

The Effect Of Cultural Dimensions On Entrepreneurial Intentions With The Moderating Role Of COVID-19: A Comparison Study

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Abstract

The main purpose of this research is to draw an interest towards the influence of cultural factors on undergraduate entrepreneurial intentions, with the moderating role of the "COVID-19 pandemic", in a comparative context involving two countries which are Jordan and Germany. A quantitative data collection approach was employed, and a five-point Likert scale survey was administered to students at three Jordanian's universities and three German's universities, yielding a valid sample of 454 surveys. The hypotheses were tested using the SPSS V23 software. The results of this testing indicate that cultural factors 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.

Keywords: Entrepreneurial intentions, cultural dimensions, undergraduates, COVID-19, Jordan, Germany.

1.0 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 is 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 cultural 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).

As reported by General Entrepreneurship Monitor 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 the cultural factors that might affect these intentions in the time of COVID-19 pandemic and its many effects worldwide. However, researching cultural influences can contribute to the current body of information about how the COVID-19 pandemic affects undergraduate entrepreneurial ambitions in Jordan and Germany. According to Bogatyreva et al., (2019) in cross-cultural research, the impact of national culture on entrepreneurial intention has not been adequately addressed. This is the gap that the research tries to fill. This research paper tries to answer the following questions:

Do cultural factors affect entrepreneurial intentions with the moderate role of COVID-19 pandemic?

To which extent do entrepreneurial intentions differ between undergraduates in Jordan and Germany during the COVID-19 pandemic?

2.0 Literature Review

2.1 Entrepreneurial Intentions

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). Moreover, the incorporation of theories in the field of social psychology has contributed to increasing the strength in both theoretical and methodological contributions. Two dimensions of research emerge when studying literature on entrepreneurial intentions. The first one stems from the social psychology field, as this dimension is concerned with examining and analyzing behaviors in general and provides a view on the "mental process leading from

attitudes and beliefs to effective action” (Liñán & Jaen, 2020), The second dimension is related specifically to the field of entrepreneurship (Shapero 1984; Shapero & Sokol, 1982).

Several theories, which are derived from social-psychological backgrounds, have been used widely to predict intentions. The Theory of Planned Behavior (Ajzen, 1991) is also derived from the Theory of Reasoned Action. 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.” The first model is useful for explaining how a certain orientation or intention can be observed as an action’s antecedent. The second model was created as a result of Ajzen’s model being applied to entrepreneurial behavior. 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. Later research emphasized the importance of demographic factors such as gender, religious heritage, age, level of education, ethnic group membership, and work experience. 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 as a “culture-universal theory” (Moriano et al., 2012). It is claimed that the greater the desire to follow the guided behavior, the more beneficial the mindset and subjective standard are, and the stronger the perceived behavioral influence is (Matlay et al., 2012).

2.2 Cultural Dimensions

Hofstede (2001) posited that culture relates to “the collective programming of the mind that distinguishes the members of one group or category of people from another”. Other definitions suggest that: “it relates to something that is shared among people” (Smith, 2002) A country’s culture may have a significant impact on the level of support for entrepreneurial behavior. Individuals in various countries have different personalities, according to Hofstede (1991), owing to the influence of their national cultures. As a result, this study suggests that diverse national cultures have an effect on people’s entrepreneurial intentions. More research into the relationship and connection between perceived cultural influences and entrepreneurial intentions and mindsets has been needed (Hayton et al., 2002). Cultural influences, according to Mueller and Thomas (2000), will influence individual career choices as well as the success or failure of businesses (Kreiser et al., 2010). The “intensity of entrepreneurial mindset” is linked to an individual’s sense of cultural background. As per Fatoki (2010), cultural beliefs and social background can be a barrier for young entrepreneurs. According to Bogatyreva et al. (2019), the degree to which a person engages in entrepreneurial activity or behavior is more closely linked to some cultures than others. Furthermore, culture can influence the formation of an “entrepreneurial identity,” which is a crucial foundation for a potential entrepreneurial career (Newbery et al., 2018). The greater the perception of the relationship between entrepreneurial enterprise and cultural aspects, the more interest is gained because of its implications for both national and global growth and development (Mamabolo, et al., 2016). When analyzing cultural influences, certain other aspects are often taken into account, such as: Risk Aversion, which can be defined as: “A declining preference for an increasing risk,” as defined by risk aversion.

Besides, Tradition which is: “The idea of tradition, in particular, can be defined as a psycho-social dynamic process that guarantees membership in a basic set of material and spiritual values that is relatively stable.” (Doina and colleagues, 2011), the following hypothesis is developed based on reviewed literature:

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

2.3 Hofstede’s Cultural Model

According to Hofstede (1991), there are five main dimensions that differentiate one culture from another around the world which are (Uncertainty avoidance, individualism / collectivism, power distance, masculinity / femininity, and Long-term Orientation). Although there have been several criticisms of the theory, mostly in regard to methodology and context, it has remained a popular model for identifying and analyzing cultural differences (Bochner, 1994). Hofstede's cultural dimension model is significant because it provides a set of common cultural dimensions that are applicable to all cultures, allowing for cross-cultural comparisons. This study examines Hofstede's five keys of cultural dimensions and how they influence entrepreneurial intentions.

2.3.1 Power Distance

The degree to which the relatively fewer dominant people in a society recognize the uneven division of power is explained by power distance (Hofstede, 2001). It depicts the degree to which individuals in a group are dependent or independent. The power distance is a measure of how much discrimination in a society is known. Previous research into the relationship between

power distance and entrepreneurship has concluded that power distance is detrimental to entrepreneurship (Hofstede, 2001). This point is founded on the assumption that in countries with a high degree of power gap, less wealthy people will see entrepreneurship as a profession reserved only for the upper class, and therefore will be blind to the opportunities. Furthermore, they can lack the necessary skills and access to accessible resources. There are differing perspectives on the impact of Power Distance on entrepreneurship (e.g., Hofstede et al., 2004), although one of them is the Hofstede theory that Power Distance and the need for autonomy are adversely linked (Hofstede, 2001). Jordan is a bureaucratic society with a high-Power Distance ranking of 70. This means that people accept a hierarchical structure in which everybody has a place and there is no need for further explanation. In an enterprise, hierarchy is seen as a symbol of inherent inequalities, centralization is normal, subordinates want to be told what to do, and the perfect supervisor is a benevolent autocrat. Germany, on the other hand, which is heavily decentralized and supported by a strong middle class, is unsurprisingly among the distant lower-power nations (score 35). Co-determination rights are broad, and management must take them into account. Power is feared and leadership is challenged to show information as it is founded on it and is best accepted in a simple and participatory mode of communication and meeting. (“Hofstede Insights”, 2021) see figure (1).

Based on the above literature, the following sub hypothesis is developed:

H1.a: Power Distance dimension has a significant impact on students’ intentions toward entrepreneurship at sig. level ≤ 0.05 .

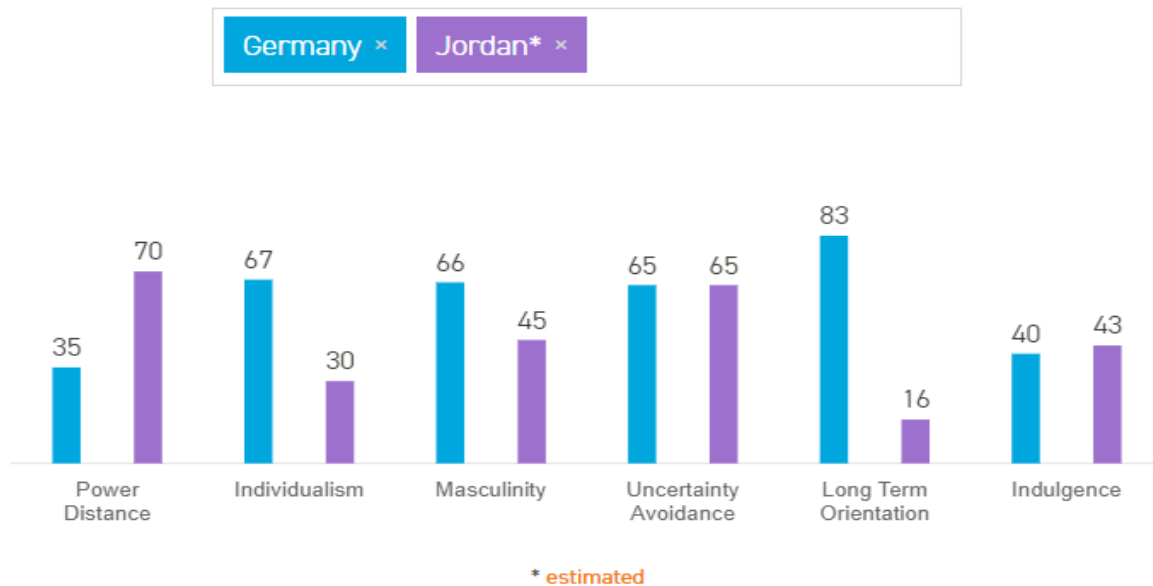


Figure 1: Comparison between Jordan and Germany according to Hofstede's Cultural Model

Source: www.hofstede-insights.com

2.3.2 Uncertainty Avoidance

The degree to which people feel challenged and their attempts to minimize uncertainty and ambiguity are referred to as "uncertainty avoidance." In order to organize life, societies with a high level of uncertainty avoidance require rules, routines, and formality. Expertise is a high attribute that results in trust in professionals, in contrast to low uncertainty avoidance cultures characterized by faith in generalists. In poor ambiguity avoidance communities, people are more innovative and less bureaucratic. Southern and Eastern European countries, as well as Japan, rank well on ambiguity avoidance, while England, Scandinavia, and Singapore score poorly (Radziszewska, 2014).

Uncertainty avoidance is moderately strong in Jordan and Germany, suggesting that people in these countries tend not to take chances when making decisions. The willingness to avoid confusing and unpredictable situations is important for the production of entrepreneurial intentions because it implies a desire to avoid

those circumstances (Hofstede, 1991). Furthermore, when it comes to the importance of this factor of entrepreneurship, not all scientists' results are in agreement. According to some scholars, people in high-uncertainty-avoidance cultures focus more on security and safety than people in low-uncertainty-avoidance cultures, which seem to have higher desire for success and greater risk-taking actions, and hence are more entrepreneurial (e.g. Engelen et al., 2015; Saeed et al., 2014). Also, populations with lower levels of ambiguity avoidance are more entrepreneurial than communities with high levels of uncertainty avoidance. Workers in cultures with low uncertainty avoidance are more innovative, according to a report conducted on employees. This controversy cannot be resolved in a superficial manner, such as by accounting for culture only at the national level. It is also important to consider the perspectives of the lower and individual tiers of society. When these expectations are compared to national levels of uncertainty avoidance scores, a clearer picture of

the differences in uncertainty avoidance between countries emerges. Based on reviewed literature the following sub hypothesis is developed:

H1.b: Uncertainty Avoidance has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

2.3.3 Individualism / Collectivism

Collectivism and individualism have also been used extensively in entrepreneurship research. They are undeniably one of the most significant facets of society (Farrukh et al., 2019). They are also one of the main measurements that distinguish various cultures. Collectivism and individualism were coined to describe two opposing facets of culture. However, some experiments have demonstrated that these concepts are better interpreted and seen as distinct dimensions in which one society differs from another, and therefore, these definitions are best understood and perceived as distinct dimensions in which one society differs from others, and therefore, these definitions are best understood and seen as distinct dimensions in which one society differs from others as cultural element that coexist (Oyserman et al., 2002). Collectivism and individualism have distinct characteristics at the individual level, according to empirical research (Van Hooft & De Jong, 2009). This suggests that a person's tendencies and characteristics may be both collectivist and individualist (Triandis, 1998). Different contexts may lead to more collectivist or individualistic self-expression (Trafimow et al., 1991). For example, a person may hold a strong belief in personal initiative and freedom, but also value group sharing and harmony (Trafimow et al., 1991). Individualism and collectivism can therefore not be seen as polar opposites on a single continuum, but as distinct personality traits. Entrepreneurship and individualism are almost interchangeable with many people. According to Zeffane (2014) entrepreneurship conjures up memories of a single person

attempting to launch a business against all odds in order to pursue a personal "dream" This is encouraged by the concept of a human champion (or superhero) that is creative, creates new strategies, produces financial predictions, and overcomes all obstacles to see his or her company idea prosper.

According to the findings of a study conducted in Finland (Rantanen & Toikko, 2017), there is a strong connection between cultural values and entrepreneurial intentions. The aforementioned research, unlike Hofstede (1991), assumes that individualism and collectivism are two distinct and different facets of cultural ideals, all of which have a positive, indirect effect on entrepreneurial intentions.

Individualism and collectivism have been represented in a variety of ways. According to the Hofstede Centre (2014), individualism is one dimension of cultural ideals (the individualism-collectivism index) and can be described as a desire for a closely knit social structure in which individuals are only responsible for themselves and their immediate circle. Individualism and collectivism, according to Hofstede (1991), are diametrically opposed. In comparison to the other Hofstede dimensions, the individualism axis is thought to be the most important in interpreting cultural distinctions (Munyanyi et al., 2018). Based on the reviewed literature, the following sub hypotheses are developed:

H1.c: Collectivism has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

H1.d: Individualism has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

2.3.4 Masculinity / Femininity

Masculinity, according to Itulua-Abumere (2013), is described as "attitudes, languages, and behaviors exhibited in a specific group and organizational setting that are usually associated with males." Individuals' interest in the social

order of integrity, heroism, confidence, and quantifiable advantages of achievement, according to Hofstede (1991), while femininity is related to the love of friendship, modesty, caring for vulnerable people, and a better standard of life (Hofstede, 1991). Physical intensity, force, and aggression are also characteristics, reflecting more violent but glamorous depictions. Males are expected to be tough and focused on material success, while females would be more delicate, affectionate, and passionate for quality of life (Hofstede, 1991). Members of a more masculine culture tend to place a higher value on material appreciation and loyalty, and will often react in ways that support their personal desires.

Unfortunately, observational evidence shows that women are less likely to start businesses (Kelley et al., 2013). This may be attributed in part to the common image of entrepreneurship as being associated with men, which leads to the perception that women are less capable entrepreneurs. However, some women, especially in traditionally female-dominated industries, have shown strong entrepreneurial intentions (Kelley et al., 2013). Women who see themselves in a masculine position, according to Gupta et al. (2009), articulate more entrepreneurial intentions and thus expand entrepreneurial careers. Women who choose a feminine gender identity will fall into the conventional group, making them less prone to company. Androgynous women exhibit both traditional male and female characteristics. These women blend assertive and instrumental traits with sensitive and caring traits.

Previous research has linked androgyny to a higher level of entrepreneurial self-efficacy (Mueller and Thomas, 2000). Similarly, more upbeat leadership qualities may be linked to this. These individuals are more resilient and adaptable to various situations due to the balance between feminine and masculine traits, with a greater range of skills that can be applied to each situation (Gupta et al., 2009). Based on reviewed

literature, following sub hypotheses are developed:

H1.e: Masculinity has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

H1.f: Femininity has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

2.3.5 Short-term Orientation vs Long-term Orientation

The fifth dimension "long-term versus short-term orientation" was added to the framework (Hofstede, 2010; Hofstede & Bond, 1988). It was first presented as "Confucian dynamism" in a survey conducted by a group of Asian scholars led by Michael Bond (Chinese Culture Connection, 1987). The survey's goal was to reduce the cultural bias in Hofstede's original IBM study. Long-term orientation (LTO) is defined as the degree to which a culture / society plans and aims at the future, deferring satisfaction in order to attain more persistent goals (Hofstede et al., 1991). Cultures with long-term orientation have a propensity for long-term planning, perseverance, and thrift, perhaps sacrificing traditions in order to plan ahead. Saving money for future objectives or crises, as well as investing in higher education, are all signs of long-term orientation (Hofstede & Hofstede, 2001). On the other hand, Short-term orientation (STO) reveals how much people in a culture value tradition, reciprocity, service to others, and the preservation of their appearance (Hofstede, 2011), and therefore, individuals in short-term oriented cultures may have a desire for reciprocity, which may lead to emotions of obligation to serve close friends, family, or society (Ruskin et al., 2016). The positive pole of this dimension which is "Long term orientation" shows a dynamic, future-oriented viewpoint, whereas the negative pole which is "Short term orientation" reflects a more stable, tradition-oriented viewpoint (Hofstede & Bond, 1988). People in long-term-oriented

cultures tend to be wisdom in spending their money. In contrast, people in short-term-oriented society feel that there is only one ultimate truth and anticipate immediate results, indicating a more static perspective (Barkema & Vermeulen, 1997).

When linked to entrepreneurial thinking and activities, a long-term perspective results in more pragmatic attitudes, which are linked to "traditional capitalistic perspectives" and are thought to improve entrepreneurial cognition. As stated by Gielnik et al., (2014), Long-term orientation, like individualism, may support action planning, which is a powerful strategy for turning intentions into goal-oriented behavior after the intention is created. Furthermore, engaging in entrepreneurial activity entails large risks, which are often repaid over a long period of time. As a result, a culture characterized by a

stronger short-term orientation may encourage people to seek employment in a well-established organization with a predictable and transparent pay schedule rather than pursue their entrepreneurial ambitions unless the rewards are extremely high and immediate, which rarely occurs. Individuals from long-term oriented communities, on the other hand, are better prepared to wait for entrepreneurial returns. As a result, a long-term orientation may eventually lead to the translation of intents into actions. In short-term oriented cultures, individuals think there is only one absolute truth and seek immediate results, which symbolizes a more static mentality (Barkema & Vermeulen, 1997). According to (Lortie et al., 2019), cultures that place an emphasis on personal stability and constancy, rather than thrift and perseverance, are more likely to show lesser levels of entrepreneurial intentions and activities.

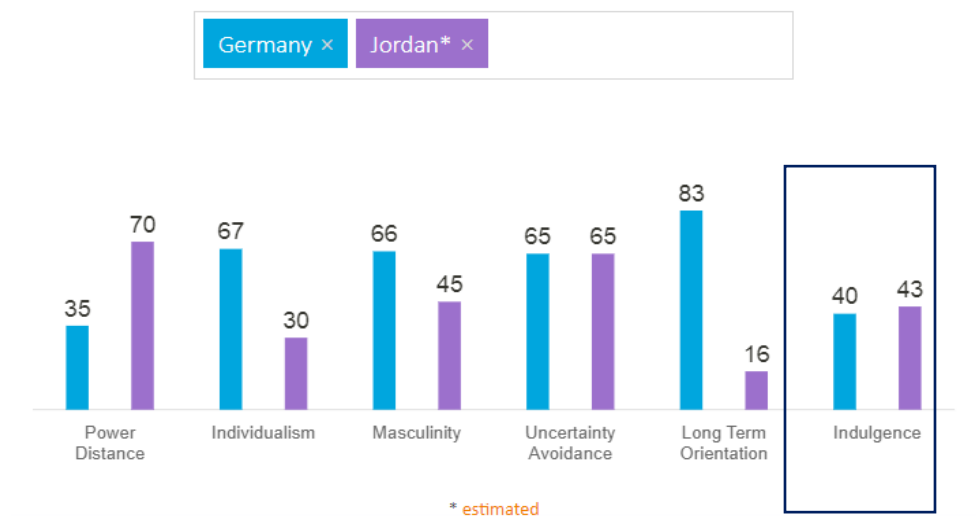


Figure 2: Comparison between Jordan and Germany according to Hofstede's Cultural Model

Source: www.hofstede-insights.com

As figure (2) denotes, the LTO dimension shows the biggest gap between Jordan and Germany, which illustrates that Jordanian society tend to emphasis on the current and short term goals rather than the future and unforeseen goals. On the

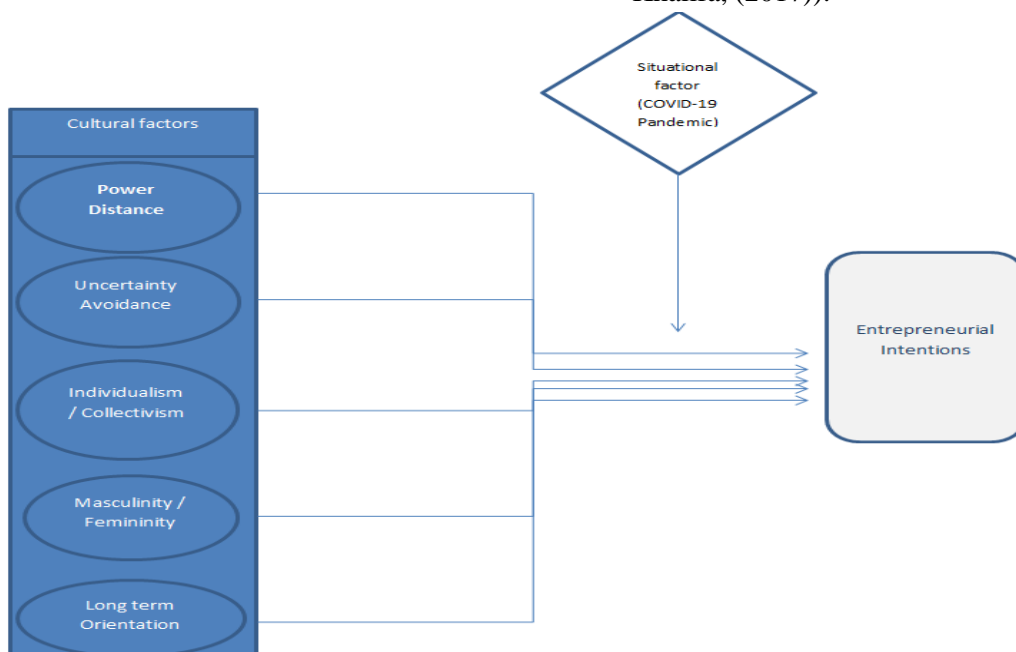
other hand, German society encourages future orientation, this might be due to the differences in economic circumstances, traditions, resistant to change along with the difference in unemployment rates between these two

countries. On the basis of the above statements, the following hypotheses is assumed:

H1.g: short term orientation has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

H1.h: long term orientation has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

3.0 Conceptual Framework



Research Model (Figure 3)

4. Methodology

Data collection tool

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 in the scope of this paper.

Population, Sample, and Procedure

University students in both Jordan and Germany are the target demographic of this study.

The current research aims to draw an interest towards the influence of cultural 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. The researchers developed the model for this research based on the literature review (AL-Qadasi & Gongyi, (2020); Tuğba, (2016); Mouselli & Khalifa, (2017)).

Respondents are chosen on the basis of purposive sampling technique. A total of 3 universities in Jordan and 3 universities in Germany were contacted to collect data from in the 2020/2021 academic year. 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.

Measurement and Scaling

As seen in Table 1, the independent variable "cultural factor", which was divided into the five main dimensions of Hofstede's cultural model, namely: power distance, femininity / masculinity, uncertainty avoidance, collectivism/ individualism, and long term and short-term orientation. The second construct is the situational factor (COVID19 effect) which is the

moderator in this research; Mouselli & Khalifah (2017) used scales with all measures, with a four-item measure for measuring situational factors effect on entrepreneurial intentions.

5.0 Data Analysis

5.1 Descriptive Analysis

Table 1: Means and Standard Deviations of all items

Dimension	Mean	Std. Deviation	Importance
Cultural Factors	3.1624	.43448	Medium
It is important to have instructions spelled out in detail so that I always know what I am expected to do.	3.974	1.0095	High
It is important to closely follow instructions and procedures.	3.597	.9458	Medium
In this society, followers are expected to obey their leaders without questions.	3.678	.8728	High
In this society, power is concentrated at the top	3.725	.7671	Medium
I rely on myself most of the time	3.830	.8245	High
My personality identity, independent of others, is very important to me	3.826	.9294	High
Individuals should stick with the group even through difficulties	3.452	.9331	Medium
Group success is more important than individual success	3.740	1.0372	High
There are some jobs that men can always do better than women	3.610	.9537	Medium
Men usually solve problems with logic, women solve them with intuition	3.976	.7928	High
Women are generally more caring than men	3.980	1.0151	High
Women are generally more modest than men	4.132	.8613	High
Respect for tradition is important to me	3.620	1.172	High
I value family traditions	3.410	.9417	Medium
I plan for the long term	3.754	.8628	High
I don't mind giving up today's fun for success in the future	3.955	.9851	High
Persistence is important to me	3.852	.9213	High
Entrepreneurial Intentions	3.674	.69013	High
I am ready to do anything to be an entrepreneur"	3.740	.9127	High
My professional goal is to become an entrepreneur"	3.705	.9565	High
I will make every effort to start my own business"	3.535	.8624	Medium
I have the firm intention to start a firm one day"	3.716	.8462	High
Situational Factors	3.8177	.76536	High

My financial situation has been affected dramatically by the COVID-19 pandemic”	4.150	.8863	High
My psychological situation has been affected by the COVID-19 pandemic”	3.896	1.0674	High
My social situation has been affected significantly by the COVID-19 pandemic”	3.247	1.0820	Medium
COVID-19 restricts resources that are necessary to start a business”	3.978	.9557	High

5.2 Simple Linear Regression Analysis

To investigate H1: “Cultural factors have a significant impact on students' intentions toward entrepreneurship at a sig. level of 0.05” it was tested as seen below, the (R) value for simple correlation is 64.7 percent, indicating that the association between two variables is commonly

thought to be a very strong positive relationship. The (R²) value indicates how much of the difference in entrepreneurial intentions among undergraduates can be explained by cultural factors. In this case, 41.9 percent of the variance can be interpreted, with the remaining 58.1 percent explained by factors not used in the regression model. Hypothesis 1 is therefore **accepted**.

Table 2: Regression model between CF and EI

Dependent Variable	Model Summary		ANOVA			Coefficient		
	R	R ²	F	df	Sig.	β	t	Sig.
Entrepreneurial Intentions	0.647	0.419	325.363	1	0.000	0.647	18.038	0.000

5.3 Multiple Regression Analysis

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

H1.a: Power Distance dimension has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

H1.b: Uncertainty Avoidance has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

H1.c: Collectivism has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

H1.d: Individualism has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

H1. e: Masculinity has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

H1.f: Femininity has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

H1.g: short term orientation has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

H1.h: long term orientation has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

Table 3: Regression between CF dimensions and EI

Dependent Variable	(R)	(R ²)	F	DF	Sig*	B	T	Sig*	
Entrepreneurial Intentions	0.717	0.514	78.818	6	0.001	Power Distance	.367	7.959	0.000
				Uncertainty Avoidance		.019	.518	0.605	
				Collectivism		.057	1.121	0.263	
				Individualism		.299	4.840	0.000	
				Masculinity		.043	-1.606	0.109	
				Femininity		.164	4.339	0.000	
				Short term orientation		.0343	2.106	0.009	
				Long term orientation		.264	2.314	0.001	
				447					
				453					

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

Table (3) shows the impact of Cultural Factor dimensions (Power distance, Uncertainty Avoidance, Collectivism, Individualism, Masculinity and Femininity, and Long term orientation) on the Entrepreneurial Intentions. The regression model achieved a very good degree of fit, as reflected by (R) and (R²) value (0.717), (0.514) respectively, which asserted that (71.7%) of the explained variation in Entrepreneurial Intentions can be accounted for cultural factors of undergraduate students. On the other hand, Table (4.7) for the executive data set indicated that for a one unit increase in CF of undergraduates (Power distance, Individualism, Femininity, Short term orientation and Long term orientation) can significantly predict a (36.7%), (29.9%), (16.4%) (34.3%) and (26.4%) increase in Entrepreneurial Intentions respectively. However, for (Collectivism, Masculinity and Uncertainty avoidance) significance level was ($\alpha > 0.05$), therefore, it is assumed that they do not have a significant impact on EI.

Moreover, Table (4.7) shows that the analysis of variance of the fitted regression equation is significant with F value of (78.818). This is an indication that the model is a good one. 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**:

H1.a: Power Distance dimension has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

H1.d: Individualism has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

H1.f: Femininity has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

H1.g: short term orientation has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

H1.h: long term orientation has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

In addition, the following sub hypotheses are **rejected**:

H1.b: Uncertainty Avoidance has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

H1.c: Collectivism has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

H1.e: Masculinity has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

5.4 Hierarchical Regression Analysis

After inserting the control variable, which is Situational factor (COVID-19 pandemic effect) into the model, hierarchical regression shows if variables of significance justify a statistically meaningful amount of variance in the Dependent Variable (EI). In order to test (H4), which is the moderator effect, situational factor (COVID-19 pandemic effect) was inserted as the control variable (moderator) into the hierarchical regression analysis in SPSS and the results showed that situational factors (COVID-19 pandemic effect) has a significant positive effect as a moderator in the relationship between personal, environmental, cultural factors and entrepreneurial intentions with the percentage of ($R^2 = 89.2\%$) and R change of (12.9%) between model 1 (without the control variable) and model 2 (with the control variable).

Table 4: Hierarchical regression results after inserting moderator effect

Dependent Variable	Independent Variables	Model 1			Model 2		
		B	T	Sig*	β	T	Sig*
Entrepreneurial Intentions	CF (power distance, uncertainty avoidance, femininity/masculinity, individualism/collectivism, short term orientation and long term orientation)	0.874	18.005	0.000			
	CF 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 (4) shows the moderate impact of situational factors (COVID-19 pandemic effect) on the relationship between EI of undergraduate students and cultural 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 (CF). 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 cultural factors (Power distance, Uncertainty Avoidance, Collectivism, Individualism, Masculinity and Femininity, and Long term / Short term orientation) 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 cultural factors (power distance, uncertainty avoidance, collectivism, individualism, masculinity and femininity, and long term/short term orientation) 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**:

H4: “There is a positive significant relationship between cultural factors (power distance, uncertainty avoidance, collectivism, individualism, masculinity and femininity, and long term/short term orientation) on entrepreneurial intentions: moderating role of situational factor (COVID-19 pandemic)”.

Independent sample t -Test

In order to test H5, 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 6 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 5 shows the Means and Standard Deviations of each factor in the research for the two groups (Jordan and Germany), as observed there is no significant difference in means between the two groups, this result is validated through t –Test as shown in table 6.

Table 5: Groups’ statistics

Group Statistics					
	Home country of your university	N	Mean	Std. Deviation	Std. Error Mean
CF	Jordan	340	3.1502	.43118	.02338
	Germany	114	3.1988	.44408	.04159

EI	Jordan	340	3.6632	.68956	.03740
	Germany	114	3.7061	.69388	.06499

Table 6 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, H5: “Undergraduate students in Jordan have higher entrepreneurial intentions than undergraduate students in Germany”. Is **rejected**.

Table 6: 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
CF	Equal variances assumed	.039	.843	-1.033	-.04859	.04702
	Equal variances not assumed			-1.018	-.04859	.04772
EI	Equal variances assumed	.122	.727	-.574	-.04291	.07475
	Equal variances not assumed			-.572	-.04291	.07498

Table 7: Summary of Hypotheses Test Results

Hypothesis	β	p	Accept / Reject
H1: Cultural factors have a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .	0.647	0.00	Accept
H1.a: Power Distance dimension has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .	0.367	0.00	Accept
H1.b: Uncertainty Avoidance has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .	0.019	0.605	Reject
H1.c: Collectivism has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .	0.057	0.263	Reject
H1.d: Individualism has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .	0.299	0.00	Accept

H1. e: Masculinity has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .	0.043	0.109	Reject
H1.f: Femininity has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .	0.164	0.00	Accept
H1.g: short term orientation has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .	0.343	0.00	Accept
H1.h: long term orientation has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .	0.264	0.00	Accept
H2: There is a positive significant relationship between cultural factors on entrepreneurial intentions: moderating role of situational factor (COVID-19 pandemic).	0.648	0.00	Accept
H3: Undergraduate students in Jordan have higher entrepreneurial intentions than undergraduate students in Germany	-0.574	0.727	Reject

6. Discussion and Conclusion

6.1. Discussion

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 cultural factors on university students' entrepreneurial intentions both in Jordan and in Germany.

The influence cultural factors on entrepreneurial intentions of undergraduate students was verified in this research, providing clear support for the current research context. Along with exploring the factors affecting entrepreneurial intentions, the newly developed model primarily generates new relationships within these variables.

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

Results of testing this hypothesis illustrates the relationship between cultural factors and EI of undergraduate students demonstrated that there is a positive impact of cultural factors and entrepreneurial intentions.

This result, came consistent with the findings of (Newbery et al., 2018) who posited that culture

may affect the creation of an “entrepreneurial identity” which represents an important basis for a future entrepreneurial career along with (Mamabolo, et al., 2016) who suggested that the greater of understanding of the relationship between entrepreneurial activity and cultural aspects, more importance is developed because of its implication for both national and global growth and development. Moreover, (Bogatyreva et al., 2019) found national culture influence the association between entrepreneurial intention and subsequent action. Therefore, it is obvious that culture is a highly significant factor in developing entrepreneurial intentions, which comes as the early stages prior to adopting entrepreneurial activities. This study contributes to existing knowledge of entrepreneurial intentions at the level of university students in Jordanian and German universities, the results of this research shall foster and encourage developing, and understanding entrepreneurial intentions. It is necessary to know and understand more about the effect of culture on entrepreneurial intentions of undergraduate students.

Sub-hypotheses:

Regarding the following sub hypothesis:

H1.a: Power Distance dimension has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

Our findings ($B = .367$, $p = 0.00$) which indicate a positive relationship between power distance and EI, which supports the findings of (Xiangyang et al., 2012) who have found - along with many empirical studies- that power distance may have a positive effect on entrepreneurial intentions. Since becoming an entrepreneur is the only way to be self-sufficient, power distance will have a positive effect on entrepreneurial intentions and orientation. Entrepreneurship is one of the methods that can be used to gain independence and improve one's power base.

The second sub hypothesis:

H1.b: Uncertainty Avoidance has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

Our results ($B = .019$, $p = .605$) showed that there is no significant impact of uncertainty avoidance and EI. This is also consistent with the findings of (Xiangyang et al., 2012; Gubik & Bartha, 2017) who have also reported that there is no significant relationship between these two variables.

For the following sub- hypotheses:

H1.c: Collectivism has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

H1.d: Individualism has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

For the aforementioned sub hypotheses, as it has been found collectivism with the results ($B = .057$, $p = .263$) whereas for Individualism ($B = .299$, $p = .00$) this indicates that students have a perception of themselves in their cultures as "individuals" with specific and independent goals rather than being part of a larger society that needs to be prioritized, in terms of business and goal achieving.

Our results challenge the findings of (Pinillos & Reyes, 2009) which showed that when a country's development is medium or poor, entrepreneurship is negatively related to individualism, and when development is strong,

entrepreneurship is positively related to individualism. As a result, individualism and entrepreneurship are not linked in the same way in countries with varying levels of growth. However, our results are consistent with a more recent study conducted by (Liñán et al., 2016) which indicated that at both the cultural and personal levels, individualist values such as accomplishment, satisfaction, self-direction, and a thrilling and exciting life are connected to entrepreneurial intention and behavior. The findings from a sample of 2069 adults with a university degree prevailed a positive effect of culture on entrepreneurial intention concerning individualism. This suggests that entrepreneurship is associated with the attainment of power and achievement values such as money influence over capital, and social respect within this context.

Regarding H1. e and H1. f

H1. e: Masculinity has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

H1.f: Femininity has a significant impact on students' intentions toward entrepreneurship at sig. level ≤ 0.05 .

While it has been shown that cultural masculinity is connected to entrepreneurial activity (Busenitz and Lau, 1996), the findings are inconsistent. Although Busenitz and Lau (1996) found that masculinity fosters entrepreneurship, they also found that entrepreneurs in masculine Asian countries rely on relationships rather than assertiveness, suggesting that entrepreneurship is more prevalent in feminine than masculine cultures. Similarly, the findings of a study on culture, gender, and entrepreneurship conducted by Shinnar et al. (2012) in three masculine countries do not consistently support the predicted positive relationship between cultural masculinity and entrepreneurship, this is consistent with this research's findings, as ($B =$

0.043, $p = 0.109$) it was concluded that the relationship between masculinity and EI does not exist, while there is a significant positive relationship between femininity and EI ($B = 0.164$, $p = 0.00$), which might indicate that students in Jordan and Germany perceive their societies leaning towards femininity values (relationships, helping the non-privileged and family connections) more than towards masculine core values (pure aim for profit, assertiveness).

Regarding short term and long term orientation. The results showed that there is a significant impact for both on EI.

As for the second general hypothesis, which is: There is a positive significant relationship between cultural 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 (Turker & Selcuk, 2009). 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 third 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.

6.2 Theoretical and Practical Implications

Given that the cultural dimensions are correlated with undergraduate students' entrepreneurial intentions in Jordan and Germany, these dimensions should be evaluated for future implications in comparable situations. In order to better understand what influences students' entrepreneurial intentions, our research model was developed. Studies on the relationship between cultural factors and undergraduates' entrepreneurial intentions have lately gained more prominence and attention. By taking cultural factors into consideration, the model developed in this study adds considerably to the current body of knowledge in the area of entrepreneurial intentions.

Globally, academics, governments, and policymakers have devoted increasing attention to entrepreneurship and entrepreneurial intentions during the last few decades. It is a critical aspect in a country's economic growth and development since it contributes to the resolution of key macroeconomic concerns such as job creation, competitiveness development, creativity, and the establishment of economic and social values. As a result, researchers and analysts, as well as policymakers and politicians, are keen to identify the variations and triggers that

impact a country's degree of entrepreneurship as a phenomena related to business activity.

As Jordan's first of its kind, this research has presented a number of critical issues for policymakers to consider. Entrepreneurship provides major economic advantages, and this study's findings suggest a variety of policy alternatives for supporting and encouraging entrepreneurship in Jordan, beginning with cultivating entrepreneurial intentions among undergraduate students. Entrepreneurial educational programs may be established to cultivate entrepreneurial goals and provide a solid basis for aspiring entrepreneurs. Furthermore, the findings of this study contribute to the body of knowledge about the factors that influence entrepreneurial intention by providing a theoretical foundation for developing policies to promote entrepreneurial intention among university students and assisting in the exploration of effective strategies for improving entrepreneurial intention and behavior. This empirical study may be used to analyze how entrepreneurial intention is materialized, or achieved, as shown by the findings. Additionally, in-depth discussions with students on their decision to pursue or not pursue entrepreneurial jobs may be conducted.

Conclusion

After recognizing gaps in the literature, this research sought to build a framework for examining the factors that influence the entrepreneurial intentions of undergraduate students in Jordan and Germany. The conceptual model examines the influence of cultural variables on the entrepreneurial intentions of undergraduate students. The developed model in this study contributes to the existing literature on entrepreneurial intentions by incorporating cultural variables, as defined by Hofstede, which comprised power distance, individualism / collectivism, femininity / masculinity, long term orientation and uncertainty avoidance. The data

were examined using the SPSS v23 software program to determine the relationship between the model's variables. Cultural variables had significant effect on entrepreneurial intentions. This developed model was applied for the first time in Jordan; as a consequence, the developed model for this research may prove valuable to future researchers and academics. Additionally, the outcomes of this study imply that entrepreneurial intentions of undergraduate students in Jordan and Germany are essentially comparable.

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