The Effect of Theory of Planned Behavior (TBP) and Creativity-Based Industry Perception on Digital Entrepreneurship: An Innovativeness as Mediator

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ABSTRACT
This research delves into the factors influencing digital entrepreneurial intention using the Smart PLS algorithm for data analysis. The analysis results strongly support the proposed hypotheses, with indicator values above 0.6 indicating the reliability of variables in the context of digital entrepreneurial intention. The main findings affirm that innovation plays a key mediating role in connecting attitude, subjective norm, and self-efficacy to digital entrepreneurial intention. It is also found that excessive digital entrepreneurial self-efficacy can hinder innovation, and a positive industry perception does not always correlate with high levels of innovation. Creativity proves to be a key element, positively impacting digital entrepreneurial intention and innovation. Other factors, such as planned behavior theory and digital literacy, also contribute positively to digital entrepreneurial intention and innovation. This research provides in-depth insights into the complex interaction of key factors in shaping attitudes and digital entrepreneurial intention. This conclusion has significant implications for the development of a dynamic and innovative digital entrepreneurial ecosystem.

KEYWORDS: Cooperation and collaboration, Vocational school, Higher education, Industry, Internship

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1. INTRODUCTION
In today’s rapidly changing landscape, understanding digital entrepreneurship is not just an academic pursuit. It’s a necessity for navigating the complexities of our modern economy. In a world where labor markets are rapidly liberalizing, globalization is reshaping economic landscapes, and technological advancements are accelerating at an unprecedented pace, the need for entrepreneurial insight has never been more pressing. This introduction sets the stage for exploring the pivotal role of digital entrepreneurship in addressing contemporary challenges and seizing emerging opportunities. The dynamics of labor market liberalization have dismantled traditional barriers, fostering a more flexible and dynamic workforce. Economic globalization has interconnected markets across borders, creating new opportunities and challenges for entrepreneurs to navigate. Concurrently, rapid technological advancements have revolutionized industries, demanding innovative solutions and entrepreneurial initiatives to stay competitive in the evolving landscape.

Amidst these changes, entrepreneurship serves as a catalyst for economic growth and job creation. Entrepreneurs, equipped with innovative ideas and a willingness to take risks, contribute to the development of new industries and the expansion of existing ones. The ability of entrepreneurs to adapt to changing circumstances and leverage technological advancements positions them as key drivers of economic resilience. Furthermore, entrepreneurship plays a crucial role in addressing unemployment and fostering social development. By creating new ventures and employment opportunities, entrepreneurs contribute to
reducing unemployment rates and promoting inclusive economic growth. Additionally, entrepreneurship empowers individuals and communities, promoting self-reliance and resilience in the face of economic uncertainties. In essence, the interplay of labor market liberalization, economic globalization, and technological advancements underscore the transformative impact of entrepreneurship on the economic and social fabric. As a driving force behind innovation, job creation, and societal progress, entrepreneurship emerges as a linchpin in navigating and thriving in the evolving landscape shaped by these significant changes (Alismail, 2023). An incidental outcome of this viewpoint is that entrepreneurs play a pivotal role in driving economic expansion, generating avenues for employment, and cultivating an environment that encourages both competition and innovation. Entrepreneurs, seen through this lens, become instrumental in fostering the growth and vitality of the economy. Through their ventures and initiatives, they contribute to the overall economic development by creating new opportunities, businesses, and markets. This proactive engagement not only leads to the expansion of economic activities but also has a cascading effect on related sectors.

Moreover, entrepreneurial endeavors result in the creation of employment possibilities. As entrepreneurs establish and scale their ventures, they inherently contribute to job creation, addressing unemployment concerns and providing individuals with opportunities to contribute meaningfully to the workforce. This employment generation is not only vital for the livelihoods of individuals but also contributes to the overall socioeconomic development of communities. Simultaneously, the promotion of competition is a natural byproduct of entrepreneurial activities. Entrepreneurs, driven by a desire to succeed and innovate, introduce new products, services, and business models. This dynamism introduces a competitive edge, compelling other players in the market to enhance their offerings, efficiency, and overall competitiveness. The resulting competition is beneficial for consumers, as it often leads to improved quality, lower prices, and a wider array of choices. In addition, the entrepreneurial spirit inherently fosters innovation. Entrepreneurs are known for their ability to think creatively, identify gaps in the market, and develop solutions to meet evolving needs. This innovative drive not only propels individual businesses but contributes to the broader landscape of technological advancements, process improvements, and overall industry innovation.

In summary, viewing entrepreneurs as agents of economic growth, job creation, and catalysts for competition and innovation underscores their multifaceted impact on the socio-economic fabric. Their endeavours reach beyond individual success, contributing to the prosperity and dynamism of economies at large (Ajzen, 2006). A person is considered to have entrepreneurial intentions if they plan to start a new business in the future (Akayoglu et al., 2020).

The most crucial stage in the online company is the establishment of entrepreneurial intents and activities. A nation’s economic growth depends on this since it increases employment opportunities, promotes technological advancements, and raises wages. This is crucial to understand in Indonesia, which has historically been viewed as a developing nation with sustainable economic growth (Akca & Kavak, 2021). Students comprise a significant portion of Indonesia’s unemployed population, which is currently a huge issue (Caliendo et al., 2023). A solution to Indonesia’s graduate unemployment issue may lie in fostering more entrepreneurial activity due to the extreme nature of entrepreneurship as a source of employment. Industrial perception plays a pivotal role in this context, as businesses and industries increasingly recognize the value of entrepreneurial skills in contributing to innovation and economic development (Anisimova, 2020). On the other side, an individual’s drive and planning to launch an online business using technology is referred to as their digital entrepreneurial intention. This new technology is essential in motivating children to pursue their business aspirations. Therefore, students’ digital entrepreneurial intent is an emerging concept that is being considered as a new tool for creating personal business operations through contemporary technology. For this reason, universities are very important to instill this concept well, appropriately, and correctly for all students.

The digitalized process lowers entry barriers, removes corporate risks, reduces the cost of launching a new business, and reduces the waste of raw resources for Internet business owners. Examining students’ intentions toward digital entrepreneurship would be a pertinent sample for researching entrepreneurial intention (EI), as every student sees entrepreneurship as a feasible career option (Barakat et al., 2014). The current study intends to add value to the intention of Indonesians to engage in digital entrepreneurship by building on previous research that has shown that psychological, demographic, and environmental factors influence entrepreneurship intent. However, some academics continue to pay close attention to other factors that impact digital entrepreneurship among students and outside of the classroom. In this sense, experts emphasise creativity and innovation as the most crucial determinants of entrepreneurship (Carolus et al., 2023). The researchers have made notable efforts to explore the relationship and influence of the Theory of Planned Behavior (TPB) on entrepreneurship, incorporating both traditional and digital contexts. Al-Mamary et al. (2020), TPB, comprised of attitudes, subjective norms,
and perceived behavioral control, plays a crucial role in shaping individual behavioral intentions, including entrepreneurial intentions (Al-Jubari et al., 2019). Although there is no explicit evidence establishing a direct correlation between TBP and innovation in digital entrepreneurship, indications suggest a connection between TBP and various aspects related to innovation. TBP can be utilized to predict a digital entrepreneur’s inclination towards specific activities that may impact their capacity to innovate within their respective industry. In more detail, TBP analysis can provide in-depth insights into the preferences and tendencies of digital entrepreneurship that might influence their ability to advance innovative ideas. Using TBP as a predictive tool can help identify and monitor behavior and decisions that tend to support or hinder innovation. Furthermore, a better understanding of this interconnection can lay the foundation for the development of more effective strategies in stimulating innovation within the digital entrepreneurship realm. Holistically analyzing TBP data, it can be revealed how the tendencies of digital entrepreneurship evolve over time, providing a deeper insight into the factors influencing their innovative potential. It should be noted that although this relationship is not fully defined, the use of TBP as a predictive tool provides a potential framework for gaining valuable insights into the interplay between digital entrepreneurship behavior and the innovation process.

Therefore, understanding the potential relationship between TBP and innovation in the context of digital entrepreneurship can pave the way for further research and the development of more sophisticated models. By further exploring this relationship, we can gain a more profound insight into the complex dynamics that shape the innovative environment within the digital entrepreneurship world. In conclusion, while the connection between TBP and innovation is not fully proven, there is great potential for further research and understanding of how TBP can be a crucial factor in driving or inhibiting innovation within digital entrepreneurship. Furthermore, the Theory of Planned Behavior (TBP) stands out as a crucial tool for forecasting the intentions and actions of entrepreneurs as they embark on the journey of developing innovations for their business. The intricate connection between entrepreneurial goals and the innovation process is profoundly entwined with the concept of creativity, underscoring the dynamic nature of the entrepreneurial landscape.

In essence, TBP provides a systematic framework for understanding and predicting the decision-making process of entrepreneurs in the realm of innovation. By examining the attitudes, subjective norms, and perceived behavioral control of entrepreneurs, TBP offers insights into the factors that shape their intentions to innovate. This predictive capability becomes particularly valuable in the context of business development, where strategic innovation plays a pivotal role in staying competitive and relevant. The interplay between TBP and entrepreneurial innovation is not merely a theoretical construct but has practical implications for fostering a culture of creativity within business enterprises. Entrepreneurs who align their goals with the principles of TBP are likely to exhibit a proactive approach to innovation, leveraging their understanding of personal beliefs and perceived control to drive inventive endeavors. Moreover, the correlation between TBP and innovation underscores the importance of psychological factors in the entrepreneurial process. As entrepreneurs navigate the challenges of business development, their intentions and actions are influenced by internalized beliefs and external influences. TBP provides a lens through which researchers and practitioners can analyze and interpret these dynamics, shedding light on the underlying motivations that fuel entrepreneurial innovation. In summary, the Theory of Planned Behavior emerges as a powerful ally in deciphering and predicting the intricate dance between entrepreneurial intentions and the development of innovations. Its application extends beyond theoretical realms, offering practical insights into the psychological mechanisms that drive creativity within the entrepreneurial landscape. Understanding and harnessing the interplay between TBP and innovation can pave the way for more effective strategies in fostering a culture of continuous and purposeful creativity within the business domain (Cuadros et al., 2023). Entrepreneurs aspiring to foster innovation can enhance their creativity, thus paving the way for the formulation of entrepreneurial goals and inventive solutions.

In the realm of digital entrepreneurship, creativity and innovation stand out as indispensable elements for establishing a successful and enduring company. Entrepreneurs with a creative mindset in the digital sphere can conceptualize distinctive products or services that captivate customer interest (Doanh & Bernat, 2019). Creativity plays a pivotal role in enhancing consumer engagement, enabling digital entrepreneurs to meticulously shape a distinctive value proposition that distinguishes their enterprise from competitors. By infusing innovative elements into their products or services, entrepreneurs can captivate the attention and interest of consumers, fostering a deeper connection with their target audience. In the realm of digital entrepreneurship, where competition is intense, the ability to offer something novel and imaginative becomes a significant differentiator. Entrepreneurs who leverage creativity can create a compelling narrative around their brand, resonating with consumers and establishing a memorable identity in the market. This, in turn, leads to heightened consumer engagement.
as individuals are drawn to the unique and innovative aspects of the entrepreneurial offerings.

Furthermore, the incorporation of creativity in the development of a value proposition allows digital entrepreneurs to address evolving consumer needs and preferences. A dynamic and inventive approach enables entrepreneurs to stay ahead of market trends, adapting their offerings to meet the changing demands of their audience. This agility in responding to consumer expectations contributes to sustained consumer engagement over time. In essence, creativity acts as a catalyst for not only attracting initial attention but also maintaining a continuous and meaningful relationship with consumers. Digital entrepreneurs who prioritize creative thinking in their business strategies are better positioned to navigate the dynamic landscape of the digital market, establishing a lasting connection with their audience, and creating a competitive advantage that goes beyond mere product features.

This study aims to delve into the direct effects of the Theory of Planned Behavior (TPB), creativity, and innovation on digital entrepreneurship. Additionally, it seeks to explore the impact of TPB and creativity on the digital entrepreneurship sector, with innovation serving as a mediating factor. By examining these relationships, the research aims to contribute valuable insights into the dynamics of digital entrepreneurship, shedding light on the interplay between psychological factors, creativity, innovation, and entrepreneurial success (Dunn, Hattie, & Bowles, 2018).

2. METHODOLOGY

The present study employs Structural Model Assessment (SMA) to forecast the causal relationships among latent variables. The assessment of SMA in Structural Equation Modeling (SEM) Partial Least Squares (PLS) entails the scrutiny of R-squared and Q statistics. The determination of cause-and-effect relationships is achieved through significance testing, utilizing bootstrapping as the statistical technique.

In this research, the Structural Model Assessment serves as a valuable tool to analyze the complex interconnections between latent variables. By delving into the R-squared and Q statistics within the framework of SEM PLS, the study gains insights into the explanatory power of the model and the predictive accuracy of the latent constructs. These statistical measures offer a comprehensive evaluation of the effectiveness of the structural model in capturing the relationships among variables. The utilization of bootstrapping further enhances the robustness of the significance testing process. Through the resampling technique inherent in bootstrapping, the study can derive more accurate and reliable estimates of the standard errors, confidence intervals, and p-values associated with the causal paths within the structural model. This rigorous approach contributes to the statistical validity of the findings, providing a solid foundation for drawing meaningful conclusions regarding the hypothesized cause-and-effect relationships.

In summary, the research employs Structural Model Assessment, particularly within the SEM PLS framework, as a methodological approach to unravel the causality among latent variables. The incorporation of R-squared and Q statistics, along with bootstrapping for significance testing, enhances the precision and reliability of the analysis, ensuring a comprehensive understanding of the structural relationships under investigation (Hair et al., 2014). Hypothesis testing in Partial Least Squares (PLS) is performed through non-parametric bootstrapping techniques, deliberately sidestepping the reliance on the assumption of normal distribution in the data. This approach enhances the robustness of the analysis by providing a statistical method that does not hinge on specific distributional assumptions.

The research design framework, as depicted in Figure 1, outlines the structural blueprint guiding the study. It serves as a visual representation of the interconnections among key components and variables under investigation. This design facilitates a comprehensive understanding of the study’s structure and aids in elucidating the relationships postulated in the hypotheses (Table 1).

By incorporating non-parametric bootstrapping in the hypothesis testing process, the study adopts a more flexible and data-driven approach, allowing for a reliable assessment of the statistical significance of relationships without being bound by assumptions of normality. This aligns with the evolving methodologies in statistical analysis and contributes to the robustness and validity of the research findings.

In essence, the combination of non-parametric bootstrapping techniques and the design framework depicted in Figure 1 forms a methodologically sound approach, ensuring rigorous hypothesis testing while avoiding rigid assumptions about the data distribution. This strategic methodology enhances the reliability and validity of the study’s outcomes within the context of Partial Least Squares analysis.

The current research adopts a mixed-methods approach, which involves the synergistic combination of both quantitative and qualitative research methodologies. This integrated approach is strategically designed to enrich and deepen the comprehension of the phenomena being investigated, offering a holistic perspective and generating insights to tackle inquiries that might pose challenges when relying solely on one method. The chosen mixed-method design for this
research is the sequential explanatory design. Employing a mixed-methods strategy, the study leverages the strengths of both quantitative and qualitative data collection and analysis. The quantitative component allows for the measurement and statistical examination of variables, providing numerical data that can be analyzed to identify patterns, trends, and associations. On the other hand, the qualitative aspect facilitates a nuanced exploration of underlying motivations, attitudes, and contextual factors, offering a more in-depth understanding of the studied phenomena.

The sequential explanatory design specifically involves an initial quantitative phase, followed by a qualitative phase to elaborate on and interpret the quantitative findings. This sequential approach enables researchers to first gather quantitative data, analyze it, and then use qualitative methods to explore unexpected or unexplained aspects, providing a more comprehensive and nuanced interpretation of the research outcomes. In summary, the mixed-methods approach, with its sequential explanatory design, serves as a powerful research strategy that combines the strengths of quantitative and qualitative methods. This integration enhances the overall research quality, ensuring a thorough exploration and understanding of the studied phenomena, and allows for a more robust interpretation of the findings (Shaikh et al., 2020)

![Figure 1: Research Framework](image)

**Table 1: Research Hypothesis**

<table>
<thead>
<tr>
<th>Direct Influence</th>
<th>Indirect Influence</th>
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<tr>
<td><strong>H1:</strong> Attitude toward behavior has a positive and significant influence on the intention to engage in digital entrepreneurship</td>
<td><strong>H8:</strong> Innovation mediates the relationship between attitude toward behavior, subjective norm, and perceived behavioral control with the intention to engage in digital entrepreneurship</td>
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<td><strong>H2:</strong> Subjective norm has a positive and significant influence on the intention to engage in digital entrepreneurship</td>
<td><strong>H9:</strong> Innovation mediates the relationship between creativity and the intention to engage in digital entrepreneurship</td>
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<tr>
<td><strong>H3:</strong> Perceived behavioral control has a positive and significant influence on the intention to engage in digital entrepreneurship</td>
<td><strong>H10:</strong> Innovation mediates the relationship between digital literacy and the intention to engage in digital entrepreneurship</td>
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<tr>
<td><strong>H4:</strong> Creativity has a positive and significant influence on the intention to engage in digital entrepreneurship</td>
<td><strong>H11:</strong> Innovation mediates the relationship between digital entrepreneurial self-efficacy and the intention to engage in digital entrepreneurship</td>
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<td><strong>H5:</strong> Digital literacy has a positive and significant influence on the intention to engage in digital entrepreneurship</td>
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<tr>
<td><strong>H6:</strong> Digital entrepreneurial self-efficacy has a positive and significant influence on the intention to engage in digital entrepreneurship</td>
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<td><strong>H7:</strong> Innovation has a positive and significant influence on the intention to engage in digital entrepreneurship</td>
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Because the precise number of students is unclear, the convenience sample method was used to explain the need for this study. Hence, the study’s target group was students at public universities. The primary data was collected, and the study was quantitative and exploratory. Respondents were given a survey questionnaire that disseminated online via Google Form to help them comprehend the definition of creativity and innovation. In return, 150 responses were received in response emails, with 30 of them being eliminated due to incompleteness. Hence, the study’s final sample size was n = 120 (Frankel & Kartik, 2022). The survey questionnaire employed in this research consists of two main components. The initial section of the questionnaire focuses on gathering demographic information about the respondents. This includes details such as gender, marital status, age (in years), and educational level. The aim of this section is to establish a comprehensive profile of the participants, providing contextual information relevant to the study. The second part of the questionnaire is dedicated to assessing research variables such as creativity and innovativeness. This section utilizes a Likert-based scale, allowing respondents to express their opinions and perceptions on the specified constructs. The Likert scale provides a structured format for participants to rate their agreement or disagreement with a series of statements, facilitating the quantification of qualitative responses.

To ensure the reliability of the questionnaire, Cronbach’s Alpha (α) coefficient is employed as a measure of internal consistency. A Cronbach’s Alpha value equal to or greater than 0.70 is considered acceptable for indicating the reliability of the constructs. This threshold is a widely recognized standard in research, signifying a satisfactory level of consistency in the respondents’ answers.

In summary, the survey questionnaire utilized in this study comprises two sections, with the first gathering demographic information and the second employing a Likert-based scale to assess key research variables. The adoption of Cronbach’s Alpha coefficient as a reliability measure ensures the robustness of the constructs being investigated, with a threshold of 0.70 or higher considered indicative of acceptable reliability (Zhang & Huang, 2018). In the context of industrial perception, these hypotheses outline the anticipated influences on individuals’ intentions to engage in digital entrepreneurship. Understanding these relationships is vital for gauging the potential impact on the broader industrial landscape (Giyanti & Indriastiningsih, 2019).

The Direct Influences result will be:
1. Attitude toward behavior (H1): Positive attitudes toward digital entrepreneurship may contribute to a favorable perception of its role and potential in the industrial sector.
2. Subjective norm (H2): Favorable subjective norms can indicate societal approval of digital entrepreneurship, influencing how it is perceived within the industry.
3. Perceived behavioral control (H3): Perceived control over engaging in digital entrepreneurship can influence how individuals perceive their capability to contribute to the industry.

The direct influences suggest that individual beliefs and perceptions play a crucial role in shaping attitudes toward digital entrepreneurship within the broader industrial context (Law et al., 2019).

While Indirect Influences:
1. Innovation Mediation (H8-H11): Innovation serves as a mediator between various factors (attitude, subjective norm, perceived behavioral control, creativity, digital literacy, and digital entrepreneurial self-efficacy) and the intention to engage in digital entrepreneurship. This implies that the perceived innovative outcomes of digital entrepreneurship may significantly influence how it is perceived within the industrial sector.

The mediation hypotheses suggest that the transformative impact of innovation, influenced by individual factors, could contribute to shaping the industry’s perception of digital entrepreneurship. Successful implementation of innovative practices resulting from digital entrepreneurial activities may positively impact the industry’s view of these endeavors, potentially fostering a more supportive environment.

In summary, the proposed model not only explores the direct influences of individual factors on digital entrepreneurship, but also recognizes the pivotal role of innovation as a mediator. This perspective aligns with the idea that innovative practices emerging from digital entrepreneurship can significantly contribute to shaping the industry’s perception of this evolving economic landscape.

3. RESULTS AND DISCUSSION

After conducting modeling based on the established framework and hypotheses, the variables within the purview of this study were identified and visually depicted in Figure 2. The diagram provides a representation of the interconnectedness among the analyzed variables in this study, comprising creativity, the Theory of Planned Behavior, digital literacy, digital entrepreneurial intention, self-efficacy, and industry perception. This comprehensive set of variables serves as the focal points for the study, and their interrelationships are illustrated in the figure. Notably, the mediating variable in this network is innovation, strategically incorporated to deepen our understanding of the formulated research hypotheses. This intricate process allows for a detailed examination of the dynamic interactions among the
identified factors. Specifically, the interplay of creativity, the Theory of Planned Behavior, digital literacy, digital entrepreneurship intention, self-efficacy, and industry perception is scrutinized through the lens of innovation. By incorporating innovation as a mediating variable, the study aims to unravel the nuanced relationships and contributions of these factors to the overarching theme of shaping the industry’s perception of digital entrepreneurship.

The visual representation in Figure 2 facilitates a holistic interpretation of the multifaceted relationships among the variables, offering a comprehensive perspective on their collective impact. This approach ensures a thorough exploration of how these elements collectively influence and mold the industry's perception of digital entrepreneurship. Through this methodical analysis, the study seeks to contribute valuable insights to the existing knowledge base and advance our understanding of the intricate dynamics within the realm of digital entrepreneurship (Henseler, 2017). After performing a run analysis using the Smart PLS algorithm, as illustrated in Figure 3, average values exceeding 0.6 were acquired for each indicator variable. These results suggest a high level of reliability and significance for each indicator within the model. An average value above 0.6 indicates that these indicators significantly contribute to the measured constructs, reinforcing the robustness of the model. The analysis of these values aligns with the proposed hypotheses, affirming the relationships postulated in the study. The fact that the average values surpass the 0.6 threshold provides empirical support for the reliability and importance of the chosen indicators in the context of the study’s hypotheses. This outcome enhances the confidence in the validity of the model and strengthens the evidence supporting the formulated research expectations.
In essence, the analysis results indicate that the selected indicators effectively capture and represent the underlying constructs, supporting the theoretical framework outlined in the study. These findings contribute to the overall understanding of the relationships among variables and provide empirical validation for the proposed hypotheses within the context of the Smart PLS algorithm analysis (Heriyadi et al., 2023).

Analysis for Variable Indicators (aligned with H1-H11):
1. Attitude toward Behavior (H1): Values above 0.6 indicate that a positive attitude toward behavior influences the intention to engage in digital entrepreneurship, supporting H1.
2. Subjective Norm (H2): Values above 0.6 indicate that a favorable subjective norm positively influences the intention to engage in digital entrepreneurship, supporting H2.
3. Perceived Behavioral Control (H3): Values above 0.6 indicate that perceived behavioral control positively influences the intention to engage in digital entrepreneurship, supporting H3.
4. Creativity (H4): Values above 0.6 indicate that creativity positively influences the intention to engage in digital entrepreneurship, supporting H4.
5. Digital Literacy (H5): Values above 0.6 indicate that digital literacy positively influences the intention to engage in digital entrepreneurship, supporting H5.
6. Digital Entrepreneurial Self-Efficacy (H6): Values above 0.6 indicate that digital entrepreneurial self-efficacy positively influences the intention to engage in digital entrepreneurship, supporting H6.
7. Innovation (H7): Values above 0.6 indicate that innovation positively influences the intention to engage in digital entrepreneurship, supporting H7.
8. Innovation as a Mediator (H8-H11): Alongside the values of the indicators above 0.6, this indicates that innovation plays a significant mediating role in the relationship between these variables and the intention to engage in digital entrepreneurship, supporting H8-H11.

While the analysis for Path Coefficient:
1. Self-Efficacy to Innovation: The negative path indicates that higher self-efficacy leads to lower levels of innovation. This may suggest that overconfidence can hinder innovation.
2. Industry Perception of Innovation: The negative path suggests that a more positive industry perception leads to lower levels of innovation. This may be due to comfort or discomfort in changing existing industry practices.
3. Self-Efficacy to Digital Entrepreneurship and Digital Entrepreneurship to Innovation: The negative path indicates that higher digital entrepreneurial self-efficacy and higher intention to engage in digital entrepreneurship lead to lower levels of innovation. This could be explained by a focus on personal achievement rather than innovation.
4. Creativity to Digital Entrepreneurship and Innovation: The positive path indicates that higher creativity leads to higher intention to engage in digital entrepreneurship and higher levels of innovation. This supports the concept that creativity plays a key role in driving digital entrepreneurial intention and innovation.
5. Theory Planned Behavior to Digital Entrepreneurship and Innovation: The positive path indicates that better predictions of behavior based on planned theory led to higher intention to engage in digital entrepreneurship and higher levels of innovation.
6. Digital Literacy to Digital Entrepreneurship and Innovation: The positive path indicates that higher digital literacy leads to higher intention to engage in digital entrepreneurship and higher levels of innovation.

Thus, the analysis results demonstrate strong support for most of the hypotheses, with some interesting findings related to self-efficacy, industry perception, and the role of innovation (Nugraheni & Wiarsih, 2023). In the analysis results using the Smart PLS algorithm also show in Table 2, it was found that the Cronbach’s Alpha values for the seven research variables—creativity, digital entrepreneurship intention, digital literacy, industry perception, innovation, self-efficacy in digital entrepreneurship, and Theory of Planned Behavior (TPB)—all exceeded 0.8. This indicates a very high level of reliability in measuring these variables.

<table>
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<tr>
<th>Table 2: Bootstrapping Result in Smart PLS</th>
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<tr>
<td>Cronbach’s Alpha</td>
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<td>Creativity</td>
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<tr>
<td>Digital Entrepreneurship Intention</td>
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<tr>
<td>Digital Literacy</td>
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<td>Industry Perception</td>
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<td>Innovation</td>
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<td>Self-Efficacy Digital Entrepreneurship</td>
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<td>Theory of Planned Behavior (TPB)</td>
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Firstly, the high Cronbach’s Alpha value for the creativity variable suggests that the measurement instrument for creativity in the context of digital entrepreneurship has a good level of consistency. This provides confidence in the validity of the concept of creativity in its influence on digital entrepreneurial intention (Nugraheni & Wiarisih, 2023). Furthermore, the high value for digital entrepreneurship intention indicates that the instrument for measuring digital entrepreneurial intention yields consistent results. This strengthens the validity of this study in discussing the factors that motivate individuals to engage in digital entrepreneurship. Digital literacy, which also has a Cronbach’s Alpha value above 0.8, confirms that the measurement of digital literacy in this context is reliable. Understanding and digital literacy skills appear to play a crucial role in shaping digital entrepreneurial intention. (Sholihah et al., 2023) Industry perception, innovation, self-efficacy in digital entrepreneurship, and Theory of Planned Behavior (TPB), all having Cronbach’s Alpha values above 0.8, indicate that the measurement instruments for these variables are highly reliable. These results provide support for the sustainability of these concepts in influencing digital entrepreneurial intention. High Cronbach’s Alpha values provide confidence in the reliability of the measurement instruments but do not provide information about construct validity. Therefore, this research needs to continue considering and validating these constructs more deeply to ensure that the obtained results accurately reflect the observed factors.

Furthermore, these analysis results lay a robust groundwork for delving into the practical and strategic implications within the realms of policy development, education, and support for upcoming digital entrepreneurs. However, it’s essential to acknowledge the limitations of this study. For instance, the sample size may not fully represent the diverse landscape of digital entrepreneurship, and certain variables may not have been adequately accounted for. Future research could focus on expanding the sample size to encompass a broader range of demographics and industries, as well as delving deeper into specific aspects such as the impact of cultural factors or regulatory environments on digital entrepreneurial success. By addressing these limitations and pursuing avenues for further investigation, we can enhance our understanding and provide more comprehensive guidance for future digital entrepreneurs (Gu et al., 2023).

However according empirical evidence that founded by Akhter et al. (2022), that creativity and innovativeness has a big impact on digital entrepreneurship, but is only limited to empirical evidence in a few perceptions such as a probability of critical part in a country’s economic development, so in the results found in this research, the impact that has been explained on each factor and variable has been proven to be real and has become a benchmark for providing good standards for the industry in the world of digital entrepreneurship specifically in college level.

4. CONCLUSION

In a comprehensive analysis of the factors influencing digital entrepreneurial intention, the main findings robustly support the proposed hypotheses. Utilizing the Smart PLS algorithm, results indicate indicator values above 0.6, affirming the reliability of these variables in shaping digital entrepreneurial intention. Notably, innovation emerges as a pivotal mediator connecting variables such as attitude, subjective norm, and self-efficacy to digital entrepreneurial intention, underscoring its critical role in driving entrepreneurial aspirations in the digital realm. One intriguing discovery pertains to the impact of digital entrepreneurial self-efficacy, revealing that excessive confidence can impede innovation—a vital insight for both aspiring and established entrepreneurs. Additionally, the observation that a favorable industry perception does not consistently translate to heightened levels of innovation suggests the need for a deeper understanding of the dynamics at play within various industries.

Creativity surfaces as a key factor, demonstrating a positive influence on fostering digital entrepreneurial intentions and driving innovation forward. Moreover, the Theory of Planned Behavior and digital literacy emerge as influential factors, showcasing their positive impacts on both entrepreneurial intentions and the innovation process. These findings carry significant practical implications for policymakers, educators, and aspiring entrepreneurs alike. By recognizing the intricate interplay of these pivotal elements, stakeholders can develop targeted interventions to nurture a conducive environment for digital entrepreneurship. Furthermore, understanding the nuanced relationships between attitudes, perceptions, and intentions can inform the design of effective training programs and support mechanisms tailored to enhance digital entrepreneurial skills and foster innovation. In essence, this conclusion sheds light on the complex dynamics shaping digital entrepreneurial intentions, offering actionable insights that can drive informed decision-making and propel the digital entrepreneurial ecosystem forward.

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