

AN EMPIRICAL INVESTIGATION OF THE DETERMINANTS OF ENTREPRENEURIAL INTENTION AMONG PUBLIC AND PRIVATE UNIVERSITY' STUDENTS IN JORDAN

¹Asaad Hameed Al-Ali

¹*Business School, Al-Ahliyya Amman University, Jordan, a.alali@ammanu.edu.jo*

Abstract

This explorative research intends to contribute to the scientific debate by filling the gap that is due to the limited number of local studies that analyze empirically whether there are differences in the Entrepreneurial Intention (EI) among private and public universities' students. The other goal is trying to understand the student's factors of selecting entrepreneurship as their career after graduation by using a self-administered questionnaire to a total convenient sample of (406) students from private and public universities in Jordan. A number of statistical analyses techniques were used including descriptive analysis, reliability analysis, correlation analysis, independent samples (T) test and multiple regressions using SPSS version 25 and Smart PLS-3 to conduct structural equation modeling (SEM). The findings show that there are statistically significant differences between respondents' answers to the Entrepreneurial Intention, specifically the following independent variables (Entrepreneurial competencies, Entrepreneurial Education, Perceived Behavioral Control, Personal Intention, Self-Efficiency) in favor of private universities' students. On the other hand, no significant differences between respondents' answers to Government and Social Support. Results also indicate that Entrepreneurial Competencies, Perceived Behavioral Control, Personal intention and Self-efficiency have significant effect on EI for private universities' students, whereas Entrepreneurial education, Perceived Behavioral Control and Government Support have significant statistical effect on EI for government universities' students. This study suggests entrepreneurship in local and private universities need a strong community and social support, particularly from family members, relatives, and friends, as well as advice from all stakeholders, particularly the commercial sector, in order university students to think and behave like entrepreneurs from the outset, so that they may start their own firm after graduation.

Keywords: Public and private universities, Entrepreneurial Intention; Jordan.

1. Introduction

The vital role that entrepreneurship play in Jordan's economic growth has been recognized by academicians and experts. Entrepreneurial intention (EI) is a state of mind that comes before action and focuses attention on the aim of starting a new firm. EI identifies the link between ideas and action which is critical for understanding the entrepreneurial process

(Krueger and Carsrud 1993). Entrepreneurs provide creativity and innovation to businesses in order to help them produce new goods, services, and methods of thinking differently, which helps them to gain a competitive advantage in the global marketplace (Shrader & Finkle, 2015). A growing number of universities now offer degree programs or special courses of entrepreneurship, there are countless entrepreneurial training programs

available to both private and public academic institutions. Unfortunately, the general learning environment rewards the traditional methods of thinking and discourages creative thinking. It is expected that private and public universities provide different entrepreneurship learning that may lead to different entrepreneurial intentions among students. Furthermore, in spite of the growth in the number of entrepreneurship courses and curricula and the link between entrepreneurial education and entrepreneurial behavior (Galloway and Brown 2002; Luthje and Franke 2003), student entrepreneurship figures still remain low (Kraaijenbrink, Bos and Groen 2010).

Recently, Jordanian private universities have been characterized by a significant increase in their numbers so that they can absorb a big deal of graduates from secondary schools without strict conditions, while public universities require certain conditions for admission, such as a certain General Secondary Examination Scores (GSSCE), and specific specializations. Further, the intense competition between private universities and the small number of students which is reflected in a high tuition fee in return for giving students more attention to their comfort in terms of facilities and learning environment.

Entrepreneurial intentions in Middle East region in general, and particularly in Jordan, remain in short supply. This study seeks to partially fill this gap in literature by empirically examining private and public university students' entrepreneurial intentions, motivations to start a business. Understanding factors that shape entrepreneurial intentions among universities' students can assist in attracting more universities' students to become entrepreneurs. Also, there are a few contradictory findings when it comes to the factors that may influence intentions (Reitan, 1996; Krueger et al., 2000). Furthermore, these sparse findings are limited to Western economies; little empirical study has been conducted in developing countries, particularly in the Middle East and Jordan. Accordingly, this research investigates two research questions that will assist in understanding entrepreneurship within public and private universities' students. First: What are the basic variables from the following (entrepreneurial competencies, entrepreneurial education,

entrepreneurial government support, perceived behavioral control, personal intention, self-efficiency, social support) that may have impact on the dependent variable (entrepreneurial intention) from public and private universities students' perspectives? Second: Is there a significant statistical difference between respondents to the independent variables and dependent variable based on the public and private universities' students, considering that public universities students have higher General Secondary Examination Scores (GSSCE) than those admitted to private universities, also the financial capabilities of students in public universities are relatively less than those accepted in private universities. The researcher hopes to offer many indicators for the faculty members, readers, policy makers, managers and academicians in general to review and develop their courses and to correct any misconceptions that private and public universities' students might have about starting a new business, and to promote a very highly favorable environment for entrepreneurial activities.

2. Theoretical framework and previous studies

Previous research has found a connection between education and entrepreneurship (Galloway and Brown, 2002). A good education can help a person pursue his or her entrepreneurial goals. Since 1990, according to Bronson and Merryman (2010), U.S. students' creativity scores have been steadily declining. Entrepreneurial competences, perceived behavioral control, personal intention, and self-efficiency all have a statistically significant effect on EI, according to Al-Ali (2021). However, no significant statistical impact of entrepreneurial government support; social support and surprisingly entrepreneurial education on EI. This result motivated the researcher to investigate this issue among public and private universities, bearing in mind that entrepreneurial universities are valued because of their economic outputs (such as patents, licenses, and start-up firms) and technology transfer mechanisms (Tijssen 2006).

2.1. Students Entrepreneurial Intention (EI)

Entrepreneurial literacy is an important factor in an entrepreneurial activity because it is the basis for being able to become an entrepreneur. The higher education system, according to Galloway and Brown (2002), should play an important role in imparting the knowledge needed to promote and encourage young people to engage in entrepreneurship. Entrepreneurial literacy refers to what is understood about all types of information that are processed in the cognitive world in the form of memory and comprehension of how to run a business, resulting in the bravery to take risks sensibly and logically in any enterprise. Therefore, an understanding of entrepreneurship is certainly important for students who have the intention to become entrepreneurs when they are determined to develop their success business (Abdullah and Sulaiman 2013).

2.2. Personal Intention: Preferences, Traits and Attitudes

There are also several personality attributes that have been shown to be traits of persons considered to be creative: (a) tolerance for ambiguity, (b) willingness to surmount obstacles and persevere, (c) willingness to grow, (d) willingness to take risks, and (e) courage of one's convictions and belief in oneself (Sternberg & Lubart, 1991). Nelson et al. (2009) explored the gendered role of entrepreneurs and the impact on venture capital financing. The study found gendered norms within the venture capital landscape to favor the male entrepreneur. As such, women entrepreneurs are challenged to assimilate into the culture of the venture capital funding process and successfully obtain financing for their business. Darnihamedani and Terjesen (2022) also found that, relative to their female counterparts, male entrepreneurs have significantly greater venture growth ambitions. The relationship of EI with student grades is also studied, some results was not as expected like Shane (2009) reported that students who got "Excellent" in college are about 2 percent less likely than other students to be working for themselves.

2.3. Self-Efficacy

Self-efficacy has emerged as a reliable approach for assessing learning and change (Bandura, 2012). Self-efficacy is defined as an

individual's confidence in their ability to persevere through specified activities in order to obtain desired performance results, according to Social Learning Theory (Bandura, 1999) is concerned with a person's ability to perform specified tasks in order to accomplish a desired result. An individual's self-efficacy for a specified task or series of tasks will determine the level of effort and perseverance put forth in completing the task (Guerrero and Richard, 2015). It was argued that Self-efficacy is accumulated through the development of cognitive, social, linguistic and physical skills. Self-efficacy is changed by contextual circumstances such as education and past experiences, unlike other entrepreneurship personality traits that are rather static (Hollenbeck & Hall, 2004). Aloulou (2016) found that subjective norms associated with entrepreneurial intention had a higher regression coefficient than those of the other antecedents for final-year Saudi university business students .

2.4. The Perceived Behavioral Control

Perceived behavioral control (PBC) refers to people's perception of their ability to perform a given behavior. Individuals typically choose actions that they believe they will be able to control and have autonomy to pursue personal interests, which is based on the individual's knowledge, experience, and assessment of anticipated hurdles to completing the behavior. The stronger the purpose to accomplish the behavior, the greater the feeling of behavioral control (Samuel et al., 2013). TPB describes the link between behavioral intention and actual conduct by bringing "perceived behavioral control" to subjective norms and attitudes. Others saw it as a perception of the ease or difficulty of becoming an entrepreneur; as a result, Banadura compares it to self-efficacy (Bandura, 1997).

2.5. Entrepreneurial Competencies

Individuals who are entrepreneurial in nature tend to utilize their cognitive and affective resources and abilities to resolve difficulties and challenges in life. It is the talent to recognize and analyze market prospects, as well as the ability to form relationships with other business people, convince and consult with various stakeholders, and make sacrifices

to guarantee that the firm gets off the ground (Nieuwenhuizen & Swanepoel, 2015).

2.6. Social Support

Support and encouragement from family members, relatives, friends and advisory with coaching from lecturers have shown that they are closely related to the development of an entrepreneur (Baughn, Le, Lim, & Neupert, 2006). There are a few systematic determinants of entrepreneurship, such as whether the father was an entrepreneur, the family's income level, and people's age and life-cycle phases (Srimulyani and Hermanto (2022); Evans and Jovanovic) (1989).

2.7. Private and Public entrepreneurship education

Private and public universities all over the world are promoting higher education and knowledge creation, which are considered preconditions for socioeconomic growth, by facilitating a nation's political, social, and economic development through human resource development interventions (Leff, 1979). Many studies found that entrepreneurship education has a significant impact on individual entrepreneurial intentions, also entrepreneurship education significantly enhanced students' entrepreneurial intentions (Mei et al., 2020; Zhang and Huang, 2021), while others found that entrepreneurship education failed to promote students' entrepreneurial intentions of becoming an entrepreneur. (Kusumojanto et al., 2020). A university's academic program enables students to explore their inner potentials and to think freely in order to generate new ideas (Huang, An, Liu, Zhuo and Wang 2020). (Mahmood, et.al., 2020) asserted that the effectiveness of entrepreneurship education depends on the competence of the instructor and entrepreneurial leadership. Therefore, their competencies need to be constantly enhanced to ensure that the delivery and implementation of entrepreneurship programs can positively impact the learning process of students. At the same direction, Passaro, Quinton and Thomas (2018) asserted that entrepreneurial education is the key factor for the development of EI. For private and public EI education, some argue that entrepreneurship education should include a visit to selected entrepreneurship companies, forums, networking with industry to train

students, exposing entrepreneurship by providing university entrepreneurship magazines, entrepreneurship competitions, entrepreneurship exhibitions and university trade in a more systematic and effective manner. According to research by Bird (2002), universities should make it a priority to expose their students to entrepreneurship and to boost student self-innovation so that they can be more creative, critical, driven, and capable in entrepreneurship. For example, most of private universities' students in Bahrain were found to have a high level of entrepreneurial intention but they are not sure if they have the necessary capabilities and skills to start and run a business (Al-Shammari, 2018). However, figures taken from the MoHE report that the cost per student in private universities is higher than comparable costs in public universities, thus providing some evidence that these institutions spend more to maintain good educational quality and services. (Burke and Al-Waked (1997). In another study carried out by Ashraf et al. (2009), explained that good physical facilities are the key determinant factors of quality education where the students of private universities are somewhat satisfied in this regard apart from cost issues.

2.8. Governmental Support

Many scholars believe that government and financial institution support should be considered one of the most basic conditions for starting and running a business. Entrepreneurs' growth objectives are higher in countries with more efficient regulations, particularly those defined by fewer labor law constraints and better monetary freedoms, according to a recent study by Darnihamedani and Terjesen (2022). The proposed premises of this study concentrate on seven variables that may be related to the development of EIs: Entrepreneurial Self Efficiency; Entrepreneurial Competencies; Personal Intention; Perceived Behavioral Control; Entrepreneurial Government Support; Social Support and Entrepreneurial Education. The variables included in this study are not all-inclusive, but they are deemed to be some of the most important factors based on the literature review. This study also looked at the impact of demographic parameters on EI, specifically the impact of age, faculty, gender and education.

3. Research Design & Methodology

This study is based on a survey design using self-administered questionnaire to be distributed personally and electronically due to covid-19, to the students from different private and public universities using convenient sample method. The researcher distributed personally the questionnaire on the students who attend compulsory university courses, which are large in number of attendants and various nationalities such as tourism and antiquities.

3.1. Data, Measures and questionnaire.

A close-ended questionnaire was used to collect data of the study. The total number of questionnaires distributed was 1,250 questionnaires distributed to students of Al-Ahliyya Amman University, which is the first private university in Jordan, as well as to students of Mutah University, which is one of the oldest public universities in Jordan; while the total number of the valid questionnaires retrieved was 405, which makes the total response rate 32%. The EIs Questionnaire (EIQ) created and verified by Linan & Chen (2009) was used to collect data, along with additional factors and demographic questions by Costa et al., (2016). Malebana (2012) also added questions to assess the effect of university education and Governmental

Support Programs (GSPs) on EI. In the field of entrepreneurship research, the validity of student samples has been justified, and used in previous research, for example, Jarrar et al., (2019) and modified by several authors such as (Kolvereid, 1996a; Krueger & Brazeal, 1994; Chen et al., 1998; Saleh & Salhieh, 2014; Mehtap et. al., 2016).

4. Analysis

This study aimed to understand the factors that may affect student's entrepreneurial intention in private and public Jordanian universities. To get this goal accomplished, social package for social science (SPSS) and structural equation modeling by using SmartPLS 3 was conducted. Following (Hair et al., 2014) recommendations, PLS-SEM applications have grown exponentially in the past decade (Hair et al., 2022), especially in the social sciences (e.g., Ali et al., 2018). Among the questionnaires distributed only 405 usable samples were obtained because some of the forms have missing data. Out of the 405 respondents, 60.5% (245) were collected from private universities, and 39.5 (160) were collected from public universities. Table (1) below outlines these sample characteristics.

Table (1): Sample characteristics

No.	Variables	Descriptive	Private Universities		Public Universities	
			No	%	No	%
	Gender	Male	137	55.9	93	58.1
		Female	108	44.1	67	41.9
	Age	18 – less than 20	49	20.0	48	30.0
		20 – less than 22	116	47.3	40	25.0
		22 – less than 24	53	21.6	26	16.3
		Above 24	27	11.0	46	28.7
	Status	Married	15	6.1	25	15.6
		Single	230	93.9	135	84.4
	Faculty	Business	188	76.7	125	78.1
		Engineering	6	2.4	8	5.0
		Literature and science	8	3.3	18	11.2

		pharmacy	35	14.3	2	1.3
		Law	4	1.6	3	1.9
		Others	4	1.6	4	2.5
	Do you practice small business	Yes	95	38.8	45	28.1
		No	150	61.2	115	71.9
6.	Standard of living	high	30	12.2	5	3.1
		medium	204	83.3	124	77.5
		low	11	4.5	31	19.4
7.	Study Year	Year 1	42	17.1	41	25.6
		Year 2	67	27.3	29	18.1
		Year 3	74	30.2	52	32.5
		Year 4	62	25.3	38	23.8
8.	Nationality	Jordanian	181	73.9	153	95.6
		Others	64	26.1	7	4.4
9.	Do you have or practice Business?	Yes	100	40.8	50	31.3
		NO	145	59.2	110	68.7
Total			245	100%	160	100%

Validity and Reliability

Scale validity and reliability were examined to validate all research constructs for both public and private universities survey. Composite reliability (CR), Average Variance Extracted (AVE), Cronbach's alpha and factor loadings were checked following the (Hair et al., 2014) recommendations. In details, all loading values exceed the minimum recommended level 0.5.

The research constructs also indicated high reliability, as shown by the result of composite reliability, which exceeds 0.70. According to (Hair et al., 2014), a CR of 0.60 to 0.70 is acceptable. The values of average variance extracted (AVE) were above 0.5, which supports the constructs' discriminant validity. Additionally, Cronbach's alpha values were also above 0.6, which indicates a high-reliability level (Sekaran and Bougie, 2016). Table (2) summarizes these results.

Table (2): Alpha, CR and AVE

Construct	Private Universities			Public Universities		
	Alpha	CR	AVE	Alpha	CR	AVE
Entrepreneurial Competencies	0.6846	0.8108	0.5231	0.799	0.870	0.628
Entrepreneurial Education	0.8120	0.8688	0.5704	0.858	0.895	0.589
Entrepreneurial Intention	0.8245	0.8753	0.5467	0.908	0.925	0.579
Entrepreneurial Government Support	0.6138	0.7942	0.5641	0.603	0.740	0.506
Perceived Behavioral Control	0.7625	0.8372	0.5074	0.863	0.893	0.514
Personal Intention	0.6764	0.8030	0.5097	0.824	0.878	0.592

Self-Efficiency	0.6012	0.7776	0.5414	0.758	0.844	0.575
Social Support	0.6224	0.7951	0.5642	0.687	0.810	0.516

The above evidences and results give a green light to the researcher to conduct further analysis and continue to hypothesis testing.

Hypothesis testing

H1: There is a significant statistical impact for independent variables (Entrepreneurial competencies, Entrepreneurial Education, Entrepreneurial Government Support, Perceived Behavioral Control, Personal

Intention, Self-Efficiency, Social Support) on the dependent variable (Entrepreneurial Intention) from public and private universities students' perspectives. From this basic hypothesis stems 7 sub hypotheses according to the 7 independent variables.

To test this hypothesis and come up with results, path analysis was applied. Figure1, figure2 and table 3 show the results.

Figure 1. Research path model

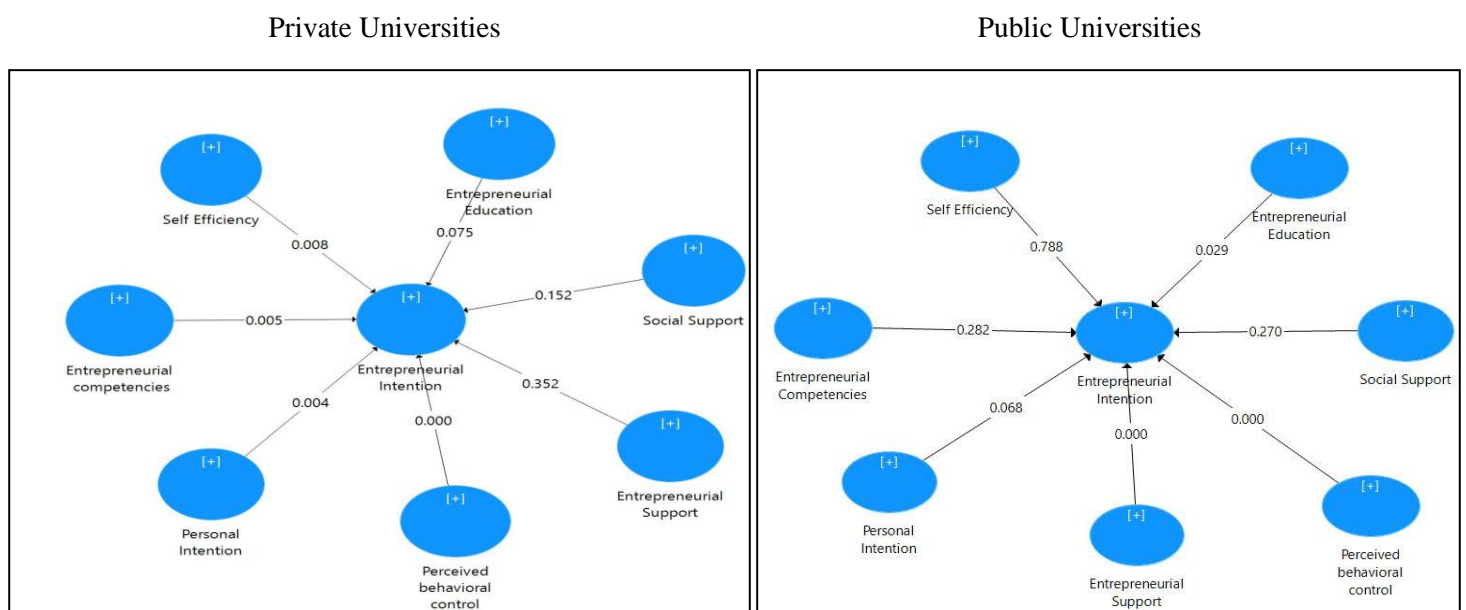


Table 3. Direct path hypothesis results

Independent variables	Dependent variables	Private Universities				Public Universities			
		t-value	SD	P	Results	t-value	SD	P	Results
Entrepreneurial Competencies	Entrepreneurial Intention	2.846	0.057	0.004	Supported	1.077	0.071	0.282	Not
Entrepreneurial Education		1.782	0.059	0.075	Not	2.187	0.060	0.029	Supported
Entrepreneurial Government Support		0.932	0.065	0.351	Not	4.474	0.070	0.000	Supported
Perceived Behavioral Control		3.802	0.062	0.000	Supported	4.722	0.076	0.000	Supported
Personal Intention		2.918	0.069	0.003	Supported	1.824	0.074	0.068	Not

Self-Efficiency		2.651	0.060	0.008	Supported	0.269	0.068	0.788	Not
Social Support		1.435	0.061	0.151	Not	1.102	0.053	0.270	Not

Accordingly, Hypothesis 1.1 predicted that entrepreneurial competencies is positively related to entrepreneurial intention from public and private universities student perspectives. The outcome conforms partially to this prediction (supported from private universities student perspective). Hypothesis 1.2 predicted that entrepreneurial education is positively related to entrepreneurial intention from public and private universities student perspectives. The outcome conforms partially to this prediction (supported from public universities student perspective). Hypothesis 1.3 predicted that entrepreneurial government support is positively related to entrepreneurial intention from public and private universities student perspectives. The outcome conforms partially to this prediction (supported from public universities student perspective). Hypothesis 1.4 predicted that perceived behavioral control is positively related to entrepreneurial intention from public and private universities student perspectives. The outcome conforms to this prediction (supported from both public and private universities student perspective).

Hypothesis 1.5 predicted that personal intention is positively related to entrepreneurial intention from public and private universities student

perspectives. The outcome conforms partially to this prediction (supported from private universities student perspective). Hypothesis 1.6 predicted that Self-Efficiency is positively related to entrepreneurial intention from public and private universities student perspectives. The outcome conforms partially to this prediction (supported from private universities student perspective). Hypothesis 1.7 predicted that social support is positively related to entrepreneurial intention from public and private universities student perspectives. The outcome fails to conform this prediction (Not supported from private universities student perspective).

H2: There is a significant difference between respondents to the independent variables (Entrepreneurial competencies, Entrepreneurial Education, Entrepreneurial Government Support, Perceived Behavioral Control, Personal Intention, Self-Efficiency, Social Support) and dependent variable Entrepreneurial Intention based on the public and private universities students. In order to test this hypothesis, independent T test was conducted. The results presented in Tables 4 below provided details for hypotheses results.

Table 4. Independent T test for H2

Variables	Sample*	Mean	SD	F	Sig	Df	Sig 2- tail
Self-Efficiency	1	3.467	.7425	16.396	.000	403	.000
	2	3.840	.5530			271.82	.000
Entrepreneurial Competencies	1	3.601	.6939	11.997	.001	403	.000
	2	3.961	.5471			283.81	.000
Personal Intention	1	3.842	.8462	35.293	.000	403	.000
	2	4.144	.5924			259.73	.000
Perceived Behavioral Control	1	3.452	.7575	13.709	.000	403	.000
	2	3.756	.5955			283.18	.000
Entrepreneurial Intention	1	3.688	.7574	24.488	.000	403	.000
	2	4.086	.5587			269.85	.000

Entrepreneurial Government Support	1	3.146	.6967	.176	.675	403	.000
	2	3.551	.6892			337.36	.000
Social Support	1	3.275	.7027	.097	.755	403	.000
	2	3.775	.6878			334.80	.000
Entrepreneurial Education	1	3.820	.8667	12.267	.001	403	.000
	2	4.1045	.7431			302.83	.001

*Sample1: Public universities. Sample2: Private universities

The above findings in table (4) reveal that there are a statistically significant differences between respondents' answers to the dependent variable (Entrepreneurial Intention) and also for the following independent variables (Entrepreneurial Competencies, Entrepreneurial Education, Perceived Behavioral Control, Personal Intention, Self-Efficiency) in favor of a private university's students' group. The results also shown that there are no significant differences between respondents' answers to entrepreneurial government support and social support between the two types of universities in Jordan.

5. Discussion and conclusions

From the data collected, it is obvious that private universities' students are more interested in entrepreneurial and small business than public universities students in Jordan. 39% of private universities students have practiced one type of small business compared with 28% of public universities students. Furthermore, students with an entrepreneurial family background have a stronger entrepreneurial intention than those without, which is consistent with the findings of certain researchers (Henley, 2007; Gurel et al., 2010; Bignotti and Roux, 2016). This study allowed the confirmation of the findings of previous studies concerning the relationship between EI and the attitudes towards entrepreneurship, the most important is that the Perceived Behavioral Control proved to be a very important factor in deciding the entrepreneurial intention for public and private universities students.

According to independent sample (t) test, there were statistically significant differences between private and public university students' answers for EI in favor of private universities

students, this may be explained the flexibility and rapidity in programme development facilities to face the fierce competition to attract more students.

Results support the point of view asserted that the following variables (Entrepreneurial competencies, Personal intention, Self-efficiency and Perceived Behavioral Control) are the most important factors to determine students intrapreneurial intention in private universities . Thus, it is suggested that the greater the student's attitude towards the entrepreneurship, the greater the entrepreneurial intention is .This result aligned with the fact that private universities students enjoy a better financial and living standards so that they have self-confidence and take risks to put forward new ideas and develop projects that are viable for growth and success. On the other hand, students at public universities rely heavily on entrepreneurial education and government support to enhance their entrepreneurial intention aligned with the perceived behavioral control. This last result, in particular, differs from the majority of past research in this field (Newman et al., 2019). This indicates that students are under less social and cultural pressure to pursue entrepreneurial careers. Encouragement from Community, family members, relatives, friends, and advisory and coaching from lecturers have shown that they have no statistical effect on entrepreneurial intention for both private and public universities students in Jordan. These surprising results disagree with some of previous studies like (Baughn, Le, Lim, & Neupert, 2006).

6. Recommendations

Jordanian universities, both private and public, often provide a fertile setting for students to learn how to overcome challenges and to enhance their entrepreneurial intentions, but they need a strong community and social support especially from their family members, relatives, friends, and advisory from all stakeholders especially the private sector in order to think and act as entrepreneurs from schools so that upon graduation they can start up their business

This study has a few limitations that should be addressed. First and foremost, this is a cross-sectional study, it is unable to completely investigate all the factors that may affect entrepreneurial intention, considering that the scope used in this research is not very specific to all the private and public university's students. In addition, this study is limited in its data-gathering using an online questionnaire, which has the flaw of having respondents who answer the questionnaire in a non-serious manner and cannot be regulated. Also, longitudinal research would be preferable to investigate the evolution of college students' entrepreneurial inclinations (from Private and public universities) as they get older and practice business in the Jordanian competitive real life. In addition, the researchers think that it is important to make a comparative study of future validity for the proven determinants of entrepreneurial intention locally, suggesting other new variables is advisable.

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