

Unveiling the Synergy Between the Digital Startup Ecosystem and Entrepreneurship Education: The Role of Digital Personality in Enhancing Students' Entrepreneurial Intentions

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Abstract: This study examines how the digital startup ecosystem and entrepreneurship education influence university students' entrepreneurial intentions in Bandung City, with digital personality acting as a mediating variable. A quantitative approach using SEM-PLS was employed, with data collected through an online Likert-scale questionnaire that served as the primary research instrument for measuring perceptions of the digital startup ecosystem, entrepreneurship education, digital personality traits, and entrepreneurial intention. A total of 100 students were selected through purposive sampling, an approach considered sufficient for SEM-PLS analysis, particularly for exploratory models and moderate model complexity. The results show that both the digital startup ecosystem and entrepreneurship education positively influence entrepreneurial intention. However, the digital startup ecosystem exerts its effect only indirectly through digital personality traits such as technological adaptability, digital creativity, and confidence in digital environments. In contrast, entrepreneurship education demonstrates both direct and indirect effects on entrepreneurial intention. The study contributes theoretically by integrating the Theory of Planned Behavior and the Theory of Digital Personality, emphasizing that digital personality acts as a psychological mechanism transforming educational and ecosystem stimuli into entrepreneurial motivation in digital contexts. These findings highlight the importance of incorporating digital personality development into entrepreneurship learning and offer contextual strategies to strengthen youth participation in digital-based entrepreneurship within creative urban ecosystems like Bandung.

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Introduction

In today's increasingly digitalized global landscape, digital transformation has unlocked new opportunities through dynamic startup ecosystems, disrupting traditional business models and opening broader avenues for youth participation in the creative digital economy (Chen et al., 2023). However, despite these opportunities, not all university students are motivated to pursue digital entrepreneurship. This highlights the need to understand the key determinants of entrepreneurial intention, particularly how digital personality—as a core characteristic of digital-native generations—plays a mediating role in linking external environments to the internal formation of entrepreneurial attitudes.

Globally, the main challenge faced by youth is not merely the lack of job opportunities, but rather their limited readiness to face digital disruption and the low prevalence of technology-based entrepreneurial orientation (Forum, 2022). Data from the Global Entrepreneurship Monitor (GEM) indicates that while 60% of young people acknowledge the potential of digital entrepreneurship, only a small proportion have initiated ventures, primarily due to a lack of self-confidence and inadequate digital skills (GEM, 2025). In Indonesia, the 2024 Startup Ranking Report shows the country ranks fifth globally in terms of the number of startups. However, this growth is not always mirrored by a proportional rise in students' entrepreneurial interest—especially due to limited access to integrated digital business incubation and structured entrepreneurship education (Reddit, 2024). This gap signals a misalignment between student potential and the realization of entrepreneurial spirit in the digital context.

At the regional level, particularly in West Java Province, there is significant untapped potential. As one of the hubs for digital economic growth—marked by the emergence of various startups in the fields of technology, creative industries, and digital education—the region stands out. According to GoodStats and data from the Indonesian Information and Communication Technology Creative Industry Society (MIKTI), by the end of 2021, there were approximately 1,190 startups in Indonesia, with around 44 (3.7%) located in West Java (Finaka, 2020). This makes the province a key area for startup development outside the Greater Jakarta area. Nevertheless, student-led startup initiatives remain limited, despite the high concentration of higher education institutions such as ITB, UNPAD, Telkom University, and UPI. This discrepancy between digital ecosystem capacity and student participation indicates the presence of both psychological and structural barriers that hinder the development of entrepreneurial interest—barriers that may be addressed through entrepreneurship education and the cultivation of students' digital personality traits.

The situation in Bandung City, as the locus of this research, offers a theoretically and practically significant context for examining digital entrepreneurial intention. Bandung is widely recognized as Indonesia's leading creative and technological hub, supported by a dense concentration of universities, digital communities, and startup incubators. This environment creates a dynamic digital ecosystem where students are frequently exposed to innovation-driven activities, making it an ideal setting to observe how external digital environments shape entrepreneurial intention. Despite this potential, many students still lack the confidence to initiate digital ventures. Empirical evidence from Bandung State Polytechnic shows that exposure to online business opportunities through social media significantly increases entrepreneurial interest by 41.5% (Saefuloh, 2020). Another study reports that entrepreneurship education influences entrepreneurial intention, but digital entrepreneurship affects intention only indirectly through the entrepreneurial mindset (Auliadara, 2025). These mixed outcomes highlight a unique gap: while Bandung provides abundant digital resources, students do not consistently translate these opportunities into

entrepreneurial motivation. Therefore, Bandung serves as a critical context for exploring how digital startup ecosystems and entrepreneurship education interact—through the mediating role of digital personality—to shape students' readiness for digital entrepreneurship.

This study integrates two major theoretical perspectives to justify the role of digital personality as a mediating variable in shaping entrepreneurial intention. The Theory of Planned Behavior (TPB) posits that intention is formed through attitude toward the behavior, subjective norms, and perceived behavioral control (Ajzen, 1991). Entrepreneurship education and environmental support influence these components by shaping students' beliefs, confidence, and perceptions about entrepreneurship. However, in digital contexts, these influences do not operate in isolation. The Theory of Digital Personality explains that continuous interaction with digital technologies shapes individuals' technological adaptability, digital creativity, and confidence in digital environments (McDonald et al., 2016). These traits strengthen the very cognitive mechanisms outlined in TPB—enhancing perceived behavioral control, reinforcing positive attitudes toward digital entrepreneurship, and enabling students to internalize digital norms. Digital personality functions as the psychological bridge through which digital environments and entrepreneurial learning are transformed into intention by linking the two theories. In other words, even when students receive educational support or operate within rich digital ecosystems, entrepreneurial intention will be stronger only if they possess digital personality traits that allow them to interpret, engage with, and act upon these external stimuli. Thus, the integration of TPB and the Theory of Digital Personality provides a coherent theoretical justification for positioning digital personality as a mediating variable in this study.

Based on this framework, this study positions digital personality as a mediating variable that bridges the influence of the digital startup ecosystem and entrepreneurship education on students' entrepreneurial intentions. In other words, even when the environment and education are supportive, entrepreneurial intention will be stronger if students possess mature digital personal capacities, allowing them to internalize and actualize entrepreneurial opportunities independently in digital contexts.

Several previous studies reinforce the relevance of these variables. Tchokoté et al. (2025) show that entrepreneurship education improves positive attitudes and perceived behavioral control toward entrepreneurship, but does not link it to the digital characteristics of today's generation, which tend to be more adaptive to technology and often utilize digital media as a medium for expression and business opportunities. Affandi et al. (2021) highlight the effectiveness of project-based education in influencing entrepreneurial intention among Indonesian students, but it is still limited to conventional curriculum aspects and has yet to integrate digital approaches that align with current developments. Bazan (2022) finds that campus environmental support increases entrepreneurial intention, but students are viewed as passive recipients, without considering digital capacity as an enabler, even though today's generation has great potential in leveraging digital tools to build new business models. Ndofirepi (2020) also finds a positive relationship between entrepreneurship education intensity and entrepreneurial intention, but does not include the digital personality aspect of students, which could actually serve as a catalyst to accelerate the internalization of entrepreneurial values and boost confidence in building technology-based businesses.

From these findings, it is evident that most previous studies have only examined the direct relationship between education or environment and entrepreneurial intention, without considering the mediating role of digital personality. In today's digital era, factors such as technological adaptability, digital creativity, and online identity are crucial in determining students' readiness to become digital entrepreneurs. Moreover, no study has specifically

tested the relationship between the digital startup ecosystem and entrepreneurship education on entrepreneurial intention through digital personality within an urban-creative context such as Bandung City, which is characterized by a high concentration of higher education institutions, creative communities, and a strong digital culture. This indicates a significant research gap that needs to be addressed.

Therefore, the objective of this study is to empirically examine the influence of the digital startup ecosystem and entrepreneurship education on students' entrepreneurial intentions, with digital personality as a mediating variable, among university students in Bandung City. The findings of this study are expected to provide theoretical contributions to the development of a digital entrepreneurship model based on personal character, as well as practical contributions for universities and local governments in designing strategies to empower youth digital entrepreneurship.

Research Method

This study employed a quantitative approach to objectively, measurably, and systematically assess the relationships among variables using numerical data that satisfy empirical and statistical criteria (Igwenagu, 2016). This approach was appropriate for examining the influence of the digital startup ecosystem and entrepreneurship education on students' entrepreneurial intention, with digital personality serving as a mediating variable. Data were collected through an online Likert-scale questionnaire designed to measure students' perceptions of the digital startup ecosystem, entrepreneurship education experiences, digital personality traits, and entrepreneurial intention. The measurement scales used in this study were adapted from established instruments to ensure relevance to the digital entrepreneurship context in Bandung. Specifically, items for the digital startup ecosystem were adapted from prior ecosystem and incubation-support studies; entrepreneurship education items were adapted from validated scales widely used in educational intention research; digital personality scales were adapted from McDonald et al. (2016); and entrepreneurial intention items were adapted from instruments grounded in the Theory of Planned Behavior. Each scale was modified slightly to fit the characteristics of digital-native university students and the local context, while maintaining core conceptual meanings.

The population of this study consisted of undergraduate students in Bandung enrolled between 2022 and 2025 who are engaged in digital startup activities, have taken entrepreneurship-related courses, and actively utilize technology in entrepreneurial or academic contexts. Samples were selected using purposive sampling with the following inclusion criteria: (1) active involvement in digital entrepreneurship activities or organizations; (2) experience in entrepreneurship courses or training; and (3) demonstrated adaptive digital capabilities through self-assessment and participation in activities that support the development of digital personality traits. Out of 117 students who completed the questionnaire, 100 met the inclusion criteria and were retained as the final sample. This sample size meets the minimum requirement for SEM-PLS analysis. Based on the 10-times rule, SEM-PLS requires a sample size at least ten times the largest number of structural paths directed at a construct; in this model, the endogenous variable with the most predictors receives three paths (DSE, EE, DP), implying a minimum of 30 respondents. Moreover, SEM-PLS is recognized as robust for small to moderate samples, with recommended sample sizes ranging from 30 to 100 for models of moderate complexity. With 100 respondents, this study satisfies both heuristic and methodological criteria and ensures sufficient statistical power for detecting medium effect sizes in PLS-SEM.

The data obtained were examined using Structural Equation Modeling with the Partial Least Squares (SEM-PLS) method, employing SmartPLS 3.2 software. This method was selected due to its effectiveness in assessing complex causal relationships and its suitability for studies with relatively small to medium sample sizes. The analysis consisted of two stages: evaluation of the measurement (outer) model and the structural (inner) model. The outer model assessment included tests of convergent validity, discriminant validity, and construct reliability to ensure that all indicators met the recommended statistical thresholds (Hair et al., 2011). The inner model evaluation involved calculating R-square and Q-square values to determine the explanatory and predictive power of the model. Hypothesis testing was conducted using the bootstrapping procedure with 5,000 resamples, which generated t-statistics and p-values for each structural path. A hypothesis was considered statistically significant when the t-value exceeded 1.96 or the p-value was below 0.05, indicating meaningful direct or indirect relationships among the digital startup ecosystem, entrepreneurship education, digital personality, and entrepreneurial intention within the proposed conceptual framework.

Table 1. Characteristics of the Respondents

Demographic		Frequency	Percentage
Institution	Institut Teknologi Bandung	15	15%
	Universitas Pendidikan Indonesia	13	13%
	Telkom University	15	22%
	Universitas Padjajaran	39	39%
	Universitas Pasundan	11	11%
	Etc	7	7%
Year Class	2022	18	18%
	2023	47	47%
	2024	30	30%
	2025	5	5%
Gender	Male	53	53%
	Female	47	47%
Age	17-23 years	91	91%
	24-30 years	9	7.38%
	31-37 years	0	0%
Subject	Public Administration	7	7%
	Business Administration	31	31%
	Management	22	22%
	Technology Information	22	22%
	Accounting	8	8%
	Economics	10	10%
Location	Bandung	100	100%

Based on the demographic distribution of respondents, the majority of students in this study came from Universitas Padjajaran (39%), indicating the dominant contribution of this institution to the dataset, followed by Telkom University (22%) as a representative of technology- and digitally-oriented campuses. Students from the 2023 cohort constituted the largest proportion at 47%, reflecting individuals currently in the active phase of taking core courses and beginning to plan their post-university careers. In terms of gender, the respondent composition was relatively balanced, with 53% identifying as male. Regarding age, most respondents were between 17 and 23 years old (91%), which is considered a productive and potential age group for developing an interest in digital entrepreneurship. From the academic program perspective, the majority of respondents came from Business Administration (31%), highlighting the relevance of their academic background to the study's focus on entrepreneurial interest within a digital ecosystem. All respondents were domiciled in

Bandung City (100%), reflecting a localized context characterized by a dynamic startup ecosystem and the presence of several higher education institutions.

Results and Discussion

Outer Model

The first phase of the SEM-PLS analysis emphasizes the evaluation of the outer model to confirm that each construct within the study satisfies the criteria for both validity and reliability. This stage is essential to ensure that the data collected are measured consistently and precisely, serving as a reliable basis for the following analytical procedures.

Convergent Validity

Convergent validity aims to assess the extent to which indicators within a single construct strongly correlate with one another. The criterion used is that the loading factor for each indicator must exceed 0.70, as calculated through the SmartPLS 3.2 application. A loading value above 0.70 indicates that the indicator consistently represents the same construct. Based on the results shown in Table 2, all indicators in each construct have loading factor values above the threshold, indicating that convergent validity has been satisfactorily achieved.

Discriminant Validity

Discriminant validity is evaluated by comparing the square root of the Average Variance Extracted (AVE) for each construct against the correlation coefficients shared with other constructs. When the AVE square root exceeds the construct's correlations with others, it indicates that the construct is conceptually distinct and not overlapping. As shown in Table 3, all constructs in this study have AVE square root values greater than their respective inter-construct correlations. This outcome confirms that discriminant validity has been met, and each construct within the model demonstrates clear differentiation from the others.

Reliability Test

To assess the consistency and reliability of the constructs, the analysis involved examining Cronbach's Alpha and Composite Reliability values. For reflective constructs, a minimum threshold of 0.60 is generally required to establish acceptable reliability. When this benchmark is achieved, the construct is deemed to possess satisfactory reliability. As presented in Table 2, all constructs in this research recorded Cronbach's Alpha and Composite Reliability values exceeding 0.60. These findings confirm that the measurement instruments applied in the study are sufficiently consistent and reliable, making them stable tools for evaluating the associated indicators.

Table 2. Measurement Model Analysis

Variable	Item	Factor Loading	Cronbach's Alpha	Composite Reliability	AVE
Digital Startup Ecosystem (DSE)	DSE.1	0.710	0.730	0.790	0.620
	DSE.2	0.830			
	DSE.3	0.770			
Entrepreneurship Education (EE)	EE.1	0.880	0.780	0.800	0.640
	EE.2	0.810			
	EE.3	0.870			
Digital Personality (DP)	DP.1	0.710	0.810	0.730	0.660
	DP.2	0.770			
	DP.3	0.720			
Students' Entrepreneurial Intention (SEI)	SEI.1	0.850	0.720	0.880	0.670
	SEI.2	0.710			
	SEI.3	0.760			

Table 3. Discriminant Validity

Var/Ind	DSE	EE	DP	SEI
DSE.1	0.710	0,332	0,311	0,483
DSE.2	0.830	0,304	0,300	0,410
DSE.3	0.770	0,410	0,419	0,399
EE.1	0,455	0.880	0,403	0,310
EE.2	0,488	0.810	0,355	0,480
EE.3	0,378	0.870	0,437	0,391
DP.1	0,444	0,334	0.710	0,311
DP.2	0,393	0,470	0.770	0,445
DP.3	0,418	0,358	0.720	0,380
SEI.1	0,422	0,427	0,368	0.850
SEI.2	0,527	0,452	0,491	0.710
SEI.3	0,317	0,302	0,445	0.760

Inner Model

In the subsequent stage of SEM-PLS analysis, the focus shifts to evaluating the inner model using several statistical tools, including R-square, Q-square, and hypothesis testing, to determine how well the model performs.

R-Square

The R-square value serves to measure how much the endogenous variables are influenced by the exogenous ones. Referring to Table 4, the R-square score of 0.548 indicates that 54.8% of the variance in Digital Personality (DP) is explained by the Digital Startup Ecosystem (DSE) and Entrepreneurship Education (EE). The remaining 45.2% is likely influenced by factors beyond the scope of this study. Similarly, the R-square value of 0.561 suggests that DSE, EE, and DP together account for 56.1% of the variance in Students' Entrepreneurial Intention (SEI), with the remaining 43.9% attributed to variables not included in the model. As Hair et al. (2011) propose, an R-square value above 0.50 reflects a model with satisfactory explanatory strength, indicating a moderate to strong level of predictability.

Q² Predictive Relevance

To assess the predictive relevance of the model, the Q² value is calculated. A Q² greater than zero demonstrates that the model possesses sufficient predictive accuracy (Hair et al., 2011). The calculation uses the formula $Q^2 = 1 - (1 - R^2) \times (1 - R^2)$. Applying this to the model's R-square values results in a Q² of approximately 0.801, confirming that the model can reliably estimate the outcomes of observed variables:

$$Q^2 = 1 - (1 - 0.548) \times (1 - 0.561)$$

$$Q^2 = 1 - (0.452 \times 0.439)$$

$$Q^2 = 1 - 0.198428$$

$$Q^2 = 0.8016$$

Hypothesis Testing

To validate the hypothesized relationships between variables, hypothesis testing is conducted by examining the statistical significance of the path coefficients. A p-value below 0.05 is typically used to determine significance, suggesting a meaningful relationship between the constructs involved (Hair et al., 2011). Based on Table 5, the results of the hypothesis tests confirm the robustness and validity of the proposed relationships, offering strong empirical support for the theoretical framework applied in this research.

Table 4. R-Square Test

No	Variable	R-Square
1	DP	0,548
2	SEI	0,561

Table 5. Hypothesis Testing Results

Hypothesis	Path Coefficient	T Value	P Values	Decision
DSE → SEI	0.421	6.732	0.005	Accepted
EE → SEI	0.377	5.189	0.005	Accepted
DP → SEI	0.294	4.017	0.000	Accepted
DSE → DP → SEI	0.081	1.422	0.156	Rejected
EE → DP → SEI	0.173	3.218	0.001	Accepted

The significant impact of the digital startup ecosystem—measured through access to digital technology, incubation support, and digital financing access—on students' entrepreneurial intention can be understood through the theoretical lens of the Theory of Planned Behavior (Ajzen, 1991) and the Theory of Digital Personality (McDonald et al., 2016), both of which explain how digital affordances and psychological readiness shape intentional behavior. According to the Theory of Planned Behavior, entrepreneurial intention is formed when individuals perceive they have control over entrepreneurial behavior (perceived behavioral control), believe in its positive outcomes (attitude), and receive social support (subjective norms). These constructs are clearly stimulated by a thriving digital startup ecosystem: access to digital technology enhances perceived behavioral control by reducing entry barriers to entrepreneurship through tools such as online marketplaces, payment platforms, and digital marketing; incubation support—often involving mentorship, co-working spaces, and structured training—strengthens positive entrepreneurial attitudes and social validation; and digital financing access, such as crowdfunding and peer-to-peer lending, reduces financial constraints, empowering students to consider launching their own ventures more realistically.

The Theory of Digital Personality supports this relationship by suggesting that individuals who operate within digital ecosystems develop specific digital traits—like self-directed learning, adaptability, and risk-taking—which align directly with key indicators of entrepreneurial intention: entrepreneurial desire, willingness to take risks, and business commitment. This is consistent with previous studies that found that digital ecosystems significantly increase entrepreneurial readiness among university students and digital technologies accelerate startup creation among digitally literate youth (Mirhabibi et al., 2025; Nguyen et al., 2024; Yanti et al., 2025).

Furthermore, insights from Table 1. Characteristics of the Respondents reinforce this interpretation. The fact that 91% of the respondents are aged between 17–23 years suggests a cohort that is natively digital and highly adaptive to technological environments, making them prime beneficiaries of digital startup ecosystems. The concentration of students in majors such as Business Administration (31%), Management (22%), and Technology Information (22%) also points to a population with both theoretical and practical exposure to digital entrepreneurship frameworks. Additionally, the high representation of institutions like Universitas Padjadjaran (39%), Telkom University (22%), and Institut Teknologi Bandung (15%)—all located in Bandung, a recognized tech hub in Indonesia—implies an ecosystemic advantage where access to digital infrastructure, incubators, and digital finance platforms is more prevalent. These students likely experience stronger entrepreneurial stimuli, higher exposure to startup success stories, and greater access to digital innovation networks, which cumulatively raise their entrepreneurial intention.

The combination of digital infrastructure, mentorship, and financial accessibility within a digital startup ecosystem cultivates not only the desire but also the feasibility for students to pursue entrepreneurship. When analyzed through the lenses of the Theory of Planned Behavior and the Theory of Digital Personality, and contextualized with the

demographic profile of Bandung-based students who are digitally literate and academically aligned with business and technology, it becomes evident that the digital startup ecosystem has a statistically and practically significant impact on nurturing students' entrepreneurial intentions.

The significance of entrepreneurship education in influencing students' entrepreneurial intention becomes evident when examined through the lens of the Theory of Planned Behavior, which posits that intention toward a behavior (in this case, entrepreneurship) is determined by attitude, subjective norms, and perceived behavioral control (Ajzen, 1991). The inclusion of a practice-based curriculum enables students to engage in experiential learning, such as simulations, business project assignments, and start-up internships, which directly contribute to shaping a positive entrepreneurial attitude and enhancing self-efficacy. Additionally, lecturer competence—manifested in real-world business experience, mentorship capability, and facilitative teaching style—builds students' confidence in entrepreneurial feasibility. This is reinforced by campus support, such as entrepreneurship centers, funding programs, and cross-disciplinary collaboration, which collectively improve perceived behavioral control by reducing external barriers. The Theory of Digital Personality also becomes relevant here, particularly in digital-native students who are more likely to be influenced by virtual learning environments and digital mentorship when shaping entrepreneurial identities (McDonald et al., 2016).

Previous research affirms that entrepreneurship education significantly increases entrepreneurial intention, particularly when the education model is applied actively and embedded in institutional culture (Aslan et al., 2025; Atrup et al., 2023; Diawati et al., 2024; Sutrisno et al., 2023; Thomas, 2023). Based on Table 1, most respondents are from Universitas Padjadjaran (39%) and Telkom University (22%)—both of which have well-established entrepreneurial programs—suggesting a learning environment conducive to entrepreneurial development. Furthermore, 47% of the respondents are from the 2023 cohort and 30% from 2024, indicating they are at a stage in their academic journey where exposure to entrepreneurship education is likely at its peak. With 31% of students coming from Business Administration and 22% each from Management and Technology Information, the majority are embedded in disciplines where entrepreneurial orientation is implicitly emphasized. These contextual and institutional factors underscore the significant positive impact of entrepreneurship education—via curriculum, faculty, and institutional support—on students' entrepreneurial intention as reflected in their willingness to pursue ventures, take risks, and commit to business ideas.

The influence of digital personality on students' entrepreneurial intention is substantial, especially in an era where digital fluency and technological engagement are integral to business innovation. Referring to the Theory of Digital Personality, digital personality traits—such as technology adaptability, digital creativity, and digital confidence—shape how individuals perceive and engage with entrepreneurial opportunities in digital ecosystems (McDonald et al., 2016). Students with high technology adaptability are more agile in embracing digital tools for business, enhancing their belief in entrepreneurial feasibility and increasing their intention to start ventures. Digital creativity, the capacity to generate novel digital-based solutions, strengthens students' attitudes toward entrepreneurship as a platform for innovation, while digital confidence reinforces perceived behavioral control as described in the Theory of Planned Behavior, where belief in one's ability to perform entrepreneurial tasks directly affects intention (Ajzen, 1991). Empirical studies have shown that digital competence and confidence positively affect entrepreneurial intention, especially

among youth who are native to digital environments (Duong et al., 2024; Livingstone et al., 2023; Vu et al., 2024).

This is further corroborated by the respondent profile in Table 1, where 46% of students are from the 2023 cohort and 30% from 2024 cohort, both representing Gen Z learners who are typically immersed in technology. Furthermore, 22% of respondents come from Technology Information programs, and 31% from Business Administration, fields where digital thinking and problem-solving are highly emphasized. Additionally, students from universities like Telkom University (22%) and Institut Teknologi Bandung (17%) are embedded in tech-centric academic ecosystems that foster digital behavior patterns relevant to entrepreneurial engagement. These contextual and psychological dimensions suggest that students with stronger digital personalities are not only more inclined to start businesses but are also more willing to take calculated risks and remain committed to entrepreneurial endeavors in digitally driven environments. Therefore, digital personality traits play a significant role in enhancing students' entrepreneurial intention, especially in contexts where digital transformation and youth innovation intersect.

The analysis reveals that the digital startup ecosystem does not significantly influence students' entrepreneurial intention in Bandung when examined as a direct factor. Despite the growth of digital innovation hubs, co-working spaces, startup accelerators, and government initiatives such as Bandung Digital Valley and BEKUP, these ecosystem components appear insufficient to motivate students to pursue entrepreneurship without the mediation of internal psychological factors like digital personality. This indicates that structural readiness alone does not guarantee entrepreneurial intention. According to the Theory of Planned Behavior, intention is shaped by attitudes, perceived behavioral control, and subjective norms rather than infrastructure alone (Ajzen, 1991). Similarly, the Theory of Digital Personality suggests that technological adaptability, digital creativity, and digital confidence enable individuals to translate digital opportunities into entrepreneurial motivation (McDonald et al., 2016).

Beyond theoretical explanations, several external factors may account for the weak direct effect. First, potential policy gaps exist: many ecosystem programs in Bandung remain fragmented, short-term, or inaccessible to early-stage student entrepreneurs, weakening their real-world impact. Second, student readiness may be uneven; although campuses provide digital exposure, many students still lack risk-taking orientation, business literacy, or confidence to commercialize digital ideas. Third, cultural factors—including the preference for job security, family expectations, and limited tolerance for entrepreneurial failure—may suppress the influence of ecosystem facilities. Even in tech-oriented universities such as Institut Teknologi Bandung (17%) and Telkom University (22%), the findings indicate that external stimuli alone do not translate into entrepreneurial behavior without strong digital personality traits that allow students to internalize the benefits of the ecosystem. Thus, digital personality functions as a critical mediating mechanism. These results highlight the need for not only strengthening ecosystem infrastructure but also investing in capacity-building programs that enhance digital self-efficacy, entrepreneurial resilience, and creative digital thinking among students in Bandung.

The findings indicate that entrepreneurship education has a significant positive impact on students' entrepreneurial intention in Bandung, and this relationship is further strengthened through the mediating role of digital personality. Universities that implement a practice-based curriculum, supported by competent lecturers and robust campus entrepreneurial ecosystems, such as incubation centers, mentoring programs, and student business competitions, play a crucial role in shaping students' readiness to start their own ventures. This aligns with the Theory of Planned Behavior, which suggests that intention is

shaped by behavioral beliefs, subjective norms, and perceived control—factors that are directly enhanced through experiential and contextual entrepreneurship education (Ajzen, 1991). Moreover, when such education is infused with digital elements—like digital marketing workshops, startup simulation platforms, and technology-driven business projects—it actively cultivates students' digital personality, particularly in terms of technology adaptability, digital creativity, and digital confidence, as defined by the Theory of Digital Personality (McDonald et al., 2016).

In this study, respondents from digital-savvy institutions such as Telkom University and Universitas Pendidikan Indonesia—where over 35% of participants study—showed strong entrepreneurial intentions, particularly when they also demonstrated high levels of digital personality. These traits enabled students not only to conceptualize innovative business ideas but also to feel confident in leveraging digital tools to execute and scale them. Hence, the indirect effect through digital personality reveals that effective entrepreneurship education does not merely transfer knowledge, but also activates the digital mindset necessary to thrive in the modern entrepreneurial landscape. In conclusion, fostering digital personality traits through entrepreneurship education significantly enhances students' willingness to take risks, commit to entrepreneurial goals, and pursue business creation, making this integrated approach especially vital for driving youth entrepreneurship in Bandung's evolving digital economy.

Conclusion

This study concludes that both entrepreneurship education and the digital startup ecosystem significantly influence students' entrepreneurial intentions in Bandung City. However, the influence of the digital startup ecosystem is indirect, as it is mediated by digital personality. This means that the presence of digital infrastructure, business incubators, and access to technology does not automatically increase students' interest in entrepreneurship unless they possess strong digital personal capacities. In contrast, practice-based entrepreneurship education directly encourages students' entrepreneurial intentions, and this effect becomes even stronger when students exhibit digital personality traits such as technological adaptability, digital creativity, and confidence in digital environments. Digital personality functions as a psychological bridge that enables students to internalize external entrepreneurial opportunities into real motivation and action. Therefore, fostering a digital entrepreneurial spirit among students depends on external structural factors and the development of a strong digital character through contextual, and technology-oriented education.

Recommendation

Based on the findings of this study, it is recommended that higher education institutions in Bandung integrate more practice-oriented digital entrepreneurship curricula that explicitly aim to develop students' digital personality. This integration can be implemented through concrete learning activities such as digital business project studios, where students build prototypes of e-commerce platforms, mobile apps, or AI-enabled business solutions using tools like Shopify, WordPress CMS, Figma, Flutter, or low-code platforms (e.g., Bubble, Glide). Universities can also incorporate data-driven marketing labs in which students run real campaigns using Google Analytics, Meta Ads Manager, or SEO optimization tools, allowing them to develop digital creativity and strategic decision-making. Technology-focused modules should include hands-on training in cloud computing (AWS Educate, Google Cloud), digital payment systems, cybersecurity basics, and the use of

generative AI for business ideation and content development. In addition, universities can adopt structured online mentoring models, such as weekly virtual coaching with startup founders, peer mentoring groups, and expert-led clinics modeled on digital incubator practices, enabling students to receive personalized guidance on product validation, pitching, and scaling. Local governments and startup support organizations—such as Bandung Digital Valley and BEKUP—should collaborate with universities to expand access to real incubation programs, micro-grant funding, sandbox environments, and digital financing platforms. Strengthening these partnerships ensures that the ecosystem not only provides physical infrastructure but also supports students in cultivating digital adaptability, creativity, and confidence. Such comprehensive interventions are expected to enhance students' readiness and courage to initiate technology-based ventures in the evolving digital economy.

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