



Ambidextrous Leadership among Student Entrepreneurs: Navigating Entrepreneurial and Academic Demands

**Maulana Amirul Adha^{1,*}, Marsofiyati¹, Nova Syafira Ariyanti², Ria Rahma Nida¹,
Rudy Ansar³, Maisyaroh²**

¹Faculty of Economics and Business, Universitas Negeri Jakarta, Indonesia

²Faculty of Education, Universitas Negeri Malang, Indonesia

³Faculty of Business Economics and Accountancy, Universiti Malaysia Sabah, Malaysia

*maulanaamirul@unj.ac.id

DOI: 10.26417/5mn6d816

Abstract

This study investigates how student entrepreneurs in Indonesian higher education navigate entrepreneurial and academic responsibilities through the perspective of ambidextrous leadership. The study employed a qualitative Interpretative Phenomenological Analysis (IPA) approach involving 15 student entrepreneurs, four entrepreneurship lecturers, and three business partners selected through purposive sampling. Data were collected through semi-structured interviews, observations, and document analysis. The findings reveal that student entrepreneurs experienced tensions related to innovation and operational stability, uncertainty and competing demands, as well as emotional and psychological pressures resulting from the simultaneous management of academic and business obligations. To respond to these challenges, participants adopted ambidextrous leadership behaviours by balancing flexibility and control while developing adaptive decision-making strategies. The study further found that entrepreneurial experiences contributed not only to business-related competencies but also to the development of entrepreneurial resilience, leadership confidence, emotional maturity, and strategic adaptability. In addition, the findings highlight the importance of experiential learning, adaptive leadership, and supportive higher education environments in helping student entrepreneurs navigate increasingly complex academic, entrepreneurial, and socio-economic challenges.

Keywords: Ambidextrous leadership, Student entrepreneurs, psychological resilience, Entrepreneurial tensions, Gig economy, Higher education

Introduction

The development of youth and student entrepreneurship in Indonesia has increased rapidly in recent years (Basuki et al., 2021), supported by the development of the digital business ecosystem, entrepreneurship education programmes, and government programmes to promote the development of entrepreneurship among young people (Blesia et al., 2021; Rapina et al., 2023). The booming social commerce, online marketplaces, and digital entrepreneurship have also created wider opportunities for students to set up and run businesses alongside their higher education. However, an essential hurdle exists in pursuing entrepreneurship along with academic studies. Student entrepreneurs in Indonesian higher education often face challenges concerning time management, financial limitations, academic stress, customer expectations, business operations, economic volatility, and interpersonal relationships while striving to concurrently manage entrepreneurial endeavours and academic obligations (Adha et al., 2025; Rauf et al., 2024). These overlapping responsibilities consistently create conflicting demands that necessitate ongoing recalibration and prioritisation. Student entrepreneurs are not full-time entrepreneurs, they operate concurrently in two domains: academic performance and entrepreneurial sustainability. Consequently, entrepreneurship among university students involves not only opportunity seeking but also operational discipline and emotional adaptation. This situation provides an interesting context to understand leadership adaptation and entrepreneurial experiences in higher education settings of student entrepreneurship in Indonesia.

Beyond entrepreneurial performance, the growing involvement of university students in business activities also raises important questions within higher education and social science contexts. From an educational perspective, the dual engagement of students in academic and entrepreneurial domains introduces important implications for experiential learning, leadership development, mental health, and institutional support systems. While entrepreneurship education has traditionally focused on entrepreneurial intention, innovation, and business competencies, limited attention has been given to how universities can support students in managing psychological pressure, role conflict, and adaptive leadership demands emerging from simultaneous academic and entrepreneurial responsibilities (Weng et al., 2025). In addition, broader social transformations associated with the gig economy, precarious work, and flexible employment structures increasingly require students to develop adaptive capabilities, resilience, and ambidextrous skills in navigating uncertain environments (Zhang et al., 2025).

The notion of ambidexterity offers an insight into these problems, March (1991) states that organisations and individuals are frequently caught in tensions between exploration and exploitation. Exploration relates to activities of innovation, experimentation, flexibility and opportunity seeking, and exploitation to efficiency, implementation and operational stability (Annamalah et al., 2023). Managing these conflicting demands is crucial in entrepreneurial settings since growth requires

innovation and sustainability requires operational management. Rosing et al. (2011) define ambidextrous leadership as the ability to transition between opening leadership behaviours that encourage creativity and experimentation and closing leadership behaviours that prioritise coordination, structure, and implementation. Depending on the circumstances, different answers are required. When dealing with circumstances that are both uncertain and dynamic, leadership flexibility becomes increasingly vital. Entrepreneurship activities undertaken by college students frequently involve conditions that are subject to rapid change, limited resources, and various responsibilities, all of which require adaptable leadership behaviours (Dieguez et al., 2021).

Previous studies on ambidextrous leadership have largely focused on organizational settings, innovation management, and leadership effectiveness within formal workplaces (Gerlach et al., 2020; Jain et al., 2024). Meanwhile, entrepreneurship research in higher education has generally emphasized entrepreneurial intention, entrepreneurial competence, and entrepreneurship education outcomes (Amalia & von Korfflesch, 2021; Brahmankar et al., 2022). While these studies provide important insights, not much focus has been paid to understanding how student entrepreneurs experience and navigate tensions between entrepreneurship and academia in their everyday lives. Entrepreneurship is also mostly depicted in existing research as a positive and opportunity driven activity. Few studies have comparatively examined emotional pressure, uncertainty, and leadership adaptation of student entrepreneurs in the context of balancing academic and entrepreneurial responsibilities.

This study addresses these gaps by exploring the lived experiences of student entrepreneurs through the lens of ambidextrous leadership. Rather than focusing solely on entrepreneurial performance or educational outcomes, the study examines how student entrepreneurs experience entrepreneurial tensions, adapt leadership behaviors, and interpret the outcomes of their entrepreneurial experiences within the dual context of entrepreneurship and higher education. An Interpretative Phenomenological Analysis (IPA) approach was adopted to understand how participants make sense of uncertainty, competing demands, and leadership adaptation throughout their entrepreneurial journeys. Accordingly, this study is guided by the following research questions:

How do student entrepreneurs experience entrepreneurial and academic tensions?

How do student entrepreneurs adjust their leadership behaviours to the requirements of entrepreneurship and academics?

What outcomes emerge from student entrepreneurs' ambidextrous leadership experiences?

This study theoretically expands the comprehension of ambidextrous leadership from formal organisational contexts to the lived experiences of student entrepreneurs in higher education environments, thereby contributing to the ambidextrous

leadership and entrepreneurship literature. Practically, the study has contributions for entrepreneurship education programmes and universities in terms of the significance of fostering adaptive leadership development, emotional resilience, and experiential learning among student entrepreneurs. Consequently, the objective of the investigation is to investigate the methods by which student entrepreneurs navigate the tensions between entrepreneurship and academia, embrace ambidextrous leadership behaviours, and understand their entrepreneurial experiences in uncertain entrepreneurial environments.

Literature Review

Entrepreneurial and Academic Tensions among Student Entrepreneurs

University students' entrepreneurship is often considered as a way to develop their creativity, independence, problem-solving skills and practical experience that can help them in their future career progression (Schimperna et al., 2022). Furthermore, entrepreneurial activities give students the opportunity to apply the knowledge acquired in academic settings in real business contexts. Student entrepreneurs frequently operate within dual roles as university students and business actors (Israr & Saleem, 2018). These dual responsibilities require students to allocate time, energy, and attention across academic and entrepreneurial activities simultaneously (Ghina et al., 2025; Swaramarinda et al., 2025). Academic obligations such as assignments, examinations, presentations, and organizational activities coexist with entrepreneurial responsibilities including customer management, operational planning, marketing, and financial coordination. As a result, student entrepreneurs often encounter situations requiring continuous adjustment and prioritization.

Previous studies have shown that entrepreneurship among university students frequently involves uncertainty and changing demands (Olk, 2020; Zhang et al., 2025). Student entrepreneurs are often required to adapt quickly to customer preferences, market trends, and business challenges while maintaining academic performance. Entrepreneurial activities also provide opportunities for students to develop communication skills, problem-solving abilities, and decision-making capacity through direct experience. In addition to operational challenges, entrepreneurship among students is also associated with emotional and psychological experiences. Luu et al. (2019) explain that entrepreneurial activities often involve pressure related to uncertainty, responsibility, and workload management. Within student entrepreneurship, such pressures may emerge because entrepreneurial and academic responsibilities frequently overlap. Entrepreneurship within higher education contexts may also contribute to personal and professional development. Through entrepreneurial engagement, students may gain practical experience in teamwork, opportunity recognition, leadership, and responsibility management. García-Hurtado et al. (2024) further explains that entrepreneurial learning often develops through direct experience, including challenges and problem-solving situations encountered during entrepreneurial activities. These experiences

may influence how students understand responsibility, adaptation, and personal growth.

Ambidextrous Leadership

Ambidextrous leadership denotes a leadership paradigm that highlights the capacity to harmonise adaptability and regulation in reaction to evolving situational requirements. The concept was developed from the broader theory of organizational ambidexterity, which explains the importance of balancing exploration-oriented activities and exploitation-oriented activities within organizations (March, 1991). The capacity to inspire innovation and risk-taking while sustaining focus, order, and efficiency is a hallmark of ambidexterity in leadership roles. Rosing and Zacher (2023) explain that ambidextrous leadership consists of two complementary leadership behaviors: opening leadership behaviors and closing leadership behaviors. Opening leadership behaviors are associated with encouraging innovation, experimentation, autonomy, and the exploration of new ideas. Leaders adopting these behaviors generally support flexibility, participative interaction, and creativity within teams or organizations. In contrast, closing leadership behaviors emphasize structure, monitoring, coordination, and goal achievement. These behaviors are important for ensuring consistency, implementation, and operational stability. Rather than functioning as separate leadership styles, opening and closing leadership behaviors are considered complementary and situational (Brix, 2019). Various circumstances necessitate distinct approaches to leadership. Ambidextrous leadership entails the ability to transition between various behaviours in response to the demands of the context (Jain et al., 2024; Zuraik et al., 2020).

Ambidextrous leadership is particularly relevant in entrepreneurial contexts due to the uncertainty, rapid change, and resource constraints inherent to entrepreneurship. Entrepreneurs are expected to find new opportunities and new ideas, while ensuring the continuity of their business and its operational effectiveness. This balancing act demands flexibility, judgement and flexible leadership behaviour (Kotte et al., 2021). Entrepreneurial leadership is therefore not solely associated with innovation, but also with the ability to manage operational responsibilities and interpersonal relationships effectively. Previous studies have shown that ambidextrous leadership contributes positively to innovation, adaptability, and organizational performance (Rosing & Zacher, 2017). Leaders capable of balancing exploratory and exploitative behaviors are often better able to respond to uncertainty and dynamic environmental conditions (Hou et al., 2019).

Ambidextrous leadership is linked to the cultivation of innovation, collaborative problem-solving, and adaptable decision-making in organisational contexts (Mueller et al., 2020). Moreover, ambidextrous leadership is intricately linked to experiential learning and the adaption of leadership styles (Brix, 2019). Leadership behaviors may develop through direct experience, reflection, and interaction within uncertain environments (Gong et al., 2021). In the context of student entrepreneurship,

ambidextrous leadership may become more relevant as student entrepreneurs are operating in dual settings encompassing both entrepreneurial and academic duties (Aziz & Rahim, 2023). Student entrepreneurs frequently find themselves navigating the delicate interplay between fostering innovation and maintaining operational consistency, all while juggling academic responsibilities and nurturing interpersonal relationships. As a result, the evolution of leadership may manifest through routine encounters involving ambiguity, the allocation of time, collaborative efforts, and the resolution of challenges.

Methodology

Research Design

This study utilised a qualitative research design using an Interpretative Phenomenological Analysis (IPA) approach to investigate how student entrepreneurs experienced and interpreted ambidextrous leadership while managing entrepreneurial and academic responsibilities. A qualitative IPA approach was considered appropriate because the study focused on participants' lived experiences, meaning-making processes, and subjective interpretations of uncertainty, role conflict, and adaptive leadership practices within dynamic social contexts (Smith et al., 2009). The research was conducted in Jakarta, Indonesia, where the rapid growth of entrepreneurship education, digital business ecosystems, and university-based entrepreneurial programmes has increasingly encouraged students to engage in entrepreneurial activities alongside higher education. These conditions have created overlapping academic and entrepreneurial demands requiring students to continuously balance innovation, operational stability, and academic responsibilities within uncertain environments.

Participants

Participants were selected through purposive sampling based on their direct experience in the research objectives. Purposive sampling was considered appropriate because the study specifically sought participants who had experienced the simultaneous demands of entrepreneurship and academic life and were capable of providing rich, experience-based insights related to ambidextrous leadership practices. The main participants were 15 university students who were engaged in entrepreneurial activities while being enrolled as students in higher education institutions. In the selection of the student entrepreneur participants, several criteria were applied. First, participants had to be enrolled as undergraduate student during the study period. Second, they had to have been running or co-running an active business for at least six months. Third, participants were to be directly engaged in entrepreneurial decision-making processes, such as innovation development, operational management, or strategic planning. Additional supporting informants were incorporated in the study to enhance contextual understanding and ensure data triangulation. Four entrepreneurship lecturers and three business partners of the student entrepreneurs were the supporting informants. The entrepreneurship

lecturers shared insights into students' entrepreneurial learning practices, academic adaptation, leadership growth and classroom involvement in entrepreneurship education contexts. The business partners, in turn, gave insights into the participants' leadership flexibility, their decision-making patterns, their adaptability, the teamwork dynamics, and the entrepreneurial challenges experienced during collaborative business activities.

Data Collection Procedures

Several qualitative data collection techniques, including semi-structured in-depth interviews, observations, and document analysis, were used to collect data between February and April of 2026. Semi-structured interviews served as the primary method of data collection. Interviews were conducted both face-to-face and online, depending on participants' availability and preferences. The interview protocol was developed based on the theoretical perspective of ambidextrous leadership proposed by Rosing et al. (2011); Rosing and Zacher (2017), which emphasizes the dynamic balance between flexibility, innovation, control, and operational stability in leadership practices. The interview questions were designed to explore participants' lived experiences as student entrepreneurs, particularly how they navigated entrepreneurial challenges, balanced academic and business responsibilities, adapted their leadership behaviors, and interpreted the outcomes of these experiences. Examples of interview questions included: "How do you manage the challenges of maintaining your business while fulfilling academic responsibilities?", "What kinds of tensions or pressures do you experience in your entrepreneurial journey?", and "How do you adapt your decision-making or leadership approaches when facing changing business situations?"

To maintain confidentiality and facilitate systematic data organization, all participants and supporting materials were coded throughout the research process. Student entrepreneur interviews were coded as SE1–SE15, lecturer interviews as L1–L4, and business partner interviews as BP1–BP3. Observation records were coded as Obs1, Obs2, and so forth, while supporting documents were coded as Doc1, Doc2, Doc3, etc. Observations were carried out during academic interactions, entrepreneurial activities, and business discussions. Supporting documents, such as business portfolios, entrepreneurship programme records, and competition documentation, were analysed to enhance contextual interpretation and triangulate participants' narratives. Ethical considerations were taken into account throughout the study. All participants were informed of the aims of the research, confidentiality procedures, voluntary nature of participation, and the right to withdraw from the study at any time without negative consequences. Participants' anonymity and privacy were ensured by the use of coded identities and the secure storage of all research data.

Analytical Procedures

Data were analysed through Interpretative Phenomenological Analysis (IPA) as described by Smith et al. (2009). The analysis began with a rereading of the interview transcripts, observation notes, and supporting documents to gain familiarity with participants' experiences and narratives. During this stage, the researchers conducted initial noting by identifying significant statements, reflections, emotional expressions, and experiential descriptions related to entrepreneurial and academic tensions, leadership adaptation, and decision-making processes. The second step was to identify relevant statements, experiential descriptions, and meanings related to leadership within participants' narratives. Subsequently, emergent themes were developed inductively by grouping similar experiential meanings and recurring patterns across participants' accounts. The researchers then conducted cross-case analysis to identify conceptual relationships and broader thematic structures reflecting the ambidextrous leadership experiences of student entrepreneurs. Throughout the analytical process, themes were continuously refined, compared, and interpreted to ensure consistency between participants' lived experiences and the emerging interpretations. In this study, credibility, transferability, dependability and confirmability were used to assure trustworthiness (Ahmed, 2024). Credibility was enhanced through triangulation of interviews, observations, and supporting documents, and through member checking procedures, in which participants reviewed interview summaries and thematic interpretations. Detailed descriptions of the research setting, participants and contextual conditions helped to increase transferability. To ensure dependability, systematic documentation of the research procedures, coding procedures and analytical decisions was assured. Reflective journaling and ongoing reflexivity were used to establish confirmability and reduce the risk of researcher bias in data interpretation.

Results and Discussion

This study's findings are encapsulated in Figure 1 in Appendix, which depicts the dynamic process of ambidextrous leadership navigation among student entrepreneurs within the twin contexts of entrepreneurial and academic life. The visual model illustrates how participants encountered entrepreneurial tensions associated with innovation, uncertainty, role conflict, and emotional pressure, which subsequently fostered the emergence of adaptive leadership behaviours defined by flexibility, coordination, and situational decision-making. These adaptive processes further facilitated the development of entrepreneurial resilience, leadership confidence, emotional maturity, and strategic adaptability along participants' entrepreneurial journeys. The findings reveal that ambidextrous leadership among student entrepreneurs was not established instantaneously, but rather evolved progressively through ongoing engagement with fluctuating entrepreneurial contexts and academic obligations. The three main topics that emerged from the analysis—experiencing entrepreneurial tensions, adapting ambidextrous leadership

behaviours, and results of ambidextrous leadership navigation—are covered in the sections that follow in order to give a fuller understanding of these experiences.

Experiencing Entrepreneurial Tensions

Participants faced an important issue in reconciling innovation-driven activities with the necessity of sustaining operational stability. The majority of participants agreed that innovation is essential for maintaining customer engagement and corporate competitiveness, especially in swiftly evolving entrepreneurial contexts. Participants concurrently recognised that excessive experimenting could induce instability and elevate corporate dangers. Innovation was deemed essential for growth; yet, participants expressed concerns about making decisions that would undermine customer trust or disturb operational continuity. SE4 and SE10 explained:

“I intend the business to continue growing, because new trends attract customers quickly. But changing too many things at once can destabilise operations.” (SE4)

“I believe that innovation is important, but operational issues are not to be ignored. Occasionally, it is more important to keep things consistent than to try new ideas.” (SE10)

Participants typically characterised innovation as a process necessitating strategic deliberation rather than impulsive creativity. Multiple participants indicated a preference for gradual implementation of innovation due to financial constraints and uncertain market conditions affecting their businesses. In entrepreneurial meetings and mentoring sessions, participants often transitioned between generating innovative ideas and addressing practical operational issues, including customer service, inventory management, production schedules, and financial constraints (Obs2). Participants demonstrated enthusiasm during creative discussions; however, these conversations were frequently succeeded by more cautious deliberations concerning feasibility and implementation. Product development portfolios and social media promotional records indicated that participants consistently modified branding strategies, online content, and product presentations based on customer engagement and market feedback (Doc3). Participants preferred to make incremental adjustments focused on sustaining operational consistency while fostering business innovation, rather than enacting radical changes. Business partners acknowledged this tension. BP2 explained:

“They are generally very creative and enthusiastic with new ideas but maintaining operational discipline can get difficult because they also need to handle academic responsibilities.” (BP2)

These findings indicate that student entrepreneurs perceived innovation not only as an opportunity for business growth but also as a source of uncertainty and operational pressure. Participants continuously negotiated between experimentation and operational control while attempting to sustain their businesses under changing conditions. This finding supports Rosing et al. (2011) concept of exploration and

exploitation, which explains that innovation-oriented activities and operational efficiency frequently exist in tension within entrepreneurial environments. The findings also align with Annamalah et al. (2023) who argue that entrepreneurial sustainability requires balancing exploratory activities with operational effectiveness. In addition, the findings resonate with Ghina et al. (2025), who explain that entrepreneurial activities among university students frequently involve balancing innovation, adaptability, and practical operational management within resource-constrained environments.

A further important tension participants reported experiencing was the need to cope with uncertainty while navigating entrepreneurial and academic demands. Participants described their everyday experiences as fluid and unpredictable, with business and academic work frequently overlapping. While assignments, presentations and exams were unavoidable academic obligations, entrepreneurial activities demanded immediate attention to customers, production problems or market changes. Participants discussed the uncertainty of future sustainability and personal priorities. Some participants admitted to at times questioning if they could sustain entrepreneurial activities and academic commitments together in the long run. The lecturers involved in this research also explained the pressure experienced by students. SE7 and L2 reflected on the uncertainty associated with maintaining both roles:

“Entrepreneurship is unpredictable. Business circumstances can change overnight. At the same time, academic responsibilities continue independent of business difficulties.” (SE7)

“They are usually proactive and independent, but juggling business and scholastic commitments requires substantial commitment.” (L2)

A few participants described strategies to manage these competing demands such as modifying their schedules, prioritising urgent responsibilities, cutting back on leisure activities, and delegating business tasks during academically intensive periods. Some participants intentionally reorganized business activities during examination weeks to reduce excessive pressure. SE3 stated:

“I learned to arrange my priorities according to the situation. I usually just concentrate on essential business operations during exam time.” (SE3)

The observation notes provided a deeper understanding of how participants adeptly managed various demands concurrently. The observation notes provided a deeper understanding of how participants adeptly managed various demands concurrently. In an entrepreneurial mentoring session held near assignment deadlines, numerous participants frequently consulted academic notifications while discussing business strategies and operational planning (Obs1). Participants often transitioned discussions between entrepreneurial issues and academic responsibilities, reflecting the simultaneous presence of conflicting cognitive and emotional pressures. Reports

on entrepreneurship mentoring indicated that participants engaged actively in workshops focused on productivity management, sustainable entrepreneurship, and strategies for effective time management (Doc6). A number of participants meticulously recorded their weekly schedules and digital planning systems employed to enhance the coordination of their entrepreneurial and academic obligations.

Uncertainty formed an integral element of the participants' entrepreneurial journeys in this study, influencing how they managed conflicting academic and entrepreneurial expectations, adjusted tactics, and prioritised duties. These experiences reinforce previous research suggesting that student entrepreneurs often work in environments characterized by overlapping tasks and constant adaptation (Harima et al., 2021). According to Dimov and Pistrui (2024), entrepreneurs frequently have to make judgments in unpredictable, unstable situations, which can lead to psychological and cognitive strain. The findings also align with Olk (2020), who emphasizes that entrepreneurial environments increasingly require adaptive capacity and continuous adjustment in response to uncertainty and changing situational demands.

The tensions experienced by participants were strongly associated with emotional and psychological pressures. Participants frequently described feelings of stress, emotional exhaustion, anxiety, and self-doubt resulting from the simultaneous demands of entrepreneurship and academic life. The pressure to succeed in both domains often created emotional burdens that affected participants' concentration and well-being. SE1 explained:

"Sometimes I feel mentally exhausted because there is always something that needs attention, either from campus or from the business." (SE1)

Participants also described feelings of isolation because they believed that many of their peers did not fully understand the pressures associated with balancing entrepreneurship and academic responsibilities simultaneously. During several business discussions, some participants appeared physically tired, emotionally tense, and less engaged when discussing financial uncertainty or academic deadlines (Obs4). In certain situations, participants became quieter during conversations involving operational difficulties and academic pressure. Business partners similarly observed emotional fluctuations influencing participants' communication and leadership interactions. BP1 explained:

"When academic obligations increase, business discussions might become more emotional. Eventually, they learn to manage stress." (BP1)

Supporting documents also reflected participants' emotional pressures. Mentoring records documented participants' concerns regarding workload management, business uncertainty, emotional fatigue, and stress associated with maintaining multiple responsibilities simultaneously (Doc2). Several participants also described difficulties in maintaining work-life balance while attempting to sustain both entrepreneurial and academic performance. Despite these pressures, participants

also interpreted these experiences as important sources of personal growth. SE14 explained:

“Entrepreneurship changed the way I handle pressure. At first, I easily panicked when problems appeared, but over time I learned how to stay calm and think more carefully before reacting.” (SE14)

The findings reveal that the commercial disputes faced by student entrepreneurs extended beyond management or operational challenges. These conflicts were deeply embedded in the individuals' identities, emotional experiences, and everyday struggles between academic obligations and entrepreneurial aspirations. The findings support Luu et al. (2019), who explain that entrepreneurial activities frequently involve emotional pressure related to uncertainty, responsibility, and workload management. In this study, student entrepreneurs encountered emotional strain as they concurrently navigated entrepreneurial identities and academic expectations inside higher education environments. The findings also align with García-Hurtado et al. (2024), who emphasize that entrepreneurial learning frequently develops through direct experience, including emotionally challenging situations that shape personal adaptation and self-development. While entrepreneurship activities may foster resilience, leadership development, and experiential learning, student entrepreneurs simultaneously face considerable psychological pressure associated with uncertainty, workload management, and role conflict. Universities therefore need to recognize that student entrepreneurship may involve both developmental opportunities and emotional burdens. Institutional support systems such as flexible academic arrangements, mentoring programmes, mental health support services, and well-being-oriented entrepreneurship education may become increasingly important in helping student entrepreneurs navigate the simultaneous demands of academic and entrepreneurial life (Weng et al., 2025).

Adapting Ambidextrous Leadership Behaviors

One prominent leadership adaptation common to the participants was the ability to move between flexible and structured leadership styles, depending on the situational conditions. As the complexity of business activities grew, the participants gradually came to realise that flexibility and control had to coexist within entrepreneurial leadership practices. Some participants mentioned that they purposefully changed their leadership behaviours depending on the urgency of the business and the team dynamics. Generally, participants used collaborative approaches that fostered openness and participation during idea-generation activities. But in the face of operational deadlines or customer demands, they became more directive and structured in coordinating tasks and monitoring progress. SE9 explained:

“For marketing ideas, I usually let everyone contribute freely because creativity is important. But when we approach production deadlines, I focus more on coordination and making sure responsibilities are taken care of.” (SE9)

Participants generally perceived this balancing process as difficult because many business activities involved peers who also faced academic pressures and changing schedules. Several participants explained that excessive flexibility occasionally reduced productivity and delayed execution, while excessive control sometimes created interpersonal tension within business teams. Observation data further illustrated these behavioral adjustments. During entrepreneurial discussions involving product development and promotional planning, participants frequently facilitated open conversations and encouraged collaborative idea sharing among team members (Obs7). However, during operational meetings related to deadlines, customer complaints, or financial concerns, participants adopted more structured communication styles by clarifying responsibilities and emphasizing task completion. Supporting documents similarly reflected this coexistence of flexibility and control. Weekly coordination records and internal operational schedules showed how participants separated brainstorming activities from implementation-focused meetings to maintain business effectiveness (Doc4). Business partners recognized similar leadership patterns. BP3 explained:

"They are usually very open during idea discussions, but when operations become busy, they become more organized and focused on execution." (BP3)

These findings show that ambidextrous leadership among student entrepreneurs emerged through continuous movement between exploratory and structured behaviors. Leadership adaptation became essential for balancing innovation, operational sustainability, and interpersonal coordination within entrepreneurial environments. These findings support Rosing and Zacher (2023), who explain that ambidextrous leadership requires leaders to respond flexibly to situational demands by integrating adaptability and operational control. The findings also resonate with Brix (2019), who argues that ambidexterity is closely associated with organizational learning processes requiring individuals to continuously shift between flexibility and structure in dynamic environments. Student entrepreneurs, therefore, developed experientially the leadership flexibility of continuously negotiating among collaboration, creativity, operational discipline, and interpersonal coordination.

Another important dimension of ambidextrous leadership adaptation involved participants' approaches to decision-making under uncertain conditions. Several participants noted that their entrepreneurial experiences made them gradually more adaptive and situational in decision-making. Participants continuously changed strategies, operational priorities and resource allocation as circumstances changed, rather than following fixed business plans. Participants also reported that academic responsibilities frequently affected entrepreneurial decision making. A number of participants intentionally slowed down business activities, postponed expansion plans or delegated operational duties to relieve the pressure and maintain academic performance during exam periods and assignment deadlines. SE6 and SE4 explained:

"Due of losses and client reactions, I was first terrified of making mistakes." (SE6)

"When the academic load gets too heavy, I tend to cut back on non-essential business activities for a while because it can be overwhelming trying to juggle it all at once." (SE4)

Participants often discussed customer feedback, financial issues, and academic scheduling conflicts during and after mentoring sessions and operational meetings, and then revised marketing strategies and operational plans (Obs9). These results were supported by further documentary evidence. Business evaluation reports documents revealed consistent changes in promotional strategies, operational priorities and scheduling systems throughout participants' entrepreneurial journeys (Doc7). The lecturers also noticed that the participants were becoming more adaptable. L1 said:

"Student entrepreneurs usually become more independent and flexible because they are accustomed to handling uncertainty in both academic and entrepreneurial contexts." (L1)

Participants generally interpreted adaptive decision-making as one of the most important entrepreneurial competencies developed through experience. Many explained that entrepreneurship gradually reduced their fear of uncertainty and strengthened their confidence in responding to changing situations. SE8 reflected:

"Previously I waited for certainty before making decisions. But entrepreneurship taught me that adaptation is more important because situations can change very quickly." (SE8)

Participants also pointed out that adaptive decision-making was not only about strategic thinking but also about emotional regulation. Several participants mentioned that entrepreneurship improved their ability to stay calm in uncertain situations and to evaluate problems more objectively. Observation notes also indicated that participants were more composed when talking about operational difficulties, than when previously engaging in entrepreneurial discussions (Obs11). Confidence in risk assessment, discussing alternatives, and coordinating responses to unforeseen challenges seemed to be higher among participants.

The findings indicate that adaptive decision-making became a central component of ambidextrous leadership among student entrepreneurs. Participants gradually developed the ability to respond flexibly to uncertainty while maintaining operational awareness and strategic responsibility. These findings align with Gong et al. (2021) argument that adaptive and inclusive leadership behaviors become increasingly important when individuals operate under uncertain and changing conditions. These findings also support Rosing and Zacher (2017) assertion that ambidextrous leadership involves balancing exploration-oriented flexibility with exploitation-oriented operational awareness according to contextual demands. Adaptive decision-making therefore became an important mechanism through which participants balanced flexibility, operational sustainability, and personal responsibility within

uncertain entrepreneurial environments. From a higher education perspective, the results indicate that ambidextrous leadership capabilities among student entrepreneurs develop largely through experiential learning processes rather than through theoretical instruction alone. The ability to navigate uncertainty, coordinate multiple responsibilities, and adapt leadership approaches emerged progressively through direct engagement with entrepreneurial and academic challenges. This perspective highlights the importance of entrepreneurship education curricula that integrate adaptive learning, reflective practice, collaborative problem-solving, and leadership flexibility within dynamic learning environments (Nzembayie et al., 2026).

Outcomes of Ambidextrous Leadership Navigation

One of the most notable results for participants was the development of entrepreneurial resilience. Participants also described their entrepreneurial experiences as a learning process that built emotional resilience and problem-solving capability, albeit it was often linked with stress and instability. Some participants explained that entrepreneurship initially produced worry and self-doubt, particularly when their business was hit by declining sales, operational difficulties or consumer dissatisfaction. However, over time, participants learned how to respond to setbacks more calmly and constructively. SE3 reflected on the role of entrepreneurship in developing emotional resilience:

“There are many uncertain situations, but gradually I became more prepared to handle pressure.” (SE3)

The observation data also showed an increase in the participants’ resilience during entrepreneurial activities. Later mentoring sessions and operational discussions with participants about financial challenges, customer complaints and scheduling difficulties seemed calmer and more solution-oriented than earlier observations (Obs6). Many of the participants talked about the emotional development, perseverance and the need to stay motivated in difficult times of entrepreneurship. Lecturers also witnessed the gradual development of emotional resilience in student entrepreneurs. L3 explained:

“Early business concerns discouraged some students. They eventually became more resilient and focused on solutions.” (L3)

Participants generally described resilience not as the absence of stress, but as the ability to continue functioning and adapting despite uncertainty and emotional pressure. Participants also emphasized that resilience extended beyond business contexts into academic and personal life. Several explained that entrepreneurial experiences strengthened their ability to manage multiple responsibilities, maintain discipline, and remain emotionally stable under stress. Business partners also observed changes in participants’ emotional endurance and adaptability. SE8 and BP2 explained:

“Entrepreneurship made me more capable of handling pressure not only in business but also in academic situations.” (SE8)

“Some entrepreneurs were disheartened by company obstacles at initially. They gradually learned to overcome failures and focus on finding answers rather than panicking.” (BP2)

The findings show that ambidextrous leadership navigation among student entrepreneurs led to entrepreneurial resilience. Exposure to entrepreneurial uncertainty, academic pressure, and operational challenges eventually improved participants' emotional endurance, persistence, and adaptation to complex situations. These instances show that resilience was built through dynamic entrepreneurial contexts and competing obligations. According to Brahmkar et al. (2022), university students' entrepreneurial participation promotes flexibility and self-development through experience learning. Ghina et al. (2025) assert that university start-up environments help student entrepreneurs improve adaptability and flexibility. Swaramarinda et al. (2025) also note that entrepreneurial learning environments help students adapt to ambiguity and shifting expectations. Resilience was defined in this study as the ability to handle stress and promote participants' entrepreneurial, intellectual, and personal growth.

The participants' increased self-assurance and maturity as leaders was another significant result. A number of individuals acknowledged that their perception of themselves as leaders was altered by entrepreneurship. Many interviewees said they were reluctant, passive, or lacked confidence in social circumstances before engaging in business activity. But over time, their entrepreneurial experiences helped them become more self-assured, responsible, and assertive in handling both commercial and academic obligations. SE5 explained:

“Before I started a business I did not have confidence in speaking in front of people or in coordinating people. Entrepreneurship makes me confident slowly because I have responsibilities towards the team and customers.” (SE5)

Participants frequently described leadership confidence as closely connected to experiential learning. Interactions with customers, business partners, mentors, and team members gradually strengthened participants' communication abilities and interpersonal awareness. Observation data further demonstrated participants' increasing confidence throughout entrepreneurial activities. During business discussions, participants appeared more comfortable facilitating conversations, presenting ideas, and responding to questions compared to earlier entrepreneurial interactions (Obs10). Participants also demonstrated greater clarity and composure when discussing operational challenges and strategic planning. Supporting documents similarly reflected participants' leadership development. Entrepreneurship evaluation records documented increasing self-confidence, communication effectiveness, and responsibility management among participants over time (Doc5).

Some participants also described entrepreneurship as a process that changed their attitudes towards leadership and accountability. Participants frequently linked leadership maturity with greater emotional regulation and interpersonal sensitivity. Several said entrepreneurship slowly taught them how to manage emotions, negotiate disagreements and communicate better in collaborative situations. The lecturers participating in the study also noticed the growing maturity and independence of the participants. SE2 and L4 reflected:

“My experience as an entrepreneur has shown me that there is more to leadership than just issuing orders. Also included are listening, comprehending, and keeping emotions in check when things get tough.” (SE2)

“Student entrepreneurs often develop stronger responsibility and communication skills because they are accustomed to balancing academic and entrepreneurial challenges simultaneously.” (L4)

Continual entrepreneurial responsibility, collaborative contact, and adaptable leadership experiences appear to have built leadership confidence and maturity. Participants learned how to communicate, coordinate, manage duties, and handle interpersonal obstacles through entrepreneurship. According to Schimperna et al. (2022), student entrepreneurship helps higher education students acquire independence, communication, and practical leadership skills. Israr and Saleem (2018) assertion that direct entrepreneurial experiences among university students foster self-confidence, accountability, and interpersonal skills. AlKhamees and Durugbo (2025) emphasize that ambidextrous learning environments within higher education encourage adaptive learning, collaboration, and leadership development through continuous interaction with dynamic situations. As participants balanced entrepreneurial unpredictability, collaboration dynamics, and academic duties, leadership maturity developed.

Participants also pointed to the development of more strategic and adaptive mindsets as a key outcome of their entrepreneurial experiences. The ongoing exposure to uncertainty, operational challenges and conflicting responsibilities made participants think more flexibly, assess risks more carefully and respond more adaptively to shifting circumstances. Participants were increasingly aware of the need to manage entrepreneurial and academic responsibilities sustainably, to prioritise and to adapt to the situation, rather than focusing only on short-term outcomes. SE6 explained:

“Being an entrepreneur has altered my perspective on problem-solving. I learned to be more strategic because I know that every choice has repercussions.” (SE6)

Participants clarified that when faced with uncertainty and operational pressure, entrepreneurship inspired them to become more introspective and analytical. Participants' adaptive thought processes were further demonstrated by observational data. Participants showed growing capacity to assess options, reevaluate objectives, and cooperatively coordinate adjustments during mentorship

conversations about operational challenges and business sustainability (Obs5). The development of strategic and adaptive mindsets was also evident in supporting documentation. Throughout participants' entrepreneurial experiences, operational planning records revealed a growing emphasis on risk management, long-term sustainability, and adaptive planning techniques (Doc9).

Participants also emphasized that adaptive thinking extended beyond entrepreneurship into academic and personal contexts. Several explained that entrepreneurship strengthened their ability to prioritize responsibilities, manage uncertainty, and remain flexible when facing unexpected situations. Business partners similarly observed participants' increasing strategic awareness. SE11 and BP3 explained:

"Entrepreneurship taught me to adapt rapidly to change. This mentality made me more adaptable and solution-oriented in college." (SE11)

"They started being more deliberate decision-makers as time went on. They began to think more carefully about the consequences in the long run and no longer acted rashly." (BP3)

The findings indicate that the navigation of ambidextrous leadership played a significant role in developing strategic and adaptive mindsets among student entrepreneurs. Continued engagement in entrepreneurial activities encouraged participants to be more reflective, flexible and responsive to uncertainty, competing responsibilities and changing situations. Entrepreneurship contributed not only to business-related competencies, but also to the development of strategic awareness, adaptive thinking and personal growth that influenced participants' academic and entrepreneurial lives simultaneously. These findings are consistent with Olk (2020) who states that people working in dynamic and uncertain environments need to constantly balance adaptability and strategic coordination so that they can respond effectively to changing circumstances. Similarly, Zhang et al. (2025) maintain that entrepreneurial learning processes foster ambidextrous thinking capabilities through the iterative interaction of experimentation and practical problem-solving. This investigation found strategic and adaptive mindsets to develop progressively as participants negotiated uncertainty, managed entrepreneurial and academic demands, and continuously adapted their leadership approaches in dynamic entrepreneurial settings. The findings also reflect broader socio-economic transformations affecting young adults in contemporary society. In this context, ambidextrous leadership capabilities may become increasingly relevant not only for entrepreneurial sustainability but also for helping university students navigate complex transitions between education, work, and personal development in rapidly changing labour market environments (Tomlinson, 2017; Wood et al., 2019).

Conclusion

This research investigated the entrepreneurial and academic demands faced by student entrepreneurs in Indonesian higher education from the ambidextrous leadership perspective. The results showed that student entrepreneurs experienced constant tensions between innovation and operational stability, uncertainty and conflicting responsibilities, and emotional and psychological pressures of the competing demands of entrepreneurship and academic life. In response to these conditions, participants progressively developed ambidextrous leadership behaviours, which were flexible, adaptive in decision-making, and able to balance openness and control according to situational demands. The study also found that entrepreneurial experiences are conducive not only to business-related competencies, but also to the development of entrepreneurial resilience, leadership confidence, emotional maturity and strategic adaptability. Theoretically, this study extends the ambidextrous leadership perspective from formal organisational contexts to the lived experiences of student entrepreneurs in higher education contexts. According to a practical perspective, the findings draw attention to the importance of promoting adaptive leadership, emotional resilience, and experiential learning within entrepreneurship education programmes and university support systems. Ambidextrous leadership capabilities become increasingly important for helping university students navigate complex transitions between education, work, and entrepreneurial sustainability within rapidly changing socio-economic environments.

Nevertheless, in spite of these contributions, this study has several limitations. The research was conducted in a limited scope of higher education in Indonesia and the research subjects were student entrepreneurs who were still actively conducting business activities. Moreover, the qualitative IPA approach focuses on interpretative depth not broad generalisation. Future research may thus involve larger and more diverse participants, comparative educational contexts or longitudinal approaches to study the development of ambidextrous leadership among student entrepreneurs over time. Further research may also combine qualitative and quantitative approaches to further investigate the relationships between adaptive leadership, entrepreneurial resilience and entrepreneurial sustainability among university students.

References

- [1] Adha, M. A., Musyaffi, A. M., Ariyanti, N. S., Maulida, E., Sumardi, N. A., & Maisyaroh, M. (2025). Technostress measurement scale among Indonesian young entrepreneurs: A psychometric study. *Social Sciences & Humanities Open*, 13, 102373. <https://doi.org/10.1016/j.ssaho.2025.102373>
- [2] Ahmed, S. K. (2024). The pillars of trustworthiness in qualitative research. *Journal of Medicine, Surgery, and Public Health*, 2, 100051. <https://doi.org/10.1016/j.glmedi.2024.100051>
- [3] AlKhamees, S. B., & Durugbo, C. M. (2025). How ambidextrous cultures influence learning by universities: Lessons from administrators. *Innovations in Education*

- and Teaching International, 62(4), 1195–1208.
<https://doi.org/10.1080/14703297.2024.2368837>
- [4] Amalia, R. T., & von Korfflesch, H. F. O. (2021). Entrepreneurship education in Indonesian higher education: mapping literature from the Country's perspective. *Entrepreneurship Education*, 4(3), 291–333.
<https://doi.org/10.1007/s41959-021-00053-9>
- [5] Annamalah, S., Paraman, P., Ahmed, S., Pertheban, T. R., Marimuthu, A., Venkatachalam, K. R., & T., R. (2023). Exploitation, exploration and ambidextrous strategies of SMES in accelerating organisational effectiveness. *Journal of Global Operations and Strategic Sourcing*, 18(2), 182–223.
<https://doi.org/10.1108/JGOSS-08-2022-0090>
- [6] Aziz, S., & Rahim, N. A. (2023). A Review of Ambidextrous Leadership in Technology Start-Ups: Insights and Directions. 2023 IEEE Technology & Engineering Management Conference - Asia Pacific (TEMSCON-ASPAC), 1–8.
<https://doi.org/10.1109/TEMSCON-ASPAC59527.2023.10531350>
- [7] Basuki, B., Widyanti, R., & Rajiani, I. (2021). Nascent entrepreneurs of millennial generations in the emerging market of Indonesia. *Entrepreneurial Business and Economics Review*, 9(2), 151–165.
<https://doi.org/10.15678/EBER.2021.090210>
- [8] Blesia, J. U., Iek, M., Ratang, W., & Hutajulu, H. (2021). Developing an Entrepreneurship Model to Increase Students' Entrepreneurial Skills: an Action Research Project in a Higher Education Institution in Indonesia. *Systemic Practice and Action Research*, 34(1), 53–70. <https://doi.org/10.1007/s11213-019-09506-8>
- [9] Brahmkar, Y., Bedarkar, M., & Mishra, M. (2022). An entrepreneurial way of engaging student entrepreneurs at business school during pandemic. *International Journal of Innovation Science*, 14(4), 428–444.
<https://doi.org/10.1108/IJIS-11-2020-0264>
- [10] Brix, J. (2019). Ambidexterity and organizational learning: revisiting and reconnecting the literatures. *The Learning Organization: An International Journal*, 26(4), 337–351. <https://doi.org/10.1108/TLO-02-2019-0034>
- [11] Dieguez, T., Loureiro, P., & Ferreira, I. (2021). Entrepreneurship and leadership in higher education to develop the needed 21st Century skills. In F. Bezzina (Ed.), *The 17th European Conference on Management, Leadership and Governance (ECMLG)* (pp. 143–151). <https://doi.org/10.34190/MLG.21.068>
- [12] Dimov, D., & Pistrui, J. (2024). Dynamics of entrepreneurial well-being: Insights from computational theory. *Journal of Business Research*, 172, 114427.
<https://doi.org/10.1016/j.jbusres.2023.114427>
- [13] García-Hurtado, D., Devece, C., Hoffmann, V. E., & Camargo-Vera, C. (2024). On entrepreneurial and ambidextrous universities. Comparative study in Ibero-American Higher Education Institutions. *Sustainable Technology and Entrepreneurship*, 3(3), 100077. <https://doi.org/10.1016/j.stae.2024.100077>
- [14] Gerlach, F., Hundeling, M., & Rosing, K. (2020). Ambidextrous leadership and innovation performance: a longitudinal study. *Leadership & Organization*

- Development Journal, 41(3), 383–398. <https://doi.org/10.1108/LODJ-07-2019-0321>
- [15] Ghina, A., Herliana, S., Eka Kiswardani, W., & Indiyati, D. (2025). Entrepreneurial mindset and ambidextrous capabilities in university start-ups: Exploratory study of business model innovation paths. *Journal of the International Council for Small Business*, 1–49. <https://doi.org/10.1080/26437015.2025.2562186>
- [16] Gong, L., Liu, Z., Rong, Y., & Fu, L. (2021). Inclusive leadership, ambidextrous innovation and organizational performance: the moderating role of environment uncertainty. *Leadership & Organization Development Journal*, 42(5), 783–801. <https://doi.org/10.1108/LODJ-06-2020-0253>
- [17] Harima, A., Gießelmann, J., Göttisch, V., & Schlichting, L. (2021). Entrepreneurship? Let us do it later: procrastination in the intention–behavior gap of student entrepreneurship. *International Journal of Entrepreneurial Behavior & Research*, 27(5), 1189–1213. <https://doi.org/10.1108/IJEBr-09-2020-0665>
- [18] Hou, B., Hong, J., & Zhu, R. (2019). Exploration/exploitation innovation and firm performance: the mediation of entrepreneurial orientation and moderation of competitive intensity. *Journal of Asia Business Studies*, 13(4), 489–506. <https://doi.org/10.1108/JABS-11-2017-0206>
- [19] Israr, M., & Saleem, M. (2018). Entrepreneurial intentions among university students in Italy. *Journal of Global Entrepreneurship Research*, 8(1), 20. <https://doi.org/10.1186/s40497-018-0107-5>
- [20] Jain, S., Badra, S., & Vichore, S. (2024). Assessing ambidextrous leadership in organizations: review and future scope for research. *International Journal of Organizational Analysis*, 33(8), 2370–2399. <https://doi.org/10.1108/IJOA-03-2024-4373>
- [21] Kotte, S., Diermann, I., Rosing, K., & Möller, H. (2021). Entrepreneurial Coaching: A Two-Dimensional Framework in Context. *Applied Psychology*, 70(2), 518–555. <https://doi.org/10.1111/apps.12264>
- [22] Luu, T. T., Dinh, K., & Qian, D. (2019). Ambidextrous leadership, entrepreneurial orientation and job crafting. *European Business Review*, 31(2), 260–282. <https://doi.org/10.1108/EBR-06-2015-0061>
- [23] March, J. G. (1991). Exploration and Exploitation in Organizational Learning. *Organization Science*, 2(1), 71–87. <http://www.jstor.org/stable/2634940>
- [24] Mueller, J., Renzl, B., & Will, M. G. (2020). Ambidextrous leadership: a meta-review applying static and dynamic multi-level perspectives. *Review of Managerial Science*, 14(1), 37–59. <https://doi.org/10.1007/s11846-018-0297-9>
- [25] Nzembayie, Kisito F, Buckley, Anthony Paul, & Talay, Isilay. (2026). Experiential Pedagogies for Cultivating Entrepreneurial Mindsets: Action Design Learning as Tailored Framework. *Entrepreneurship Education and Pedagogy*, 9(2), 176–207. <https://doi.org/10.1177/25151274241292276>
- [26] Olk, P. (2020). Seeking Ambidexterity in an Increasingly Turbulent Environment: The Case of the University of Denver's Daniels College of Business. *Journal of Management Inquiry*, 29(2), 134–138. <https://doi.org/10.1177/1056492619864639>

- [27] Rapina, R., Meythi, M., Rahmatika, D. N., & Mardiana, M. (2023). The impact of financial literacy and financial behavior in entrepreneurial motivation – evidence from Indonesia. *Cogent Education*, 10(2), 2282827. <https://doi.org/10.1080/2331186X.2023.2282827>
- [28] Rauf, R., Raheni, C., Setiawan, L., & Rodliyatun, M. (2024). Entrepreneurship education and digital transformation, opportunities and challenges in Indonesia. *Journal of Infrastructure, Policy and Development*, 8(12), 1–15. <https://doi.org/10.24294/jipd.v8i12.7740>
- [29] Rosing, K., Frese, M., & Bausch, A. (2011). Explaining the heterogeneity of the leadership-innovation relationship: Ambidextrous leadership. *The Leadership Quarterly*, 22(5), 956–974. <https://doi.org/10.1016/j.leaqua.2011.07.014>
- [30] Rosing, K., & Zacher, H. (2017). Individual ambidexterity: the duality of exploration and exploitation and its relationship with innovative performance. *European Journal of Work and Organizational Psychology*, 26(5), 694–709. <https://doi.org/10.1080/1359432X.2016.1238358>
- [31] Rosing, K., & Zacher, H. (2023). Ambidextrous leadership: A review of theoretical developments and empirical evidence. In R. Reiter-Palmon & S. B. T.-H. of O. C. (Second E. Hunter (Eds.), *Handbook of Organizational Creativity* (Second Edition) (pp. 51–70). Academic Press. <https://doi.org/10.1016/B978-0-323-91841-1.00013-0>
- [32] Schimperna, F., Nappo, F., & Marsigalia, B. (2022). Student Entrepreneurship in Universities: The State-of-the-Art. *Administrative Sciences*, 12(1), 5–22. <https://doi.org/10.3390/admsci12010005>
- [33] Smith, J. A., Flowers, P., & Larkin, M. (2009). *Interpretative Phenomenological Analysis: Theory, Method and Research*. Sage.
- [34] Swaramarinda, D. R., Isa, B. Bin, Puruwita, D., Faslah, R., Arfiando Sebayang, K. D., & Adha, M. A. (2025). Preparing vocational students for the digital economy: Exploring the role of digital literacy, entrepreneurial agility, and digital entrepreneurship education. *Social Sciences & Humanities Open*, 12, 101926. <https://doi.org/10.1016/j.ssaho.2025.101926>
- [35] Tomlinson, M. (2017). Forms of graduate capital and their relationship to graduate employability. *Education + Training*, 59(4), 338–352. <https://doi.org/10.1108/ET-05-2016-0090>
- [36] Weng, X., Xia, Q., Chiu, T. K. F., & Wan, Z. (2025). Satisfying higher education students' psychological needs through case-based instruction for fostering creativity and entrepreneurship. *Humanities and Social Sciences Communications*, 12(1), 292. <https://doi.org/10.1057/s41599-025-04597-2>
- [37] Wood, Alex J, Graham, Mark, Lehdonvirta, Vili, & Hjorth, Isis. (2019). Good Gig, Bad Gig: Autonomy and Algorithmic Control in the Global Gig Economy. *Work, Employment and Society*, 33(1), 56–75. <https://doi.org/10.1177/0950017018785616>
- [38] Zhang, J., Wu, Q., & Wei, J. (2025). Exploration and exploitation juggling for novice entrepreneurs: Examination of action complexity on the perspective of individual ambidexterity in entrepreneurial education. *The International Journal*

of Management Education, 23(2), 101145.

<https://doi.org/10.1016/j.ijme.2025.101145>

- [39] Zuraik, A., Kelly, L., & Perkins, V. (2020). Gender differences in innovation: the role of ambidextrous leadership of the team leads. *Management Decision*, 58(7), 1475–1495. <https://doi.org/10.1108/MD-01-2019-0054>

Acknowledgement

Faculty of Economics and Business, Universitas Negeri Jakarta, Indonesia, provided funding for this research under Grant number T/310/UN39.5.FEB/PM.01.00/2026.