

Original Research

Mental Hindrances and Entrepreneurial Supports towards Psychological Wellbeing among Entrepreneurs

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Abstract

University entrepreneurs' psychological wellbeing (PWB) is a gigantic problem that substantially affects their academic performance, health, innovative capabilities, and more comprehensive societal contributions. In this study, we examine mental hindrances, such as stress, anxiety and depression and entrepreneurship-related constructs, such as entrepreneurial purpose (ENSE), entrepreneurial carefulness (ENSS) and entrepreneurial desire (ENRE) that predict PWB among Egyptian university entrepreneurs. In this quantitative study, we used a questionnaire and a convenience sampling strategy to collect cross-sectional data from Egyptian public-sector university students. In total, we collected 328 cases to infer the results. From applying path analysis through AMOS software, this study's findings exhibit that mental hindrances, such as stress ($\beta = -0.016$; $p = 0.187$), anxiety ($\beta = -0.055$; $p = 0.115$) and depression ($\beta = -0.027$; $p = 0.280$) have a negative effect on entrepreneurs' PWB. Conversely, this study's results exert, also, the positive influences that ENSE ($\beta = 0.407$; $p = 0.000$), ENSS ($\beta = 0.0221$; $p = 0.003$), and ENRE ($\beta = 0.145$; $p = 0.000$) have on Egyptian university entrepreneurs' PWB. This study's outcomes support policymakers and university



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authorities in shaping strategies to reduce stress and anxiety among Egyptian students and inspire individuals to feel positive emotions. These can lead to initiating good proposals and developing hope. Moreover, this study's findings provide reassurance and inspiration for Egyptian university entrepreneurs and encourage them to enhance their intentions toward entrepreneurship and, in turn, improve their PWB. Ultimately, this study's outcomes significantly contribute to the existing literature on this topic.

Keywords

Entrepreneurs' psychological wellbeing; mental hindrances; entrepreneurship; anxiety; depression; stress; university students

1. Introduction

The development of entrepreneurs' psychological wellbeing (PWB) has become a significant challenge for academic institutions and other industries. In the context of Egyptian university entrepreneurs, PWB refers to their mental and emotional state and complementary positive and negative experiences in their professional and personal lives. It includes maintaining concentration and enjoying daily activities, even when under pressure and faced with complex challenges [1]. A healthy psychological state allows entrepreneurs to sleep well, to enable them to make meaningful choices, and to perceive themselves as making a difference. However, when they experience reduced PWB wellbeing, entrepreneurs may experience greater stress, a decline in self-esteem, hopelessness, and a tendency to become miserable. Eventually, this impacts their overall sagacity of purpose and effectiveness, by creating hope for Egyptian university entrepreneurs to tackle their problems. The development of PWB provides the opportunity to enhance enjoyment and prevent pressures and worry [1]. On the one hand, several constructs, such as entrepreneurship and business success, enhance the PWB [1-3]. In this way, many hindrances, such as mental and psychological barriers like stress, anxiety and depression, hurt entrepreneurs' PWB [4-6]. More precisely, excessive stress over situations negatively affects Egyptian university professors' PWB and the achievement of their goals [7]. Likewise, anxiety generates worries about circumstances, which may lead to individuals panicking and feeling uneasy and breathless [7, 8]. Also, depression has a severe effect on PWB, and this may hurt individuals' positive emotions and help them overcome the problems of sadness and discouragement [7].

Henceforth, the existing literature demonstrates positive or negative constructs like the two sides of a coin. On the one hand, the positive predictors of PWB are entrepreneurial environment, entrepreneurial desire (ENRE), entrepreneurial purpose (ENSE), entrepreneurial intentions, entrepreneurial carefulness (ENSS), innovation, need for achievement, self-esteem and self-efficacy [1, 9-14]. On the other hand, the negative enablers of PWB are harmful mental health problems, mindfulness-based interferences, depression, psychological illness and anxiety and stress [5, 6, 15-21]. However, there are still gaps in the existing literature because these constructs have not been assimilated and confirmed in a single framework to identify the positive and negative factors that impact PWB.

Contextually, there is also a lack of empirical evidence among Egyptian university students who

are recognized as potential entrepreneurs. It is observed that there is meaningful growth in terms of Egypt's entrepreneurial setting, and this is predominantly among university students who view entrepreneurship as a sustainable career option. Approximately 70% of young Egyptians anticipate entrepreneurship to be their career path. This reflects young people's strong interest in startup businesses [22]. Despite this great eagerness towards entrepreneurship, entrepreneurs face various challenges, such as cultural preferences for stable employment, a complex regulatory environment and complications in securing funding. Nevertheless, government initiatives, such as Egypt Vision 2030 and the continuing digital transformation, provide substantial opportunities for tech-based startup businesses, which, in turn, makes Egypt one of the leading startup ecosystems [23]. There is incredible prominence to filling these gaps to provide entrepreneurs with valuable solutions that reduce their psychological and wellbeing pressures and associated mental problems to enable them to undertake more entrepreneurial activities. Therefore, this study raises the research question:

RQ1: What are the mental hindrances and entrepreneurship-related factors that positively and negatively affect potential Egyptian entrepreneurs' PWB?

This study's findings aim to support policymakers in promoting PWB among potential entrepreneurs by reducing psychological hurdles such as anxiety, stress, and depression. Moreover, this study's findings further encourage entrepreneurship since it plays a leading role in enhancing PWB, specifically among potential entrepreneurs in a developing country such as Egypt. Finally, the outcomes of this study contribute to the existing literature and, more specifically, to psychology and entrepreneurship by bringing together one robust framework: entrepreneurship factors and mental-related hindrances.

In addition to this introduction in Section 1, this is comprised of the following: Section 2 provides information about the previous literature and identifies the gaps to be filled. Section 3 is the formulation of this study's hypotheses. Section 4 defines the methods which we used in this study. Section 5 details this study's findings. Section 6 details the discussion. Section 7 is the conclusion.

2. Literature Review and Gaps

2.1 Mental Hindrances

There are many mental hindrances to doing a specific task. The core hindrances are stress, anxiety and depression, which have a profoundly negative effect on the individual's ability to perform any responsibility comfortably [7, 8]. Stress creates tension and causes overreactions to situations. These have a negative effect on the individual achieving their tasks and meeting their targets [7]. This hurts the individual's PWB. Stress is a significant factor that destroys the PWB. The stress phenomena are predicted through diverse constructs such as psychological capital, emotional stability, self-esteem, resilience and social support [19, 24]. Also, these factors have a negative effect on PWB [15, 25-28]. In academia, higher levels of perceived stress have a negative impact on students' PWB [27, 29]. When moderated by psychological capital [15, 16], wellbeing reduces occupational stress. The phenomena of the COVID-19 pandemic further gave birth to levels of stress levels and hampered people's mental health [17, 18].

Anxiety is another dangerous factor that creates worries about conditions where individuals may cause panic attacks when they experience difficulties in breathing [7, 8]. The existing literature highlights that PWB is steadily affected by increasing levels of stress [30-33]. When there is a high

level of anxiety, it means that there is a low level of PWB [34]. Among college students, the main reason for reducing PWB is high levels of anxiety [31]. The findings of well-known researchers, such as [5, 35] show that, on the one hand, amongst young people high levels of anxiety levels enhance the negative connections with PWB. On the other hand, [36]'s findings argue that anxiety and depression reduce PWB. Among sports sciences students, stress affects their PWB [20]. More specifically, the COVID-19 pandemic brought a lot of anxiety; this further reduced the PWB [30, 37]. Among students and healthcare workers, anxiety is the most vital PWB analyst [6, 32, 33, 38].

Depression is the core construct of a mental hindrance towards a specific behavior. In this situation, individuals do not have positive emotions and find taking or doing things difficult. They think of themselves as discouraged and sad [7, 8]. Depression is unfavorable for entrepreneurship and PWB, where it has, also an adverse effect on the individuals' health [4]. According to [39]'s findings in respect of hospital nurses, there is a negative connection between depression and PWB. The findings of [40]'s longitudinal study show that a robust depression treatment leads to sustained improvements in PWB. As mediated by spirituality and environmental factors, depression has, also, a continuous negative effect on PWB [21, 41]. Among university students, depression adversely affects PWB [36, 42, 43].

2.2 Entrepreneurship-Related Factors

Several entrepreneurial-related constructs make a positive contribution to the enhancement of PWB. However, it is noteworthy that ENSE, ENSS, and ENRE are the massive enablers of PWB. ENSE shows the possibility of starting a firm where an entrepreneur can make every determination to adapt and run their enterprise. This indication shows their inclination towards the professional goal of becoming an entrepreneur [1]. By setting their targets [44], ENSE supports entrepreneurs in achieving their goals and entrepreneurial success. ENSE also has a positive effect in developing PWB, where entrepreneurs gain the efficacy to deal with enterprise matters [1]. ENSE primarily creates psychological health and reinforces emotions, networks, and practical support [3, 45]. Regarding entrepreneurship and personal growth, PWB can be reinforced through ENSE [9, 10].

Similarly, ENSS is frequently communicating with others to obtain new information about new business ideas [1]. ENSS is also a strong predictor of PWB. It supports PWB's effectiveness through positive thinking, balancing work and family life, effective risk management, and support systems. Boundary work at home can reduce stress and improve wellbeing [11]. PWB is enhanced by positive emotions that lead to better health [46]. ENSS and risk management can reduce unnecessary stress and improve decision-making; this is important for managing mental illnesses [1]. Having a common interest can also provide the emotional support and strategies necessary to facilitate PWB. According to [1, 12], the development of psychological resilience and stress management is essential in managing stressful situations and ensuring mental health and personal safety.

Finally, ENRE is a very prominent factor in entrepreneurial success. This supports establishing and nurturing a new enterprise and, in turn, stimulates the entrepreneurs. It is enjoyable to promote a new business that leads to its emerging success [1]. Researchers such as [10] and [14], believe that business education and business practices improve people's problem-solving skills and develop a good entrepreneurial spirit. Consequently, this has a positive impact on their health. ENRE and passion are the main elements that form entrepreneurs' PWB [13, 47]. More precisely, [13]'s findings state that entrepreneurial passion contributes to entrepreneurial success and is associated

with PWB. Also, by increasing entrepreneurial enthusiasm it increases personal satisfaction at work. [47]’s results support the understanding that this positively impacts PWB and argue that individuals who are passionate about entrepreneurship are more satisfied and successful. In addition, factors such as a positive attitude, psychological capital, resilience, and optimism can reduce stress and increase wellbeing [48]. Also, [49]’s findings demonstrate that mindfulness practices effectively contribute to developing entrepreneurial PWB. Similarly, [11]’s findings show that ENRE shapes PWB.

Consequently, on the one hand, the existing literature demonstrates that PWB is negatively affected by various constructs such as anxiety, stress, depression, harming mental health problems and mindfulness-based interferences [5, 6, 15-21, 38]. On the other hand, PWB is promoted among entrepreneurs by numerous positive factors, such as entrepreneurial intentions, ENSE, attitudes, need for achievement, ENSS, innovation, ENRE, and entrepreneurial environment [1, 9-14]. However, there are still gaps in the existing literature that require to be filled. For instance, while there have been separate investigations of the effect of mental factors on PWB and the impact of entrepreneurship factors on PWB, no previous study has brought together the positive (entrepreneurial-related factors) and the negative (mental hindrances) factors in a single framework. Moreover, no study has been conducted in the context of potential Egyptian entrepreneurs. Hence, with regard to the prevailing connections in the literature and to fill these gaps, we designed a conceptual framework (see Figure 1) to be tested among potential Egyptian entrepreneurs.

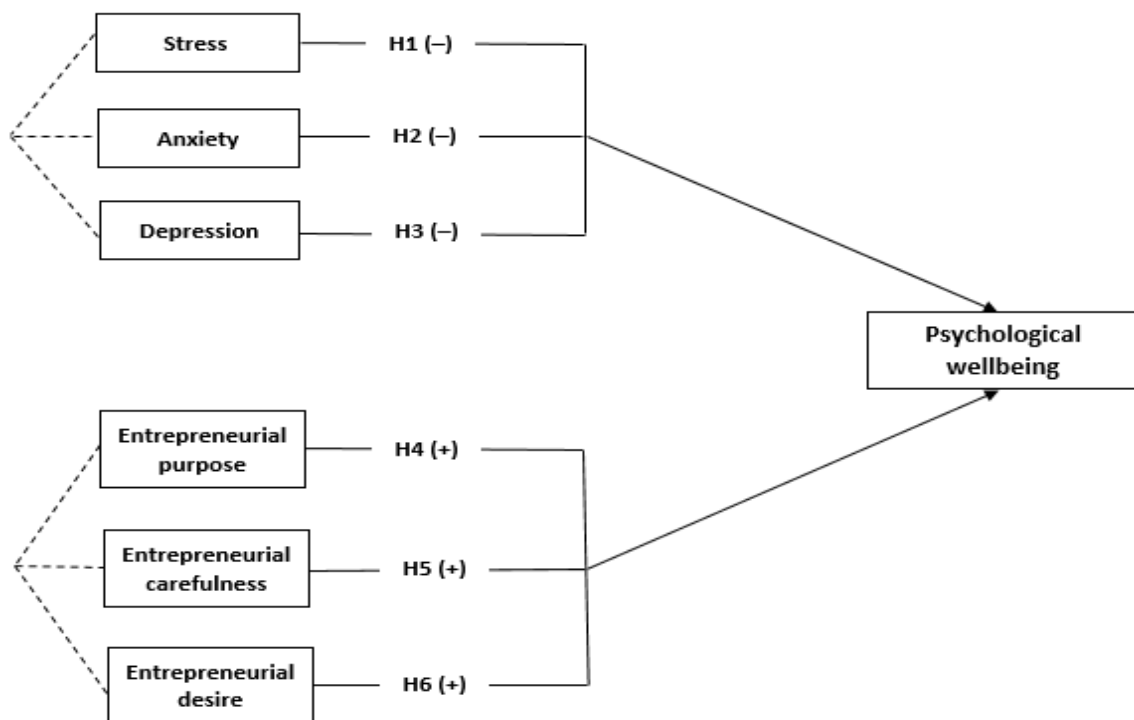


Figure 1 Model of the study. Source: Developed by the authors.

3. Formulation of This Study's Hypotheses

3.1 Mental Hindrances and Psychological Wellbeing (PWB)

Stress is a massive hindrance in developing entrepreneurs' PWB. The critical buffers that mitigate stress's adverse effects on PWB are emotional stability, resilience, psychological capital, self-esteem, and social support wellbeing [15, 25-28]. Academic stress has a negative effect on students' PWB, with higher levels of perceived stress correlating to reduced PWB [27, 29]. Likewise, although psychological capital can play a moderating role, occupational stress reduces PWB [15, 16]. During the COVID-19 pandemic, while stress levels increased significantly and further harmed mental health, resilience and supportive environments provided crucial relief [17, 18]. It has been shown that mindfulness-based interferences and effective stress management strategies offer significant promise in reducing stress and, thereby, improving PWB [19, 24].

Turning to anxiety, this consistently has a negative effect on the PWB of diverse segments of the population [5]. [35]'s findings show among young people. It is noteworthy that high levels of anxiety are inversely correlated to PWB. The findings of a well-known scholar [36] demonstrate that higher levels of anxiety and depression have resulted in urban elders' lower PWB. Also, sports sciences students' higher levels of anxiety reduce their PWB [20]. The COVID-19 pandemic had a negative influence on levels of anxiety and, in turn, led to reduced PWB [37]. Likewise, although mediated by self-efficacy and affective style, anxiety and self-discrepancy lead to lower PWB [30]. There is a connection between a trait of a higher level of anxiety and reduced PWB [34]. Using a dual-factor model, [31]'s findings demonstrate that, more especially among college students, the main reason for reduced PWB is a high level of anxiety. The findings of scholars, such as [32, 33], emphasize that during the COVID-19 pandemic, anxiety was the predominant construct in reducing students' and healthcare workers' PWB. More recently in the same vein, the findings of [6, 38] confirm anxiety's negative effect on PWB and physical activity.

Moreover, depression has a negative effect on PWB. It mediates both directly and indirectly the association between PWB and adverse health outcomes [4]. In this regard, [42]'s results demonstrate a positive contribution of Qigong in reducing depression and, thereby, augmenting PWB. In urban elderly populations, it is noteworthy [34]'s findings indicate that there is a strong association between higher levels of depression and lower PWB. Among university students, while amplified self-efficacy can reduce this effect, depression has a negative effect on PWB [43]. [39]'s findings demonstrate the same negative connection in relation to hospital nurses, where self-efficacy and social support alleviate depression's impact on PWB. The findings of [40]'s longitudinal study show that effective treatments for depression lead to sustained improvements in PWB. The findings of scholars, such as [21, 41], also underline, through environmental factors and spirituality, depression's persistent negative impact on PWB.

Consequently, stress, anxiety, and depression negatively affect PWB. However, in the context of Egyptian entrepreneurs, there remains a need to confirm these factors. Therefore, we formulated the following hypotheses:

H1. *Stress has a negative effect on Egyptian entrepreneurs' PWB.*

H2. *Anxiety has a negative effect on Egyptian entrepreneurs' PWB.*

H3. *Depression has a negative effect on Egyptian entrepreneurs' PWB.*

3.2 Entrepreneurship and Psychological Wellbeing (PWB)

Entrepreneurship is a robust predictor of providing entrepreneurs with prosperity and PWB. The ENSE significantly improves PWB through several interconnected factors. Entrepreneurs often experience higher autonomy and a strong sense of purpose, leading them to greater fulfillment and satisfaction [2]. Entrepreneurial success fosters a sense of accomplishment and intrinsic rewards, further boosting mental health through personal growth and achievement [44]. Self-efficacy and resilience, supported by a clear purpose, are crucial factors in upholding PWB and enabling entrepreneurs to navigate impediments efficiently [1]. Along with social support and robust networks, ENSE contributes to emotional and practical support, which are vital for psychological health [3, 45]. In social entrepreneurship, hope mediates PWB as entrepreneurs grow satisfaction from making positive societal impacts [50]. Nevertheless, despite these benefits, successful entrepreneurs are vulnerable to mental health issues due to stress. However, a sense of purpose can lessen these effects [9]. Positive entrepreneurship practices, which concentrate on social impact and personal growth, meaningfully contribute to higher PWB [10].

Similarly, ENSS is also a vigorous forecaster of PWB. It significantly enhances PWB by assimilating positive emotional experiences, balanced work-family life, effective risk management and resilient support systems. The work-family boundaries reduce stress and encourage [11]. The PWB is enhanced through positive emotions that improve mental health [46]. ENSS and careful risk management minimize unnecessary stress and improve decision-making. Such factors are crucial factors in maintaining psychological health [1]. In addition, having a compassionate network delivers essential emotional and practical support, which, in turn, boosts PWB. Also, the development of psychological resilience and maintaining stress management techniques play crucial roles in efficiently handling high-stress situations. Overall, these guarantee psychological safety and health [1, 12].

ENRE and passion are crucial constructs in shaping entrepreneurs' PWB [13, 47]. As shown more clearly from [13]'s findings, entrepreneurial passion contributes to entrepreneurial success and correlates positively with PWB. These demonstrate a strong passion for entrepreneurship and bring personal gratification into line with professional endeavors. This notion is well supported by [47]'s findings, which show that passion positively influences PWB and, more particularly, that entrepreneurs who are deeply passionate about their entrepreneurial ventures experience greater satisfaction and success. Moreover, factors such as personality traits, psychological capital, resilience, and optimism provide entrepreneurs with a buffer against stress [48]. This leads to lower levels of stress and more inclusive PWB. Furthermore, as shown by [49]'s findings, mindfulness practices positively contribute to the development of entrepreneurs' PWB. Likewise, [11]'s findings demonstrate the shaping of PWB through ENRE. Entrepreneurship education and inclinations provide entrepreneurs with additional skills to navigate challenges and foster positive entrepreneurship. Therefore, these positively impact PWB [10, 14].

Consequently, ENSE, ENSS, and ENRE factors are the positive enablers of PWB. However, in the presence of negative factors such as anxiety, depression, and stress, these connections require further validation. Therefore, we formulated the following hypotheses:

H4. *ENSE positively affects Egyptian entrepreneurs' PWB.*

H5. *ENSS positively affects Egyptian entrepreneurs' PWB.*

H6. ENRE positively affects Egyptian entrepreneurs' PWB.

4. Methods

4.1 Research Approach and Respondents

As researchers, we applied quantitative methods to achieve the aim of this study. This quantitative approach is the best predictor of any phenomenon since it deals with numerical and symbolic ways [51]. We collected cross-sectional data for this study since it provided us with a valuable understanding and saved us time and resources [52]. In the existing literature, most researchers, such as [5, 6, 16-21, 33, 38], used a convenience sampling method to select the targeted respondents.

Accordingly, we used this method in selecting the target population of Egyptian university students who exhibited potential and interest in entrepreneurship and had clear ambitions to start their businesses [53]. Moreover, these students had a unique understanding of Egypt's economic, social, and environmental governance and had firsthand experiences that provided valuable insights into Egypt's entrepreneurial landscape [54]. In addition, as demonstrated by [55]'s findings, understanding the problems female entrepreneurs face can support the business's growth. Illegal entrepreneurs can contribute to the development of the overall economy by providing ideas on reducing illicit activities and replacing them with legal activities [56]. Moreover, as shown by [57]'s findings, Egyptian entrepreneurs' successful practices can offer new solutions to social health problems. Therefore, it was important that Egyptian businessmen participated in these studies to create constructive strategies that promoted sustainable development and growth.

4.2 Survey Tool and Its Validation

We used a questionnaire to collect cross-sectional data for this study. We used the English language in this questionnaire since the participants were university students with good English knowledge. We validated the questionnaire's reliability and validity by conducting a pilot study before collecting large-scale data. Therefore, we collected twenty-two cases in a trial to confirm these important aspects (validity and reliability). We ensured the questionnaire's reliability by gauging the internal consistency of the items and factor loadings. As recommended by [58], we kept the criteria for loadings and alpha as > 0.70 . Consequently, we found that both (loading and alpha) were greater than 0.70 for all the constructs and items. Furthermore, we checked the questionnaire's validity by obtaining feedback from the participants in terms of their confirmation of the content and language used in the questionnaire. Consequently, none of the study's respondents experienced any language barrier or confusion when completing the questionnaire.

We also sent the questionnaire to two university professors to ensure its validity. We selected the professors because they both had PhDs. One statistics, psychology, and entrepreneurship professor is highly knowledgeable about recent trends in research methods and data analysis. The other professor has extensive knowledge of SPSS, specifically, SEM analysis through AMOS. We sought his feedback specifically about the content or face validity to ensure the questionnaire's tool's language, content and format. Thus, as recommended by both experts, we made a few minor changes to the questionnaire. Therefore, we circulated a reliable and valid questionnaire for the purpose of collecting large-scale data.

4.3 Data Collection Procedures

As researchers, we used a questionnaire to gather the data for this study. We used a convenience sampling method to select this study's participants and received their online and offline responses. Using a convenience sampling method was more feasible because it allowed us quick and easy access to the respondents and, more so, in a university setting where large student groups are readily available [59]. Also, this sampling technique takes little time and resources to gather the data [59, 60]. Moreover, when considering the specific concentration of university students, convenience sampling can efficiently capture a wide range of students who meet the criteria for becoming potential entrepreneurs [61].

In the online data collection process, we used a mail questionnaire and a survey link shared across various WhatsApp groups and Facebook pages associated with Egypt's public sector universities. We respected the time and effort of our participants by first seeking their permission to participate voluntarily in this study. More specifically, the chosen WhatsApp groups and Facebook pages are commonly used communication channels among university students, effectively reaching many potential respondents. We ensured that the respondents were aware of the study's purpose and confirmed their voluntary involvement before sending them the link to the questionnaire.

Our offline data collection involved a crucial element of personal interaction. We personally visited several Egyptian universities by obtaining permission from the deans' and directors' permission to engage students directly in their classrooms. This approach was precious in reaching students who might not be as active on digital platforms or who preferred face-to-face interactions.

We used several measures to ensure the integrity of the data. We verified the respondents' identities by cross-referencing their student information whenever possible. We took steps to prevent duplicate submissions, such as enabling an internet protocol address (IP address) tracking for online responses and collecting physical signatures for offline completed questionnaires. Moreover, we provided the respondents with clear instructions to ensure that each participant submitted only one completed online or offline questionnaire.

We took care of the respondents' ethical values by obtaining approval of the questionnaire from the ethical committee of "Saudi Arabia's King Faisal University's Deanship of Scientific Research, Vice Presidency for Graduate Studies and Scientific Research, vide GRANT A528". We conveyed to the respondents about this study's aim and objective, and we provided them with complete information about the use of their responses and demographic information. We also obtained each participant's signed informed consent form before providing them with the questionnaire. Accordingly, we ensured the respondents' confidentiality and privacy before providing them the instructions to complete the questionnaire. After that, we succeeded in collecting 328 valid cases on which we based this study's conclusions.

We determined the study's minimum sample size (328) by applying famous statistical programs such as G*Power. We used six predictors, a significance level of 0.05, an effect size f^2 of 0.15, and a statistical power of 0.95 to ensure this study's minimum sample size requirement. Since G*Power recommended a minimum sample size of 107, our sample size (328) has the robust power to disprove the null hypotheses [62]. It is adequate due to the minimal power that is mandatory for management and social science research [63, 64].

4.4 Variables and Measurements

We adopted all the items from the existing literature, and we used a five-point Likert scale to assess all the items. The options on the Likert scale range from “strongly agree to strongly disagree”. We based all the items on the scale on close-ended options. More specifically, to measure the mental hindrances, we used twenty-one items and the Depression Anxiety Stress Scale (DASS21), designed by [8] and adopted by [7]. More precisely, we used seven items to evaluate depression. Likewise, we used seven items each to assess stress and anxiety.

Regarding the entrepreneurship factors, we used four items each to gauge ENSE, ENSS and ENRE. We adopted all the ENSE, ENSS, and ENRE items from [1]’s study.

Finally, we adopted twelve items from [1]’s study to measure the dependent variable (PWB) (For more details, see the Appendix below).

5. Results

5.1 Descriptive Statistics and Correlations

We conducted descriptive statistics to detect the representation of this study's samples and normal distribution [65]. We noted a maximum mean (3.54) level for the ENRE construct and a minimum of 1.053 (DEIN). We noted that the maximum level of standard deviation (2.205) was for STSS, and the minimum (-1.342) was for ANTY (see Table 1). We applied a correlation matrix to confirm the association's strength [65]. Consequently, we ensured that all constructs (independent) were connected positively and negatively to the dependent variables (see Table 1).

Table 1 Descriptive statistics and correlation.

Variables	Mean [SD]	1 PWB	2 STSS	3 ANTY	4 DEIN	5 ENSE	6 ENSS	7 ENRE
1. PWB	2.310 [1.999]	---						
2. STSS	1.342 [2.205]	-0.183**	---					
3. ANTY	-2.366 [-1.342]	-0.201**	-0.302**	---				
4. DEIN	1.053 [1.853]	-0.115**	-0.311**	-0.161*	---			
5. ENSE	3.201 [1.382]	0.300**	0.372**	0.302**	0.327**	---		
6. ENSS	3.554 [1.632]	0.462**	0.369**	0.398**	0.109*	0.210*	---	
7. ENRE	3.418 [1.608]	0.453**	0.231**	0.184*	0.107*	0.173*	0.204*	---

Note: Note: PWB = psychological wellbeing; STSS = Stress; ANTY = Anxiety; DEIN = Depressions; ENSE = Entrepreneurial purpose; ENSS = Entrepreneurial carefulness; ENRE = Entrepreneurial desire; SD = Standard deviation.

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Source: Author's estimation.

5.2 Measurement Model

At the initial stage of the measurement model, we assessed item-level reliability and then determined factor-wise reliability. In the loadings, most items were loaded above the recommended

values of >0.70 except for items such as STSS2, ANTY5, DEIN4, DEIN6, ENSS2, PWB4, PWB7, PWB9, and PWB10, which did not meet the required values. Consequently, we omitted these from this study. We omitted these items with low loadings because they did not strongly correlate with their respective factors. More specifically, the low loading values demonstrated that the item might need to represent the construct potential better and might affect the overall reliability of the measurement model. Consequently, the remaining items more accurately capture the intended construct and lead to a more consistent and reliable measurement. This omission procedure enhanced the measurement model’s internal consistency and validity. Turning to Construct Reliability (CR), we observed that all the values were above 0.70; this indicated no problem (>0.70) [65, 66]. Moreover, Cronbach’s α coefficients for all the factors were within the fair values as >0.70 [58]. Average Variance Extracted (AVE) is a final indicator of the measurement model. As recommended by [58] (see Table 2), this clarified that the AVE for more than half of its items was >0.50.

Table 2 Measurement model.

Construct	Item code	Loadings	CR	α	AVE
Stress (<i>STSS</i>)	STSS1	0.872	0.932	0.873	0.695
	STSS3	0.843			
	STSS4	0.833			
	STSS5	0.829			
	STSS6	0.818			
	STSS7	0.807			
Anxiety (<i>ANTY</i>)	ANTY1	0.872	0.929	0.842	0.687
	ANTY2	0.855			
	ANTY3	0.842			
	ANTY4	0.820			
	ANTY6	0.799			
	ANTY7	0.782			
Depression (<i>DEIN</i>)	DEIN1	0.883	0.929	0.799	0.724
	DEIN2	0.862			
	DEIN3	0.855			
	DEIN5	0.841			
	DEIN7	0.811			
Entrepreneurial purpose (<i>ENSE</i>)	ENSE1	0.872	0.905	0.819	0.705
	ENSE2	0.853			
	ENSE3	0.839			
	ENSE4	0.792			
Entrepreneurial carefulness (<i>ENSS</i>)	ENSS1	0.862	0.845	0.879	0.708
	ENSS3	0.842			
	ENSS4	0.819			
Entrepreneurial desire (<i>ENRE</i>)	ENRE1	0.859	0.822	0.873	0.697
	ENRE2	0.843			

		ENRE3	0.802			
		PWB1	0.848			
		PWB2	0.833			
		PWB3	0.821			
Psychological wellbeing (PWB)		PWB5	0.802	0.930	0.886	0.654
		PWB6	0.792			
		PWB8	0.788			
		PWB11	0.773			
		PWB12	0.752			

Deleted items due to low loadings = STSS2; ANTY5; DEIN4; DEIN6; ENSS2; PWB4; PWB7; PWB9; PWB10.

Source: Authors' estimation.

At the final stage of the measurement model, we gauged Discriminant Validity (DV) to recognize the degree of factor discrimination among the items [67]. Therefore, we compared the square root of AVE with rising correlations. The rows and columns construct are outperformed by the condition of the AVE's square root measured diagonally (see Table 3). Our analysis found that each construct's AVE was higher than its correlations with any other construct. This demonstrated that the constructs were more strongly associated with their indicators than other model constructs. Therefore, we were satisfied that the DV values were sufficient.

Table 3 Discriminant validity.

Construct	PWB	STSS	ANTY	DEIN	ENSE	ENSS	ENRE
PWB	----						
STSS	1.032	----					
ANTY	0.530	0.792	----				
DEIN	0.214	0.166	0.201	----			
ENSE	0.444	0.316	0.328	0.692	----		
ENSS	0.113	0.098	0.112	0.048	0.119	----	
ENRE	0.189	0.174	0.101	0.206	0.123	0.621	----

Note: PWB = psychological wellbeing; STSS = Stress; ANTY = Anxiety; DEIN = Depressions; ENSE = Entrepreneurial purpose; ENSS = Entrepreneurial carefulness; ENRE = Entrepreneurial desire.

Source: Authors' own estimation.

5.3 Structural Model

5.3.1 Model Fitness

We ensured the model fitness by analyzing the structural model to confirm that all the model fit indices were within satisfactory ranges. More specifically, we noted the Chi-Square values of 2.118, the Normed Fit Index (NFI) as 0.929, the Adjusted Goodness of Fit Index (AGFI) as 0.913; the Comparative Fit Index (CFI) as 0.922, and the Root Mean Square Error of Approximation (RMSEA) as 0.033. Therefore, the model satisfied the fitness of indices, where the CMIN/df values were below 0.3, and the NFI, GFI, AGFI, and CFI values exceeded 0.90. Moreover, RMSEA remained, also, below

0.50. These indicators' values are consistent with the findings of [58, 68-70] (see Table 4). Consequently, these fit indices indicate that the structural model accurately represents the associations between the constructs.

Table 4 Model fit indices.

Model fit indicator	Achieved values [required values]
CMIN/df	2.188 [<3]
NFI	0.929 [>0.90]
GFI	0.930 [>0.90]
AGFI	0.913 [>0.90]
CFI	0.922 [>0.90]
RMSEA	0.033 [<0.05]

Note: "CMIN = χ^2 /Chi-square/df; df = degree of freedom; GFI = goodness of fit index; AGFI = adjusted goodness of fit index; NFI = normed fit index; CFI = comparative fit index; RMSEA = root mean square error of approximation".

Source: Authors' own estimation.

5.3.2 Hypotheses' Assessment

We applied path analysis through Analyzing Moment Structures (AMOS) software. As presented in Table 5 and Figure 2 concerning the assessment of the hypotheses, the path analysis demonstrates that stress has a negative effect on entrepreneurs' PWB ($H1 = \beta = -0.016$; $p > 0.01$). Therefore, hypothesis H1 is supported. In addition, anxiety has a negative effect on entrepreneurs' PWB ($H2 = \beta = -0.055$; $p > 0.01$). Henceforth, hypothesis H2 is supported. Also, depression has a negative effect on entrepreneurs' PWB ($H3 = \beta = -0.027$; $p > 0.01$). Thus, hypothesis H3 is accepted. Moreover, entrepreneurial purpose positively impacts entrepreneurs' PWB ($H4 = \beta = 0.407$; $p < 0.01$). Henceforth, hypothesis H4 is accepted. Likewise, carefulness positively affects entrepreneurs' PWB ($H5 = \beta = 0.221$; $p < 0.01$). Therefore, hypothesis H5 is accepted. Finally, the path analysis confirms that entrepreneurial desire positively affects entrepreneurs' PWB ($H6 = \beta = 0.145$; $p < 0.01$). Therefore, hypothesis H6 is supported.

Table 5 Hypotheses assessment.

H.No.	Effects	Estimate β (path co-efficient)	SE	CR (t-value)	p-value	Decision
H1	Stress → PWB	-0.016	0.012	1.320	0.187	Supported
H2	Depression → PWB	-0.055	0.035	1.577	0.115	Supported
H3	Anxiety → PWB	-0.027	0.025	1.081	0.280	Supported
H4	ENSE → PWB	0.407	0.063	6.451	0.000	Supported
H5	ENSS → PWB	0.221	0.074	2.981	0.003	Supported
H6	ENRE → PWB	0.145	0.032	4.565	0.000	Supported

Note(s): SE = standard error; CR = critical ratio; $p \leq 0.001$.

PWB = psychological wellbeing; ENSE = Entrepreneurial purpose; ENSS = Entrepreneurial

carefulness; ENRE = Entrepreneurial Desire.

Source: Estimated by the researchers.

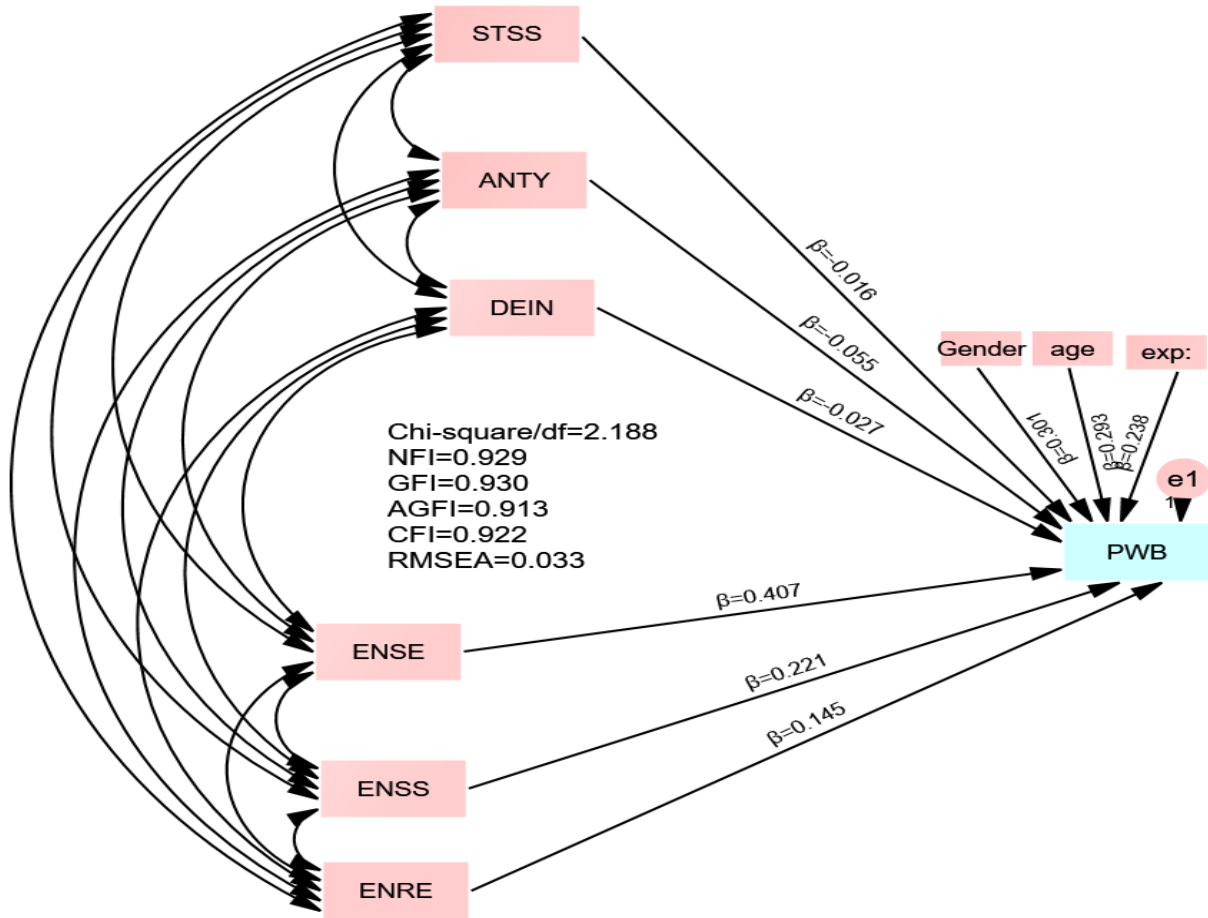


Figure 2 Path analysis. Source: Estimated by the researchers. Note(S): STSS = stress; ANTY = anxiety; DEIN = depression; PWB = psychological wellbeing; ENSE = Entrepreneurial purpose; ENSS = Entrepreneurial carefulness; ENRE = Entrepreneurial desire.

6. Discussion

6.1 Effects of Mental Hindrances on PWB

The first purpose of this study was to explore among Egyptian university students, who are recognized as potential entrepreneurs, the effects of mental hindrances such as stress, anxiety and depression on PWB. The outcomes of the study show that mental hindrances, such as stress, anxiety and depression, have a negative effect on entrepreneurs' PWB. These results are consistent with those of previous empirical investigations by numerous researchers such as [5, 6, 8, 15-17, 19-21]. These findings show that Egyptian entrepreneurs are unable to release their tensions and tackle the situation. Consequently, they expend a large amount of energy on meeting their targets. They do not relax and confront the difficulties that severely affect their PWB. Moreover, they experience gasping feelings in their mouths and have difficulty breathing. They are worried about situations where they may be afraid and be on the edge of panic. Such issues cause them to experience

variations in their heart rates without making any physical effort. They become frightened for no reason. Furthermore, due to depression, they are unable to feel any constructive emotions. It was challenging for them to have the creativity to do things. They felt that nothing could make them raise their hopes. They felt sad and discouraged. They are unable to get excited about anything and think they are not worth much as a person. They felt that they led meaningless lives.

6.2 Effects of Entrepreneurship Factors on PWB

The second purpose of this study was to investigate the effect of entrepreneurship factors on Egyptian entrepreneurs' PWB. This study's findings confirm that entrepreneurial factors, such as ENSE, ENSS, and ENRE, positively affect developing Egyptian entrepreneurs' PWB. These findings are consistent with previous explorations such as [1, 9-14]. This study's results establish that Egyptian university students are ambitious and inclined to develop new enterprises that excite them. They want to nurture a new occupation and achieve pleasure through its emergent accomplishment. Being the creator of a business is a significant part of what gives them the recognition of who they are. They like finding the right people to market their products or services. Moreover, they are careful about their entrepreneurship and frequently connect with others to obtain the latest information. In seeking such information, they continuously keep an eagle eye out for new venture ideas. They look vigorously for fresh information and see relationships between apparently unconnected business ventures. Finally, they will likely start their new firms after completing their education. Their professional goal is to become entrepreneurs.

7. Conclusion

Entrepreneurs' PWB is highly prominent in academia and other industries. Its development faces several challenges and hindrances. The outcomes of the study show that psychological or mental hindrances, such as stress, anxiety, and depression, have adverse effects on entrepreneurs' PWB. Moreover, this study's findings establish that entrepreneurship factors, such as ENSE, ENSS, and ENRE, have positive impact on Egyptian entrepreneurs PWB. These findings show that Egyptian entrepreneurs' PWB is of great importance and faces significant challenges in terms of psychology and entrepreneurship.

Turning to the practical implications of this study's findings, these assist the development of Egyptian entrepreneurs' PWB through tackling and controlling anxiety, stress and depression. The study's findings assist policymakers and university authorities in designing policies that may reduce the burdens, tensions, anxiety and stress levels among Egyptian public sector university students so that they can perform any behaviors effectively. This study's findings may help the students feel better by enhancing their PWB and reducing their stress levels to make breathing easier. Moreover, this study's findings help potential Egyptian entrepreneurs feel positive emotions, which can help them initiate good proposals and give them greater hope. This study's conclusions benefit potential Egyptian entrepreneurs by enhancing their worthiness and reducing their discouragement about starting new businesses. These findings encourage and inspire potential Egyptian entrepreneurs to boost their intentions towards entrepreneurship and enhance their PWB. This study's findings aim to inspire potential Egyptian entrepreneurs to establish new businesses, giving them a level of excitement and anticipated pleasure from success.

Turning to the theoretical implications, this study's findings offer a robust and integrated

framework combining a single model of the entrepreneurship constructs and the mental hindrances potential Egyptian entrepreneurs face. Developing this model will help potential entrepreneurs among Egyptian public sector university students by filling the gap in a developing country context, further enriching the depth of psychological and entrepreneurship phenomena.

To sum it up, we faced limitations since we employed only a quantitative approach and used only cross-sectional data. In addition, in testing PWB, we limited this study to a few positive (ENSE, ENSS, and ENRE) and negative (anxiety, stress, and depression) factors. Also, we employed only a questionnaire based on a convenience sampling strategy. Finally, we concluded this study only on 328 samples.

In future studies, we recommend that mixed methods and longitudinal data be used in a framework to validate the study's findings and that large sample sizes be used to generalize the findings more. Also, we suggest that other sectors, such as SMEs and the health sector should be focused on in future investigations.

Appendix

The Depression Anxiety Stress Scale (DASS21)

[8]

Depression

- I have not been able to feel any positive emotion.
- It was difficult for me to take the initiative to do things.
- I felt that there was nothing that would make me get my hopes up.
- I have felt discouraged and sad.
- I have been unable to get excited about anything.
- I have felt that I was not worth much as a person.
- I have felt that life has no meaning.

Anxiety

- I felt that I was on the verge of panic.
- I have noticed a dry feeling in my mouth.
- I had difficulty breathing.
- I had tremors.
- I have been worried about situations where I might panic and make a fool of myself.
- I have noticed alterations in my heart without making physical effort.
- I've been feeling scared for no relevant reason.

Stress

- It took me a long time to release the tension.
- I have tended to overreact to situations.
- I have felt that I was expending a large amount of energy.
- I have felt agitated
- I have found it difficult to relax.
- I have not tolerated anything that prevented me from continuing with what I was doing.
- I have tended to get angry easily.

Entrepreneurial purpose (ENSE)

[1]

- Probably I'll start my firm shortly.
- I will make every effort to start and run my firm.

- My professional goal is to become an entrepreneur.

Entrepreneurial carefulness (ENSS) [1]

- I have frequent interactions with others to acquire new information.
- I always keep an eye out for new business ideas when looking for information.
- I am always actively looking for new information.
- I see links between seemingly unrelated pieces of information.

Entrepreneurial desire (ENRE) [1]

- Establishing a new company excites me.
- Nurturing a new business through its emerging success is enjoyable.
- Being the founder of a business is an important part of who I am.
- I like finding the right people to market my product/service etc.

Entrepreneurs' psychological wellbeing (PWB) [1]

- I can pay attention to what I'm doing lately.
- I have recently had the chance to enjoy the things I do every day.
- I feel like I'm always under pressure.
- I haven't slept well lately because of worry.
- I've felt like I'm making a difference in the world.
- I've felt like I was able to make choices regarding things.
- I've felt hopeless because of my problems.
- I've dared to face my problems head-on.
- I've become down and miserable lately.
- My self-esteem has been steadily declining.

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Author Contributions

Abdelwahed NAA developed the conceptualization framework, hypotheses of the study, analyzed the data and discussed the results in the light of literature. Ramish MS developed the methods and write-up of the manuscript. Both authors accepted the final version after revisions.

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Competing Interests

The authors have declared that no competing interests exist.

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