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**ORIGINAL**

# Impact of perceived behavioural control and personality traits on entrepreneurial intention of universities students - mediating role of entrepreneurial self-efficacy

## El impacto del control conductual percibido y de los rasgos de personalidad en la intención emprendedora de los estudiantes universitarios: el papel mediador de la autoeficacia emprendedora

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## ABSTRACT

**Introduction:** entrepreneurial intentions among students have garnered significant scholarly attention due to its role as a precursor to actual entrepreneurial activity and its potential for economic development. Factors that may affect individuals' decision to become entrepreneur must be fostered.
**Objective:** the primary objective of this paper is to examine the effect of perceived behavioural control and personality traits on students' entrepreneurial intentions among final year student in the Jordanian public universities. Besides, the mediating role of entrepreneurial self-efficacy is examined as well.
**Method:** this research follows quantitative research design. A sample of 389 graduating student from public universities in Jordan was selected by using stratified random sampling technique. SPSS and Smart-PLS SEM are used for the data analysis.
**Results:** the results supported the hypotheses, in which perceived behavioural control has a direct effect of 0,363, indirect effect of 0,225, and total effect of 0,588; besides, personality traits have a direct effect of 0,180, indirect effect of 0,148, and total effect of 0,328. the two variables are important to improve the students' entrepreneurial intention in Jordan.
**Conclusion:** this paper offers valuable recommendations to stakeholders in the education sectors in Jordanian universities. It will also add to the body of empirical literature on this subject by offering some valuable insight to the policy makers, practitioners as well as researchers to explore the effects of perceived behavioural control, personality traits and the entrepreneurial self-efficacy on the entrepreneurial intent of universities' students.

**Keywords:** Perceived Behavioural Control; Personality Traits; Entrepreneurial Self-Efficacy; Entrepreneurial Intention.

## RESUMEN

**Introducción:** las intenciones emprendedoras entre los estudiantes han ganado una atención académica significativa debido a su papel como precursor de la actividad emprendedora real y su potencial para el desarrollo económico. Se deben fomentar los factores que pueden afectar la decisión de las personas de convertirse en emprendedores.
**Objetivo:** el objetivo principal de este artículo es examinar el efecto del control conductual percibido y los rasgos de personalidad en las intenciones emprendedoras de los estudiantes de último año en las universidades públicas jordanas. Además, también se examina el papel mediador de la autoeficacia emprendedora.

**Método**: esta investigación sigue un diseño de investigación cuantitativa. Se seleccionó una muestra de 389 estudiantes graduados de universidades públicas en Jordania utilizando la técnica de muestreo aleatorio estratificado. SPSS y Smart-PLS SEM se utilizan para el análisis de datos.
**Resultados**: los resultados respaldaron las hipótesis, en las que el control conductual percibido tiene un efecto directo de 0,363, un efecto indirecto de 0,225 y un efecto total de 0,588; Además, los rasgos de personalidad tienen un efecto directo de 0,180, un efecto indirecto de 0,148 y un efecto total de 0,328. Ambas variables son importantes para mejorar la intención emprendedora de los estudiantes en Jordania.
**Conclusión**: este artículo ofrece recomendaciones valiosas para las partes interesadas en los sectores educativos de las universidades jordanas. También contribuirá al cuerpo de literatura empírica sobre este tema al ofrecer información valiosa a los responsables de las políticas, los profesionales y los investigadores para explorar los efectos del control conductual percibido, los rasgos de personalidad y la autoeficacia emprendedora en la intención emprendedora de los estudiantes universitarios.

**Palabras clave:** Control Conductual Percibido; Rasgos de Personalidad; Autoeficacia Empresarial; Intención Empresarial.

## INTRODUCTION

The notion of fostering entrepreneurial intentions among students has garnered significant scholarly attention, primarily due to its role as a precursor to actual entrepreneurial activity and its potential for economic development.[1] Understanding the antecedents of students' entrepreneurial intentions is therefore of paramount importance to academia, policy-makers, and educators alike, as it directly influences future entrepreneurial actions and the broader socio-economic landscape.

According to global entrepreneurship index, Jordan was ranked (64) out of (136) countries worldwide, with an entrepreneurship index of 29,4. which needs to be promoted.[2] However, Jordan experienced a very high rate of unemployment which reached 22,6 percent in the second quarter of 2022.[3]

Individuals are more likely to persist and exert more effort when they perceive themselves to have a high degree of perceived behavioural control (PBC).[4] This makes them more determined to take the required actions to accomplish their objectives. PBC takes into account intellectual prowess, skill evaluations, and the capacity to overcome obstacles.[5]

The fact or of personality traits (PT) was also among the most prevalent areas of research when it came to determining entrepreneurial intent.[6] However, most of the research has concentrated on the link between the Big Five personality traits and entrepreneurship in developed countries, while developing countries such as Jordan have received insufficient attention.[7]

Moreover, it was often assumed that there was no consistent association between personality and entrepreneurship.[6] Therefore, several scholars have tried to explain the disparity in outcomes by examining the impact of mediating variables.[8] Simultaneously, individuals with higher self-efficacy for an aim outperform those who have a lower level, and they are also more motivated to keep trying to accomplish their goals.[9] Moreover, little is known about mediators of entrepreneurial intention. The aim of this study is therefore to look into the mediation role of ESE and the connection between PT and PBC with entrepreneurial intention.[10]

The present work fills a knowledge gap about the behavioural and psychological factors that affect entrepreneurial intentions; this is a field that needs more empirical research. By using an integrated conceptual framework combining the Self-Determination Theory and the Theory of Planned Behaviour, the study seeks to clarify these antecedents. By use of exacting statistical analysis, the study aims to offer thorough understanding of the factors influencing entrepreneurial intentions.

### Literature review

*Relationship between perceived behavioural control and entrepreneurial intention*

Entrepreneurial intention is the committed effort of a person to start and grow a business.[11] The author suggested that entrepreneurial intentions (EI) might be understood as a cognitive process that is recognised before to the start of business activities. In the literature now in publication, conceptual frameworks for understanding entrepreneurial intention have been proposed: Shapero's Model of the "Entrepreneurial Event" and Ajzen's Model of "Theory of Planned Behaviour". The first model incorporates elements including desire perception, perceived feasibility, and propensity to act in order to define the construct of entrepreneurial intention. Incorporating subjective norms, personal attitudes, and perceived behavioural control[12] characterised the goal in the second model. Notably high levels of interoperability were shown by both methods.[14]

perceived behavioural control (PBC) refers to the feeling of ease or difficulty in carrying out behaviours and believed to include any upcoming obstacles or supportive conditions. The view of a person's capability

to accomplish the necessary tasks in the context of starting new businesses influences the success of the enterprise.

Previous studies revealed a strong correlation between perceived PBC and EI.[4,15,16] Other research found that the most significant indicator of entrepreneurial intention and aspirations is the perceived behaviour control.[17,18] Hence, it can be hypothesize that:

- "Perceived behaviour control has a significant effect on students' entrepreneurial intention".

*Relationship between personality traits and entrepreneurial intention*

Considering the extensive growth of scholarly inquiry in the field of entrepreneurship, it is noteworthy that personality-level variables continue to hold significant importance within the foundational frameworks of entrepreneurial intentions.[19] People with certain personality types are more likely to actively seek out entrepreneurial activities because they are naturally inclined to find them enjoyable and personally fulfilling. Those who lack the attributes needed to succeed in business may discover that they lose motivation to pursue their dreams after their first project experiences a major setback. Researchers stressed how personality traits are important in determining a person's ideal career path.[8] Different combinations of the main five personality traits can increase the likelihood of an individual being an entrepreneur. An extensive analysis has been done, highlighting the significance of personality traits in relation to students' entrepreneurial intention:[20]

- "Personality traits has a significant effect on students' entrepreneurial intention".

*Relationship between entrepreneurial self-efficacy and entrepreneurial intention*

Entrepreneurial self-efficacy is the conviction of an individual in their own capacity to successfully complete a certain task.[21] People perform better and stay away from activities they believe will be challenging for them when they feel more confident in themselves.[22] Lentet[23] self-efficacy, professional interest, and intentions about career choice were significantly correlated. In the field of entrepreneurship research, self-efficacy has become standard practice to increase the accuracy of forecasting entrepreneurial intentions and to get a complete understanding of the intricate entrepreneurial behaviour exhibited by both novice and seasoned entrepreneurs.[24] Moreover, a few recent scholarly research[25,26,27,28,10] have confirmed the significant contributions made by entrepreneurial self-efficacy (ESE) to the development of entrepreneurial intention. Thus, the study proposed:

- "Entrepreneurial self-efficacy has a significant effect on students' entrepreneurial intention".

*Perceived behavioural control, entrepreneurial self-efficacy and entrepreneurial intention (mediating role)*

As previously discussed, various studies found a significant effect of the PBC on the EI.[29,15,16,4,17] On the other hand, Saraswati[30] found that PBC has indirect influence on entrepreneurial intention by the intervening of ESE. Additionally, more recent studies[25,27,10] confirmed that ESE can also affect the development of entrepreneurial intention. Thus, conceptually, ESE can be a mediator in the relationship between PBC and entrepreneurial intention:

- "Perceived behavioural control has a significant effect on entrepreneurial self-efficacy".
- "Entrepreneurial self-efficacy mediates the relationship between perceived behaviour control and students' entrepreneurial intention".

*Personality traits, entrepreneurial self-efficacy and entrepreneurial intention (mediating role)*

As previously elucidated, some of scholarly investigations have presented a comprehensive overview regarding the significance of personality traits in relation to the entrepreneurial intention of students.[8,31,20] Previous research[32] has demonstrated empirical evidence supporting the influence of PT on ESE. In a similar vein, it has been demonstrated in several recent studies that ESE can exert an impact on the enhancement of EI.[25,27,28,10] Thus, it is possible to argue, theoretically, that Entrepreneurial Self-Efficacy (ESE) could act as a possible mediator in the complex interaction between personality characteristics and the development of entrepreneurial intention. Rosique-Blasco and colleagues[33] proposed the mediating function of self-efficacy between personal ability and entrepreneurial intention. The United States, Finland, and Russia reported a strong correlation between entrepreneurial self-efficacy (ESE) and the influence of proactive personality on entrepreneurial intention in a recent study by Kumar et al.[24]. Both in the relationship between proactive personality and entrepreneurial intention as well as between creativity and entrepreneurial intention, the researchers found that self-efficacy acted as a mediator. The following hypothesis is put forth based on the conversation.

- "Personality traits have a significant effect on entrepreneurial self-efficacy".
- "Entrepreneurial self-efficacy mediates the relationship between personality traits and students' entrepreneurial intention".

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## METHOD

The design of this research allocate it to the positivism philosophy because the authors assumed that the different variables of the theoretical framework can be presented in numbers and can be evaluated based on statistical analysis. The population of this study consisted of the graduating students in the Jordanian public universities. The graduating students chosen as they stand at a critical juncture, making career decisions that can have lasting impacts on their lives and the broader economy. The estimated number of graduating students in the public universities in Jordan is 30 236. According to Krejcie et al.[34] formula for estimating the suitable sample size, the target sample size is 380 samples; this is based on the assumption of 5 % margin error and 95 % probability level. However, the actual valid dataset that used in the results includes 389 respondents. The sample selected from the universities by using stratified sampling technique; in the which every university is a stratum, and the data collected based on the ratio of students' size. The data collected in 2022 by using the online google form service.

The questionnaire used the likert-5 scale and adapted from some previous studies. The scale of entrepreneurial intention includes 5 items, which was adapted from Trivedi[29], Puni.[26] Bueckmann-Diegoli, & Gutiérrez, (2020) and Liñán& Chen (2009). The scale of perceived behavioural control includes 5 items, which was adapted from Trivedi.[29] The seven items of the personality traits scale were taken from Mei[35] and Aruoren.[36] The eight-item scale of entrepreneurial self-efficacy was modified from Al-Ghazali et al.[37] Three specialists validated the modified questionnaire, and after a 35-respondent pilot study, the findings showed a suitable degree of internal consistency.

## RESULTS

A several regression analyses were carried out using PLS-SEM. Smart-PLS was used for the evaluation of the structural models and measurement. Earlier researchers had suggested and used a PLS-SEM method for the data analysis.[38] Three primary areas are covered in the analytical report of the study that follows: data screening and descriptive statistics, measurement model assessment for validity and reliability, and structural model evaluation to examine the put forth hypotheses. The goals of the study are informed by these analyses taken together, which also provide empirical rigour to the results.[39]

### Data Screening, Frequency, and Descriptive Analysis

Table 1 shows strong methodological integrity of the data screening procedure. After 450 questionnaires were gathered at first, 15 (3,33 %) were rejected for inappropriateness, confirming the clarity and understanding of the questions by the respondents. Reliability of the data is further supported by a low 7,78 % engagement answer rate and a low 2,44 % univariate outliers. Crucially, no outliers in more than one variable were found. The quality and appropriateness of the dataset for intricate statistical modelling were confirmed by the retention for analysis of 389 valid responses, or 86,44 % of the original dataset.[40]

**Table 1.** Data Screening

| Process | Frequency | % |
|---|---|---|
| No. of Distributed Questionnaires | All Graduates via Universities' Portals | |
| No. of Collected Questionnaires | 450 | 100,00 |
| No. of Unsuitable Answers | 15 | 3,33 |
| Initial dataset for Analysis | 440 | 97,78 |
| Engagement answers | 35 | 7,78 |
| Outliers based on Univariate $Z^2$ test | 11 | 2,44 |
| Outliers based on Multivariate Mahalanobis test | 0 | 0,00 |
| Final Dataset of valid answers | 389 | 86,44 |

The demographic characteristics of the sample primarily comprise younger individuals, with 92,3 % falling within the age bracket of 21–25 years. Most of the respondents are male, constituting 57,8 % of the sample. Regarding their university affiliation, the highest concentration of participants emanates from The University of Jordan (19,8 %) and Yarmouk University (16,7 %), which collectively account for over 36,5 % of the sample. Most respondents are enrolled in Business or Economics programmes, representing 35 % of the sample. In terms of geographic distribution, a notable 21,9 % reside in Amman. Finally, a substantial proportion of respondents have either a self-employed father (41,6 %) or both self-employed parents (36,8 %), totalling 78,4 % of the sample with entrepreneurial family backgrounds.

The descriptive statistics in table 2 reveal various levels of agreement across the constructs. Entrepreneurial intention has a mean score of 3,221 and a standard deviation of 1,123, signifying a satisfactory level of agreement

at 64,42 %. Entrepreneurial self-efficacy exhibits a satisfactory level of agreement with a mean score of 3,273 and a standard deviation of 1,154, accounting for 65,46 %. Perceived behavioural control demonstrates a satisfactory level of agreement as well, as evidenced by its mean score of 3,426 and a standard deviation of 0,993, representing 68,52 %. Lastly, personality traits attain the highest level of agreement, characterised as satisfactory, with a mean of 3,613 and a standard deviation of 0,962, translating to 72,26 %.

**Table 2.** Descriptive Statistics

| Constructs | No of Items | Mean | % | Std. Deviation |
|---|---|---|---|---|
| Entrepreneurial Intention | 5 | 3,221 | 64,42 | 1,123 |
| Entrepreneurial Self-efficacy | 8 | 3,273 | 65,46 | 1,154 |
| Perceived Behavioural Control | 5 | 3,426 | 68,52 | 0,993 |
| Personality Traits | 7 | 3,613 | 72,26 | 0,962 |

*Measurement Model Assessment – Reliability and Validity*

All items show adequate outer loadings, as per the measurement model shown in figure 2, so item removal is not necessary. The observation just mentioned emphasises the robustness of the measurement model and reinforces the structural integrity of the constructs under investigation.[41]

The internal consistency and reliability of the constructs are assessed by use of the Composite Reliability (CR) values. For satisfactory degrees of reliability, Hair and others[41] advise that the composite reliability (CR) values exceed 0,7. It is clear from the statistics in table 3 that every construct has composite reliability (CR) values higher than the predetermined cutoff. Reliability and internal consistency of the constructs are confirmed by the fact that Entrepreneurial Self-Efficacy (ESE) has the highest CR value of 0,946.

To assess the internal consistency of the scale items with Cronbach's Alpha (CA). Reliability is well known to be acceptable when the Cronbach's Alpha value is greater than 0,7, as Bell[42] noted. The information in table 3 demonstrates that every construct has CA values greater than the established standard, so confirming the internal reliability of the questionnaire.

Convergent validity of constructs is assessed by means of the Average Variance Extracted (AVE). A well acknowledged recommendation from Fornell et al.[43] states that acceptable convergent validity is indicated by values of Average Variance Extracted (AVE) greater than 0,5. Perceived Behavioural Control (PBC) construct achieves an Average Variance Extracted (AVE) value of 0,519, which is little lower but still above the set threshold, according to the results shown in table 3. Convergent validity of all the constructs under study is confirmed by this result.

In conclusion, the methodological rigour of the study is emphasised by the validation of the internal consistency, reliability, and convergent validity of the constructs by the application of the measurement model and its related statistical measures.

**Table 3.** Composite Reliability and Convergent Validity

| | CA | CR | AVE |
|---|---|---|---|
| Entrepreneurial Intentions (EI) | 0,903 | 0,926 | 0,715 |
| Entrepreneurial Self-Efficacy (ESE) | 0,936 | 0,946 | 0,688 |
| Perceived Behavioural Control (PBC) | 0,773 | 0,843 | 0,519 |
| Personality Traits (PT) | 0,871 | 0,896 | 0,555 |

Using Fornell et al.[43] Fornell-Larcker Criterion, the discriminant validity for the constructs is evaluated. The square root of the Average Variance Extracted (AVE) for each construct should, by this criterion, exceed the correlations involving said construct. As can be seen from table 4, the diagonal elements—EI (0,845), ESE (0,830), PBC (0,760), and PT (0,745)—show values that are greater than the off-diagonal elements found in the corresponding rows and columns. These diagonal elements correspond to the square root of the average variance extracted (AVE) for each construct. The results obtained offer strong proof of discriminant validity, so confirming that every construct has a suitable degree of uniqueness and successfully accounts for a certain amount of variance that is not explained by the other constructs in the conceptual framework.

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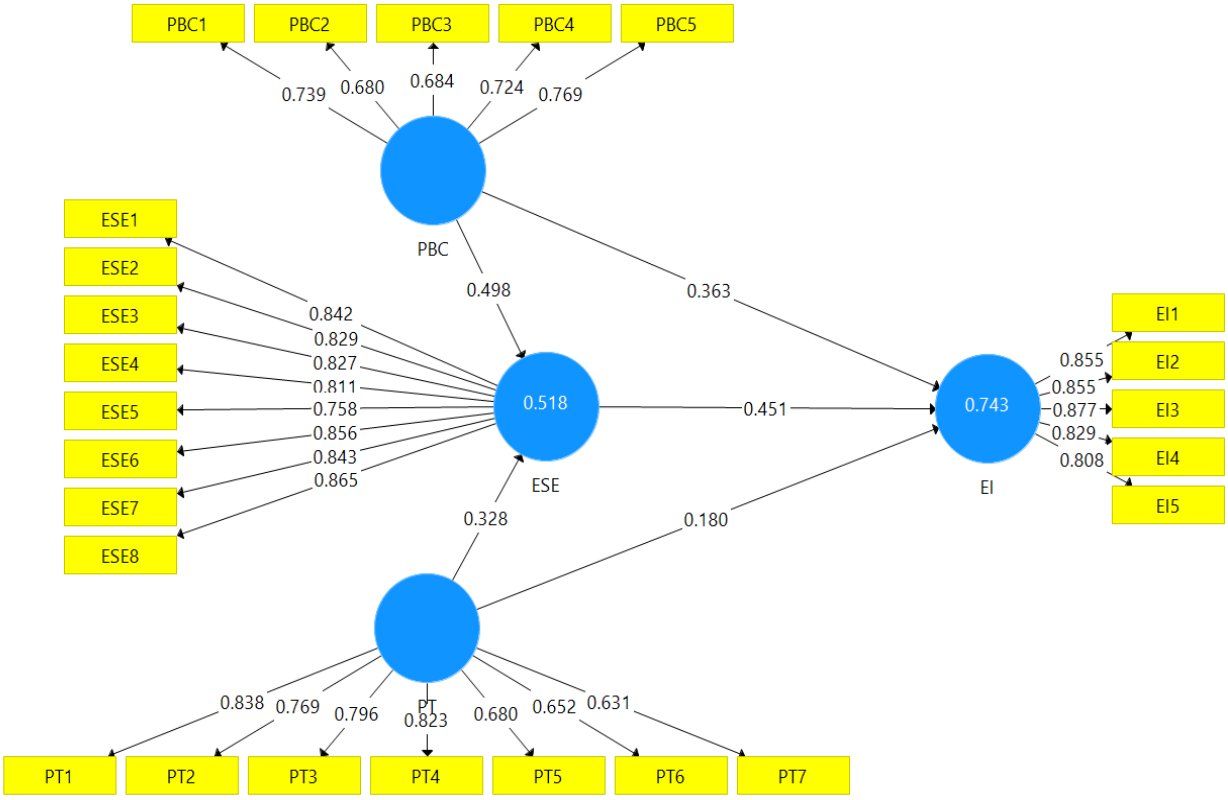


**Figure 1.** Measurement Model - Outer loading

| **Table 4.** Discriminant Validity - Fornel-Larcker Criterion | | | | |
|---|---|---|---|---|
| | **EI** | **ESE** | **PBC** | **PT** |
| Entrepreneurial Intentions (EI) | 0,845 | | | |
| Entrepreneurial Self-Efficacy (ESE) | 0,795 | 0,830 | | |
| Perceived Behavioural Control (PBC) | 0,751 | 0,661 | 0,760 | |
| Personality Traits (PT) | 0,621 | 0,576 | 0,498 | 0,745 |

The Heterotrait-Monotrait Ratio (HTMT) Criteria is further used to verify the constructs' discriminant validity. HTMT values are generally assumed to be less than 0,9 for acceptable discriminant validity.[44] As shown in table 5, all the HTMT values, such as EI and ESE (0,864), EI and PBC (0,898), and EI and PT (0,697), are below the threshold of 0,9. This demonstrates that the constructs are distinct from one another, reinforcing the discriminant validity of the model under scrutiny.

| **Table 5.** Discriminant Validity - HTMT Criterion | | | | |
|---|---|---|---|---|
| | **EI** | **ESE** | **PBC** | **PT** |
| EI | | | | |
| ESE | 0,864 | | | |
| PBC | 0,898 | 0,776 | | |
| PT | 0,697 | 0,642 | 0,607 | |

*Structural Model Assessment - Relationships Assessments*

The subsection on structural model assessment concentrates on the examination of the relationships outlined in the research hypotheses. This involves three focal areas: predictive power of the model, direct effects between constructs, and the mediating role of entrepreneurial self-efficacy. Theoretical assumptions of the study are solidly empirically supported by these evaluations.[45]

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**Predictive Power**

The explaining power of the proposed model is demonstrated by the R-squared values pertaining to the dependent variables, namely Entrepreneurial Intentions (EI) and Entrepreneurial Self-Efficacy (ESE). Hair[45] proposes that an R-squared value of 0,75 is classified as excellent, 0,50 as good, and 0,25 as weak. The findings presented in table 6 indicate that the R-squared value for EI is 0,743, while for ESE, it is 0,518. Both values are classified as "Good (Moderate)," indicating a significant level of explained variance for both constructs. This observation suggests that the model possesses a satisfactory level of predictive power, thus affirming its usefulness in elucidating the relationship between entrepreneurial intentions and self-efficacy among university students.

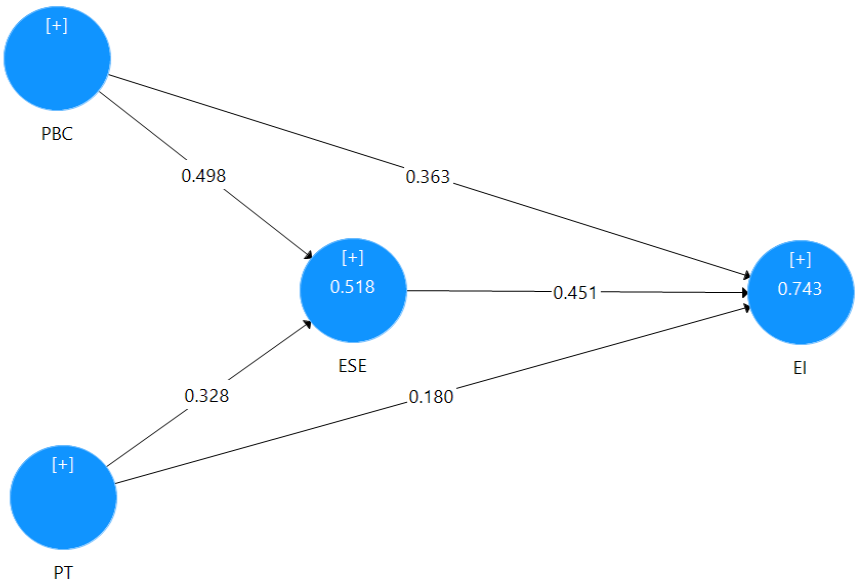


**Figure 2.** Structural Model – Predictive Power

**Table 6.** Predictive Power and Predictive Relevance of Proposed Model

| Predictive Power | | |
|---|---|---|
| | R Square | Status |
| Entrepreneurial Intentions (EI) | 0,743 | Good (Moderate) |
| Entrepreneurial Self-Efficacy (ESE) | 0,518 | Good (Moderate) |

**Direct Effect**

In evaluating the direct hypotheses, the rule of thumb posits that a p-value less than 0,05 typically indicates statistical significance, while a t-statistic above 1,96 affirms the same.[45] The study has five direct effects; the results in table 7 and figure 4 revealed that all hypotheses are significant. The following is the results for every hypothesis.

- Hypothesis 1 (PBC -> EI) suggests a path coefficient of 0,363 with a t-statistic of 7,243 and a p-value of 0,000. This clearly exceeds the rule of thumb, thereby confirming that Perceived Behavioural Control (PBC) has a significant effect on Entrepreneurial Intentions (EI).
- Hypothesis 2 (PT -> EI) yields a path coefficient of 0,180, a t-statistic of 5,147, and a p-value of 0,000. This substantiates the hypothesis, indicating that Personality Traits (PT) significantly influence Entrepreneurial Intentions (EI).
- Hypothesis 3 (PBC -> ESE) is affirmed with a path coefficient of 0,498, a t-statistic of 10,984, and a p-value of 0,000. This suggests that Perceived Behavioural Control (PBC) significantly impacts Entrepreneurial Self-Efficacy (ESE).
- Hypothesis 4 (PT -> ESE) offers a path coefficient of 0,328, a t-statistic of 7,300, and a p-value of 0,000. Thus, it is evident that Personality Traits (PT) have a significant effect on Entrepreneurial Self-Efficacy (ESE).
- Lastly, Hypothesis 5 (ESE -> EI) reveals a path coefficient of 0,451, a t-statistic of 8,884, and a p-value of 0,000, affirming that Entrepreneurial Self-Efficacy (ESE) significantly affects Entrepreneurial Intentions (EI).

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Since every hypothesis is confirmed, it follows that personality traits and perceived behavioural control have a major direct impact on entrepreneurial intentions and self-efficacy.

**Table 7.** Results of Direct Hypotheses

| # | Relationship | Path Coefficient | Standard Deviation | T Statistics | P Values | Status |
|---|---|---|---|---|---|---|
| H1 | PBC -> EI | 0,363 | 0,050 | 7,243 | 0,000 | Significant |
| H2 | PT -> EI | 0,180 | 0,035 | 5,147 | 0,000 | Significant |
| H3 | PBC -> ESE | 0,498 | 0,045 | 10,984 | 0,000 | Significant |
| H4 | PT -> ESE | 0,328 | 0,045 | 7,300 | 0,000 | Significant |
| H5 | ESE -> EI | 0,451 | 0,051 | 8,884 | 0,000 | Significant |

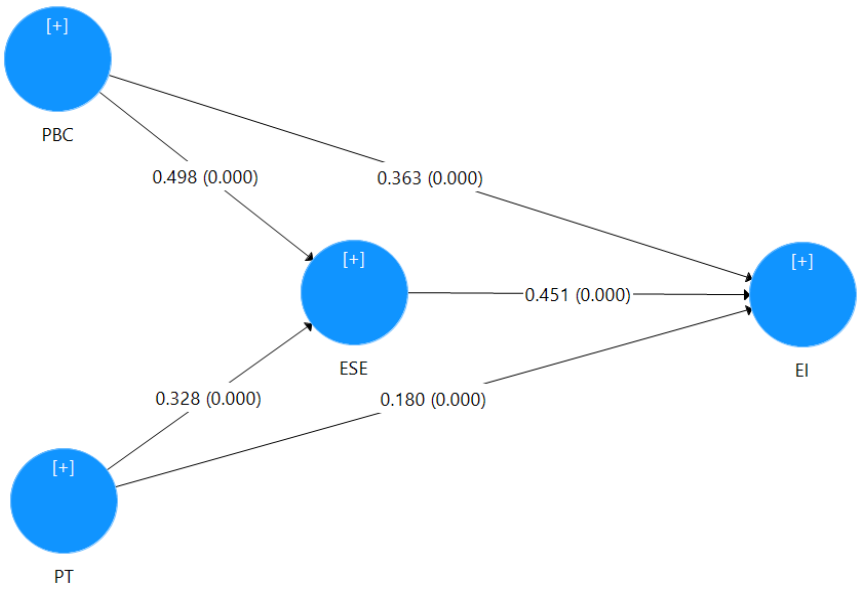


**Figure 3.** Structural Model - Path Coefficient and P Value

**Testing Mediating Effect**

Usually, one looks at how Entrepreneurial Self-Efficacy (ESE) affects Perceived Behavioural Control (PBC), personality traits (PT), and entrepreneurial intentions (EI) directly, indirectly, or overall. A p-value of less than 0,05 is considered statistically significant.[45] Table 8 contains the outcomes concerning the two mediating effects.

As seen by p-values of 0,000, which denote statistical significance, hypothesis 5 (PBC -> ESE -> EI) shows noteworthy direct and indirect effects. The present study examines the cumulative impact of the direct effect ($\beta$ = 0,363) and the indirect effect ($\beta$ = 0,225), resulting in a total effect of $\beta$ = 0,588. The significance of both the direct and indirect paths suggests the presence of partial mediation. In a similar vein, Hypothesis 6 (PT -> ESE -> EI) expounds upon a direct effect with a coefficient of $\beta$ = 0,180 and an indirect effect with a coefficient of $\beta$ = 0,148, both of which are statistically significant at a significance level of $p < 0,000$. The overall impact, amounting to a coefficient of $\beta$ = 0,328, further indicates the presence of partial mediation between PT (predictor variable) and EI (outcome variable) through the mediating variable of ESE (mediator variable).

Therefore, it can be inferred that Entrepreneurial Self-Efficacy serves as a partial mediator in the relationship between Perceived Behavioural Control, Personality Traits, and Entrepreneurial Intentions.

**Table 8.** Mediating Assessment of Effective Internal Control

| # | Relationship | Direct Effect | | | Indirect Effect | | | Total Effect | | Status (Mediation) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Beta | P-Value | Status | Beta | P-Value | Status | Beta | P-Value | |
| H5 | PBC -> ESE -> EI | 0,363 | 0,000 | Sig | 0,225 | 0,000 | Sig | 0,588 | 0,000 | Partial Mediation |
| H6 | PT -> ESE -> EI | 0,180 | 0,000 | Sig | 0,148 | 0,000 | Sig | 0,328 | 0,000 | Partial Mediation |

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## DISCUSSION

This study examined the effect of perceived behavioural control and personality traits on final-year Jordanian public university students' entrepreneurial intentions, given the high unemployment rate in Jordan, especially among young people and graduates, and its negative impact on the country's social and economic problems. Entrepreneurship is crucial to national economies. Additionally discussed is the facilitating function of entrepreneurial self-efficacy. A strict measuring model and hypothesis testing are described in the results part. High composite reliability together with strong convergent and discriminant validity gave the measurement model a solid basis for further study.[46]

Entrepreneurial intention (EI) antecedents were identified to be H1, H2, and H5. Perceived behavioural control (PBC) was found to have a major effect on EI by previous research.[16,4] The impact of personality traits (PT) on emotional intelligence (EI) was smaller than in previous studies[47,20] although being significant. Both Vamvaka[28] and Liao[10] found that Entrepreneurial Self-Efficacy (ESE) was a major contributing factor. This finding emphasises investments made by universities in entrepreneurship.[4]

Under the antecedents of entrepreneurial self-efficacy (ESE) hypotheses H3 and H4, PBC and PT were important determinants. H3 contends that entrepreneurs who feel they have more behavioural control are more self-efficacious. In both cultures, perceived behavioural control significantly influenced entrepreneurial self-efficacy.[48,49] As in theory (H4), traits of the personality increase self-efficacy in business. Al-Qadasi et al.[50] found comparable links.

The last two hypothesis, H5 and H6, showed that PBC, PT, and EI are mediated by ESE. Mediation in both cases was partial. According to hypothesis (H5), ESE partially mediates the PBC-EI link. This validates Naushad and Malik[51] result that self-efficacy strongly mediates psychological characteristics and entrepreneurial intention. For hypothesis (H6), ESE mediated the association between personality traits and entrepreneurial intention. ESE mediates personal ability and entrepreneurial intention, as reported by Rosique-Blasco.[33]

## CONCLUSIONS

This study highlights the complex relationship between perceived behavioral control (PBC), personality traits, and entrepreneurial intentions (EI) among final-year students at Jordanian public universities. It underscores the critical role of entrepreneurship in addressing the country's youth unemployment issue. The results show that PBC has a strong positive effect on students' intentions to pursue entrepreneurship, consistent with earlier studies. However, while personality traits also influence entrepreneurial intentions, their impact was found to be smaller than what previous research has suggested. Additionally, entrepreneurial self-efficacy (ESE) plays a vital role in this dynamic. It helps to mediate the effects of both PBC and personality traits on entrepreneurial intentions, acting as a confidence booster for students who believe in their ability to succeed in entrepreneurial ventures.

The research emphasizes the need to integrate ESE into university programs, as building students' confidence in their entrepreneurial skills could increase their likelihood of pursuing entrepreneurship. With a solid measurement framework that demonstrates strong reliability and validity, this study lays the groundwork for future research on the factors that encourage entrepreneurship among young graduates. By focusing on the drivers of entrepreneurial intentions and the crucial role of ESE, the study provides important insights for policymakers and educators looking to promote entrepreneurship as a solution to Jordan's youth unemployment crisis and the social and economic challenges that come with it.

### Contributions and recommendations

This study contributes to the stakeholders in education sector in Jordan and other similar contexts as the study's findings give them a better understanding of the variables influencing university students' intentions in Jordan. With evidence on variables influencing entrepreneurial intention, practitioners recognize the significance of the drivers for greater intent and, as a result, more entrepreneurial activity. Additionally, prospective researchers can use findings from this study to examine other independent variables, moderators, or another mediator that can be applied to improving entrepreneurial intention of universities students.

Notwithstanding the noteworthy contributions rendered by the present study, it is imperative to acknowledge the existence of certain limitations that warrant careful consideration. For instance, the utilisation of cross-sectional data may pose challenges in establishing causal relationships between variables. Moreover, the study exclusively employs quantitative research methodologies. Moreover, the scope of this study was limited to the examination of two specific factors, namely PBC and PT, along with the inclusion of one mediator, namely ESE. Furthermore, it is important to note that this research exclusively concentrated on public universities within the specific context of Jordan. In order to mitigate these aforementioned limitations and enhance the breadth of understanding, it is recommended that future inquiries concentrate on longitudinal data and comparative research pertaining to the aforementioned variables. In future investigations, it is plausible to employ qualitative research methodologies such as focus groups and interviews to further elucidate the intricacies of

the association between the variables under scrutiny. This model and the findings of this study can potentially serve as a valuable reference for practitioners and stakeholders within the higher education sector. The findings of this study have the potential to contribute to the enhancement of entrepreneurial intention and subsequent entrepreneurial endeavours in Jordan and comparable settings. This research holds substantial significance within the academic community, as it has the potential to serve as a foundational framework for incorporating additional environmental factors into the existing model, thereby facilitating its further expansion.

## BIBLIOGRAPHIC REFERENCES

1. Banha F, Coelho LS, Flores A. Entrepreneurship education: A systematic literature review and identification of an existing gap in the field. Education Sciences. 2022 May 11;12(5):336.

2. Knoema. Jordan - global entrepreneurship index [Internet]. 2019 [cited 2022 Aug 24]. Available from: https://knoema.com/atlas/Jordan/topics/World-Rankings/World-Rankings/Global-entrepreneurship-index

3. Department of Statistics of Jordan. Unemployment rate for Jordanians. [Amman]: Department of Statistics of Jordan; 2022.

4. Lopes JM, Laurett R, Ferreira JJ, Silveira P, Oliveira J, Farinha L. Modeling the predictors of students' entrepreneurial intentions: the case of a peripheral European region. Industry and Higher Education. 2023 Apr;37(2):208-21.

5. Gieure C, del Mar Benavides-Espinosa M, Roig-Dobón S. The entrepreneurial process: The link between intentions and behavior. Journal of Business Research. 2020 May 1;112:541-8.

6. Awwad MS, Al-Aseer RM. Big five personality traits impact on entrepreneurial intention: the mediating role of entrepreneurial alertness. Asia Pacific Journal of Innovation and Entrepreneurship. 2021 Jul 6;15(1):87-100.

7. Alkhatib K, Al-Aiad A, Mustafa M, Alzubi S. Impact factors affecting entrepreneurial intention of Jordanian private universities students: a mediation analysis of perception toward entrepreneurship. Sustainable and Energy Efficient Computing Paradigms for Society. 2021:53-65.

8. Farrukh M, Raza A, Sajid M, Rafiq M, Hameed R, Ali T. Entrepreneurial intentions: The relevance of nature and nurture. Education+ Training. 2021 Nov 1;63(7/8):1195-212.

9. Asimakopoulos G, Hernández V, Miguel JP. Entrepreneurial intention of engineering students: the role of social norms and entrepreneurial self-efficacy. Sustainability. 2019;11(6):1–17.

10. Liao YK, Nguyen VH, Caputo A. Unveiling the role of entrepreneurial knowledge and cognition as antecedents of entrepreneurial intention: a meta-analytic study. International Entrepreneurship and Management Journal. 2022 Dec;18(4):1623-52.

11. Krueger N. The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability. Entrep Theory Pract. 1993;18(1):5–21.

12. Van Gelderen M, Brand M, Van Praag M, Bodewes W, Poutsma E, Van Gils A. Explaining entrepreneurial intention by means of the theory of planned behaviour. Career Dev Int. 2008;13(6):538–559.

13. Krueger N, Reilly M, Carsrud, A. Competing models of entrepreneurial intention. Journal of business venturing. 2000;15(5-6), 411-432.

14. Ferri L, Ginesti G, Spanò R, Zampella A. Exploring the entrepreneurial intention of female students in Italy. J Open Innov Technol Mark Complex. 2018;4(3):27.

15. Mawardi MK, Baihaqi AI. Impact of Attitudes Towards Entrepreneurship, Subjective Norms and Perceived Behavioral Control in Creating Entrepreneurial Intention. In2nd Annual International Conference on Business and Public Administration (AICoBPA 2019) 2020 Nov 17 (pp. 53-56). Atlantis Press.

16. Raza SA, Qazi W, Shah N. Factors affecting the motivation and intention to become an entrepreneur among business university students. International Journal of Knowledge and Learning. 2018;12(3):221-41.

17. Dinc MS, Budic S. The impact of personal attitude, subjective norm, and perceived behavioural control on entrepreneurial intentions of women. Eurasian Journal of Business and Economics. 2016 May 31;9(17):23-35.

18. Vodă AI, Florea N. Impact of personality traits and entrepreneurship education on entrepreneurial intentions of business and engineering students. Sustainability. 2019 Feb 23;11(4):1192.

19. Yasir N, Liren A, Mehmood N, Arfat Y. Impact of personality traits on entrepreneurial intention and demographic factors as moderator. International Journal of Entrepreneurship. 2019;23(1):1-20.

20. Bandura A. The explanatory and predictive scope of self-efficacy theory. Journal of social and clinical psychology. 1986 Sep;4(3):359-73.

21. Forbes, D. P. (2005). The effects of strategic decision making on entrepreneurial self‐efficacy. Entrepreneurship theory and practice, 29(5), 599-626.

22. Lent RW, Brown SD, Hackett G. Toward a unifying social cognitive theory of career and academic interest, choice, and performance. Journal of vocational behavior. 1994 Aug 1;45(1):79-122.

23. Kumar R, Shukla S. Creativity, proactive personality and entrepreneurial intentions: examining the mediating role of entrepreneurial self-efficacy. Global Business Review. 2022 Feb;23(1):101-18.

24. Moraes GH, Iizuka ES, Pedro M. Effects of entrepreneurial characteristics and university environment on entrepreneurial intention. Revista de Administração Contemporânea. 2018 Mar;22:226-48.

25. Puni A, Anlesinya A, Korsorku PD. Entrepreneurial education, self-efficacy and intentions in Sub-Saharan Africa. African Journal of Economic and Management Studies. 2018 Oct 29;9(4):492-511.

26. Nowiński W, Haddoud MY, Lančarič D, Egerová D, Czeglédi C. The impact of entrepreneurship education, entrepreneurial self-efficacy and gender on entrepreneurial intentions of university students in the Visegrad countries. Studies in Higher Education. 2019 Feb 1;44(2):361-79.

27. Vamvaka V, Stoforos C, Palaskas T, Botsaris C. Attitude toward entrepreneurship, perceived behavioral control, and entrepreneurial intention: dimensionality, structural relationships, and gender differences. Journal of Innovation and Entrepreneurship. 2020 Dec;9:1-26.

28. Trivedi, R.H., 2017. Entrepreneurial-intention constraint model: A comparative analysis among post-graduate management students in India, Singapore and Malaysia. International Entrepreneurship and Management Journal, 13(4), pp.1239-1261.

29. Saraswati TT, Indrawati A, Wardana LW. Do Entrepreneurial Mindset and Perceived Behavioural Control Matter Entrepreneurial Intention?. Jurnal Pendidikan Ekonomi Dan Bisnis (JPEB). 2021 Oct 19;9(2):131-45.

30. Demirtas O, Karaca M, Ozdemir AH. The influence of personality traits on entrepreneurial intention. International Journal of Management and Sustainability. 2017;6(2):33-46.

31. Kazeem AA, Asimiran S. Factors affecting entrepreneurial self-efficacy of engineering students. International Journal of Academic Research in Business and Social Sciences. 2016;6(11):519-34.

32. Rosique-Blasco M, Madrid-Guijarro A, García-Pérez-de-Lema D. The effects of personal abilities and self-efficacy on entrepreneurial intentions. International Entrepreneurship and Management Journal. 2018 Dec;14(4):1025-52.

33. Krejcie RV, Morgan DW. Determining sample size for research activities. Educational and psychological measurement. 1970 Sep;30(3):607-10.

34. Mei H, Ma Z, Jiao S, Chen X, Lv X, Zhan Z. The sustainable personality in entrepreneurship: the relationship between big six personality, entrepreneurial self-efficacy, and entrepreneurial intention in the Chinese context. Sustainability. 2017 Sep 17;9(9):1649.

35. Aruoren EE. Effects of Personality Traits on Entrepreneurial Intention in Delta State, Nigeria. JALINGO JOURNAL OF SOCIAL AND MANAGEMENT SCIENCES. 2021;3(3):19-28.

36. Al-Ghazali BM, Afsar B. Narcissism and entrepreneurial intentions: the roles of entrepreneurial self-efficacy and environmental complexity. The Journal of High Technology Management Research. 2021 May 1;32(1):100395.

37. Salem SF, Salem SO. Effects of social media marketing and selected marketing constructs on stages of brand loyalty. Global Business Review. 2021 Jun;22(3):650-73.

38. Sarstedt M, Ringle CM, Hair JF. Partial least squares structural equation modeling. InHandbook of market research 2021 Dec 3 (pp. 587-632). Cham: Springer International Publishing.

39. Hair, Jr JF, Sarstedt M, Matthews LM, Ringle CM. Identifying and treating unobserved heterogeneity with FIMIX-PLS: part I-method. European business review. 2016 Jan 11;28(1):63-76.

40. Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021b). Evaluation of reflective measurement models. In Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R (pp. 75–90). Springer, Cham.

41. Bell E, Bryman A, Harley B. Business research methods. Oxford university press; 2022.

42. Fornell C, Larcker DF. Evaluating structural equation models with unobservable variables and measurement error. Journal of marketing research. 1981 Feb;18(1):39-50.

43. Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021a). Evaluation of Formative Measurement Models. In Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R (pp. 91–113). Springer, Cham.

44. Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021c). Evaluation of the Structural Model. In Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R (pp. 115–138). Springer.

45. Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021a). Evaluation of Formative Measurement Models. In Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R (pp. 91–113). Springer, Cham.

46. Şahin F, Karadağ H, Tuncer B. Big five personality traits, entrepreneurial self-efficacy and entrepreneurial intention: A configurational approach. International Journal of Entrepreneurial Behavior & Research. 2019 Aug 19;25(6):1188-211.

47. Fellnhofer K. Entrepreneurship education revisited: Perceived entrepreneurial role models increase perceived behavioural control. International journal of learning and change. 2017;9(3):260-83.

48. Maheshwari G, Kha KL. Investigating the relationship between educational support and entrepreneurial intention in Vietnam: The mediating role of entrepreneurial self-efficacy in the theory of planned behavior. The International Journal of Management Education. 2022 Jul 1;20(2):100553.

49. Al-Qadasi N, Zhang G, Al-Awlaqi MA, Alshebami AS, Aamer A. Factors influencing entrepreneurial intention of university students in Yemen: The mediating role of entrepreneurial self-efficacy. Frontiers in Psychology. 2023 Jan 25;14:1111934.

50. Naushad M, Malik SA. The mediating effect of entrepreneurial self-efficacy in entrepreneurial intention-a study in Saudi Arabian context. Problems and perspectives in management. 2018;16(1):267-75.

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