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Enhancing the Sustainability of Village-Owned Enterprises (BUMDes) through Business Competence, Innovation and Entrepreneurship: An Empirical Study

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Abstract

Village-Owned Enterprises (BUMDes) serve as a pillar of economic activities in villages, acting as both social and commercial institutions; however, many have yet to operate optimally. This study aims to examine the influence of variables such as business competence, entrepreneurship, and business innovation on the sustainability of BUMDes in Kuningan Regency, West Java. The research was conducted in November 2024 with a total of 117 respondents from 130 BUMDes in Kuningan, yielding a response rate of 90%. Descriptive statistical analysis was performed using SPSS software, while inferential analysis utilized Structural Equation Modeling with Partial Least Squares ((SEM-PLS) method through WarpPLS 7.0 software. The results indicate that business competence significantly affects both entrepreneurship and the sustainability of BUMDes, while business innovation also contributes significantly to entrepreneurship and sustainability. Furthermore, in indirect effect testing, entrepreneurship only plays a partial mediating role in the influence of business competence and business innovation on the sustainability of BUMDes. These findings emphasize the importance of developing business competencies and business innovations to enhance the performance and sustainability of BUMDes as an effort to support rural economic growth. The study's findings support the idea to improve the performance and sustainability of BUMDes, seriousness is needed from all parties, especially the government, to help BUMDes in improving business competence, business innovation and entrepreneurship.

Keywords
Business Competence, Business Innovation, Entrepreneurship, Organizational Sustainability of BUMDes.

1. Background
Village-Owned Enterprises (BUMDes) are increasingly recognized as vital components of rural economic development in Indonesia. Established under the framework of local governance, BUMDes function as both social and commercial entities, aiming to enhance the welfare of village communities while promoting economic activities. Despite their potential, many BUMDes face challenges that hinder their optimal operation and sustainability. These challenges include limited business competence, inadequate entrepreneurial spirit, and a lack of innovation in their operations.

The sustainability of BUMDes is critical not only for the economic growth of rural areas but also for achieving broader development goals within the community. Previous studies have highlighted the importance of various factors influencing the effectiveness and sustainability of these enterprises. However, there remains a gap in understanding how specific variables such as business competence, entrepreneurship, and business innovation interact to affect the sustainability of BUMDes.

Village-Owned Enterprises (BUMDes) are pivotal in enhancing rural economic activities in Indonesia, serving both social and commercial functions. Despite their potential, many BUMDes struggle to operate optimally, which raises concerns about their sustainability and impact on local development. This study aims to investigate the influence of critical variables—business competence, entrepreneurship, and business innovation—on the sustainability of BUMDes in Kuningan Regency, West Java.

Based on the results of the 2024 village census (Podes), there are 84,276 village-level government administrative areas consisting of 75,753 villages, 8,486 sub-districts, and 37 UPT/SPT. In addition, it is also known that the number of sub-districts is 7,281 and the number of regencies/cities is 514. The 2024 Podes census collects various information, both in terms of the potential of the village/sub-district and information related to the vulnerabilities or challenges faced by the village/sub-district and basic infrastructure in the village/sub-district. Figure 1 is a graphical description of the number of villages by category, namely 1,237 Independent Villages, 10,403 Advanced Villages, 39,093 Developing Villages, 15,647 Underdeveloped Villages and 2,958 Very Underdeveloped Villages.

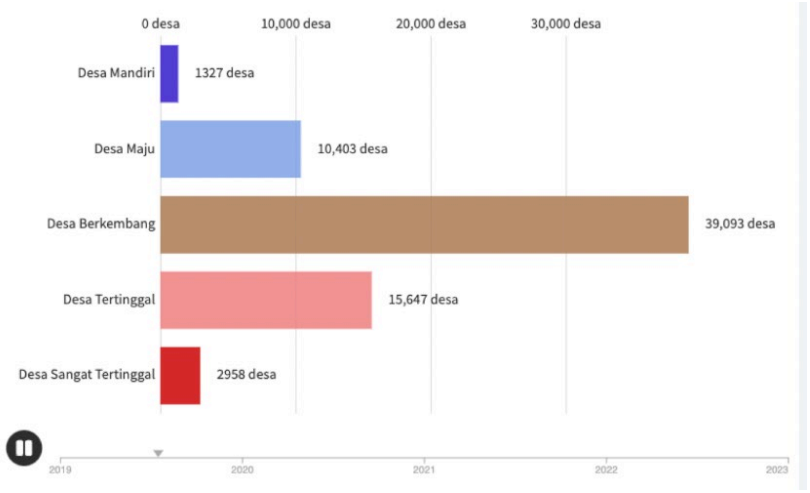

Figure 1. Classification of Villages in Indonesia
Based on the Village Development Index (IDM), 2019-2023
Source: Kementrian Desa, Pemberdayaan Desa Tertinggal dan Transmigrasi

In Kuningan Regency, West Java, there are 361 villages and there has been an increase in the village category, namely 36 Independent Villages (9.97%) in 2021 now to 62 villages (17.17%); Advanced Villages from 160 villages (44.32%) now to 183 villages (50.69%); Developing Villages from 165 villages (45.71%) to 116 villages (32.13%) and there are no more Underdeveloped Villages and Very Underdeveloped Villages. This increase. The increase in the village category to developing, advanced and independent villages, is also supported by the increase in the role of BUMDes in Kuningan Regency, namely almost all villages have BUMDes, it is recorded that there are 289 villages that have BUMDes out of a total of 363 BUMDes, although only 9 BUMDes have Advanced status, 121 have Developing status and there are still many villages that have BUMDes with Beginner and Pioneer Rank status. For villages with IDM Mandiri and Maju status, their BUMDes have an average income of IDR 475,977,074, - with the highest income range of IDR 3,600,000,000 and the lowest of IDR 105,000,000, -. The existence of BUMDes in Kuningan Regency has an important role in improving the economy of village communities. With objective conditions that show an increase in village categories and the number of existing BUMDes, it is necessary to formulate a strategy to effectively improve the sustainability of BUMDes, including: 1) Increasing Human Resource (HR) Capacity through training and

development to implement training programs for BUMDes administrators and the community on business management, entrepreneurship, marketing, and information technology. This can include digital marketing training to market products online, as well as mentoring programs, namely providing direct mentoring to BUMDes administrators to assist them in business planning and management; 2) Development of Business Diversification through identification of local potential, namely analyzing the potential of local resources that can be developed into new business units, and developing collaboration with MSMEs in the village to expand market networks and increase product competitiveness; 3). Marketing and Promotion, namely brand development to build a strong brand for their products, including creating attractive logos and packaging, as well as digital promotion to utilize social media and e-commerce platforms to promote BUMDes products more widely, so that they can reach markets outside Kuningan Regency; 4) Strengthening Networks and Cooperation, namely through developing partnerships with government institutions, the private sector, and non-governmental organizations to obtain technical and financial support; and 5) Innovation in Services and Products through the development of new products by adopting new technologies in the production or service process to improve efficiency and quality.

To develop this strategy, this study was conducted to develop and test a conceptual model that focuses on business competence, business innovation, entrepreneurship, and organizational sustainability of BUMDes. These insights underscore the necessity for targeted strategies to develop business competencies and innovations within BUMDes, thereby improving their performance and contributing to rural economic growth. The study aligns with existing literature emphasizing the importance of good governance and operational effectiveness in achieving sustainable performance in BUMDes (Sari et al., 2024). Furthermore, it supports previous findings that highlight the role of BUMDes in increasing village income and community sustainability (Prihartini & Choiriyah, 2024). As such, this research contributes to the discourse on rural development by advocating for comprehensive support from various stakeholders, particularly the government, to enhance the capabilities of BUMDes.

This study aims to fill this gap by examining the relationships between these variables and their collective impact on the sustainability of BUMDes in Kuningan Regency, West Java. By focusing on empirical data collected from a substantial sample of BUMDes, this research seeks to provide insights that can inform strategies for enhancing the performance and sustainability of these enterprises. Ultimately, the findings are expected to contribute to the discourse on rural economic development and provide actionable recommendations for stakeholders involved in supporting BUMDes. Through this investigation, we aim to underscore the necessity for targeted interventions that foster business competencies and innovations, thereby ensuring that BUMDes can fulfill their intended roles as engines of economic growth in rural Indonesia.

2. Literature Review

2.1. Factors Influencing Organizational Sustainability of BUMDes

The conceptual framework of this study uses the basic thinking of a grand theory, namely the Resource-Based View Theory (Barney, 1991; 2001). The Resource-Based View theoretical framework emphasizes the importance of internal resource management as the key to achieving sustainable competitive advantage. By understanding the characteristics and potential of the resources they have, organizations can formulate effective strategies to improve their performance and sustainability in a competitive market. Related to the sustainability of BUMDes organizations, the Resource-Based View Theory (RBV) explains how internal factors owned by an organization, including Village-Owned Enterprises (BUMDes), can contribute to their sustainability and competitive advantage. The following is an analysis of how the RBV theory applies factors that influence the sustainability of BUMDes organizations.

RBV theory provides guidance for identifying and developing strategic resources, building organizational capabilities through training and development, and implementing innovative strategies to utilize the organization's unique assets. According to Monica (2018), it is stated that organizational sustainability can be achieved through human capital empowerment initiatives such as employee training and development. Meanwhile, Sunday (2017) stated that human capital has a positive and significant influence on economic sustainability and environmental sustainability. Therefore, human capital development needs to be carried out to achieve organizational sustainability. Singh et al. (2016) revealed that entrepreneurial commitment has a significant influence on the dimensions of organizational sustainability (economic sustainability, environmental sustainability, and social sustainability). Meanwhile, a strong organizational culture is also needed to strengthen the transparency of sustainability reporting (in economic, environmental, and social dimensions) (Soares et al., 2018).

The mechanisms of organizational culture, human capital, entrepreneurship, and innovation can overcome the problems of failure and competitiveness. These constructs, when integrated, will form a relationship between variables that will lead to organizational sustainability. The relationship and influence between these variables are based on several strategic management theories and are a development of previous empirical studies. The following are several previous research concept models that form the basis for the relationship between research variables.Several studies have highlighted key factors that contribute to the sustainability of BUMDes. According to Amanda and Raharja (2024), financial literacy, community participation, business diversification, and risk management are significant determinants of BUMDes sustainability. Their systematic literature review emphasizes that these factors not only enhance the operational efficiency of BUMDes but also foster community engagement in economic activities.

Referring to the existence of BUMDes which is an SMEs business, this study highlights that the three dimensions of sustainability significantly influence SMEs' performance, suggesting that enhancing business competence through improved control environments can further support organizational sustainability and overall organizational and business performance (Appiah-Kubi et al., 2024). The study highlights that SMEs demonstrate awareness and commitment to sustainability, implementing various social, environmental, and economic practices. Their business competence is enhanced through efficient resource consumption, sustainable resource use, and effective waste management, contributing to overall organizational sustainability. SMEs are aware of and committed to sustainability practices. SMEs undertake various environmental practices like efficient resource consumption and recycling (Nabais & Franco, 2024). Sustainable entrepreneurship in SMEs requires balancing profitability and sustainability. Business competence is essential for identifying and exploiting opportunities that promote economic prosperity, social cohesion, and environmental protection, ultimately contributing to organizational sustainability and addressing challenges faced by sustainable entrepreneurs. Analyzes 31 publications on sustainable entrepreneurship in SMEs. Highlights challenges and prospects for sustainable entrepreneurs (Poojari, 2024).

Entrepreneurial competencies positively impact the sustainable performance of manufacturing SMEs, with knowledge management partially mediating this relationship. This integration supports SMEs in achieving economic performance while considering environmental and societal well-being, enhancing overall organizational sustainability. ECs positively impact KM and SP of SMEs. KM partially mediates between ECs and SP. (Al Koliby et al., 2024). The study highlights that sustainability practices in SMEs, driven by collaboration and innovation, significantly enhance business performance. This indicates that improving sustainability commitments is essential for achieving business competence while contributing to Sustainable Development Goals without hindering growth. Collaboration positively affects SMEs sustainability practices. Innovation positively influences sustainability practices and business performance. (Min et al., 2023)

Business competence in SMEs significantly influences organizational sustainability, as internal factors like employee commitment and organizational culture drive sustainability practices. Effective strategies and resources are essential for embedding sustainability into their core operations, enhancing overall performance and resilience. The paper assesses the current status of sustainability management in European SMEs. The paper identifies drivers and barriers for implementing sustainability practices in SMEs (Moursellas et al., 2022). The SMEs can enhance business competence and organizational sustainability through strategic, sustainability-oriented practices (DiBella et al., 2022).This relationship is crucial for improving business competence and ensuring long-term sustainability in developing economies. Entrepreneurship processes facilitate business innovation activities influencing organizational sustanability of SMEs (Akinlotu & Cavlan, 2023).

Coordinating capability is most important for SME sustainable innovation performance. Building dynamic capabilities alone may not be sufficient for sustainability (Taghizadeh et al., 2023). In a study conducted in Tulungagung, it was found that BUMDes play a critical role in optimizing local resources and generating employment opportunities. The research utilized SWOT analysis to identify internal strengths—such as strategic location and diverse business units—and external opportunities like government support and high product demand. However, challenges such as competition from the private sector and limited access to capital were also noted (Tulungagung Study, 2024).

The role of BUMDes extends beyond local economic development; they are also integral to achieving Sustainable Development Goals (SDGs). Research indicates that BUMDes contribute to various SDGs by promoting inclusive economic growth and reducing inequalities within rural communities (SDGs Study, 2023). The alignment of BUMDes activities with SDGs demonstrates their potential as agents of change in fostering sustainable rural development. Despite their potential, BUMDes face numerous challenges that hinder their sustainability. Issues such as low

community awareness regarding the importance of BUMDes, insufficient participation from youth in management roles, and a lack of understanding of local resource potentials have been identified (Weranggere Study, 2024). Addressing these challenges requires strategic interventions aimed at enhancing community engagement and capacity building. Moreover, effective collaboration among stakeholders—including government agencies, private sectors, and local communities—is essential for the sustainability of BUMDes. The integration of social entrepreneurship values within BUMDes can further enhance their impact on local economies while ensuring social welfare. (Collaboration Strategies Study, 2023).

3. Hypothesis of The Research

3.1. The Impact of Business Competence on the Organizational Sustainability of SMEs

The sustainability of Small and Medium-sized Enterprises (SMEs) is increasingly recognized as a critical factor for economic development, especially in the context of global challenges such as climate change and resource scarcity. Business competence, which encompasses a range of skills, knowledge, and capabilities, plays a pivotal role in enhancing the sustainability of SMEs. This analysis explores how business competence impacts the sustainability of SMEs, drawing on recent research findings.

Business competence refers to the ability of an organization to effectively utilize its resources to achieve its goals. It includes various aspects such as managerial skills, operational efficiency, financial acumen, and innovation capabilities. According to Imran et al. (2022), SMEs with higher levels of business competence are better positioned to adapt to changing market conditions and implement sustainable practices that contribute to long-term viability. Research indicates that there is a strong link between business competence and innovation within SMEs. A study conducted in Tanzania found that entrepreneurs' competencies significantly affect their ability to innovate, which in turn positively influences the sustainability of their businesses (Karkoulian et al., 2022). The findings suggest that when SMEs possess strong competencies, they are more likely to engage in entrepreneurial innovations that enhance their sustainability outcomes.

Moreover, the integration of innovative practices—such as eco-innovation—can lead to improved resource efficiency and reduced environmental impact. This relationship is supported by the resource-based view (RBV) theory, which posits that firms with unique competencies can leverage these advantages to achieve competitive differentiation and sustainability (Penrose, 1959).Leadership competence is particularly crucial for SMEs aiming for sustainability. Leaders with strong sustainability competencies can effectively guide their organizations toward adopting sustainable practices. Research by Álvarez-García et al. (2022) highlights that leaders' sustainability competences positively influence social entrepreneurial orientation, which directly impacts economic and social performance. This underscores the importance of training leaders in sustainability principles to enhance overall organizational performance.

Despite the clear benefits associated with business competence, many SMEs face challenges that hinder their ability to develop these competencies effectively. Limited access to resources, lack of training opportunities, and insufficient market knowledge can impede the growth of essential skills within these enterprises (Byukusenge et al., 2016). Consequently, many SMEs struggle to achieve sustainability despite having potential capabilities. To enhance the sustainability of SMEs through improved business competence, several practical implications emerge. Access to Resources: Facilitating access to financial resources and information can empower SMEs to invest in necessary competencies for sustainable practices.

Encouraging collaboration among SMEs can facilitate knowledge sharing and resource pooling, enabling them to overcome individual limitations in developing competencies. Business competence significantly impacts the sustainability of SMEs by enhancing their ability to innovate, adapt to market changes, and implement sustainable practices. While challenges remain in developing these competencies, targeted interventions can help SMEs leverage their strengths for long-term viability. Future research should continue exploring the interplay between various forms of business competence and their specific contributions to SME sustainability. Based on previous theoretical and research studies, the following hypothesis can be proposed:

H1: Business Competence has a significant influence on Organizational Sustainability of BUMDes

3.2. The Impact of Business Innovation on the Sustainability of SMEs

The sustainability of Small and Medium-sized Enterprises (SMEs) is increasingly recognized as a vital component of economic development, particularly in the context of global environmental challenges and the need for sustainable practices. Business innovation, encompassing product, process, service, and marketing innovations, plays a crucial role in enhancing the sustainability of SMEs. This analysis synthesizes findings from various studies to elucidate how business innovation impacts SME sustainability.

Research indicates that innovation is a key driver of sustainability in SMEs. According to Hanaysha et al. (2022), different types of innovations—product, service, process, and marketing—positively influence business sustainability. Their study found that service innovation had a particularly strong effect, highlighting the importance of adapting services to meet changing consumer demands while promoting sustainable practices. This aligns with findings from a meta-analysis which revealed that eco-innovation significantly enhances SMEs' sustainable performance across economic, social, and environmental dimensions.

Entrepreneurial competencies significantly enhance the sustainable performance of manufacturing SMEs by fostering innovation. This study highlights the importance of linking these competencies with innovation to improve agility and responsiveness to market demands, ultimately achieving sustainability in challenging business environments. Entrepreneurial competencies promote innovation and sustainable performance of manufacturing SMEs. Innovation partially mediates the relationship between entrepreneurial competencies and sustainable performance. (Al Koliby et al., 2022)

Eco-innovation is a specific subset of business innovation focused on reducing environmental impacts while enhancing economic performance. The study by Bag et al. (2022) emphasizes that SMEs implementing eco-innovative practices can achieve better sustainability outcomes. The research indicates that eco-process and eco-product innovations are especially beneficial, with eco-organizational innovation showing the strongest positive influence on sustainable performance. This suggests that SMEs can leverage eco-innovation not only to comply with regulatory pressures but also to gain competitive advantages in their markets.

Collaboration is another critical aspect that enhances sustainability practices within SMEs. A study conducted by Min et al. (2023) demonstrated that collaboration positively affects sustainability practices, which in turn improves business performance. The integration of innovative practices through collaborative efforts allows SMEs to share resources and knowledge, leading to more effective sustainability initiatives 2. This collaborative approach is essential for SMEs, which often face resource constraints compared to larger firms.

Despite the positive impacts of business innovation on sustainability, SMEs encounter several challenges in implementing innovative practices. Limited financial resources, lack of expertise, and insufficient market knowledge can hinder their ability to innovate effectively 5. However, the flexible structure of SMEs allows them to adapt quickly to new opportunities and implement innovative solutions more readily than larger organizations 4. Thus, fostering a culture of innovation within SMEs is essential for overcoming these challenges.

In conclusion, business innovation significantly impacts the sustainability of SMEs by enhancing their ability to adapt to market demands and environmental challenges. The integration of eco-innovation and collaborative practices emerges as vital strategies for improving sustainable performance. While challenges remain, the inherent flexibility and potential for rapid adaptation within SMEs position them well to leverage innovation for sustainable growth. Future research should continue exploring the interplay between various forms of innovation and their specific contributions to SME sustainability in diverse contexts. Based on previous theoretical and research studies, the following hypothesis can be proposed:

H2: Business Innovation has a significant influence on Organizational Sustainability of BUMDes

3.3. The Impact of Entrepreneurship on the Sustainability of SMEs

The sustainability of Small and Medium-sized Enterprises (SMEs) is increasingly recognized as a critical factor for economic growth and social development. Entrepreneurship plays a vital role in driving this sustainability by fostering innovation, creating jobs, and enhancing competitiveness. This analysis explores the impact of entrepreneurship on the sustainability of SMEs, drawing on recent research findings. Entrepreneurship is defined as the process of designing, launching, and running a new business, typically a startup offering a product, service, or process. Research

indicates that entrepreneurial activities are essential for the long-term sustainability of SMEs. According to Imran et al. (2022), entrepreneurial competencies significantly influence the sustainability of SMEs by enabling them to adapt to market changes and implement innovative practices. The study highlights that entrepreneurs who possess strong competencies are more likely to engage in sustainable practices that enhance their business viability.

The study found that key entrepreneurial competence practices significantly impact the sustainability of SMEs in Embu County, Kenya. However, many respondents did not fully utilize these competencies, highlighting the need for ongoing monitoring to enhance practical application for sustainable growth. Key entrepreneurial practices impact SMEs sustainability significantly. Many entrepreneurs underutilize acquired competencies in their ventures (Njiru, 2023). A significant aspect of entrepreneurship that impacts SME sustainability is entrepreneurial innovation. A study conducted in Tanzania found that entrepreneurial innovations mediate the relationship between entrepreneurs' competencies and the sustainability of SMEs (Kwaku & Mawutor, 2022). This suggests that while competencies are crucial, it is the innovative application of these competencies that leads to sustainable outcomes. The findings indicate that SMEs that embrace innovation can better navigate challenges and seize opportunities in their respective markets.

Sustainable entrepreneurship integrates environmental and social considerations into business strategies. Research by Muñoz and Cohen (2018) emphasizes that sustainable entrepreneurs prioritize practices that reduce environmental impact while promoting social responsibility. This dual focus not only enhances the reputation of SMEs but also contributes to their long-term financial success. The alignment of sustainable entrepreneurship with CSR initiatives fosters a positive impact on society and the environment, leading to enhanced sustainability for SMEs. Despite the positive impacts of entrepreneurship on SME sustainability, several challenges persist. Many SMEs struggle with limited access to resources, including finance, knowledge, and technology (OECD, 2024). These constraints can hinder their ability to innovate and implement sustainable practices effectively. Furthermore, the rapid pace of technological advancement requires entrepreneurs to continuously adapt their business models, which can be particularly challenging for resource-constrained SMEs.

To maximize the impact of entrepreneurship on SME sustainability, several practical implications emerge such as training and development, namely is providing targeted training programs focused on enhancing entrepreneurial skills and competencies can empower entrepreneurs to implement sustainable practices effectively. Access to Resources: Facilitating access to financial resources and information can enable SMEs to invest in innovative solutions that promote sustainability.

Supportive Policy Frameworks: Governments should create policies that encourage entrepreneurial activities and provide support for sustainable business practices. Networking Opportunities: Encouraging collaboration among SMEs can facilitate knowledge sharing and resource pooling, enhancing their capacity for innovation and sustainability. In conclusion, entrepreneurship significantly influences the sustainability of SMEs by fostering innovation, promoting social responsibility, and enhancing adaptability to market changes. While challenges remain in accessing resources and adapting to new technologies, targeted interventions can help entrepreneurs leverage their skills for sustainable growth. Future research should continue exploring the interplay between various aspects of entrepreneurship and their specific contributions to SME sustainability across different contexts. This analysis highlights the critical role that entrepreneurship plays in fostering the sustainability of SMEs while identifying both opportunities for development and challenges faced by these enterprises in achieving their sustainability goals. Based on previous theoretical and research studies, the following hypothesis can be proposed:

H3: Entrepreneurship has a significant influence on Organizational Sustainability of BUMDes

3.4. The Impact of Business Competence and Business Innovative on Entrepreneurship

The interplay between business competence, business innovation, and entrepreneurship is vital for the success and sustainability of Small and Medium-sized Enterprises (SMEs). This analysis explores how these two factors influence entrepreneurial activities, drawing from recent studies and empirical evidence. Business competence encompasses the skills, knowledge, and abilities that entrepreneurs possess, which enable them to effectively manage their enterprises. According to Sungkawati (2019), entrepreneurial competencies include strategic planning, business development conceptualization, relationship building, continuous learning, and possessing a good personality. The study highlights that innovation capability significantly enhances business sustainability in SMEs. Additionally, organizational resilience, sustainable competitive advantage, and environmental dynamism are crucial mediators that help SMEs adapt to market changes and maintain their sustainability effectively. Innovation capabilities enhance business sustainability in SMEs. Environmental dynamism and resilience are crucial for sustainability (Olaleye et al., 2024).

The paper highlights that reorienting SMEs' strategies toward sustainability enhances their resilience, emphasizing the importance of entrepreneurial orientation, capabilities, and collaborative processes. This shift fosters sustainable business models, ultimately contributing to organizational sustainability and improved business competence in SMEs. Reorienting strategies enhances SMEs' resilience and sustainability. Identified five thematic areas for future research exploration (Damiano & Valenza, 2024). Business resilience significantly enhances the sustainable performance of Indian SMEs, as entrepreneurial competencies positively influence financial knowledge. This relationship underscores the importance of developing entrepreneurial skills to ensure long-term sustainability and success in small businesses. Financial knowledge positively impacts entrepreneurial ability and resilience. Business resilience enhances sustainable performance in Indian SMEs. (Siddiqui, 2024).

SMEs in China demonstrate strong business competence through sustainability practices, with 70% adopting corporate structures. They face economic, social, and environmental challenges, yet actively pursue cost reduction, financial monitoring, and sustainable innovation, emphasizing the need for strategic planning and collaboration. 70% of SMEs adopt corporate organizational structures. 88% face economic challenges in securing sustainable project funds (Kong & Natividad, 2024). Business competence in SMEs is crucial for organizational sustainability, as it involves continuous innovation and self-assessment to identify improvement areas. This enhances productivity and supports long-term growth, addressing challenges like poor management and short-termism that threaten their viability. Explore approaches for sustainable models in SMEs. Enhance innovation for longevity of SMEs (Murthy et al, 2024).

These competencies are crucial as they directly influence an entrepreneur's ability to navigate challenges and seize opportunities in the market. Research indicates that higher levels of entrepreneurial competence correlate with improved business performance. For instance, Sungkawati's study highlights that micro-businesses with strong entrepreneurial competencies can better withstand competition and crises, leading to enhanced financial and non-financial performance. This suggests that business competence is foundational for fostering an entrepreneurial mindset that drives innovation.

Business innovation refers to the implementation of new ideas, processes, products, or services that enhance organizational performance. Innovation is critical for entrepreneurship as it allows businesses to differentiate themselves in competitive markets. As noted by HubSpot (2023), successful entrepreneurs often exhibit traits such as creativity and risk-taking, which are essential for identifying opportunities and developing innovative solutions. Innovative practices not only improve operational efficiency but also contribute to long-term sustainability. By embracing innovation, entrepreneurs can adapt to changing consumer preferences and market dynamics, thereby ensuring their businesses remain relevant. Furthermore, innovation fosters a culture of continuous improvement within organizations, encouraging employees to contribute ideas that enhance productivity and customer satisfaction.

The relationship between business competence and innovation is synergistic. Entrepreneurs with strong competencies are more likely to engage in innovative activities because they possess the necessary skills to identify opportunities and implement changes effectively. A study by Karkoulian et al. (2022) emphasizes that entrepreneurial competencies significantly influence the capacity for innovation within SMEs, suggesting that competent entrepreneurs are better equipped to drive innovative initiatives. Moreover, the ability to innovate can enhance an entrepreneur's competence by providing practical experience in problem-solving and strategic thinking. This reciprocal relationship indicates that fostering both business competence and innovation is essential for cultivating successful entrepreneurial venture.

Despite the clear benefits of enhancing business competence and fostering innovation, many entrepreneurs face significant challenges. Limited access to resources, lack of training opportunities, and insufficient market knowledge can impede their ability to develop these critical capabilities 4. Additionally, the rapid pace of technological change requires continuous adaptation, which can be particularly daunting for resource-constrained SMEs. To maximize the impact of business competence and innovation on entrepreneurship, several strategies can be employed:
Training Programs: Implementing targeted training programs focused on developing both hard skills (e.g., financial management) and soft skills (e.g., leadership) can empower entrepreneurs to enhance their competencies.

Based on the description above, it can be synthesized that both business competence and business innovation are integral components that significantly impact entrepreneurship. Competent entrepreneurs are better positioned to innovate effectively, leading to improved business performance and sustainability. While challenges exist in developing these capabilities, targeted interventions can help entrepreneurs leverage their strengths for long-term

success. Future research should continue exploring the dynamic interplay between these factors across different industries and contexts. This analysis underscores the importance of integrating business competence with innovative practices to foster successful entrepreneurship in SMEs while identifying both opportunities for growth and challenges faced by entrepreneurs in achieving their goals.

Based on the framework of thought from the RBV theory and previous research references, hypothesis of the research are:

H4: Business Competence has a significant influence on Entrepreneurship
H5: Business Innovation has a significant influence on Entrepreneurship
H6: Entrepreneurship has a mediating role on the influence of Business Competence on Organizational Sustainability of BUMDes
H7: Entrepreneurship has a mediating role on the influence of Business Innovation on Organizational Sustainability of BUMDes

The following is a conceptual model in this study to test the direct influence of business competence and business innovation on entrepreneurship and organizational sustainability of BUMDes, as well as to test the indirect influence on the relationship through the intervening variable Entrepreneurship (Figure 2).

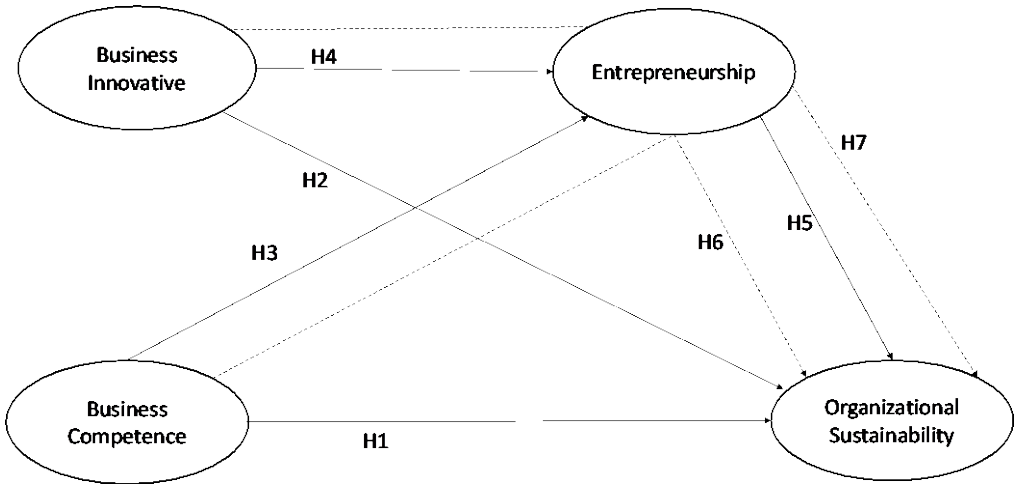

Figure 2. Conceptual Model and The Research Hypotheses

4. Research Methods

This study utilized a quantitative research design that incorporated a survey method, accompanied by various data analysis techniques to test hypotheses and draw generalizable conclusions. The conceptual framework of the research model is grounded in theoretical foundations and reinforced by prior studies. In line with these theoretical underpinnings, the research employs multidimensional constructs for all variables, including business competence, business innovation, entrepreneurship and organizational sustainability. Reflective indicators are applied at both the first-order and second-order levels for each variable. The variables (constructs) are measured using an ordinal 5-point Likert scale.

The research was conducted in Kuningan Regency, West Java. The population consists of all the managers or administrators of BUMDes in Kuningan Regency, and the sampling technique used is census, where the entire population is taken as the research sample. A total of 117 respondents provided data out of 130 BUMDes administrators, resulting in a response rate of 90%. The statistical analysis technique began with descriptive research analysis using SPSS statistical software to analyze demographic descriptions and research variable descriptions. This was followed by data analysis using SEM-PLS which is a Structural Equation Modeling (SEM) approach with the Partial Least Squares (PLS) method, utilizing WarpPLS 8.0 software.

5. Results of the Research

5.1. Descriptive Analysis

The characteristics of the respondents' ages are 62 people (53%) are Gen Y (aged 24 to 41 years) and 55 people (47%) are Generation X (aged 24 to 41 years), while from the gender category, 105 people (90%) are male and 12 people (10%) are female. From the education level category, 43 people (37%) have a high school education or below, 10 people (9%) have a diploma, 59 people (50%) have a bachelor's degree and 5 people (4%) who have taken postgraduate education. Meanwhile, from the active work period in BUMdes, 102 respondents or …% have work experience in BUMDes for 5 years or less and 15 people or …% who have more than 5 years of experience are active in BUMDes.

Descriptive data analysis of each research variable from the results of respondents' responses with a Likert scale - 5 points to the agreement answer or level of agreement (Vagias, 2006), namely 1 = Strongly Disagree (STS); 2 = Disagree (TS), 3 = Undecided (RR); 4 = Agree (S), and 5 = Strongly Agree (SS), processed by tabulating data based on 5 (five) categories, namely very low, low, medium, high and very high, to see how high the respondents' responses are to the research variables. The class interval is made using the formula, namely interval (I) = range / class. Range is the distance from the highest number minus the lowest, namely 5 minus 1 equals 4, so the length of the class interval (I) = 4 divided by 5, namely 0.8, and the class intervals are: a) Very Low Category = 1 - 1.8; b) Low Category = > 1.8 - 2.6; c) Medium Category = > 2.6 - 3.4; d) High Category = > 3.4 - 4.2; and Very High Category = > 4.2 - 5.

Based on the descriptive analysis of the research variables, it indicates the respondents' perception of the sustainability of the BUMDes organization with an average score of 3.51, which is in the high category and if you look at the indicators, this figure is indicated by the same score on all indicators, namely economic growth & prosperity 3.49, social cohesion and equity 3.53 and environmental integrity and protection 3.55 with almost the same standard deviation, namely 1.00, 1.01 and 1.02. It can be said that the existence of BUMDes in Kuningan Regency has a high level of sustainability and it is felt that the existence of BUMDes provides benefits for economic growth and welfare for the community in the village, builds social cohesion and justice, and provides benefits for environmental concern and friendliness.

Meanwhile, BUMDes administrators as respondents gave an average score of 3.89 for business competence. This figure shows a score in the high category and if you look at the indicators, this figure is indicated by a very high digital leadership score of 4.26 and a relatively higher customer focus with an average score of 4.02, compared to the average score of other indicators respectively, namely strategic partners 3.84, strategic orientation 3.79 and business savvy 3.54. By looking at the standard deviation figures for the variables and all indicators, namely at 0.68 - 0.97, it can be said that the perception of business competence owned by respondents is quite uniform in the high category. This shows that they actually have high perceived business competence and factually and empirically that the ability in their business, BUMDes administrators have influenced the sustainability of BUMDes.

The perception of business innovation shows an average of 3.53, which is in the high category, and if you look at the average score of the indicators, the level of business innovation is shown by the same average figure, which is 3.81 for process innovation and administration innovation, while the other two indicators are in the medium category, namely product innovation 3.29 and marketing innovation 3.19. Meanwhile, looking at the standard deviation figures of the four indicators, it can be said that there is a fairly large range of differences related to business innovation among BUMDes administrators in Kuningan Regency. The average score of the entrepreneurship variable has an average score in the high category, which is 4.08, and the average figure on the indicator has a relatively similar score, namely autonomy 4.09, risk taking 4.07 and proactiveness 4.07. Based on the standard deviation figure of the entrepreneurship variable of 0.67 and all standard deviations of its indicators at 0.7 for autonomy and proactiveness, and 0.69 for risk taking, it can be said that the perception is homogeneous enough to provide a response to entrepreneurship and its indicators.

5.2. Multivariate Analysis with SEM-PLS

Before conducting structural model analysis, first, a measurement model is conducted, this is intended to test the reliability and validity of the indicators forming the latent construct, namely by conducting confirmatory factor analysis (CFA). This study uses a multidimensional construct, so to test the reliability and validity of the construct, a second-order confirmatory factor analysis is carried out for multidimensional constructs. Second-order construct testing is carried out by means of two-level testing, first the analysis is carried out from the latent construct dimension with its indicators and second, the analysis is carried out from the latent construct with its dimensional construct.

Evaluation of the measurement model (outer model) with a reflexive construct in PLS can be done by looking at the value of the indicator reliability, namely the amount of variance from the indicator/item to explain the latent construct and composite reliability to measure the reliability of the construct as a whole. In addition to looking at the reliability and composite reliability indicators, the evaluation of the measurement model with the reflective construct was also carried out to test the average variance extracted (AVE) and compare the square root of AVE with the correlation between constructs in the model (Latan & Ghozali, 2017). Table 1 below is the result of the first-order confirmatory factor analysis.

Items that meet the requirements are then examined based on the AVE values produced for each construct, all of which are > 0.5. This means that all constructs have met the criteria for convergent validity. Similarly, the composite reliability values produced for each construct dimension are also very good, i.e., > 0.7, thus meeting internal consistency reliability, which means there are no issues of multicollinearity among indicators. Next, the latent constructs (variables) in the study will also be tested for discriminant validity. One way to assess discriminant validity is by comparing the correlations between variables with the square root of the extracted variances.

Table 1. Confirmatory Factor Analysis of First Order Re-estimation

Item	***Factor Loadings***	**Indicator**	***Composite Reliability***	**AVE**	***Full collin.* VIF**
DL1	0.891	Digital Leadership	0.885	0.791	1.775
DL2	0.891				
BS1	0.928	Business Savvy	0.925	0.861	3.088
BS2	0,722				
CF1	0,780	Customer Focus	0.899	0.816	2.945
CF2	0,707				
SP1	0,884	Strategic Partners	0.889	0.799	4.062
SP2	0,730				
SO1	0,854	Strategic Orientation	0.939	0.886	4.065
SO2	0,807				
DE1	0,838	Driving Execution	0.930	0.870	3.470
DE2	0,798				
PI1	0,731	Process Innovation	0.865	0.763	3.305
PI2	0,786				
PRI1	0,797	Product Innovation	0.955	0.914	3.326
PRI2	0,861				
MI1	0,736	Marketing Innovation	0.931	0.871	3.154
MI2	0,857				
AI1	0,874	Administration Innovation	0.932	0.873	4.806
AI2	0,800				
AU1	0,760	Autonomy	0.836	0.632	2.604
AU3	0,714				
RT1	0,697	Risk Taking	0.844	0.645	6.198
RT2	0,829				
RT3	0,753				
PR1	0,844	Proactiveness	0.909	0.771	3.713
PR2	0,845				
PR3	0,711				

Item	*Factor Loadings*	Indicator	*Composite Reliability*	AVE	*Full collin.* VIF
EGP1	0,731	Economic Growth & Prosperoty	0.936	0.785	4.516
EGP2	0,833				
EGP3	0,896				
EGP4	0,810				
SCE1	0,825	Social Cohesion & Equity	0.915	0.731	4.740
SCE2	0,857				
SCE3	0,778				
SCE4	0,753				
EIP1	0.819	Environment Integrity and Protection	0.920	0.742	4.393
EIP2	0.734				
EIP3	0.794				
EIP4	0.817				

Source: Processed Primary Data (2025)

Likewise, the composite reliability value produced by each dimension construct is also very good, which is > 0.7 so that it meets the internal consistency reliability., then the Full collinearity VIF value for each construct also meets the requirements of the rule of thumb for the measurement model, which is <3.3, which means that there is no problem of multicollinearity between indicators. The next step, the researcher analyzed the indicators that form the second-order construct. This means that the analysis is carried out from the latent construct and its dimension construct for multidimensional constructs. Table 2 below is the result of the second-order confirmatory factor analysis test.

Table 2. Second Order Confirmatory Factor Analysis

Second-order constructs	First-order constructs	Loadings Factor	AVE	CR	Outer Weight	P-value	Remarks
Business Competence	Business Savvy	0.802	0.861	0.925	-	<0.001	Valid and reliable
	Customer Focus	0.827	0.816	0.899		<0.001	Valid and reliable
	Strategic Partner	0.906	0.799	0.889	-	<0.001	Valid and reliable
	Strategic Orientation	0.880	0.886	0.939	-	<0.001	Valid and reliable
	Driving Execution	0.876	0.870	0.930	-	<0.001	Valid and reliable
Business Innovation	Process Innovation	0.879	0.763	0.955	-	<0.001	Valid and reliable
	Product Innovation	0.862	0.914	0.931		<0.001	Valid and reliable
	Marketing Innovation	0.849	0.871	0.932	-	<0.001	Valid and reliable
	Administration Innovation	0.895	0.873	0.932	-	<0.001	Valid and reliable
Entrepreunuership	Autonomy	0.858	0.632	0.836	-	<0.001	Valid and reliable
	Risk Taking	0.949	0.645	0.915		<0.001	Valid and reliable
	Proactiveness	0.885	0.771	0.909	-	<0.001	Valid and reliable

Second-order constructs	First-order constructs	Loadings Factor	AVE	CR	Outer Weight	P-value	Remarks
Organizational Sustainability	Economic Growth & Prosperity	0.920	0.785	0.936	-	<0.001	Valid and reliable
	Social Cohesion and Equity	0.942	0.731	0.915		<0.001	Valid and reliable
	Environment Integrity and Protection	0.920	0.742	0.920	-	<0.001	Valid and reliable

Based on the results of the second-order confirmatory factor analysis above, it can be seen that the dimensions forming the latent construct (variable) are valid with the resulting loading factor value being > 0.7 for the reflective type construct. A construct with 1 indicator has a loading value of 1. Meanwhile, for the formative construct, evaluate the measurement model by looking at the significance of the weight obtained from the resampling procedure. Each dimension of the formative construct must have a significant weight value that meets the indicator reliability criteria (P <0.05). Based on the results of the second-order analysis shown in Table 3, all reflective type constructs are declared significant (P <0.001).

After conducting data processing with SEM using WarpPLS 8.0, the results obtained can be seen in Table 3 below, which explains discriminant validity. All correlation values between variables (latent constructs) are below the square root of the AVE (see the diagonal line, in parentheses). Based on the method for determining discriminant validity, which involves comparing the square root of each AVE on the diagonal with the correlation coefficient (off-diagonal) for each construction in the relevant rows and columns for each variable (Fornell & Larcker, 1981), it can be concluded that discriminant validity is acceptable for this measurement model. It supports the discriminant validity between variable constructs.

Table 3. Discriminant Validity

Variable	Business Competence	Business Innovation	Entrepreneurship	Organizational Sustainable
Business Competence	(0.8919)			
Business Innovation	0.703	(0.872)		
Entrepreneurship	0.699	0.708	(0.901)	
Organizational Sustainable	0.653	0.777	0.664	(0.928)

Source: Processed Primary Data (2025)

This research, in addition to testing hypotheses, aims to identify a model that fits well with its original data. This is highly beneficial for assessing the quality of the model. To evaluate the model fit, it is essential to follow criteria recommended by experts. Table 4 below provides explanations for each fit measure based on the general results mentioned earlier, specifically the cut-off P-values for APC, ARS, and AARS. It is recommended that the model fit should have a significance level of 5% (≤ 0.05). However, the output above indicates that the values for APC, ARS, and AARS are at a significance level of P<0.001, signifying excellent model fit.

For Symson's Paradox (SPR) index, the resulting value is 1, R-squared Contribution Ratio (RSCR) is 1, Statistical Suppression Ratio (SSR) is 1, and Nonlinear Bivariate Causality Direction Ratio (NLBCDR) also yields a value of 1. This implies that the SPR index, SSR model index, RSCR index, and NLBCDR are all ideal, indicating an absence of causality problems within the model as a whole.

Table 4. General Results of Structural Model Measurements

No	Model *Fit dan Quality Indices*	Value	Remark
1	*Average path coeficient* (APC)	0.339	P<0,001
2	*Average R-squared* (ARS)	0.615	P<0,001
3	*Average adjusted R-squared* (AARS)	0.607	P<0,001
4	*Average block VIF* (AVIF)	2.356	diterima jika ≤ 5, idealnya ≤ 3,3
5	*Average full collinearity* VIF (AFVIF)	2.728	diterima jika ≤ 5, idealnya ≤ 3,3
6	*Tenehause GoF* (GoF)	0.691	kecil ≥ 0,1, sedang ≥ 0,25, besar ≥ 0,36
7	*Symson's paradox ratio* (SPR)	1,000	diterima jika ≥ 0,7, idealnya = 1
8	*R-squared contribution ratio* (RSCR)	1,000	diterima jika ≥ 0,9, idealnya = 1
9	*Statistical suppression ratio* (SSR)	1,000	diterima jika ≥ 0,7, idealnya = 1
10	*Nonlinier bivariate causality direction ratio* (NLBCDR)	1,000	diterima jika ≥ 0,7, idealnya = 1

Source: Processed Primary Data (2025)

AVIF and AFVIF are two measures of model fit used to test collinearity issues in the PLS model. The recommended values for both measures should be ≤ 3.3 (ideal) or ≤ 5 (acceptable). As indicated by the output above, there are no multicollinearity problems within the model. For Symson's Paradox (SPR) index, the resulting value is 1, R-squared Contribution Ratio (RSCR) is 1, Statistical Suppression Ratio (SSR) is 1, and Nonlinear Bivariate Causality Direction Ratio (NLBCDR) also yields a value of 1. This means that the SPR index, SSR model index, RSCR index, and NLBCDR are all ideal, indicating an absence of causality problems within the model as a whole. AVIF and AFVIF serve as two measures of model fit used to assess collinearity issues in the PLS model. The recommended values for both measures should be ≤ 3.3 (ideal) or ≤ 5 (acceptable). As indicated by the output above, there are no multicollinearity problems within the model (Table 5).

Table 5. Latent Variable Coefficients

No	Variable	R-square	Adj.R-square	Compsite Reliability	Average Variance Extracted	Full Collinearity VIP
1	Business Competence			0.943	0.626	2.293
2	Business Innovation			0.937	0.651	3.275
3	Entrepreneurship	0.563	0.556	0.921	0.595	2.310
4	Organizational Sustainability	0.649	0.639	0.957	0.648	2.835

Source: Processed Primary Data (2023)

The generated Goodness of Fit (GoF) is 0.691 (≥ 0.36), indicating a good model fit. This suggests that the predictive power of the model is strong. For SPR, it is an index measuring causality issues. Ideally, this index should be equal to 1 or ≥ 0.7 (acceptable), signifying the absence of causality problems within a model. RSCR is an index measuring the extension where a model is free from negative R-squared contributions. Ideally, the RSCR index should be equal to 1 or ≥ 0.9 (acceptable), meaning there are no negative R-squared contributions in the model. SSR is an index measuring extension in which a model is free from statistical suppression effects. Suppression issues arise when a path coefficient has a large value compared to the correlation relationship with the path connecting two variables. The acceptable SSR value is 1.000, indicating that 100% of the paths in the model are free from statistical suppression.

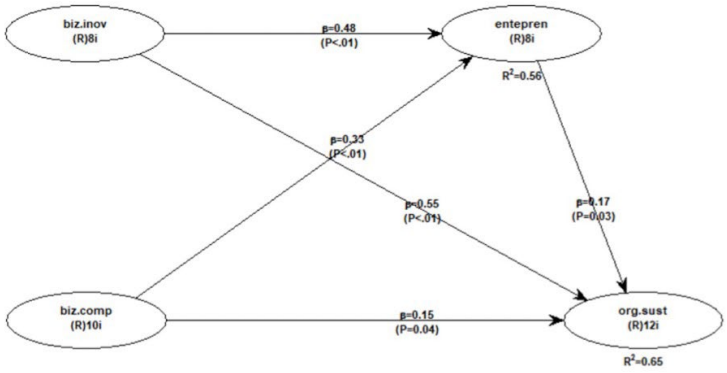

Figure 3. Structural Model Analysis Results
Source: Processed Primary Data (2025)

Figure 3 above presents the detailed results of the PLS structural model analysis, illustrating the path coefficients and their significances. Schematically, the detailed measurements of the structural model are depicted in Figure 3. Meanwhile, Table 6 below explains the results of the structural model analysis, serving as the basis for drawing conclusions from the hypotheses tested in this research.

Table 6. Hypotheses Testing Results

Hypo-thesis	Path	Path Coefficient	p-Value	Decision
H1	Business Competence has significant influence on Organizational Sustainability of BUMDes	0.145	0.043	Accepted
H2	Business Innovation has significant influence on Organizational Sustainability of BUMDes	0.558	< 0.001	Accepted
H3	Entrepreneurship has significant influence on Organizational Sustainability of BUMDes	0.161	0.036	Accepted
H4	Business Competence has significant influence on Entrepreneurship	0.379	< 0.001	Accepted
H5	Business Innovation has significant influence on Entrepreneurship	0.450	< 0.001	Accepted
H6	Entrepreneurship has a mediating role in the influence of Business Competence on Organizational Sustainability of BUMDes	0.082	< 0.001	Accepted
H7	Entrepreneurship has a mediating role in the influence of Business Innovation on Organizational Sustainability of BUMDes	0.057	< 0.001	Accepted

Source: Processed Primary Data (2025)

6. Hypotheses Testing Results

The influence of business competence on organizational sustainability is obtained with a structural coefficient of 0.145 and a p-value of 0.043. Since the p-value is < 0.05, and the positive coefficient indicates a positive and significant influence between business competence and organizational sustainability, it means that higher business competence will result in higher organizational sustainability of BUMDes.

The hypothesis testing results show the influence of business innovation on organizational sustainability, with a structural coefficient of 0.558 and a p-value of <0.001. Since the p-value is < 0.05 and the positive coefficient indicates a positive, then there is a very significant influence between business innovation and organizational sustainability. It

means that an increase in business innovation among BUMDes administrators will enhance their organizational sustainability. Considering the relatively high coefficient value of 0.558, it can be said that the construct of business innovation in BUMDes administrators has a very significant impact on improving the organizational sustainability directly.

The hypothesis testing results show the influence of entrepreneruship on organizational sustainability, with a structural coefficient of 0.161 and a p-value of 0.036 Since the p-value is 0.036 and the positive coefficient indicates a positive, then there is a significant influence between entrepreneruship and organizational sustainability. It means that an increase in entrepreneruship among BUMDes administrators will enhance organizational sustainability. Considering the relatively low coefficient value of 0.161, it can be said that the construct of entrepreneruship in BUMDes administrators has a quite significant impact on improving organizational sustainability directly.

The hypothesis testing results report the influence of business competence on entrepreneurship, with a structural coefficient of 0.379 and a p-value < 0.001. Since the p-value is < 0.05, and the positive sign of the coefficient indicates a positive and very significant influence between business competence and entrepreneurship, it implies that an increase in business competence among BUMDes administrators will enhance their entrepreneurship. Considering the relatively low coefficient value of 0.379, it can be said that the impact of business competence is quite substantial in directly improving their entrepreneurship.

The hypothesis testing results show the influence of business innovation on entrepreneurship, with a structural coefficient of 0.161 and a p-value of 0.036. Since the P-value is < 0.05 and the positive coefficient indicates a positive, then there is a significant influence between business innovation and entrepreneurship. It means that an increase in business innovation among administrators of BUMDes will enhance their entrepreneurship. Considering the relatively low coefficient value of 0.161, it can be said that the business innovation construct of BUMDes administrators has a quite significant impact on improving their entrepreneurship directly.

The indirect influence of business competence on organizational sustainability through entrepreneurship is obtained with a structural coefficient of 0.082 and a p-value of <0.001. Since the p-value is < 0.05, and the positive coefficient indicates a positive, there is a significant influence of business competence on organizational sustainability through entrepreneurship. Because the direct and indirect influence of business competence on organizational sustainability are both significant, this means that it plays a partial mediating role of entrepreneurship in the influence of organizational commitment on organizational sustanability.

The indirect influence of business innovation on organizational sustainability through entrepreneurship is obtained with a structural coefficient of 0.057 and a p-value of <0.001. Since the p-value is < 0.05, and the positive coefficient indicates a positive, there is a significant influence of business innovation on organizational sustainability through entrepreneurship. Because the direct and indirect influence of business innovation on organizational sustainability are both significant, this means that it plays a partial mediating role of entrepreneurship in the influence of organizational innovation organizational sustanability.

7. Discussions

The results of the hypothesis test indicate that business innovation has a positive and highly significant influence on organizational sustainability in BUMDes. This is demonstrated by a structural coefficient of 0.558 and a p-value <0.001. This figure indicates that the relationship between business innovation and organizational sustainability is truly strong and does not occur by chance. The positive coefficient of 0.558 indicates that increasing the level of business innovation implemented by BUMDes managers will directly and significantly increase the level of organizational sustainability.

This relatively high coefficient value indicates that business innovation is a key factor and has a greater influence than several other factors in supporting the survival and development of BUMDes. In other words, the more creative and innovative BUMDes managers are in managing their businesses, the greater the organization's chances of long-term survival and growth. This finding underscores the importance of fostering a culture of innovation in BUMDes management as a primary strategy for ensuring the sustainability of village businesses. Innovation can take the form of new product development, technology implementation, innovative marketing methods, or innovations in business models tailored to the needs of village communities. Therefore, developing the innovation capacity of BUMDes

managers must be a priority so that the organization can continuously adapt to environmental changes and meet stakeholder expectations. This approach will strengthen competitiveness and create sustainable added value for village communities.

The results of the following hypothesis test indicate that entrepreneurship has a positive and significant influence on organizational sustainability in BUMDes. This is evidenced by a structural coefficient of 0.161 and a p-value of 0.036. Because the p-value is less than 0.05, the effect of entrepreneurship on organizational sustainability can be considered statistically significant. The positive coefficient of 0.161 indicates that increasing entrepreneurial spirit and capabilities among BUMDes managers will contribute to improved organizational sustainability. Although this coefficient value is relatively low compared to other factors such as business innovation, it still demonstrates that entrepreneurship plays a crucial role in supporting the survival of BUMDes. This indicates that efforts to develop entrepreneurial capabilities, such as skills in risk-taking, business management, and business creativity, still require attention as part of a strategy to strengthen organizational sustainability.

These findings indicate that although the influence of entrepreneurship is not as significant as business innovation, its role remains significant in helping BUMDes adapt, develop, and maintain their existence in a dynamic business environment. Therefore, strengthening entrepreneurial competency among BUMDes managers should be a focus in efforts to improve the quality and sustainability of village businesses. The results of the hypothesis test indicate that business competency has a positive and highly significant influence on entrepreneurship among BUMDes managers. This is evidenced by a structural coefficient value of 0.379 and a p-value <0.001.

Because the p-value is significantly less than 0.05, the effect is statistically highly significant, indicating that the relationship between business competence and entrepreneurship is truly strong and not a coincidence. The positive coefficient of 0.379 indicates that increasing the business competence of BUMDes managers will substantially increase their entrepreneurial spirit and abilities. This figure indicates that business competence plays a significant role in influencing the entrepreneurial abilities and attitudes of BUMDes managers. Although its influence is not as strong as the business innovation factor mentioned previously, it still makes a significant contribution to increasing entrepreneurship. This finding emphasizes the importance of developing business competence as a strong foundation for strengthening the entrepreneurial abilities of BUMDes managers. With strong business competence, managers will be better prepared to take risks, manage business operations, and design innovative and effective business strategies. Therefore, training and development of business competence should be a priority to strengthen the entrepreneurial ecosystem in BUMDes, thereby accelerating the organization's long-term growth and sustainability.

The results of the subsequent hypothesis test indicate that business competence has a positive and significant indirect effect on organizational sustainability through entrepreneurship, with a structural coefficient of 0.082 and a p-value <0.001. Since the p-value is <0.05, this mediation effect is statistically significant. This means that business competency not only directly impacts organizational sustainability but also increases entrepreneurship among BUMDes managers.

The results of this study indicate that entrepreneurship only plays a partial mediating role linking business competency to organizational sustainability. This means that increased business competency increases entrepreneurship, which then further contributes to organizational sustainability. This mediation role is important because it confirms that entrepreneurship is a key mechanism through which business competency can strengthen organizational survival. Similar findings in the literature indicate that entrepreneurial variables or entrepreneurial orientation often serve as partial mediators in the relationship between business competency or capability and organizational performance and sustainability, making an indirect but significant contribution to creating sustainable organizational value. In short, human resource development strategies in BUMDes need to emphasize not only business competency enhancement but also strengthening entrepreneurship as a crucial pathway to more effectively promote organizational sustainability.

The results of the hypothesis test indicate a positive and significant indirect effect of business innovation on organizational sustainability through entrepreneurship, with a structural coefficient of 0.057 and a p-value <0.001. This means that, although small, business innovation not only directly impacts organizational sustainability but also increases the entrepreneurship of BUMDes managers. This indicates that entrepreneurship acts as a partial mediating variable in the relationship between business innovation and organizational sustainability. In other words, increased business innovation encourages the growth of entrepreneurship, which in turn significantly strengthens organizational sustainability. Practically, these results suggest that BUMDes managers or similar organizations should not focus

solely on creating business innovations but also strengthen entrepreneurial capacity so that these innovations can be implemented and have a tangible impact on organizational sustainability.

In general, the research results provide evidence that business competence has a positive and significant effect on BUMDes sustainability. This means that the higher the business competence of managers, the better the BUMDes' ability to maintain organizational continuity and growth. This finding confirms that developing business competence is a strategic key to supporting BUMDes sustainability. Other studies also support the fact that management competence strengthens performance and sustainability through resource efficiency, community participation, and business innovation. Therefore, investment in improving the business competency of managers must be a priority so that BUMDes can survive and develop sustainably.

The research findings also emphasize the simultaneous role of business competency, business innovation, and entrepreneurship in supporting the sustainability of BUMDes organizations, with clear and significant empirical evidence of coefficients—both directly and indirectly through entrepreneurship as a partial mediator. This research makes a novel contribution by mapping the complex relationships between these factors in the context of BUMDes, which have previously been understudied comprehensively. Furthermore, this study emphasizes the importance of improving business competency and innovation as strategic keys, while emphasizing entrepreneurship not only as an independent factor but also as a mediator reinforcing sustainability. This deepens previous understanding that often separates the influence of competency, innovation, and entrepreneurship, thus providing a more comprehensive, integrative model for sustainable BUMDes management.

In a practical context, these findings encourage the development of BUMDes managerial training and strengthening programs that do not focus solely on one aspect but rather combine competency improvement, innovation culture, and entrepreneurship in an integrated manner to achieve optimal sustainability. This is increasingly relevant given the complex and dynamic challenges of BUMDes management in the field.

8. Implications of Research Results

The practical implications of the research findings are as follows:

1. Developing the Business Competencies of Village-Owned Enterprise (BUMDes) Managers
   Strengthening the business competencies of BUMDes managers is a top priority. Continuous business management training and education are needed to improve business planning, management, and decision-making skills. This is crucial for BUMDes to operate professionally and efficiently, thereby enhancing organizational sustainability and economic benefits for village communities.
2. Strengthening the Culture of Innovation and Entrepreneurship
   Encouraging business innovation and entrepreneurship among BUMDes managers is crucial, as both have a significant influence on strengthening BUMDes' sustainability. Innovative practices such as new product development, the use of digital technology, and creative business models must be supported alongside fostering an entrepreneurial spirit so that these innovations can be implemented effectively.
3. Professional and Independent Management of Village Resources
   BUMDes must manage village potential and resources independently yet professionally, according to local conditions and needs. This will help prevent the dominance of external capital and empower village communities productively.
4. Collaboration and Sustainable Mentoring
   Ongoing support from village governments, educational institutions, and related parties is needed in the form of mentoring, training facilitation, and provision of market and capital access so that BUMDes can develop optimally and sustainably.
5. Strengthening BUMDes Organizational Systems and Structures
   Institutional reform and the establishment of clear governance, including transparency and accountability, will increase public trust and the effectiveness of BUMDes management, thereby supporting business performance and sustainability.

Overall, BUMDes management practices must integrate human capacity building (competence, innovation, entrepreneurship), professional management, and systemic support from the external environment so that the organization can grow and survive as a driving force for a sustainable village economy.

9. Limitations of the Research

This study faces limitations in terms of data representation, namely, it is limited to Kuningan Regency, West Java. A broader population coverage is needed to provide inferential results for BUMDes sustainability research in Indonesia. Furthermore, the scope of variables and other external contexts that influence the overall sustainability of BUMDes are not included in this study. This opens up opportunities for further research with a broader approach, more comprehensive data collection, and a more holistic consideration of external and internal factors.

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