Strategic thinking as a catalyst: shedding the light on entrepreneurial intention and activities among college graduates

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ABSTRACT

This research investigates the factors influencing the transition from entrepreneurial intention to actual entrepreneurial activity among college graduates, focusing on the role of strategic thinking as a determinant of entrepreneurial behavior. Additionally, the study seeks to broaden understanding beyond entrepreneurial intention by incorporating strategic thinking variables as moderators in examining the causal relationships between entrepreneurial activity and its antecedents. The sampling method used in this study was nonprobability sampling. 142 respondents were collected and analyzed using Partial Least Square through SmartPLS. The main findings of the study demonstrate that (i) attitude, subjective norm, and perceived behavioral control significantly affect entrepreneurial intention; (ii) attitude, subjective norm, and perceived behavioral control do not significantly affect entrepreneurial activity; (iii) entrepreneurial intention does not significantly affect entrepreneurial activity; (iv) the effect of attitude, subjective norm and perceived behavioral control toward entrepreneurial activity does not mediated by entrepreneurial intention; (v) strategic thinking does not moderate the effect of attitude, subjective norm and perceived behavioral control towards entrepreneurial activity; (vi) strategic thinking significantly affects entrepreneurial activity. The study brought several implications related to the predictors of entrepreneurial activity and the integration of strategic thinking into the theory of planned behavior model.

Introduction

Unemployment has historically been a challenge that burdens the economies of many nations. It is essential to create sufficient job opportunities to curb unemployment. College graduates can play a crucial role in this regard, as they possess the necessary education, knowledge, and expertise to drive economic growth through their entrepreneurial pursuits. However, current data reveals that many university graduates remain unemployed. In February 2023, the open unemployment rate for college graduates (TPT) was 5.59%, higher than the national TPT of 5.45%. Furthermore, the TPT for universities was significantly higher than the TPT at the elementary level, which included those who had not graduated from elementary, junior high, and high school, at only 3.85% (Badan Pusat Statistik, 2023). This fact is indeed ironic, given that college graduates possess a higher level of competence and are expected to be more successful than their elementary-level counterparts.

To date, it has been observed that individuals with college degrees tend to prioritize securing employment over establishing their businesses. However, the number of job vacancies is often restricted, which may worsen during unfavorable economic periods. Consequently, the pool of available workers exceeds the demand for their skills, leading to a high unemployment rate among college graduates. The disparity between the supply of labor and its demand can be bridged by fostering entrepreneurial endeavors that will generate additional labor, ultimately lessening the unemployment rate. To this end, a nation must have a substantial entrepreneurship ratio. Regrettably, Indonesia's entrepreneurship ratio falls short of this requirement. In 2022, Indonesia's entrepreneurship ratio was...
merely 3.18%, which is considerably lower than other countries in the ASEAN region, such as Singapore (8.76%), Malaysia (4.74%), and Thailand (4.26%). According to the Global Entrepreneurship Monitor (GEM) 2022/2023 survey, Indonesia's total early-stage entrepreneurial activity was 8%, ranked 36th out of 49 surveyed countries (Hill et al., 2023).

It is worth noting that there is a considerable gap between the number of individuals exhibiting entrepreneurial intention and the number of college graduates who prove to be entrepreneurial in practical terms. Several research findings indicate that student entrepreneurial intention in Surabaya is relatively high (Candra & Nur-Zaela, 2019; Masruroh, 2018). When these studies' results are averaged, a figure of 25.15% is obtained for the high category of entrepreneurial intention, while 63.2% falls under the medium category. When these two categories are combined, it reveals that approximately 88.35% of students are interested in entrepreneurship, both in the high and medium categories. On the other hand, data from several universities in Surabaya shows that a mere 7.91% of graduates opt for entrepreneurship as a career path after graduation. At first glance, it is evident that about 80% of college graduates do not or have not pursued their entrepreneurial intentions.

Based on the empirical evidence, it can be inferred that entrepreneurial intention does not always guarantee actualizing entrepreneurial activities. Although interest in entrepreneurship is often considered a strong predictor, it is important to note that many students who previously expressed an interest in entrepreneurship did not engage in actual entrepreneurial activity upon graduation. The study concludes that the path from entrepreneurial intention to entrepreneurial activity is not as straightforward as expected, and numerous processes require further investigation to determine the factors that can make entrepreneurial intention effective in leading to actual entrepreneurial activities. Therefore, developing a research model that continues to explore the factors contributing to entrepreneurial intention's effectiveness beyond its initial stages is necessary. Such a model would be beneficial in advancing our understanding of the complex relationship between entrepreneurial intention and entrepreneurial activity.

In the past two decades, the theory of planned behavior (TPB) has been increasingly utilized by scholars, either in its entirety or by incorporating its elements, to elucidate the development of entrepreneurial intention (Adu et al., 2020; Bíó & Knezović, 2023; Chhabra et al., 2020; Debarliev et al., 2015; Fayolle et al., 2006; Ferreira et al., 2012; Guzmán-Alfonso & Guzmán-Cuevas, 2012; Hejazinia, 2015; Henley et al., 2017; Iakovleva et al., 2011; Moi et al., 2011; Munir et al., 2019; Suryawirawan, 2020; Yang, 2013; Zhao, 2022). This study will incorporate attitudes, subjective norms, behavioral control, and exogenous SDG variables. Empirical research has demonstrated that these variables provide a coherent and widely applicable theoretical framework for understanding and predicting entrepreneurial intention, considering personal and social factors (Iakovleva et al., 2011; Krueger Jr et al., 2000).

Numerous studies have investigated the causal relationship between entrepreneurial intention and entrepreneurial activity. It should be noted that there is a slight variation in the usage of terms related to entrepreneurial activity among experts. While some use the term "entrepreneurial behavior," others use "entrepreneurial action," and so on. However, according to a past article, the term "entrepreneurial activity" is synonymous with "entrepreneurial behavior" (Verheul et al., 2012). Therefore, both terms can be used interchangeably in discussing the construct in question. In this study, the term "entrepreneurial activity" will define uniformity in the discussion.

At the outset, research focusing on the relationship between entrepreneurial intention and entrepreneurial activities does not appear to be as extensive as research on entrepreneurial intention and its various antecedents. Although theoretical foundations support the positive influence of entrepreneurial intention on entrepreneurial activity, empirical evidence remains limited (Belchior & Lyons, 2021). Several studies have addressed the crucial question of whether entrepreneurial intention can serve as a robust predictor of actual entrepreneurial activity (Belchior & Lyons, 2021; L. Cai et al., 2021; Duong et al., 2022; Farooq, 2018; Jin, 2017; Li et al., 2023; Yang et al., 2022; Yaseen et al., 2018).

Researchers are still grappling with whether entrepreneurial intention alone can lead to entrepreneurial actions and activities or if other variables, individually or collectively, are necessary to encourage such behaviors. However, no studies have been found that propose strategic thinking as a determinant of entrepreneurial activity, despite its potential to strengthen the entrepreneurial drive and help entrepreneurs achieve sustainable businesses. Strategic thinking skills are believed to improve entrepreneurial competence (STONKUTÉ, 2022). Furthermore, every entrepreneur wants their business to perform well and have a competitive advantage. Research findings show a significant relationship between strategic thinking and organizational performance (Alatalait et al., 2019), while another study proves that strategic thinking significantly influences competitive advantage (Dixit et al., 2021). Thus, it is becoming increasingly apparent that strategic thinking is an essential quality that entrepreneurs must possess.

The capacity to envision future business prospects is a crucial element of strategic thinking. The past finding indicates that the ability to foresee future business opportunities has a favorable and significant impact on entrepreneurial activities, such as launching new businesses and investing in existing ones (Wibisono & Thao, 2023). This study concludes that strategic thinking is crucial in fostering entrepreneurial activity.

The novelty of this investigation lies in its extensive exploration of the variable of entrepreneurial intention (entrepreneurial intention), particularly in examining its influence on the variable of entrepreneurial activity (entrepreneurial activity), and does not limit its scope to entrepreneurial intention alone as in most previous studies. Furthermore, this study also incorporated strategic thinking variables as moderator variables to elucidate the causal relationships between entrepreneurial activity variables and various
antecedent variables. Notably, this study utilized college graduates as research subjects rather than students, as observed in most prior research on entrepreneurial intentions.

**Literature Review**

**Theoretical and Conceptual Background**

**Entrepreneurship Theory**

The contemporary discourse on entrepreneurship is greatly influenced by past ideas positing that a flourishing economy characterized by innovation giving rise to new businesses that displace old ones (a process referred to as creative destruction) will inevitably experience booms and recessions. Eliminating or correcting these economic cycles would hinder new wealth creation through innovation (Schumpeter, 1934). For instance, a study asserts that entrepreneurs capitalize on opportunities by recombining existing resources while simultaneously grappling with uncertainties (Gumussoy et al., 2018).

**Entrepreneurial Intention**

According to (Thompson, 2009), entrepreneurial intention refers to a firm commitment made by an individual to establish a new business venture and to execute it at a specific point in the future. This notion is supported by (Hisrich et al., 2017), who define entrepreneurial intention as the motivational factors that encourage individuals to pursue entrepreneurial goals. It is important to note that individuals are likelier to take action when they perceive it to be feasible and desirable.

**Entrepreneurial Activities**

Entrepreneurial activity or nascent entrepreneurial behavior refers to an individual's actions to identify and exploit entrepreneurial opportunities. Discovering entrepreneurial opportunities involves an individual's actions to find, develop, and improve business ideas or products/services for a specific market. Opportunity utilization encompasses an individual's actions to realize their ideas by acquiring resources, creating products, and accessing new markets (Cai et al., 2021). Most business-related behaviors can be considered entrepreneurial activities, including establishing new ventures, innovating, seeking business ownership, expanding and growing businesses, and managing companies (Verheul et al., 2002).

**Theory of Planned Behavior**

The Theory of Planned Behavior (TPB) asserts that individuals are rational and systematically utilize available information when making decisions. According to this theory, one's behavior is determined by one's interest in performing that behavior, which is the most accurate predictor of behavior. Interest in behavior is a function of attitudes towards it, subjective norms, and perceptions of behavioral control. Various other variables indirectly influence interest in behavior through the intermediary of attitudes, subjective norms, and perceptions of behavioral control (Ajzen, 1991). The study posits that desire or interest is the primary determinant of SDGs. This desire is assumed to encompass motivational factors that impact behavior, which indicate the effort a person is willing to exert to perform the behavior. Generally, the stronger one's desire to engage in a behavior, the more likely they are to execute it.

**Strategic Thinking**

According to past literature, strategy is a long-term plan that outlines the actions and resources necessary to achieve specific goals (Dhir et al., 2018). Ahlstrand et al. (2001) use the 5Ps framework—Plan, Pattern, Position, Perspective, and Ploy—to describe strategy. To maintain alignment with evolving environmental conditions, company leaders must continually update their strategies, demonstrating a strategic mindset. Strategic thinking, therefore, is the process of devising strategies to capitalize on opportunities and identify common threads in organizational activities by examining policies, goals, and objectives (Dhir et al., 2018).

Notable thinkers and experts have discussed and developed the concept of strategic thinking, such as Liedtka (1998), who identified five dimensions: systems perspective, intent-focused, intelligent opportunism, thinking in time, and hypothesis-driven.

**Empirical Review and Hypothesis Development**

**The Effect of Attitudes towards Entrepreneurial Intention**

TPB posits that one of the key determinants of interest in performing certain behaviors is the attitude toward the behavior in question (Ajzen, 1991). Similarly, attitudes towards entrepreneurial activities are thought to influence interest in entrepreneurship. Various research studies have also demonstrated that attitudes have a positive and significant impact on entrepreneurial intention (Debarliev et al., 2015; Hejazinia, 2015; Iakovleva et al., 2011; Putra et al., 2018; Suhartanto, 2022; Yaseen et al., 2018). However, a study has found that attitudes do not significantly affect entrepreneurial intention (Zhang et al., 2015). This contradiction creates an interesting area for further investigation into the relationship between attitudes and entrepreneurial intention. Therefore, the following hypothesis can be proposed:

Hypothesis 1: Attitude has a significant effect on entrepreneurial intention.

**The Effect of Subjective Norms on Entrepreneurial Intention**
In TPB, it is posited that one of the determinants of interest in performing certain behaviors is the subjective norms that pertain to the behavior in question (Ajzen, 1991). Correspondingly, interest in entrepreneurship will be influenced by subjective norms with regard to entrepreneurial activities. Thus, subjective norms are strongly suspected to exert a positive and significant impact on entrepreneurial intention (Debarliev et al., 2015; Guzmán-Alfonso & Guzmán-Cuevas, 2012; Henley et al., 2017; Iakovleva et al., 2011; Suhartanto, 2022; Yang, 2013). However, some studies have failed to find a significant influence of subjective norms on entrepreneurial intention (Bićo & Knežović, 2023; Farooq, 2018; Hejazinia, 2015; Putra et al., 2018). These contradictions render the relationship between subjective norms and entrepreneurial intention a subject worthy of further investigation. Hence, the following hypothesis can be formulated:

**Hypothesis 2:** Subjective norms have a significant effect on entrepreneurial intention.

### The Effect of Behavioral Control on Entrepreneurial Intention

According to TPB, an individual’s level of interest in performing specific actions is influenced by their belief in their ability to carry out the action effectively, reflecting their sense of control over the behavior in question (Ajzen, 1991). This suggests that an individual’s level of interest in entrepreneurship is contingent upon their control over entrepreneurial activities. A substantial body of research has demonstrated that perceived behavioral control exercises a positive and statistically significant influence on entrepreneurial intention (Debarliev et al., 2015; Iakovleva et al., 2011; Yaseen et al., 2018). However, the findings reveal that perceived behavioral control does not significantly impact entrepreneurial intention (Ferreira et al., 2012; Putra et al., 2018). This paradoxical state of affairs renders the relationship between behavioral control and entrepreneurial intention a subject of continued investigation. Consequently, the following hypotheses can be proposed:

**Hypothesis 3:** Perceived behavioral control has a significant effect on entrepreneurial intention.

### The Effect of Attitudes towards Entrepreneurial Activity

In the original model of TPB, there is no explicit connection between attitudes and behavior when it comes to initiating activities related to the behavior in question (Ajzen, 1991). However, a number of empirical studies (Duong et al., 2022; Farooq, 2018; Suhartanto, 2022) have shown a direct influence of attitudes on entrepreneurial activities. To date, no other studies have produced conflicting findings. Despite this, the direct effect of attitudes on entrepreneurial activities remains an interesting area for further research, given the relatively limited amount of existing research on this topic compared to the study of the influence of attitudes on entrepreneurial intention. Consequently, the hypothesis on this subject can be formulated as follows:

**Hypothesis 4:** Attitudes have a significant effect on entrepreneurial activity.

### The Effect of Subjective Norms on Entrepreneurial Activity

In the original formulation of TPB, subjective norms have no direct impact on initiating activities linked to the behavior in question (Ajzen, 1991). However, empirical research by Paranata et al. (2023) has demonstrated a significant direct influence of subjective norms on entrepreneurial activities. To date, no other studies have produced conflicting results. Despite this, the direct impact of subjective norms on entrepreneurial activities remains a topic of interest for further investigation, as there is relatively limited research on this subject compared to the influence of subjective norms on entrepreneurial intention. Consequently, the following hypotheses can be proposed for consideration:

**Hypothesis 5:** Subjective norms have a significant effect on entrepreneurial activity.

### The Effect of Behavioral Control on Entrepreneurial Activities

In the proposed original model, it was suggested that behavioral control directly impacted the emergence of activities related to the target behavior (Ajzen, 1991). This hypothesis has been empirically supported by past research, which demonstrated that behavioral control significantly influences entrepreneurial activities (Farooq, 2018). However, Paranata et al. (2023) produced contradictory results, finding no significant relationship between behavioral control and entrepreneurial activities. This discrepancy highlights the need for further investigation into the connection between behavioral control and entrepreneurial activities. Therefore, the following hypothesis can be formulated:

**Hypothesis 6:** Behavioral control has a significant effect on entrepreneurial activity.

### The Effect of Entrepreneurial Intention on Entrepreneurial Activities

The original TPB posited that the desire to engage in specific behaviors directly influences the emergence of activities related to those behaviors (Ajzen, 1991). Empirical evidence supports this notion, with several studies demonstrating that entrepreneurial intention has a significant and positive impact on entrepreneurial activities (Belchior & Lyons, 2021; L. Cai et al., 2021; Duong et al., 2022; Farooq, 2018; Li et al., 2023; Yaseen et al., 2018; YI, 2021). However, contradictory findings suggest no significant influence of entrepreneurial intention on entrepreneurial activities (Yang et al., 2022). This inconsistency highlights the need for further investigation into the relationship between entrepreneurial intention and entrepreneurial activities. Therefore, the following hypothesis can be formulated:
Hypothesis 7: Interest in entrepreneurship has a significant effect on entrepreneurial activity.

The Effect of Attitudes, Subjective Norms, and Perceived Behavioral Control towards Entrepreneurial Activities with Entrepreneurial Intention as a Mediator

In the theoretical framework of TPB, it is posited that attitudes, subjective norms, and behavioral control have an impact on behavior through the intention to perform the behavior (Ajzen, 1991). Several empirical studies have investigated the relationship between the elements of Sustainable Development Goals (SDGs) and entrepreneurial intention (Duong et al., 2022; Farooq, 2018; Yaseen et al., 2018). However, most of these studies have not considered the mediating role of entrepreneurial intention in the relationship between SDG elements and entrepreneurial activity. This research gap underscores the need for further investigation of the mediating role of entrepreneurial intention in the relationship between SDG elements and entrepreneurial activity. Therefore, the following hypothesis can be formulated:

Hypothesis 8: Entrepreneurial intention mediates the influence of attitudes towards entrepreneurial activity.

Hypothesis 9: Entrepreneurial intention mediates the influence of subjective norms on entrepreneurial activity.

Hypothesis 10: Entrepreneurial intention mediates the influence of behavioral control on entrepreneurial activity.

The Effect of Attitudes, Subjective Norms, Perceived Behavioral Control, Entrepreneurial Intention on Entrepreneurial Activities Moderated by Strategic Thinking

The theory of entrepreneurship (Schumpeter, 2021) and strategic thinking (Liedtka, 1998) are closely linked, particularly in their emphasis on intelligent opportunism and hypothesis-driven approaches. This alignment mirrors Schumpeter's concept of creative destruction, where innovation drives entrepreneurship and economic growth. Despite this theoretical connection, empirical research on strategic thinking's impact on entrepreneurial activities is sparse. Strategic thinking enhances entrepreneurial competence, business performance, and competitive advantage. While some studies explore its moderation effects on company performance, there's a gap in understanding its direct influence on entrepreneurial activities (AlQershi et al., 2022). Given entrepreneurs' goal of optimizing business performance, this study examines how strategic thinking moderates various antecedent variables affecting entrepreneurial activity, including subjective norms. Therefore, hypothesis can be formulated as follows:

Hypothesis 11: Strategic thinking moderates the influence of attitudes towards entrepreneurial activity.

Hypothesis 12: Strategic thinking moderates the influence of subjective norms on entrepreneurial activity.

Hypothesis 13: Strategic thinking moderates the influence of behavioral control on entrepreneurial activity.

Hypothesis 14: Strategic thinking moderates the influence of entrepreneurial intention on entrepreneurial activity.

Research and Methodology

The population of this study comprises recent graduates from various universities in Surabaya who have started their businesses within the last five years. Data were not collected from the entire population but rather from a sample of selected members. (Hair et al., 2014) argue that the minimum sample size should be five times the number of independent variables or indicators. Given the 25 indicators in the structural model of this study, the minimum sample size was set at 25 times 5, or a total of 125 respondents. The sampling method used in this study was nonprobability sampling.

The choice of sampling method in this study was influenced by several factors. The population under consideration is vast, encompassing recent graduates who have launched businesses within the past five years in Surabaya. As the number of individuals in this population is likely to be large and dynamic, accurately identifying and counting them all is challenging. Furthermore, precise data on the number of college graduates engaged in entrepreneurial pursuits is not readily available. In light of these challenges, snowball sampling was employed to capture a larger sample by asking each respondent to recommend others with similar characteristics. This approach was deemed to be both cost-effective and practical in the circumstances.

Nonprobability sampling methods have several limitations that should be taken into consideration. Because individuals are not randomly selected from the population, there is a risk of sampling bias, which could impact the validity of the study's findings. Furthermore, findings based on nonprobability samples may not be applicable to the broader population of recent graduates in Surabaya or other contexts. This is due to the fact that snowball sampling relies on referrals from initial participants, which may result in a sample that is not reflective of the population's diversity. Consequently, certain subgroups within the population may be either overrepresented or underrepresented in the sample. Moreover, nonprobability sampling methods can make it difficult to determine the sampling error or estimate the precision of study results. This can impact the confidence in the study findings and the ability to make statistical inferences.

Based on operational definitions, indicators, and statement items that have been established, a research instrument was developed as a questionnaire using a 5-point Likert scale. The questionnaire comprises statements that respondents must answer according to their experiences or perceptions. The response options for each statement include alternative answers: “strongly disagree” (score 1),
"disagree" (score 2), "undecided" (score 3), "agree" (score 4), and "strongly agree" (score 5). This study's statistical data analysis technique is partial least squares (PLS), executed using the SmartPLS application version 3.2.9.

**Findings and Discussions**

**Findings**

Among the 175 questionnaires distributed, 142 were collected in their entirety and a valid state. This comprised 69 online questionnaires submitted through Google Forms and 73 printed physical questionnaires. It is worth noting that this count surpasses the predetermined minimum target of 125 respondents.

In this research, the data processing was accomplished through SmartPLS version 3.2.9. Initially, the structural model was estimated by performing PLS Algorithm calculations. The resulting structural model, suitable for subsequent analysis, is depicted in Figure 2.

The evaluation of the outer model's performance is gauged by examining the outcomes of calculations that pertain to convergent validity, discriminant validity, and composite reliability requirements. In this study, all of these criteria have been met. The inner model evaluation entails analyzing the results of calculations related to the value of $R^2$ for endogenous latent variables, predictive relevance ($Q^2$), and collinearity statistics (variance inflation factor / VIF). The Adjusted $R^2$ value is 0.400 for the latent variable Entrepreneurial Activity and 0.474 for the latent variable Entrepreneurial Intention, which classify both within the moderate category. Moreover, the results of the variance inflation factor (VIF) calculation for indicator variables (outer VIF and inner VIF) have produced a value of VIF < 5, indicating that there is no multicollinearity between variables, both in indicator variables and latent variables.

![Figure 2: Structural model](image)

**Final Structural Model**

This study's criteria for model eligibility, or goodness of fit, are the standardized root mean residual (SRMR) and root mean square theta (RMS Theta). The saturated model (SRMR value of 0.067) and the estimated model (SRMR value of 0.068) have SRMR values smaller than 0.080, indicating that they meet the model feasibility criteria. Additionally, the RMS Theta value of 0.212 is close to zero, further supporting the conclusion that the structural model in this study has adequate fit.

The results of this study provided evidence to support a portion of TPB in the context of entrepreneurship, which posits that attitudes, subjective norms, and perceived behavioral control have a positive and significant influence on entrepreneurial intent (Debarliev et al., 2015; Guzmán-Alfonso & Guzmán-Cuevas, 2012; Henley et al., 2017; Iakovleva et al., 2011; Munir et al., 2019; Yang, 2013).

In contrast, the findings of this study did not demonstrate the effectiveness of the next aspect of the SDGs concerning entrepreneurship, which pertains to the transformation of entrepreneurial intention into entrepreneurial actions or activities. These outcomes are consistent with past results, which also failed to establish a significant connection between entrepreneurial intention and entrepreneurial activities (Yang et al., 2022). Furthermore, this study did not prove the direct impact of perceived behavioral control on entrepreneurial activities, nor did it demonstrate a significant relationship between the two, a conclusion supported by previous findings (Paranata et al., 2023).
Results

The statistical analysis of this study was conducted by evaluating the t-value and p-value. To deem a relationship significant, it must fulfill the criteria of a t-value greater than 1.96 (with a significance level of 0.05) and a p-value less than 0.05. Table 1 summarizes the significance of the interactions between variables in this study based on the previously calculated t-values and p-values. As shown in the table, out of the 14 hypotheses proposed in this study, three were proven to be statistically significant: the impact of attitudes on entrepreneurial intention, the effect of subjective norms on entrepreneurial intention, and the influence of perceived behavioral control on entrepreneurial intention. Additionally, the results revealed one unanticipated but significant relationship: the direct influence of strategic thinking on entrepreneurial activities.

Table 1: The statistical analysis of this study

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Variables</th>
<th>Path Coeff.</th>
<th>t-value</th>
<th>p-value</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 1</td>
<td>Attitude → Entrepreneurial Intention</td>
<td>0.319</td>
<td>3.554</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>Hypothesis 2</td>
<td>Subjective Norm → Entrepreneurial Intention</td>
<td>0.216</td>
<td>2.272</td>
<td>0.023</td>
<td>Significant</td>
</tr>
<tr>
<td>Hypothesis 3</td>
<td>Perceived Behavioral Control → Entrepreneurial Intention</td>
<td>0.312</td>
<td>3.162</td>
<td>0.002</td>
<td>Significant</td>
</tr>
<tr>
<td>Hypothesis 4</td>
<td>Attitude → Entrepreneurial Activity</td>
<td>-0.065</td>
<td>0.696</td>
<td>0.487</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Hypothesis 5</td>
<td>Subjective Norm → Entrepreneurial Activity</td>
<td>0.135</td>
<td>1.221</td>
<td>0.222</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Hypothesis 6</td>
<td>Perceived Behavioral Control → Entrepreneurial Activity</td>
<td>0.134</td>
<td>1.252</td>
<td>0.211</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Hypothesis 7</td>
<td>Entrepreneurial Intention → Entrepreneurial Activity</td>
<td>-0.176</td>
<td>1.788</td>
<td>0.074</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Hypothesis 8</td>
<td>Attitude → Entrepreneurial Intention → Entrepreneurial Activity</td>
<td>-0.056</td>
<td>1.532</td>
<td>0.126</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Hypothesis 9</td>
<td>Subjective Norm → Entrepreneurial Intention → Entrepreneurial Activity</td>
<td>-0.038</td>
<td>1.227</td>
<td>0.220</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Hypothesis 10</td>
<td>Perceived Behavioral Control → Entrepreneurial Intention → Entrepreneurial Activity</td>
<td>-0.055</td>
<td>1.546</td>
<td>0.118</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Hypothesis 11</td>
<td>Attitude*Strategic Thinking → Entrepreneurial Activity</td>
<td>0.139</td>
<td>1.312</td>
<td>0.190</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Hypothesis 12</td>
<td>Subjective Norm*Strategic Thinking → Entrepreneurial Activity</td>
<td>-0.036</td>
<td>0.346</td>
<td>0.730</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Hypothesis 13</td>
<td>Perceived Behavioral Control*Strategic Thinking → Entrepreneurial Activity</td>
<td>-0.076</td>
<td>0.612</td>
<td>0.541</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Hypothesis 14</td>
<td>Entrepreneurial Intention*Strategic Thinking → Entrepreneurial Activity</td>
<td>-0.046</td>
<td>0.419</td>
<td>0.675</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Non-Hypothesis</td>
<td>Strategic Thinking → Entrepreneurial Activity</td>
<td>0.556</td>
<td>5.324</td>
<td>0.000</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Source: SmartPLS Output, 2024

The significant findings emphasize the importance of attitude, subjective norms, and perceived behavioral control in shaping entrepreneurial intentions. However, translating these intentions into actual entrepreneurial activity may require additional factors not captured in the study. The strong impact of strategic thinking on entrepreneurial activity highlights the need for a strategic approach in entrepreneurship. Future research could explore additional mediators and moderators to better understand the gap between entrepreneurial intentions and actual behavior.

Discussion

The researchers discovered a noteworthy finding in this study pertaining to Hypothesis 11-14 results. Entrepreneurial pursuits are influenced by a variety of elements, such as market conditions, resource availability, regulatory environments, and industry-specific dynamics. These factors may impede the translation of cognitive factors, including strategic thinking, attitude, subjective norm, perceived behavioral control, and intention, into actual entrepreneurial actions. Even if an individual possesses strategic thinking skills and a positive attitude towards entrepreneurship, other contextual factors may prevent their entrepreneurial activity. While strategic thinking is essential for identifying opportunities and formulating entrepreneurial strategies, its impact on actual entrepreneurial activity may be moderated or mediated by contextual factors. For example, even if individuals possess strategic thinking abilities, they may encounter structural barriers, such as a lack of funding, limited market demand, or legal constraints, which may prevent them from translating their strategies into tangible business ventures. Entrepreneurship is unique, and individuals vary in their propensity and readiness to engage in entrepreneurial activities. The impact of cognitive factors on entrepreneurial activity may differ across individuals based on their unique characteristics and experiences. Entrepreneurial decisions and actions are embedded within social networks, institutional contexts, and cultural norms. Even if individuals possess strategic thinking abilities and positive attitudes towards entrepreneurship, their decisions may be influenced by social pressures, normative expectations, and institutional constraints. Thus, the relationship between cognitive factors and entrepreneurial activity may be contingent upon broader
social and institutional factors. Although the results of Hypothesis 11-14 did not demonstrate the moderating effect of strategic thinking variables, it was found that they had a significant independent influence on entrepreneurial activity (t-value = 5.324; p-value = 0.000) (See Table 1).

A more in-depth analysis revealed that the interaction of strategic thinking variables with other predictor variables (attitudes, subjective norms, behavioral control, and entrepreneurial intention) on entrepreneurial activity as the dependent variable was not significant. However, the direct influence of strategic thinking variables on entrepreneurial activity variables was substantial. Therefore, it can be concluded that although the Hypotheses 11-14 test results did not prove the role of strategic thinking as a moderator, either as a pure moderator or a pseudo moderator, strategic thinking can be considered a predictor variable or antecedent of entrepreneurial activity. Entrepreneurs are known for their foresight, which directs their strategic choices and actions. They spot opportunities, anticipate market trends, and articulate a convincing long-term strategy. Visionary thinking motivates entrepreneurs to pursue lofty objectives, persevere in the face of obstacles, and unite stakeholders around a common goal. It promotes creativity, innovation, and a readiness to challenge established norms. Strategic thinking enables entrepreneurs to identify and evaluate promising prospects amid ambiguity and intricacy. They scrutinize market dynamics and appraise the viability and allure of potential enterprises. Entrepreneurs rely on their strategic acumen to discern market gaps, emerging trends, unmet customer needs, and technological advancements that afford possibilities for value creation and differentiation.

This study also cannot prove the role of the “strategic thinking” variable to moderate the influence of attitudes, subjective norms, behavioral control, and entrepreneurial intention on entrepreneurial activities. Thus, further exploration is still needed to find other variables that have the potential to have significant interaction with strategic thinking in increasing entrepreneurial activities.

Conclusions

The findings of this study suggest that entrepreneurial intention may not be a reliable predictor of entrepreneurial activity. As such, it is necessary to re-evaluate alternative methods for fostering entrepreneurial activities. Previous research has identified various factors that may contribute to the growth of entrepreneurship, such as cultural factors, social networks, entrepreneurship education, and government policies (Al-Shammari & Al Shammari, 2018; Darmanto et al., 2023; Duong et al., 2022; Farooq, 2018; Hägg et al., 2023; Jabeen & Faisal, 2018; Suhartanto, 2022; Wibisono & Thao, 2023). Cultural norms and values can shape individuals' attitudes and beliefs, influencing their entrepreneurial pursuits. Risk-taking and innovative cultures may encourage entrepreneurship. Social networks provide access to critical resources and can facilitate entrepreneurial intentions. Entrepreneurship education with practical training in areas such as business planning, marketing, and financial management enhances individuals' confidence and competence in pursuing entrepreneurial activities. By exploring these alternative approaches, it may be possible to stimulate the growth of entrepreneurial activities and promote entrepreneurship comprehensively.
The researchers are encouraged to add variables that could serve as precursors to entrepreneurial intention and activity. Some potential antecedent variables for entrepreneurial intention warranting further investigation include family background, environment, and entrepreneurial education. Similarly, the potential antecedent variables for entrepreneurial activity that desire further examination consist of culture, social support/networks, government policies, the environment, and entrepreneurship education. Moreover, future researchers are advised to delve deeper into the various mediating and moderating relationships that have yet to be proven in this study. Specifically, the unproven impact of entrepreneurial intention on entrepreneurial activities can be explored to determine the possibility of other intervening variables.

Entrepreneurs must be equipped with a strategic mindset in order to succeed, and it is the responsibility of higher education managers and entrepreneurship educators to foster this type of thinking in their students. Five critical elements of strategic thinking - systems perspective, intent-focused, intelligent opportunism, thinking in time, and hypothesis-driven - should be integrated into the entrepreneurship curriculum. Additionally, it is crucial to encourage the development of entrepreneurial literacy among students, as relying solely on financial capital is insufficient for building a sustainable business. Future researchers are encouraged to focus on these strategic aspects of entrepreneurship.

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References


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