait and entrepreneurial practice (McClelland, 1965). The term "need for achievement" refers to a person's desire to achieve something substantial. It also refers to a tendency to select and maintain activities with a moderate risk of success or that have the best chance of achieving personal goals (McClelland, 1965). McClelland (1965) concluded that needs were acquired and then culturally (rather than biologically) decided, and that certain societies produced more entrepreneurs as a result of the socialization process that creates a high demand for achievement. The following sub hypothesis is therefore developed:

H1a: Need for achievement has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

1.2.2 Locus of Control

The locus of control (LoC) is another personal characteristic that influences entrepreneurial intentions (Sesen, 2013). It's described as

"individuals' perceptions of their ability to regulate certain acts or events that have an impact on their lives" (Rotter, 1966). For the first time, Rotter (1966) proposed this concept, claiming that locus of control occurs both internally and externally, and that these two directions are two opposite poles of the same phenomena. External locus of control refers to the idea that all circumstances in a person's life are determined by chance, influential actors, destiny, and other factors outside their control. Internal locus of influence, on the other hand, discusses the argument that accidents are caused by a person's actions and characteristics. This well-studied personality trait means that what individuals do influences the outcomes of their behaviors (Popescu et al., 2016).

Many studies have discovered a connection between internal locus of control and entrepreneurial intentions, with people who have a higher internal locus of control having higher entrepreneurial intentions (e.g., Mazzarol et al., 1999; Venkatapathy, 1984; Göksel & Aydntan, 2011). Numerous studies have shown that students with a high locus of influence are more likely to participate in entrepreneurial behavior and express entrepreneurial intent. However, (Ferreira & Dinis, 2012) found no connection between entrepreneurial intentions and entrepreneurial action. This is also in line with the findings of other researchers (Nasip et al., 2017), who found that internal locus of influence is unrelated to entrepreneurial intentions. Successful entrepreneurs, according to Chaudhary (2017), have an internal locus of control, while regular people have an external locus of control. Based on the reviewed literature, the following sub hypothesis is developed:

H1b: Internal Locus of Control has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

1.3 Environment

Many environmental factors are closely linked to the country of origin, as many studies have found, including regional background, country-level formal and informal structures, entrepreneurial purpose (Fragoso et al., 2019), and capital Availability. The degree of economic development, financial availability, and government legislation are all factors that can influence entrepreneurial goals (Shirokova et al., 2017).

Environmental factors are regarded as key sources of entrepreneurial motive. They are often thought to bridge the difference between personality characteristics and entrepreneurial aspirations (Lüthje & Franke, 2003). This applies to the fact that people are actively interacting with their surroundings (Ao & Liu, 2014). According to, the social and cultural climate has a significant impact on the profitable cultivation of a sector (Isada et al., 2015). Many recent studies have taken into account a wide range of environmental variables that may influence one's decision to become an entrepreneur (Sesen, 2013). Access to finance has also been identified as a key factor in the formation of new businesses and projects (Jemal, 2017). According to Jemal (2017), the most important obstacle for the youth generation considering starting their own company is a lack of start-up funding and financial framework constraints. Along with the availability of data on potential business sectors and social networks (Kristiansen & Indarti, 2004), structural considerations are also important (Mouselli & Khalifa, 2017). According to (Ajzen, 1991), prospective entrepreneurs can lack confidence in their entrepreneurial practices if they receive negative feedback from their relatives, colleagues, or other people in their immediate environment. According to (Kristiansen & Indarti, 2004), Instrumental Readiness is a dimension of Environmental Factors as well.

This means that because people are scared of failing, they are unable to start new businesses. If

an individual's family and friends are supportive of his or her plan to start a new business, on the other hand, he or she may feel secure and prepared to face challenges. As a result, it has been reported that the love of one's family and friends has a positive impact on one's entrepreneurial intentions. Previous research has looked at a variety of environmental variables that could influence people's choices to pursue an entrepreneurial career (Sesen, 2013). Many of these studies have discovered that access to finance, as well as knowledge about future business sectors and social networks (Kristiansen & Indarti, 2004) and the influence of structural influences, are significant antecedents for the formation of new ventures (Jemal, 2017).

1.3.1 Instrumental Readiness

Access to capital, data, and interpersonal organizations is considered to influence enterprising expectations. These three variables are classified as 'instrumental status'. Capital is the monetary assets accessible for use in any new business. Admittance to capital is significant for new businesses to endure. The business visionaries who start another endeavor typically have a restricted wellspring of financing. They are relying much upon their reserve funds and borrowings from loved ones. Around the beginning of the undertaking, obtaining funds from outside sources is challenging. The maximum of a finance manager's quest for facts to either resolve market objections or explain business concerns is induction to information. Business visionaries converse with individuals within their relationships as well as others outside their association. A causal affiliation is a business tool that expects to play a significant role in the success of business visionaries. As a truly stable organization for their company, business visionaries must build deep social correspondences and individual alliances (Mouselli & Khalifa, 2017).

1.3.2 Access to Capital

One of the most significant problems that exist between youth and new venture financing is access. According to (Jemal, 2017), a lack of venture funding and financial system restrictions are two major obstacles that young people face while considering starting a venture. Both tangible and intangible resources are valuable for business ventures. Intangible assets such as social and human capital, in addition to physical and financial resources, are critical contributors to the recognition of opportunity, venture creation, development, and success. Social capital is the relationships that will help an entrepreneur acquire a partnership, such as a personal network that can help launch a new business, while "goodwill" provided by these relationships will allow a new company to obtain capital, sponsorships, and leverage. Human capital, talent, and skills gained from education and work experience have been linked to emerging entrepreneurship as well as a variety of entrepreneurial success measures like size, growth, and profitability. Entrepreneurial capital has been described as "experiences that foster behaviors and principles that encourage company ownership". In their study examining the relationship between gender, entrepreneurial capital, and firm performance, (Calderon, 2021; Borisov et al., 2021), conceptualized entrepreneurial capital as a multidimensional framework that included elements of financial, human, social, and symbolic capital. Their findings show that entrepreneurial capital is a true interplay of all four capital types that can be shared with one another, and that it accumulates over time as a function of age and experience (e.g. dimensions of human capital). Entrepreneurial funding can be both financial and non-financial, and it can include both tangible and intangible assets that influence business results. This description is also supported by studies that delve into specific forms of social and human resources. Entrepreneurs should be funded,

according to Jena (2020), since what they receive from the community (e.g., tutoring, government, and financial support) will influence their success and therefore their entrepreneurial intentions. As a result, the following hypothesis is developed:

H2: Environmental factors have a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

1.4 Situational factor (COVID-19 pandemic effect)

Situational variables interfere with individual perceptions or behaviors, which affect intentions to start a business, while considering entrepreneurial intentions models (Bird, 1988). According to Learned (1992), the decision to start a venture can be triggered by a certain current condition, but it can also be the outcome of a series of events over time. Several previous studies have attempted to establish a connection between entrepreneurship activities and economic growth (Sautet, 2013). According to Sternberg & Wennekers (2005), a country's degree of economic growth will influence entrepreneurship rates and types. According to empirical evidence, the rate of forming entrepreneurship enterprises is higher in developing countries and decreases as the economy grows wealthier (Wennekers et al., 2010; Hernández-Sánchez et al., 2020). According to social cognitive theory, the individual's behaviors are influenced by their surroundings and personal interactions. Not all reacts the same way to these unexpected occurrences, regardless of how serious they are. In order to determine behavioral responses, especially in adverse situations, these differences must be taken into account and examined. Few studies have focused on the assumptions that arise from an unsafe, unstable, and dangerous environment, and the impact that these beliefs can have on the goal of starting a business.

The repercussions of a crisis are felt immediately as well as over a long period of time (Ansell &

Boin, 2019). The COVID-19 pandemic was a high-risk, high-volatility situation. "Extreme unexpected incidents or more ordinary day-to-day disruptions, rapid or incremental, emergencies have often been classified as 'major' or 'minor,' 'internal' or 'external,' and 'technical/economic' in nature or 'people/social/organizational' centric," (Abuhashesh et al., 2021). The different nature of the crisis, from natural ecological disasters to economic problems, is reflected in the responses (Buchanan & Denyer, 2019). While the nature of a crisis can be graded on a scale from serious to insignificant, all crises have an effect on human life in any way (Eggers, 2020). As a result, some companies do better than others due to their versatility, which allows them to compete with the production of alternatives reliant on existing resources (Faulkner, 2001).

The Covid-19 pandemic will be definitely remembered. The virus's spread has been so huge and damaging that it has overshadowed all other activity, and the consequences have been so devastating. It is spreading to a growing number of countries, including existing, emerging, and developing nations (Al-Dmour et al., 2020). The economic consequences are also serious. According to preliminary forecasts, this is the

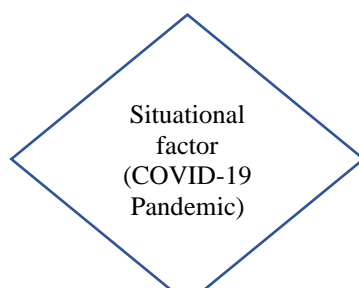
most severe global recession since World War II, far worse than the previous financial downturn of 2008-2012, with much worse impacts on entrepreneurship and new business activities (Lián & Jaén, 2020). As a result, a significant reduction in the number of entrepreneurial projects can be predicted from this perspective. Businesses will face new obstacles as a result of the crisis. According to recent press reports, the economic disaster of Covid-19 is already affecting start-ups (Griffith, 2020). The latest financial crisis had a major effect on entrepreneurship growth in developed countries (which were the most affected), but also in emerging markets (GEM, 2019).

As a result, the following hypothesis is developed:

H3: Situational factor (COVID-19 pandemic effect) moderates the relationship between personal factors, environmental factors, and entrepreneurial intentions.

1.5 Conceptual Framework

The researcher developed the model for this research based on the literature review (AL-Qadasi & Gongyi, (2020); Tuğba, (2016); Mouselli & Khalifa, (2017)).



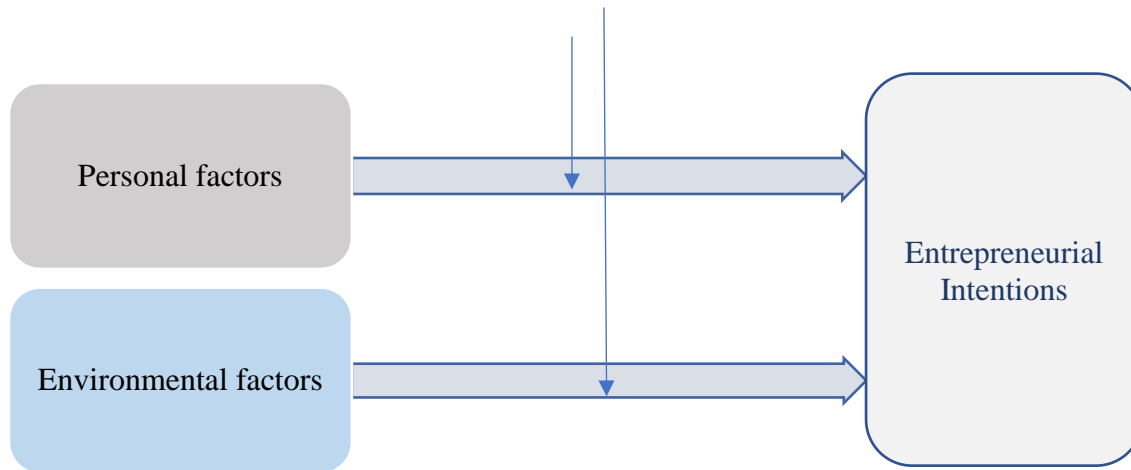


Figure 1: Research Model

The current research aims to draw interest towards the influence of personal and environmental factors on undergraduate entrepreneurial intentions, with the moderating role of the "COVID-19 pandemic", in a comparative context involving two countries, namely Jordan and Germany, which will eventually contribute to the established rich body of knowledge.

6. Methodology

In the fields of social science and, in particular, entrepreneurship intention, quantitative methods have been used. This research conducts a questionnaire-based survey-Likert Scale. The primary data was collected through an online questionnaire due to the current COVID-19 pandemic situation and having two different countries (Jordan and Germany) in the scope of this study. University students in both Jordan and Germany are the target demographic of this study. Therefore (3) universities in Jordan and (3) universities in Germany were contacted to collect data from in the 2020/2021 academic year.

Respondents are chosen on the basis of non-random parameters. After obtaining the approval from these universities, an email with the online form of the questionnaire were sent to responsible parties in these universities, who in their turn sent it to all of their university students. The valid research respondents is 454. The results of the questionnaires was analyzed by using SPSS version 23.

7. 4. Data Analysis

4.1 Demographics

According to the results, the female gender group was the most common, accounting for 55.9% of the total, while males accounted for 44.1%. It is clear from this result that there were more females than males among the respondents, assuming the sample used was representative. Since females participate in greater numbers than males. The results indicate that the respondents' academic year distribution was right skewed, with the modal academic year being first-year students, who accounted for 32.8% of the total. The second-highest academic year category was

second-year level students, with 25.1%, and the third-highest academic year category was third-year level students, with 22.6%. The number of students in their fourth academic year was 11.8 % of the total. The respondents' rates in the fifth or more academic year accounted for 7.04 % of the total.

4.2 Reliability Analysis

The results of all the reliability measures for the testing constructs have been computed and are summarized below.

Table 71: Cronbach Alpha values for constructs

No	Variable	Dimensions	No of items	Cronbach's alpha Value
1		Factors affecting EI	11	87.6%
	1	Personal Factors	6	82.0%
	2	Environmental Factors	5	74.4%
2		Entrepreneurial Intentions	4	77.2%
3		Situational factors (COVID-19 effect)	4	76.3%
		All Questionnes	19	92.8%

All the values exceeded 0.6 for all the factors, which fulfilled the minimum as suggested by DeVellis (2012).

4.3 Means and Standard Deviations

In order to meaningfully characterize certain parts of the data, identifying statistic such as mean, standard deviations, frequency, and rank were considered for the variables evaluated in this analysis. On the scale of independent, dependent,

and moderating variables, there were five options: To test the interpretation of the dimensions in this analysis, respondents choose one of the following options: 1: strongly disagree - 5: strongly agree. $[(5-1) / 3 = 1.33]$, yielding three level ranges: Low (1.00 – 2.33), Medium (2.34 – 3.66), and High (3.67 – 5.00). Results along with their importance and ranking are summarized in table (2).

Table 2: Means and Standard Deviations of Constructs

Descriptive Statistics									
	N	Range	Min.	Max.	Mean	Std. Deviation	Variance	Importance	Rank
PF	454	3.17	1.83	5.00	3.7860	.71058	.505	High	2
EF	454	3.00	2.00	5.00	3.6806	.66864	.447	High	3
SF	454	3.25	1.75	5.00	3.8177	.76536	.586	High	1
EI	454	3.00	2.00	5.00	3.6740	.69013	.476	High	4

4.4 Simple Linear Regression Analysis

To investigate the H1 and H2 theories independently, a basic linear regression test is used.

As seen in table (3) H1 (Personality factors have a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05) in

linear regression as well, (R) value in table (4) denotes (81.8%), which indicates that the relationship between two variables is generally considered as a strong positive relationship. The (R^2) value in this case is (66.9%); while the remaining proportion (33.1%) can be explained by other variables that are not included in the regression model. As a result, Hypothesis 1 is **accepted**.

Table 3: Regression model between PF and EI

Dependent Variable	Model Summary		ANOVA			Coefficient		
	R	R ²	F	df	Sig.	β	t	Sig.
Entrepreneurial Intentions	0.818	0.669	912.278	1	0.000	0.818	30.204	0.000

After testing H1 Table (4) H2: "Environmental factors have a significant impact on students' intentions toward entrepreneurship at sig. level 0.05", the (R) value is (81.3 %), indicating that the relationship between two variables is perceived to be a good positive relationship. The

(R^2) value shows that variables included in the regression model will explain 66.1 percent of the variance, while the remaining 33.9 percent can be explained by other variables not included in the regression model. Hypothesis 2 is therefore **accepted**.

Table 4: Regression model between EF and EI

Dependent Variable	Model Summary		ANOVA			Coefficient		
	R	R ²	F	df	Sig.	β	t	Sig.
Entrepreneurial Intentions	0.813	0.661	880.733	1	0.000	0.813	29.677	0.000

4.5 Multiple Regression Analysis

H1 is divided into two sub hypotheses, multiple regression analysis in SPSS software V23 was used to test the following sub hypotheses:

H1a: Need for Achievement has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

H1b: Locus of Control has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

Table (5) shows the impact of Personal Factor dimensions (Need for Achievement and Locus of Control) on the Entrepreneurial Intentions. The regression model achieved a very good degree of

fit, as reflected by (R) and (R^2) value (0.921), (0.848) respectively, which asserted that (92.1%) of the explained variation in Entrepreneurial Intentions can be accounted for personal factors of undergraduate students. Since the p-value is ($\alpha \leq 0.05$), it shows a statistically significant relationship between the variables at (0.95) confidence level.

As a result, the following sub hypotheses are **accepted**:

H1a: Need for Achievement has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

H1b: Locus of Control has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

Table 5: Regression between PF dimensions and EI

Dependent Variable	(R)	(R^2)	F	DF	Sig*	B		T	Sig*
Entrepreneurial Intentions	0.921	0.848	1260.59	2	0.001	Need for Achievement	.135	6.490	0.000
				451		Locus of Control	.691	35.659	0.000
				453					

*The impact is significant at level ($\alpha \leq 0.05$)

Table (6) shows the results of multiple regression analysis in SPSS for the two independent variables (personal and environmental factors) and their impact on the dependent variable (entrepreneurial intentions) which illustrates the importance of each antecedent variable in describing the consequent variable, with the unstandardized coefficient (B) value illustrating the association and magnitude between entrepreneurial intention for undergraduates in both Jordan and Germany and the independent

factors. Since the results for the significance rates for personal and environmental were less than 0.05, the results indicated that personal and environmental variables have a strong positive impact on entrepreneurial intentions of undergraduate students both in Jordan and Germany resulting in a percentage of R^2 of (76.3%) which denotes that Personal Factors and Environmental Factors both combined together can predict almost 76% of Entrepreneurial Intentions.

Table 6: Multiple Regression analysis for Personal and Environmental variables

Dependent Variable	(R)	(R^2)	F	DF	Sig*	B		T	Sig*
Entrepreneurial Intentions	0.874	0.763	483.815	3		Personal factors	.483	13.960	0.000
						Environmental factors	.548	12.318	0.000

Entrepreneurial Intentions	PF, EF	0.874	18.005	0.000			
	PF, EF X Situational Factor				0.648	18.108	0.000
	R	0.874			0.945		
	R ²	0.763			0.892		
	ΔR^2	0.763			0.129		
	ΔF	483.815			537.314		
	ΔF Sig.	0.000			0.000		

Table (7) shows the moderate impact of situational factors (COVID-19 pandemic effect) on the relationship between EI of undergraduate students and personal and environmental factors in Jordan. The first model reflected based on the results the value of the correlation coefficient ($R = 0.874$), this demonstrates that there is a positive correlation between EI of undergraduates and independent variables (EF, PF). The results also show the statistically significant impact of these variables on EI, with F value of (483.815) since the p-value is less than (0.05). As the value of the coefficient of determination in the first model is ($R^2 = 0.763$), this indicates that the personal and environmental factors of undergraduate students explain (76.3%) of the variance in entrepreneurial intentions.

In the second model, the entry of the moderate variable (Situational Factors) to regression model, increased value of the correlation coefficient to become ($R = 0.945$) as well as the value of the coefficient of determination (R^2) increased to (0.892), and this percentage is statistically significant, where the value of ($\Delta F = 537.314$) and the significance level (Sig. $\Delta F = 0.000$) which is less than (0.05). This confirms that there is a statistically significant impact of situational factors (COVID-19 pandemic effect) (moderate variable) on the relationship between personal, environmental and entrepreneurial intentions of undergraduate students, where the

percentage of interpretation of variation in independent factors has improved by (12.9%). As a result, the following hypothesis is **accepted**:
H3: “There is a positive significant relationship between personal and environmental factors on entrepreneurial intentions: moderating role of situational factor (COVID-19 pandemic)”.

Independent sample t -Test

In order to test H4, which tests the difference of means of entrepreneurial intentions between students in Jordanian universities and German universities, independent sample t – Test analysis was used.

The Independent Samples t -Test compares the means of two independent groups to decide whether statistical evidence exists and that the related sample means vary significantly. The independent samples t -Test is a parametric test.

One of the requirements for the t -Test is the assumption of equal variance of each one of the comparison groups. To serve this purpose, Leven’s test using SPSS 23 was used, and Table 9 shows that Leven’s statistic was significant, which means that the homogeneity of groups exist, and t -Test can be used to test the difference.

Table 9 shows the Means and Standard Deviations of each factor in the research for the two groups (Jordan and Germany), as observed there is not significant difference in means

between the two groups, this result is validated through t-Test as shown in table 10.

Table 9: Groups' statistics

Group Statistics					
	Home country of your university	N	Mean	Std. Deviation	Std. Error Mean
PF	Jordan	340	3.7779	.70429	.03820
	Germany	114	3.8099	.73167	.06853
EF	Jordan	340	3.6612	.66325	.03597
	Germany	114	3.7386	.68415	.06408
EI	Jordan	340	3.6632	.68956	.03740
	Germany	114	3.7061	.69388	.06499

Table 10 shows the t-Test results, and as it shows results have a significance that is ($P > 0.05$) which is significant, this can be interpreted as there is no significant difference between entrepreneurial intentions between undergraduate students in

Jordan and Germany. As a result, H4: "Undergraduate students in Jordan have higher entrepreneurial intentions than undergraduate students in Germany". Is **rejected**.

Table 10: Independent sample t-test results

Independent Samples Test						
		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	Mean Difference	Std. Error Difference
PF	Equal variances assumed	.028	.866	-.416	-.03200	.07697
	Equal variances not assumed			-.408	-.03200	.07845
EF	Equal variances assumed	.043	.835	-1.070	-.07742	.07235

	Equal variances not assumed			-1.054	-.07742	.07348
EI	Equal variances assumed	.122	.727	-.574	-.04291	.07475
	Equal variances not assumed			-.572	-.04291	.07498

Table 11: Summary of Hypotheses Test Results

Hypotheses	β	p	Accept / Reject
H1: Personal factors have a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .	0.818	0.00	Accept
H1a: Need for Achievement has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .	0.135	0.00	Accept
H1b: Internal Locus of Control has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .	0.691	0.00	Accept
H2: Environmental factors have a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .	0.813	0.00	Accept
H3: There is a positive significant relationship between personal, environmental factors on entrepreneurial intentions: moderating role of situational factor (COVID-19 pandemic)".	0.648	0.00	Accept
H4: Undergraduate students in Jordan have higher entrepreneurial intentions than undergraduate students in Germany.	-0.574	0.727	Reject

8. Discussion and Conclusion

After recognizing the gaps in the literature, this research tried to investigate the factors that affect entrepreneurial intentions by establishing a framework. The aforementioned conceptual model investigates the effect of personal and environmental factors on university students' entrepreneurial intentions both in Jordan and in Germany. The influence of personal and environmental factors on entrepreneurial intentions of undergraduate students was verified in this research, providing clear support for the current research context. The research resulted in finding two main variables that have a substantial

effect on entrepreneurial intentions, all of which had a significant positive impact (personal and environmental factors), along with the moderator positive impact ($\beta = 0.129$). The standardized coefficients (β) varied for each variable; for instance, personal factors had the greatest influence on entrepreneurial intentions ($\beta = 0.818$), followed by environmental factors ($\beta = 0.813$).

H1: Personality factors have a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

H1.a: Need for Achievement has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

H1.b: Internal Locus of Control has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

The need for achievement is found to have a significant impact on entrepreneurial intentions. This finding is consistent with the findings of a study conducted on Norwegian students by (Indarti & Krinstiansen, 2018). This finding suggests that the need for achievement, success and welfare of undergraduate students are significant elements in becoming an entrepreneur. As stated by (McClelland, 1965) that a person with a high need for achievement prefers greater control over results as well as more direct and instant input. The impact of locus of control on entrepreneurial intention is also significant. This finding relates to the research of (Sesen, 2013; Karabulut, 2016; Yukongd et al., 2017). Other researchers have found that the impact of locus of control on entrepreneurial intention is insignificant such as (Thaief & Musdalifah, 2015; Luca et al., 2012; Ferreira et al., 2012).

H2: Environmental factors have a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 . With our results that show ($B = .813$, $p = 0.00$) which suggest a strong impact of environmental factors on EI, this result is supported by previous researches, such as (Kristiansen & Indarti, 2004). (Sesen, 2013), who conducted a study on a sample similar to ours, which is university students in Turkish universities. Their findings show that both individual and environmental factors, such as access to resources, have a substantial effect on students' entrepreneurial intentions.

Moving to the results of the third hypothesis along with its sub hypotheses:

As for the third hypothesis, which is: There is a positive significant relationship between personal, environmental factors on entrepreneurial intentions: moderating role of

situational factor "COVID-19 pandemic". Our findings suggest that there is a significant positive effect of COVID-19 pandemic on the entrepreneurial intentions. According to several researches, the decision to launch a new venture is dependent on the economic situation in which the business startup will work. This might be referred to the way students perceived how the pandemic has affected many jobs and businesses. As many businesses have exited the market while others have entered and thrived. This result came consistent with (Al Qadasi & Gongyi, 2020) who found that individual expectations of need for achievement, self-efficacy, locus of control, and situational variables all have a substantial effect on entrepreneurial intention during the times of crisis. However, inconsistent with (Arrighetti et al., 2016) who found that during prolonged economic recession, entrepreneurial activities decline hence the entrepreneurial intentions weaken.

The fourth hypothesis of the research which is: Undergraduate students in Jordan have higher entrepreneurial intentions than undergraduate students in Germany, was rejected as there is no significant difference was found between the two research groups (Jordan and German undergraduate students), this might be interpreted as (Shirokova et al., 2017) suggests that university students from diverse cultures have broadly similar viewpoints on the reasons for and obstacles to entrepreneurship. As the sample consisted of students from three universities in Jordan and three universities in Germany, with very similar overall environments, this might support the findings that indicate that students in Jordan and Germany have similar entrepreneurial intentions.

Conclusion

After identifying the gaps in the literature, this research aimed at investigating the factors that affect entrepreneurial intentions of undergraduate students in Jordan and Germany by developing a

framework. The conceptual model investigates the effect of environmental and personal factors on undergraduate students' entrepreneurial intentions. The established model in this study contributes to the existing literature on entrepreneurial intentions by considering two viewpoints: first, the personal factors, which include locus of control and need for achievement. The second viewpoint is the environmental factors. COVID-19 pandemic effect was employed as well, as a moderating variable. The data was analyzed using a software program called SPSS v23 to test the relationship between the variables of the model. This research discovered two variables that have a substantial impact on entrepreneurial intentions; all of which had a positive impact (personal factors and environmental factors). Entrepreneurial intentions were most influenced by personal factors. This developed model has been used for the first time in Jordan; as a result, the developed model for the current research could be useful for future researchers and academics.

Theoretical Implications

In this research, a thorough examination of the relationship between entrepreneurial intentions and other factors (personal and environmental) was conducted, with the situational factor of the COVID-19 pandemic acting as a moderator. Since all of the variables (factors) are correlated with undergraduate students' entrepreneurial intentions in Jordan and Germany, this suggests that these variables (factors) should be considered for future implications in related situations. The research model was created to investigate and identify the most important factors that may influence undergraduate students' entrepreneurial intentions. The studies conducted on the relationship between environmental and personal factors and undergraduates' entrepreneurial intentions are recently becoming more focused on and receiving more interest.

As a result, the objectives of this research are to address a gap in the existing literature. Following a thorough review of the current literature on entrepreneurial intentions, some variables were introduced to the existing research models; as a result, the recently created model is theoretically based and develops new relationships. The constructed model of this research contributes significantly to the existing body of literature in the field of entrepreneurial intentions by taking into account two factors, namely: environmental and personal factors along with examining the effect of COVID-19 pandemic on entrepreneurial intentions.

Practical Implications

Over the last few decades, scientists, governments, and policymakers all over the world have paid growing attention to entrepreneurship and entrepreneurial intentions. It is considered as a significant factor for a country's economic growth and development because it leads to the resolving of fundamental macroeconomic issues such as creating jobs, competitiveness development, creativity, and the establishment of economic and social values. As a result, scholars, and analysts, as well as policymakers and politicians, are eager to recognize the differences and triggers that affect the degree of entrepreneurship as a phenomenon associated with business activity in a country. This research, as Jordan's first of its kind, has raised a number of critical matters that policymakers can benefit from. Entrepreneurship has significant economic benefits and the findings of this study point to a number of policy options for supporting and encouraging entrepreneurship in Jordan, starting from fostering entrepreneurial intentions of undergraduate students. Entrepreneurial educational programs may be developed to raise intentions and serve as a solid foundation for young entrepreneurs. Moreover, this research's findings add to the body of knowledge regarding

the factors that influence entrepreneurial intention, by providing a theoretical foundation for developing policies to promote entrepreneurial intention among university students, and aid in the exploration of successful ways to improve entrepreneurial intention and behavior. This empirical analysis may be used to investigate how entrepreneurial intention, as revealed by the findings, is materialized, or achieved. In-depth conversations with students about whether they pursue or do not pursue entrepreneurship careers may also be undertaken.

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