NURTURING THE ENTREPRENEURIAL PATH: UNRAVELING THE INTERPLAY BETWEEN ENTREPRENEURIAL MINDSET AND INTENTION THROUGH THE LENS OF ENTREPRENEURIAL CULTURE

Nadia A. Abdelmegeed Abdelwahed

ABSTRACT

Purpose: Developing entrepreneurial intention (EI) among students is become an important phenomenon. This study explores the role of entrepreneurial education (EE) and entrepreneurial self-efficacy (ESE) towards EI directly and indirectly through entrepreneurial culture (EC).

Design/Methodology/ Approach: The researcher applied quantitative methods to assess the proposed aim of the study. The study’s respondents are students of different public and private sector universities in Egypt. Finally, the investigation concludes the results based on 272 samples.

Findings: In the outcome, EE and ESE have a notable impact on the development of an EI. Additionally, the study highlights the effects of EC and entrepreneurial mindset (EMS) on EI. In mediation, the EC acts as a mediator between EE and EI. However, the EC negatively mediates the connection between ESE and EI.

Research, practical and social implications: The practical implications of this research point towards developing targeted educational programs to nurture an EMS and enhancing organizational cultures to support and encourage EI. Both approaches aim to create an environment that stimulates entrepreneurial thinking and action, whether at the individual or corporate level.

Originality/ value: This study aims to fill the gaps in the empirical assessment of EI among university students in Egypt.

Keywords: entrepreneurial mindset, entrepreneurial intention, entrepreneurial education, entrepreneurial culture, entrepreneurial self-efficacy, university students.

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PhD in Human Resource Management (HRM), Department of Business Management, College of Business Administration, King Faisal University, Al Hofuf, AlAhsa, Saudi Arabia, E-mail: nabdelwahed@kfuf.edu.sa, Orcid: https://orcid.org/0000-0002-6778-321X
ALIMENTAR O CAMINHO EMPRESARIAL: DESVENDAR A INTERAÇÃO ENTRE A MENTALIDADE EMPRESARIAL E A INTENÇÃO ATRAVÉS DA LENTE DA CULTURA EMPRESARIAL

RESUMO

Propósito: Desenvolver a intenção empreendedora (IE) entre os alunos se torna um fenômeno importante. Este estudo explora o papel da educação empresarial (EE) e da autoeficácia empresarial (ESE) para a IE direta e indiretamente através da cultura empresarial (EC).

Projeto/Metodologia/Abordagem: O pesquisador aplicou métodos quantitativos para avaliar o objetivo proposto do estudo. Os participantes do estudo são estudantes de diferentes universidades públicas e privadas do Egito. Por último, o inquérito concluí os resultados com base em 272 amostras.

Conclusões: No resultado, a EE e a ESE têm um impacto notável no desenvolvimento de uma IE. Além disso, o estudo destaca os efeitos da mentalidade da CE e do espírito empreendedor (EMS) sobre as IE. Na mediação, a CE atua como mediador entre a EE e a IE. No entanto, a CE faz uma mediação negativa da ligação entre o EEE e a IE.

Investigação, implicações práticas e sociais: As implicações práticas desta investigação apontam para o desenvolvimento de programas educativos orientados para a criação de um SME e o reforço das culturas organizacionais para apoiar e incentivar a IE. Ambas as abordagens visam criar um ambiente que estimule o pensamento e a ação empresarial, tanto a nível individual como empresarial.

Originalidade / valor: Este estudo visa preencher as lacunas na avaliação empírica do IE entre os estudantes universitários no Egito.

Palavras-chave: mentalidade empreendedora, intenção empreendedora, educação para o empreendedorismo, cultura empreendedora, auto-eficácia empreendedora, estudantes universitários.

1 INTRODUCTION

In an era marked by rapid technological advancements, economic shifts, and dynamic market landscapes, the role of entrepreneurship has emerged as a cornerstone for innovation, economic growth, and societal progress. As scholars and practitioners delve into the intricacies of entrepreneurial success, the spotlight has increasingly turned towards the interplay between an individual’s entrepreneurial mindset (EMS) and intention to embark on the entrepreneurial path (Hong et al., 2013). Understanding this interplay becomes even more nuanced when viewed through the lens of entrepreneurial culture (EC), which encompasses the values, norms, and practices that shape the entrepreneurial ecosystem (Devece et al., 2016).

Entrepreneurial intention (EI) refers to an individual’s deliberate and planned willingness to initiate entrepreneurial activities or start a new business (Radu et al., 2021).
It embodies the conscious commitment and determination to explore and engage in the entrepreneurial path. Rooted in personal attitudes, beliefs, and perceived behavioural control, EI reflects the individual's assessment of their ability to navigate the challenges of entrepreneurship (Lewrick et al., 2011). Moreover, the perception of viable entrepreneurial opportunities significantly influences one's decision to embark on the entrepreneurial journey (Kothari, 2017).

The development of EI in the literature is significantly influenced by factors such as entrepreneurial education (EE), entrepreneurial self-efficacy (ESE), EC, and EMS (Kuratko et al., 2021). EE provides individuals with the required knowledge and abilities for entrepreneurship, cultivating a favourable mindset for creating new ventures (Cho et al., 2018). ESE, rooted in individuals' beliefs about their ability to navigate entrepreneurial challenges, significantly shapes their intention to engage in entrepreneurial activities (Soomro et al., 2020). An EC that values innovation risk-taking and supports entrepreneurial endeavours creates an environment where individuals are likelier to express a solid EI (Díaz-García and Jiménez-Moreno, 2010). Concurrently, an EMS characterized by creativity, proactiveness, and adaptability influences individuals to perceive and pursue entrepreneurial opportunities. Based on these critical glimpses of the literature, this research endeavours to unravel the complex dynamics that influence the journey of individuals along the entrepreneurial path. It aims to explore the relationship between an EMS—the set of attitudes, beliefs, and cognitive frameworks that drive entrepreneurial thinking—and the intention of individuals to engage in entrepreneurial activities. Moreover, this exploration extends beyond the individual level to investigate how the broader EC, prevalent in educational institutions, organizations, and communities, contributes to shaping and nurturing these entrepreneurial tendencies. As the researcher navigate the terrain of entrepreneurial development, questions arise:

**RQ1**: How does one cultivate an EMS among Egyptian university students?

**RQ2**: What factors influence an individual's intention to pursue entrepreneurial ventures among Egyptian university students?

**RQ3**: How does the surrounding EC facilitate or hinder this process among Egyptian university students?

These queries highlight the importance of understanding the complex relationships between attitude, intention, and culture in the context of entrepreneurship. This study aims to offer significant insights for educational institutions, corporations, and
politicians by thoroughly analyzing these factors. Identifying key drivers and inhibitors aims to inform the design of effective educational programs and organizational strategies that foster a conducive environment for aspiring entrepreneurs. In doing so, this research contributes to the ongoing dialogue on nurturing the entrepreneurial path. It underscores the importance of understanding the interconnected dimensions of mindset, intention, and culture in shaping the future landscape of entrepreneurship.

2 LITERATURE REVIEW

EE has a beneficial impact on an individual's EMS. According to the findings of Rodriguez and Lieber (2020), there is a strong and meaningful correlation between EE, the development of an entrepreneurial attitude, and the preparedness of secondary students for their future careers. Liao et al. (2022) conducted an assessment that examines the impact of EE and attitude on EI. The study specifically investigates the influence of entrepreneurial passion as a moderating factor, considering both direct and indirect consequences. EE activities benefit EI and behaviour by fostering an entrepreneurial attitude (Yan et al., 2023). The empirical assessment conducted by Oulhou and Ibourk (2023) demonstrates the perceived efficacy of EE and its correlation with the EMS, self-confidence, and intention of Moroccan university students.

The research carried out by Memon et al. (2019), and Oulhou and Ibourk (2023) indicates that EE has a noteworthy and considerable influence on the growth of ESE. In this study, Hendrik et al. (2022) investigate the impact of self-efficacy and entrepreneurial attitude on students' inclination towards entrepreneurship. They emphasize the interdependence of these characteristics in shaping students' propensity to initiate their firms. Borchers and Park (2010) propose that the EMS can be anticipated by assessing ESE, locus of control, and intent to establish a company. Self-efficacy plays a crucial part in shaping and influencing the mindset of entrepreneurs. The statement implies that having a firm conviction in one's talents is essential for cultivating an entrepreneurial attitude (Mauer et al., 2017). The research conducted by Günzel-Jensen et al. (2017) showed a positive influence of EMS on ESE. Soomro and Shah (2022) believe a positive association exists between EE, ESE, and the desire for achievement with entrepreneurial goals.

According to the findings of Huyghe and Knockaert (2015), the presence of a strong organizational culture and environment positively influences individuals'
inclinations to engage in entrepreneurial activities. EE and EC significantly affect students' inclination towards entrepreneurship, as proposed by Mukhtar et al. (2021). Pruett et al. (2009) and Moriano et al. (2012) found that entrepreneurial ambitions among university students are influenced by cultural variances, which impact young persons' entrepreneurial attitudes and intentions. In a cross-cultural study, Khadhraoui et al. (2016) show that EC factors significantly affect EI. This suggests that culture is crucial in moulding individuals' intents to engage in entrepreneurial pursuits. The relationship between EE and culture and EI highlights the interdependence of educational and cultural elements in strengthening individuals' intentions (Kayed et al., 2022). The cultural setting can potentially impact the realization of intentions, highlighting the dynamic interplay between culture and entrepreneurial actions (Bogatyreva et al., 2019). According to Schlaegel et al. (2013), national culture has direct and indirect impacts on EI. Genoveva's (2019) study highlights a strong correlation between EC and EI among business students.

The study conducted by Yan et al. (2023) supports the notion that EE activities positively influence both EI and activity, particularly when coupled with EMS. Kaffka and Krueger (2018) offer valuable insights into the significance of the EMS in shaping entrepreneurial aspirations, examining the progression from the occurrence of entrepreneurial events to the field of neuroentrepreneurship. In a study by Soomro et al. (2020), the researchers utilized the Entrepreneurial Event Model to forecast the EI of business students in Pakistan. The findings of the study confirmed a positive correlation between mentality and intention. The survey conducted by Jiatong et al. (2021) demonstrates that EI can be forecasted by EE, EMS, and creativity. This prediction occurs through the intermediary influence of ESE.

Consequently, existing literature has consistently highlighted the positive correlation between EE, EC, ESE, and EI across diverse contexts and among various respondents. However, it is essential to underscore that the role of EC as a mediator requires focused attention for validation, particularly among Egyptian university students. Thus, considering these established relationships and identified needs, the researcher has proposed Figure 1 for validation, specifically within the context of university students in Egypt.
3 HYPOTHESES DEVELOPMENT

3.1 ENTREPRENEURIAL EDUCATION (EE) AND ENTREPRENEURIAL MINDSET (EMS)

EE has a beneficial impact on an individual's EMS. The study conducted by Mukhtar et al. (2021) examines the role of EMS as a mediator between EE, EC, and students' EI. Saptono et al. (2020) contend that EE is vital in equipping Indonesian students with the necessary skills and attitude for entrepreneurship, especially when considering the intermediary influence of EMS and knowledge. The research undertaken by Handayati et al. (2020) investigates the impact of EE on the cultivation of an entrepreneurial attitude among vocational students, particularly in the context of vocational education. Cui and Bell (2022) analyse the influence of the behavioural aspects of an entrepreneurial mentality and EE activities on both EI and behaviour. According to Wardana et al. (2020), their study indicates that EE has a beneficial impact on students' EMS. This influence is specifically mediated by their attitude and self-efficacy. Cui et al. (2021) provide empirical evidence on the impact of EE on the EMS of Chinese college students. They highlight the significance of inspiration and educational attributes as intermediaries. Rodriguez and Lieber (2020) found a significant and meaningful association between EE, the cultivation of an EMS, and the readiness of secondary students for their future professions. Liao et al. (2022) assessed the influence of EE and mindset on EI. The study explicitly examines the direct and indirect implications, highlighting the role of entrepreneurial enthusiasm in moderating these effects. EE activities enhance EI and behaviour by fostering an EMS (Yan et al., 2023). The empirical assessment carried out by Oulhou and Ibou (2023) reveals the demonstrated
effectiveness of EE and its correlation with the entrepreneurial attitude, self-efficacy, and intention of Moroccan university students.

The literature consistently shows a positive correlation between EE and entrepreneurial attitude in many circumstances (Mukhtar et al., 2021; Saptono et al., 2020; Handayati et al., 2020; Yan et al., 2023; Oulhou and Ibourk, 2023). Nevertheless, this affirmation necessitates more deliberation when it comes to university students in Egypt. Hence:

**H1. EE positively and significantly predicts EMS.**

### 3.2 ENTREPRENEURIAL SELF-EFFICACY (ESE) AND ENTREPRENEURIAL MINDSET (EMS)

Existing literature demonstrates a positive correlation between ESE and EMS. Jiatong et al. (2021) highlight the significance of ESE as a mediator in the connection between EE, EMS, creativity, and EI. This implies that an educated individual who possesses a developed EMS is closely connected to their perceived capacity to effectively carry out entrepreneurial responsibilities. Borchers and Park (2010) propose that the EMS can be predicted by factors such as ESE, locus of control, and ambition to start a firm. Self-efficacy has a crucial part in moulding and impacting the EMS. The statement implies that possessing a firm conviction in one's talents is crucial for cultivating an EMS (Mauer et al., 2017). Günzel-Jensen et al. (2017) found that possessing an EMS had a positive influence on self-efficacy. Soomro and Shah (2022) discovered that EE, ESE, and the desire for achievement are highly influential factors in determining EI. Ngek (2015) investigates the role of the EMS and willingness to try new things in connecting ESE with the success of small firms. The results suggest that self-efficacy directly impacts the entrepreneurial attitude, which in turn influences the performance of entrepreneurial activities. Burnette et al. (2020) assessed the influence of a growth mindset intervention on enhancing students' ESE and concluded that it yielded a favourable and significant outcome. The research carried out by Memon et al. (2019) and Oulhou and Ibourk (2023) shows that EE has a noteworthy and considerable influence on the growth of ESE. In this study, Hendrik et al. (2022) investigate how self-efficacy and entrepreneurial mentality affect students' interest in entrepreneurship. They emphasize the interdependence of these elements in shaping students' inclination to establish their own firms.

Abdelwahed et al. (2023) found that institutional support and entrepreneurial
expertise have a beneficial impact on women's ESE. Researchers such as Schmutzler et al. (2019) and Bux and Van Vuuren (2019) offer a more comprehensive view by investigating the impact of contextual factors, EE programmes, and strategies to improve entrepreneurial mentality on self-efficacy and entrepreneurial ambitions. Lindberg et al. (2017) investigate methods to enhance students' entrepreneurial attitude and validate the influence of self-efficacy on EI within the same domain.

Consequently, the literature mentions the association between ESE and EMS, where the development of one construct influences and is influenced by the other. Based on these associations, the researcher suggests:

**H2. ESE positively and significantly predicts EMS.**

### 3.3 ENTREPRENEURIAL CULTURE (EC) AND ENTREPRENEURIAL INTENTION (EI)

EC has excellent prominence in developing EI. The cultural context can influence the actualization of intentions, showcasing the dynamic interaction between culture and entrepreneurial behaviours (Bogatyreva et al., 2019). According to Schlaegel et al. (2013), national culture has direct and indirect influences on EI. The focus of Genoveva's (2019) study demonstrates that entrepreneurial culture significantly affects EI among business students. As per insights of Huyghe and Knockaert (2015), organizational culture and climate enhance EI. A substantial impact of EE and culture is also on students' EI, as Mukhtar et al. (2021) suggested. According to Pruett et al. (2009) and Moriano et al. (2012), EI among university students contribute towards cultural variations that influence young individuals' EMS and EI. In a cross-cultural study, Khadhraoui et al. (2016) show that EC factors have a significant impact on EI. This suggests that culture plays a crucial role in moulding individuals' intents to engage in entrepreneurial activities. The impact of EE and EC on EI shows the interconnectedness of educational and cultural factors in reinforcing individuals' intentions (Kayed et al., 2022). In the perception of Soomro and Shah (2019), the effect of entrepreneurial orientation and organizational culture on various organizational outcomes, i.e., job satisfaction, commitment, and performance, is optimistic.

As a result, the domain literature suggests a dynamic and multifaceted relationship between EC and EI. The cultural context, whether at the national, organizational, or educational level, influences individuals' perceptions, aspirations, and decisions.
regarding entrepreneurship. However, these conceptions need further confirmation among Egyptian university students. Hence:

\[ H3. \text{EC positively and significantly predicts EI.} \]

3.4 ENTREPRENEURIAL MINDSET (EMS) AND ENTREPRENEURIAL INTENTION (EI)

The literature contributes to understanding the dynamic association between EMS and EI suggesting the pivotal role of mindset in shaping individuals' inclination toward entrepreneurship. This study suggests a direct connection between the mindset developed through education and subsequent entrepreneurial actions. In the COVID-19 period, Soomro and Shah (2023) recognized the positive influence of EMS on EI among entrepreneurs in Pakistan. Pfeifer et al. (2016) focus on shaping the EMS and its impact on EI, specifically among business students in Croatia. This work underscores the role of educational contexts in moulding mindset, which, in turn, influences students’ intentions to engage in entrepreneurial activities. According to Mukhtar et al. (2021), promoting EI is possible through EE and EC by meditating EMS. Ali et al. (2016) employ the Entrepreneurial Event Model (EEM) and EMS as predictor of intentions. Kaffka and Krueger (2018) provide insights into the EMS’s role in EI, tracing the journey from the entrepreneurial event to neuroentrepreneurship. Likewise, Soomro et al. (2020) predict EI among business students in Pakistan using the Entrepreneurial Event Model and confirm the positive connection between mindset and intention. The study conducted by Jiatong et al. (2021) demonstrates that EI may be forecasted by factors such as EE, EMS, and creativity, with the mediation of ESE. Soomro and Shah (2022) conducted an empirical study that found a favourable correlation between EE, ESE, need for achievement, and EI among commerce students in Pakistan. Prominent scholars such as Aima et al. (2020) and Ashourizadeh et al. (2014) propose that global mentality and entrepreneurial motivation have an impact on ESE and, subsequently, on EI. The study conducted by Yan et al. (2023) highlights that EE activities have a positive influence on both EI and behaviour, which is further enhanced by the adoption of EMS. According to Soomro and Shah (2015) and Shah and Soomro (2017), the development of attitudes, intentions, and EI among university students in Pakistan is formed through EE and mindset. Consequently, based on these positive connections, the researcher proposed:

\[ H4. \text{EMS positively and significantly predicts EI.} \]
3.5 ENTREPRENEURIAL CULTURE (EC) AS MEDIATOR

The literature continuously shows the crucial importance of EC in promoting the relationship between EE, ESE, and EI. Elnadi and Gheith (2021) recognize the impact of the entrepreneurial ecosystem on the levels of ESE and intention among individuals in higher education in Saudi Arabia. An EC inside higher education institutions impacts the relationship between EE and students' inclination to participate in entrepreneurial endeavours. According to Danish et al. (2019), creativity serves as an intermediary in the connection between specific elements and EC. The correlation between EE, EC, and students' EI is shaped by an EMS that establishes a link between education, culture, and intention. This viewpoint provides a thorough comprehension of how these factors influence entrepreneurial results (Mukhtar et al., 2021). Khedhaouria et al. (2020) discovered that the combination of entrepreneurial orientation with organizational culture and small-firm performance acts as mediators. The research conducted by Nguyen et al. (2023) reveals a direct relationship between employees' psychological empowerment and their capacity to demonstrate innovative work behaviour, which is promoted by psychological empowerment. The study conducted by Khan and Ahmed (2019) emphasizes the strengthening impact of EC on the intermediary function of entrepreneurial leadership in the connection between organizational culture and entrepreneurial orientation. In their study, Prabhu et al. (2012) examined the relationship between proactive personality and EI, with ESE acting as a mediator. Santos and Liguori (2020) discovered that result expectancies act as a mediator and subjective norms act as a moderator in the relationship between ESE and intents. The correlation between the social aptitude of entrepreneurs and the success of their new business endeavours is affected by intermediate processes and cultural universality. Baron and Tang (2009) found that cultural variables have a significant impact on the relationship between social skills and entrepreneurial outcomes. The research carried out by Kansheba and Wald (2022) significantly influences the calibre of the entrepreneurial ecosystem, entrepreneurial attitude, and entrepreneurial activities through the implementation of EC (Kansheba and Wald, 2022). According to Al-Dhaafri et al. (2016), the presence of an entrepreneurial organizational culture has a positive effect on performance, which is further enhanced by the adoption of Total Quality Management (TQM) and organizational excellence.

The result demonstrates a consistent mediating effect of EC in developing the
connection between EE, ESE, and EI. Thus, these relationships need to be confirmed among university students in Egypt. In this regard, the researcher proposed:

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\begin{align*}
H5. \text{EC mediates the association between EE and EI.} \\
H6. \text{EC mediates the association between ESE and EI.}
\end{align*}
\]

4 METHODS

4.1 SURVEY STRATEGY

The researcher's choice to employ a quantitative research approach is well-justified, as it brings forth a structured and objective methodology for investigating the research problem (Scott, 2013). The quantitative method's authenticity stems from its ability to empirically present facts through numerical data, fostering precision and objectivity in analysis (Gray et al., 2007; Savela, 2018). By adhering to systematic and standardized procedures, the approach minimizes the influence of subjective bias, ensuring a higher degree of objectivity. Statistical tools allow for accurate measurement and in-depth analysis of variables and facilitate other researchers' replication of the study (Morgan, 2015). Furthermore, the focus on empirical evidence strengthens the reliability of the research results, while the statistical analysis allows the researcher to draw more extensive conclusions about the studied population. The quantitative approach emphasizes using numerical data, statistical inference, and empirical validation to thoroughly and reliably investigate the study subject (Cokley and Awad, 2013).

4.2 RESPONDENTS AND SAMPLE SIZE

The researcher's choice to concentrate on university students in Egypt for the study is well-validated, considering the significant enthusiasm this population demonstrates towards entrepreneurship. University students in Egypt are a vibrant and vital group known for their growing passion for entrepreneurial pursuits (Sharaf et al., 2018). This decision is based on acknowledging the crucial influence that young people, especially those pursuing further education, have in defining the future economic environment of the nation. There has been an increasing tendency in Egypt among university students interested in entrepreneurial endeavours, indicating a potential change in the socio-economic structure. The researcher's objective is to analyze the elements that motivate university students in Egypt to have entrepreneurial aspirations by focusing on this particular demography (Hattab, 2014). The focused methodology improves the
significance and practicality of the study, offering valuable observations that can guide the development of policies, educational tactics, and support systems to promote entrepreneurship among this crucial demographic. Furthermore, the researcher's choice is consistent with the broader international conversation on how youth entrepreneurship might stimulate economic growth. This highlights the significance of comprehending and fostering entrepreneurial aspirations in educational settings (Eid et al., 2019).

The researcher's utilization of convenience sampling is rationalized within practicality and resource limitations. Convenience sampling entails choosing participants based on their availability and accessibility, making it a practical option when there are constraints on time and money. In many research scenarios, convenience sampling allows quicker and more cost-effective data collection than other sampling methods. In this case, targeting respondents through convenience sampling likely facilitated a more efficient data-gathering process, given the logistical challenges and time constraints of reaching a diverse group of university students in Egypt. The successful accumulation of 272 valid samples further attests to the feasibility and effectiveness of the convenience sampling approach. While convenience sampling may introduce some sampling bias, the large sample size contributes to mitigating this limitation, increasing the generalizability of the findings. The decision to employ convenience sampling aligns with the practical realities of conducting research within certain constraints. It underscores the researcher's commitment to obtaining a robust dataset for the final analysis, enhancing the study's overall reliability and efficiency.

4.3 MEASURES

The researcher measured all the items from the literature. More specifically, EI was measured on six items by Liñán and Chen (2009). The EMS factor was assessed on four items and adopted from Haynie and Shepherd (2009). The researcher adopted three items of Zhao et al. (2005) to measure ESE. Moreover, EE is derived from Denanyoh et al. (2015) and applied six items. Finally, the researcher measured three items adapted from Mukhtar et al. (2021) to measure the EC.
5 RESULTS
5.1 MEASUREMENT MODEL

The researcher comprehensively assessed the model's measurement, focusing on the individual item reliability. Upon examining the loading correlations and consistency between items and their components, as described by Hair et al. (2020), it was noted that the loading scores surpassed the required level of 0.70, suggesting strong and reliable results. Notably, one item (EI5) fell short of the recommended values and was consequently excluded from the analysis. Furthermore, the examination of reliability, a crucial aspect of construct validity linked to measurement quality, consistency, and overall reliability, revealed that composite reliability values surpassed the recommended threshold of 0.70, as suggested by Kline (2023). The average of the squared factor loading for each variable or average extracted variance (AVE) was also higher than 0.50, signifying satisfactory convergence according to Hair et al. (2020). Lastly, employing Cronbach Alpha (α) as the widely accepted measure of internal consistency, the study found high or acceptable reliability (greater than 0.70) for model validation, as detailed in Table 1. In summary, robust loading scores, composite reliability values, and convergence indicators substantiate the model's measurement integrity and reliability (Table 1).

Table 1. Measurement Model

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<thead>
<tr>
<th>Factor</th>
<th>Item</th>
<th>Loadings</th>
<th>CR</th>
<th>AVE</th>
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Source: Estimated by the scholars
Note(s): deleted item=EI5; AVE= average variance extracted; CR=composite reliability
Besides, the researcher undertook a rigorous assessment of discriminant validity (DV) to ensure the distinctiveness of constructs based on established empirical standards (Hair et al., 2019). Employing Fornell and Larcker's (1981) criteria, we validated the presence of discriminant validity within the measurement model. According to Hair et al. (2019), the square root of Average Variance Extracted (AVE) values serves as a crucial indicator, revealing significant correlations between constructs and their respective indicators, thus affirming suitable divergence. Moreover, the investigation revealed that the correlation between exogenous constructs remained below the threshold of 0.85, as recommended by Hair et al. (2019). This observation indicates that the constructs maintain sufficient independence. Consequently, the discriminant validity of all model constructions is satisfactorily established, as detailed in Table 2. Consequently, this meticulous examination, guided by both Fornell and Larcker's criteria and the correlation thresholds, robustly confirms the distinctiveness of constructs within the measurement model.

<table>
<thead>
<tr>
<th>Factor</th>
<th>EE</th>
<th>ESE</th>
<th>EC</th>
<th>EM</th>
<th>EI</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESE</td>
<td>0.750</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC</td>
<td>0.726</td>
<td>0.851</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMS</td>
<td>0.172</td>
<td>0.070</td>
<td>0.085</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EI</td>
<td>0.709</td>
<td>0.866</td>
<td>0.848</td>
<td>0.059</td>
<td></td>
</tr>
</tbody>
</table>

Source: Estimated by the scholars

Note(s); EE=entrepreneurial education; ESE=entrepreneurial self-efficacy; EC=entrepreneurial culture; EMS=entrepreneurial mindset; EI=entrepreneurial intention

5.2 STRUTURAL MODEL

The researcher used Analysis of Moment Structures (AMOS) version 26.0 to assess the hypothesized paths. With regard to direct paths, the analysis confirmed a significant positive influence of entrepreneurial education on entrepreneurial mindset (H1=β=0.268; CR=6.052; p< 0.01); entrepreneurial self-efficacy on entrepreneurial mindset (H2=β=0.260; CR=3.827; p< 0.01); entrepreneurial culture on entrepreneurial intention (H3=β=0.302; CR=5.128; p< 0.01) and entrepreneurial culture on entrepreneurial intention (H4=β=0.631; CR=6.962; p< 0.01). As a result, H1–H4 are supported (Table 3).
Moreover, the indirect path suggests a positive effect of entrepreneurial education on EI through entrepreneurial culture (H5=β=0.112; CR=4.332; p<0.01). On the other hand, entrepreneurial culture negatively mediates the relationship between entrepreneurial self-efficacy and entrepreneurial intention (H6=β=−0.007; CR=0.589; p>0.01). Thus, H5 is accepted, and H6 is rejected (Table 4).

### Table 3. Path co-efficient [direct effects]

<table>
<thead>
<tr>
<th>H/No.</th>
<th>Relationships</th>
<th>β</th>
<th>SE</th>
<th>CR</th>
<th>P-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>EE → EM</td>
<td>0.268</td>
<td>0.044</td>
<td>6.052</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>ESE → EM</td>
<td>0.260</td>
<td>0.068</td>
<td>3.827</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>EC → EI</td>
<td>0.302</td>
<td>0.059</td>
<td>5.128</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H4</td>
<td>EM → EI</td>
<td>0.631</td>
<td>0.091</td>
<td>6.962</td>
<td>0.000</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Source: Author’s own estimation  
Note(s): SE=standard error; CR=critical ratio; p<0.01.  
EE=entrepreneurial education; ESE=entrepreneurial self-efficacy; EC=entrepreneurial culture; EMS=entrepreneurial mindset; EI=entrepreneurial intention

### Table 4. Path co-efficient [indirect effects]

<table>
<thead>
<tr>
<th>H/No.</th>
<th>Relationships</th>
<th>β</th>
<th>SE</th>
<th>CR</th>
<th>P-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H5</td>
<td>EI → EC → EI</td>
<td>0.112</td>
<td>0.026</td>
<td>4.332</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H6</td>
<td>ESE → EC → EI</td>
<td>-0.007</td>
<td>0.012</td>
<td>0.589</td>
<td>0.556</td>
<td>Not Supported</td>
</tr>
</tbody>
</table>

Source: Author’s own estimation  
Note(s): SE=standard error; CR=critical ratio; p<0.01.  
EE=entrepreneurial education; ESE=entrepreneurial self-efficacy; EC=entrepreneurial culture; EMS=entrepreneurial mindset; EI=entrepreneurial intention
6 DISCUSSION AND CONCLUSION

The study aimed to explore the association between EMS and intention through the lens of EC among university students in Egypt. About the assessment of the hypotheses, the study suggests a positive effect of EE on the EMS. The literature reinforces these results (Rodriguez and Lieber, 2020; Liao et al., 2022; Yan et al., 2023; Oulhou and Ibourk, 2023). These results suggest that programs foster skill development, including critical thinking and creative problem-solving, and expose students to essential entrepreneurial concepts through case studies and interactions with successful entrepreneurs. Hands-on experiences, such as business simulations and internships, provide practical application of theoretical knowledge, encouraging a proactive and action-oriented mindset. Networking opportunities with industry experts and mentors offer valuable insights and role models, shaping students' perspectives toward entrepreneurship. Moreover, EE instils a risk-taking culture, emphasizing the importance of resilience and learning from failures. Empowerment, self-efficacy, and the ability to recognize opportunities are key outcomes, fostering confidence in students' capability to create and manage ventures. The cultural and contextual relevance of education and integration into formal academic curricula enhance its impact. Supportive policies and institutional frameworks further create an environment that encourages entrepreneurial development, collectively shaping a positive EMS among Egyptian university students.

The analysis uncovered a significant influence of ESE on EMS. The findings align with the research carried out by Borchers and Park (2010), Mauer et al. (2017), Burnette et al. (2020), Soomro and Shah (2022), and Oulhou and Ibourk (2023). The findings indicate that having a strong belief in one's ability to accomplish entrepreneurial tasks, known as ESE, is crucial for developing a sense of empowerment that is essential for nurturing an EMS. This notion impacts students' perspectives on risk, fostering a resilient and optimistic mindset while facing challenges, and motivating proactive behaviours like taking initiative and creating goals. Furthermore, the presence of ESE improves the ability to make decisions, as persons who have confidence in their entrepreneurial abilities are more likely to make resolute and well-informed choices. Ultimately, the synergy between ESE and the EMS forms a dynamic loop where success reinforces confidence and confidence, enhancing the EMS among Egyptian university students.

The study confirmed the positive effect of EC and EMS on EI, which is accorded with previous literature (Kaffka and Krueger, 2018; Bogatyreva et al., 2019; Soomro et

These connections exert that EC within the university environment shapes students' attitudes, instilling a perception of entrepreneurship as a viable and desirable career path. Social norms and peer influence within this culture create a supportive environment where entrepreneurship is accepted and celebrated. Role modelling and mentorship from successful entrepreneurs serve as tangible examples of achievement, inspiring students and reinforcing the belief that entrepreneurship is an attainable and rewarding endeavour. Furthermore, emphasizing skill development, networking opportunities, innovation, and a positive attitude towards risk-taking within the EC contributes to cultivating an EMS. This mindset, characterized by creativity, resilience, and a proactive approach to problem-solving, positively influences students' intentions to pursue entrepreneurial paths. Moreover, integrating entrepreneurial concepts into the formal education curriculum aligns with cultural values, providing a foundational understanding of entrepreneurship. In the specific context of Egypt, where economic conditions and societal needs may present entrepreneurial opportunities, the EC highlights the relevance and importance of entrepreneurship in addressing local challenges.

The EC serves as a positive mediator in the connection between EE and EI, but as a negative mediator in the connection between ESE and EI. The outcomes are also in parallel with Elnadi and Gheith (2021), Danish et al. (2019), Mukhtar et al. (2021), Khedhaouria et al. (2020), Nguyen et al. (2023), who suggested inconsistent results. These results reflect that EE introduces students to skills and concepts. When coupled with a supportive EC, it reinforces these teachings by socializing students into an environment where entrepreneurship is normative and desirable, positively influencing intention. The presence of successful entrepreneurs as role models and mentors within the culture further strengthens this relationship. In contrast, the negative mediation with ESE suggests that students with high self-efficacy might be less reliant on external cultural factors for their EI. Instead, their internalized confidence and belief in their abilities may diminish the influence of the cultural context on their entrepreneurial aspirations. The mediation reflects the intricate interplay between educational experiences, individual faiths, and the cultural milieu in shaping EI among Egyptian university students.

In summary, the findings highlight the substantial impact of EE and self-efficacy
on the entrepreneurial mentality, as well as the pivotal role of EC and attitude in shaping EI among Egyptian university students. The EC acts as a mediator in strengthening the link between EE and EI. On the other hand, the mediation analysis shows that there is a negative mediating effect of EC on the connection between ESE and EI. The patterns highlighted underscore the complex interaction between educational experiences, personal self-assurance, and the cultural context in influencing entrepreneurial aspirations within this academic environment.

7 IMPLICATIONS, LIMITATIONS AND DIRECTS OF THE FUTURE RESEARCH

The study's findings hold practical implications for educational institutions and policymakers in Egypt, emphasizing the need to strategically integrate EE into university curricula while fostering a supportive EC. Implementing mentorship programs that connect students with successful entrepreneurs can bridge the gap between theory and practice. Practical initiatives to enhance students' self-efficacy through empowerment programs and interdisciplinary collaboration would contribute to a more comprehensive entrepreneurial skill set. Policymakers may consider crafting supportive policies for startups and awareness campaigns to shift societal norms towards entrepreneurship.

Theoretically, the study underscores the interconnectedness of EE, culture, self-efficacy, mindset, and intention. It advances our understanding of the mediating roles of cultural factors, suggesting that cultural context significantly influences the impact of educational experiences and individual beliefs on EI. These findings contribute to the broader theoretical discourse on EE and cultural influences, offering insights into the complex dynamics that shape EMS and EI among university students.

Although the study offers useful insights, it is crucial to recognize its limits in order to understand the findings in a nuanced manner. Firstly, the research is constrained by a quantitative assessment approach, potentially limiting the depth of understanding that qualitative methods could offer. Furthermore, the exclusive emphasis on Egyptian university students may restrict the generalizability of the results to a broader context. Furthermore, while sufficient for statistical analysis, the study's sample size of 272 participants may need to be revised in order to maintain the robustness of the findings and limit the exploration of potential subgroups. Recognizing these limitations encourages future research endeavours to incorporate qualitative methodologies, diversify participant
demographics, and expand sample sizes for a more comprehensive understanding of the intricate connection between EE, culture, self-efficacy, mindset, and intention.

To overcome the limitations identified in the present study, future research should adopt a mixed-methods approach, integrating qualitative methods to capture the nuanced perspectives of university students on EE, culture, and self-efficacy. Moreover, a cross-cultural approach should be considered to broaden the generalizability of findings, examining how these factors influence EMS and EI across diverse cultural contexts. Longitudinal studies would provide insights into the sustainability and evolution of observed effects over time. Replicating the research with more extensive and varied samples would enhance statistical robustness and uncover potential subgroup differences. Exploring moderators, such as individual differences or contextual factors, could reveal conditions that strengthen or weaken the relationships. Comparative analyses of different EE programs and interventions could inform the design of more tailored and effective educational initiatives. Extending the focus to include alums and established entrepreneurs would provide valuable retrospective insights into the entrepreneurial journey. In summary, these proposed future paths seek to enhance our comprehension and overcome the limits of the present study, so enriching the existing knowledge in the field of EE and intention among university students.

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REFERENCES


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