

DOI: <https://doi.org/10.38035/dijefa.v5i4>

Received: 31 July 2024, Revised: 08 August 2024, Publish: 02 September 2024

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## Determining the Sustainability of Small and Medium Enterprises (SMEs): Application of Information Technology, Innovation and Collaboration

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**Abstract:** The objective of this composition is to establish a hypothesis concerning the relationship between variables, which may subsequently be employed for subsequent research within the domain of marketing management. The research method used is descriptive qualitative. Data was obtained from previous research that is relevant to this research and sourced from academic online media such as Publish or Perish, Google Scholar, digital reference books and the journal Sinta. The findings of this study indicate that: 1) The utilization of information technology has a significant impact on the long-term viability of small and medium enterprises; 2) Innovation plays a crucial role in shaping the sustainability of small and medium enterprises; and 3) Collaboration exerts a notable influence on the sustainability of small and medium enterprises. The limitations of the data used in this research make the results less than optimal. This study holds significance for small and medium enterprises as it examines the potential impact of incorporating information technology, innovation, and cooperation on the long-term viability of such businesses.

**Keyword:** Sustainability of SMEs, Application of Information Technology, Innovation, Collaboration

## INTRODUCTION

In the present global economic landscape, the assessment of the sustainability of small and medium companies (SMEs) holds significant importance. The sustainability of small and medium-sized enterprises (SMEs) is contingent upon several external factors, encompassing not only internal elements such as management and finance, but also external ones such as the utilization of information technology (IT), innovation, and collaboration. The advent of information technology has precipitated a paradigm shift in the operational dynamics of small and medium-sized enterprises (SMEs), resulting in a fundamental transformation of the business environment. The utilization of information technology (IT) not only enables small and medium-sized enterprises (SMEs) to enhance their operational efficiency, but also

presents novel prospects for innovation and collaboration, thereby augmenting their competitiveness within a progressively competitive market.

The utilization of information technology has emerged as a crucial factor in assessing the long-term viability of small and medium-sized enterprises (SMEs). SMEs can enhance their operational efficiency, cost reduction, and productivity by utilizing a range of information technology solutions, including management software, data analytics, e-commerce, and cloud computing. Implementing an integrated management system can enhance the efficiency of inventories, sales operations, and financial management for small and medium-sized enterprises (SMEs), leading to improved decision-making that is both prompt and accurate. Moreover, electronic commerce offers a medium for small and medium-sized enterprises (SMEs) to broaden their market penetration beyond geographical constraints, hence facilitating access to untapped client segments and augmenting their financial gains.

In addition to the implementation of IT, innovation has a crucial role in determining the sustainability of small and medium-sized enterprises (SMEs). SMEs' capacity for innovation empowers them to recognize novel prospects, provide distinctive products and services, and adjust to market fluctuations with greater flexibility. In addition to product development, innovation encompasses several aspects like as procedures, business models, and marketing techniques. Small and medium-sized enterprises (SMEs) that possess the ability to innovate have the capacity to distinguish themselves from rivals, captivate client interest, and generate substantial additional value. Furthermore, innovation can assist small and medium-sized enterprises (SMEs) in enhancing operational efficiency, diminishing expenses, and augmenting their competitiveness in a dynamic worldwide market.

The importance of collaboration is significant in determining the sustainability of small and medium-sized enterprises (SMEs). The establishment of partnerships among small and medium-sized enterprises (SMEs), including corporate partners, academic institutions, and government organizations, has the potential to create novel avenues for expansion and advancement. Cooperative efforts have the potential to facilitate the transfer of information and resources, enhance market accessibility, and broaden corporate networks. Strategic alliances between small and medium-sized enterprises (SMEs) and major corporations can grant them access to enhanced resources, including financial capital, advanced technology, and expanded markets. Conversely, partnering with academic institutions can enable small and medium-sized enterprises (SMEs) to have access to cutting-edge research and innovation. Similarly, partnering with government institutions can provide them with assistance and policy support.

Despite the considerable potential for the sustainability of small and medium-sized enterprises (SMEs) through the utilization of information technology (IT), innovation, and cooperation, there exist some problems that must be addressed. A primary obstacle is the scarcity of resources, encompassing financial, human, and knowledge-related limitations. Several small and medium-sized enterprises (SMEs) may lack access to cutting-edge technology or the necessary knowledge to implement intricate IT solutions. Furthermore, the reluctance to embrace change and a limited comprehension of the significance of innovation can impede the capacity of small and medium-sized enterprises (SMEs) to promptly adjust to shifts in the market. In addition, small and medium-sized enterprises (SMEs) may encounter difficulties in identifying appropriate collaboration partners and establishing mutually advantageous agreements.

Hence, in order to enhance the resilience of small and medium-sized enterprises (SMEs) by utilizing information technology, fostering innovation, and promoting collaboration, a comprehensive and unified strategy is required. Governments may have a significant impact by ensuring sufficient IT infrastructure, facilitating access to education and

training, and offering financial incentives to promote the use of technology and innovation among small and medium-sized enterprises (SMEs). Furthermore, the provision of support and coaching initiatives by governmental bodies, non-governmental organizations, and academic institutions can facilitate the acquisition of essential skills and knowledge by small and medium-sized enterprises (SMEs), enabling them to effectively leverage information technology (IT), foster innovation, and engage in collaborative efforts. Furthermore, establishing a robust collaborative network and ecosystem among small and medium-sized enterprises (SMEs), major corporations, academic institutions, and government agencies can serve as a crucial factor in enhancing the long-term viability of SMEs in the current digital age.

In general, the assessment of the sustainability of small and medium-sized enterprises (SMEs) by leveraging information technology (IT), fostering innovation, and promoting collaboration holds significant promise in addressing obstacles and capitalizing on prospects inside a progressively intricate and swiftly evolving market. With appropriate backing from diverse stakeholders, small and medium-sized enterprises (SMEs) have the potential to emerge as the primary catalysts for economic growth, innovation, and sustainable development across several sectors and geographies. Hence, the use of information technology, innovation, and cooperation plays a crucial role in enhancing the capabilities and competitiveness of small and medium-sized enterprises (SMEs), thereby contributing significantly to the development of a robust and inclusive economy.

Based on the background above, the problem formulation is determined as follows: 1) Does the application of information technology affect the sustainability of small and medium businesses?; 2) Does innovation affect the sustainability of small and medium businesses?; and 3) Does collaboration affect the sustainability of small and medium businesses?.

## **LITERATURE REVIEW**

### **Sustainability of Small and Medium Enterprises**

The concept of sustainability in Small and Medium Enterprises (SMEs) pertains to the capacity of such enterprises to endure and thrive over an extended period of time. The sustainability of small and medium-sized enterprises (SMEs) encompasses multiple dimensions, namely economic, environmental, and social factors. From an economic standpoint, the sustainability of small and medium-sized enterprises (SMEs) encompasses their capacity to generate more value in a sustainable manner, grow their market presence, enhance productivity, and attain consistent profitability. From an environmental standpoint, the sustainability of small and medium-sized enterprises (SMEs) entails conducting their operations with minimal ecological footprint and using eco-friendly business strategies. From a social perspective, the sustainability of small and medium-sized enterprises (SMEs) encompasses various dimensions, including the provision of advantages to local communities, job creation, community advancement, and the enhancement of connections with stakeholders. In its whole, the concept of SME sustainability encompasses a multitude of interconnected dimensions, encompassing economic, environmental, social, innovation, financial, and adaptation components. Sustainable SMEs must possess the capacity to endure and overcome current obstacles, while also demonstrating the capability to undergo transformation and growth over an extended period of time. Hence, it is crucial for entrepreneurs, governmental bodies, and other relevant parties to collaborate in order to establish a conducive environment that fosters the expansion and durability of small and medium-sized enterprises (SMEs) across all tiers (Fatmawaty et al., 2024).

The indicators or dimensions contained in the sustainability of small and medium enterprises include: 1) The financial aspect encompasses the whole financial well-being of the enterprise, encompassing factors such as profitability, liquidity, solvency, and revenue

expansion. Small and medium-sized enterprises (SMEs) are required to create adequate earnings in order to offset operational and investment expenses, while also having access to adequate financial resources to facilitate their growth and expansion; 2) The operational dimension encompasses the aspects of efficiency and effectiveness in the execution of the business's daily operations. These encompass management of the supply chain, production procedures, inventory control, and service excellence. Efficient and well-organized operational processes are imperative for small and medium-sized enterprises (SMEs) in order to mitigate waste, decrease expenses, and enhance production; and 4) The social and environmental dimension encompasses the societal and ecological consequences of corporate activities. Corporate social responsibility, environmental sustainability, and contributions to local communities are encompassed within this framework. Small and medium-sized enterprises (SMEs) should prioritize the assessment of the social and environmental consequences of their operations and make efforts to reduce adverse effects while enhancing beneficial effects (Rama & Prasetyaningrum, 2023).

The sustainability of small and medium enterprises has been studied by several researchers, including: (Cendana, 2019), (Indrayani et al., 2020), (Pranjoto, 2021), (Pranowo et al., 2018).

### **Application of Information Technology**

The use of Information Technology (IT) encompasses the utilization of diverse technological tools that are specifically developed to gather, retain, manipulate, and distribute information within a range of organizational and commercial settings. IT implementation encompasses the utilization of hardware, software, computer networks, and other systems and applications to facilitate day-to-day activities and accomplish business objectives. The utilization of information systems is a fundamental component in the application of information technology. Information systems refer to the technological framework that is specifically developed to effectively oversee and control an organization's data and information. The aforementioned components encompass databases utilized for data storage, application software employed for information processing and analysis, and user interfaces designed for data access and management. In addition to content management systems, information systems may encompass document management systems, knowledge management systems, and content management systems, which serve to enhance collaboration and ease the interchange of information within the company (Andriyanto, 2018).

The indicators or dimensions contained in the application of information technology include: 1) This dimension encompasses the utilization of data analytics tools and methodologies to derive important insights from organizational data and facilitate enhanced decision-making processes. In order to comprehend the fundamental trends, patterns, and relationships inside corporate data, many methodologies are employed, including predictive analysis, descriptive analysis, visual analysis, and data modelling; 2) The application software dimension encompasses software programs that are utilized to facilitate and enhance the business or operational tasks of the organization. These applications encompass financial management, human resources management, supply chain management, marketing, sales, production, and other related areas. The appropriate choice and execution of application software play a crucial role in efficiently facilitating corporate operations; and 3) Database Management System: This aspect encompasses the utilization of a database management system (DBMS) to efficiently and effectively store, organize, and oversee an organization's data. An effective database system can expedite and safeguard access to essential information, while also enabling enhanced data analysis and reporting (Sawitri et al., 2023).

Application of information technology has been studied by several researchers, including: (Harto et al., 2024), (Fatmawaty et al., 2024), (Tri Murti et al., 2021), (Hendayana et al., 2019a).

### **Innovation**

Business innovation encompasses the generation of novel concepts, goods, services, or procedures that enhance the worth of businesses and markets. It entails implementing substantial modifications in an organization's operations, customer interactions, or value creation for stakeholders. Business innovation can be defined as the process of generating novel ideas or enhancing old ones with the aim of attaining corporate objectives in a manner that is characterized by enhanced efficiency, effectiveness, or creativity. In the contemporary era characterized by globalization and digital transformation, the significance of business innovation is progressively escalating for businesses to sustain their relevance and effectively compete inside a progressively competitive market. Organizations that possess the ability to rapidly and consistently innovate gain a significant competitive edge, and are more adept at foreseeing and addressing market fluctuations and industry patterns. Hence, corporate innovation encompasses not only the generation of novel ideas, but also the establishment of a more promising future for businesses and their stakeholders (Pranjoto, 2021).

The indicators or dimensions contained in the innovation include: 1) Creative thinking refers to the cognitive capacity to develop novel ideas or solutions that have not been previously contemplated. This metric encompasses actions like as ideation, investigation, and experimentation, as well as the generation of inventive concepts to address challenges or generate fresh prospects; 2) This metric pertains to an organization's capacity to recognize and comprehend prevailing market demands, preferences, and trends. This process entails doing market analysis, administering consumer surveys, and engaging in customer interaction and feedback to ascertain the relevance and market need for the proposed innovation; and 3) Testing and evaluation are crucial stages in the innovation cycle to verify that the final solution or product adheres to quality standards and satisfies user requirements. The process entails doing prototype testing, market trials, and gathering input from users in order to enhance and optimize the final product or service (Saputra & Saputra, 2023).

Innovation has been studied by several researchers, including: (Pranjoto, 2021), (Rama & Prasetyaningrum, 2023), (Saputra & Saputra, 2023), (Hendayana et al., 2019b), (Pranowo et al., 2021).

### **Collaboration**

Collaborative efforts of many companies or commercial entities aimed at attaining mutually advantageous objectives. This process involves the exchange of resources, knowledge, and expertise, with the ultimate goal of enhancing effectiveness, efficiency, and generating additional value. In the context of commercial collaborations, it is customary for the collaborating entities to possess shared or complementary interests, which facilitate mutual reinforcement and the attainment of shared objectives that would be challenging or unattainable to accomplish alone. Amidst globalization and the digital economy, firms must prioritize business collaboration to be pertinent and competitive in intricate and ever-changing marketplaces. Through collaboration with partners possessing complementary expertise or resources, business entities can gain entry into untapped markets, innovate new offerings, or enhance their overall operational efficiency. Hence, corporate collaboration encompasses more than mere sharing and reinforcement; it also entails the generation of novel prospects for reciprocal expansion and achievement (Marianti, 2021).

The indicators or dimensions contained in the collaboration include: 1) The foundation of successful corporate collaboration is in the formation of agreed goals among



the stakeholders involved in the partnership. Common objectives should be unambiguous, precise, and quantifiable, while also aligning with shared interests and generating additional benefits for all stakeholders; 2) Resource sharing is a common practice in business collaboration, wherein various resources such as experience, technology, finance, or infrastructure are shared among involved parties. This dimension encompasses the equitable and impartial allocation of resources, along with the capacity to proficiently and proficiently administer shared resources in order to attain shared objectives; and 3) Trust and commitment are fundamental pillars that underpin effective corporate partnership. This aspect encompasses the establishment of confidence among collaborative partners by demonstrating integrity, consistency, and reliability in their conduct and endeavors. Maintaining collaboration necessitates a steadfast dedication to shared success (Deviastri & Annisa, 2022).

Collaboration has been studied by several researchers, including: (Deviastri & Annisa, 2022), (Marianti, 2021), (Fuadi et al., 2021).

## METHOD

Review of Literature Essays are composed utilizing methodologies such as Library Research and Systematic Literature Review (SLR). The qualitative evaluation of these methods was conducted and their availability may be found on academic web sources such as Mendeley and Google Scholar. A systematic literature review (SLR) refers to the methodical procedure of locating, evaluating, and scrutinizing all available research material in order to tackle a certain study issue. When conducting qualitative analysis, it is crucial to consistently apply the literature review in accordance with methodological assumptions. The primary rationale for undertaking qualitative analysis is in the exploratory nature of research , (Duli, 2019).

## RESULTS AND DISCUSSION

### Results

The research findings, considering the history and problem formulation, are as follows:

### Previous Research Results

Table 1. Relevant Previous Research Results

Author (Year)	Research Results	Simmilarities With this Articles	Difference With this Articles	Basic Hypothesis
(Harto et al., 2024)	The use of information technology and digital marketing influences the sustainability of MSMEs	The influence of the use of information technology on the sustainability of MSMEs	The influence of digital marketing on the sustainability of MSMEs	H1
(Fatmawaty et al., 2024)	Information and communication technology influences the development of regional potential and the sustainability of MSMEs	The influence of information technology on the sustainability of MSMEs	The influence of communication on the development of regional potential	H1

(Pranjoto, 2021)	Creativity and innovation influence the sustainability of MSMEs	The influence of innovation on the sustainability of MSMEs	The influence of creativity on the sustainability of MSMEs	H2
(Rama & Prasetyaningrum, 2023)	Utilization of business capital, digital marketing and business innovation influence the sustainability of MSMEs	The influence of innovation on business sustainability	The influence of business capital and digital marketing on the sustainability of MSMEs	H3
(Deviastri & Annisa, 2022)	Innovation, Collaboration and Social Media influence MSME business performance and the sustainability of MSMEs	The influence of collaboration on the sustainability of MSMEs	The influence of social media on MSME business performance	H3
(Marianti, 2021)	Product innovation, marketing and collaboration influence the success of MSMEs and the sustainability of MSMEs	The influence of collaboration on the sustainability of MSMEs	The influence of marketing on the success of MSMEs	H3

Source: Research Result, 2024

## Discussion

Based on the results and previous research above, the research discussion is determined as follows:

### 1. The Influence of the Application of Information Technology on the Sustainability of Small and Medium Enterprises

The impact of Information Technology (IT) on the sustainability of small and medium enterprises (SMEs) is substantial, particularly in relation to financial, operational, and social and environmental dimensions. SMEs can enhance their business operations, improve operational efficiency, and contribute positively to society and the environment by employing data tools and analysis, application software, and database management systems. In the realm of finance, the utilization of information technology enables small and medium-sized enterprises (SMEs) to enhance their financial management. Through the utilization of data tools and analytics, small and medium-sized businesses (SMBs) can gather, examine, and comprehend their financial data more effectively. This facilitates the process of making more informed decisions pertaining to the distribution of financial resources, preparing budgets, and managing financial risks. The utilization of application software enables small and medium-sized enterprises (SMEs) to streamline accounting, reporting, and inventory management procedures, resulting in a decrease in errors and an enhancement in the precision of financial records. Moreover, database management systems empower small and medium-sized enterprises (SMEs) to safely and systematically store their financial data, facilitating efficient and convenient retrieval for analysis and reporting purposes.

Furthermore, in terms of operations, the utilization of IT enhances the effectiveness and output of small and medium-sized enterprises (SMEs). SMBs can enhance their operational processes by utilizing tools and data analysis to find patterns, trends, and possibilities for improved efficiency. Application software enables the automation of repetitive processes, enhances inventory management, and facilitates the monitoring of staff performance. Data management systems (DBMS) facilitate the effective storage and retrieval of operational information for small and medium-sized enterprises (SMEs), encompassing customer data, product information, and transaction history. Hence, the utilization of information technology enables small and medium-sized enterprises (SMEs) to diminish operational expenses, enhance employee efficiency, and elevate consumer contentment by means of more effective and prompt services.

Furthermore, when considering social and environmental dimensions, the utilization of information technology (IT) can yield favorable outcomes for both society and the surrounding environment. Through the utilization of tools and data analysis, small and medium-sized businesses (SMBs) can enhance their comprehension of customers' requirements and preferences, so enabling them to offer products and services that are more aligned with market demands. Additionally, it facilitates enhanced consumer interaction for small and medium-sized enterprises (SMEs) through digital platforms, hence fostering increased engagement and partnerships with local communities. Utilizing application software enables small and medium-sized enterprises (SMEs) to broaden their market reach and access untapped internet clients, thereby mitigating the carbon footprint and environmental consequences associated with traditional business practices. Database management systems facilitate the management and monitoring of sustainable business practices, including waste management, energy consumption, and adherence to environmental requirements, for small and medium-sized enterprises (SMEs).

In general, the utilization of information technology (IT) has significant promise in enhancing the sustainability of small and medium enterprises across multiple dimensions, encompassing financial, operational, and social and environmental factors. SMEs can enhance their business operations, improve operational efficiency, and contribute positively to society and the environment by employing data tools and analysis, application software, and database management systems. Nevertheless, it is crucial for small and medium-sized enterprises (SMEs) to take into account the obstacles and hazards linked to the use of information technology (IT), including expenses related to implementation, safeguarding data, and integrating with current infrastructure. By comprehending the capabilities and constraints of information technology (IT), small and medium-sized enterprises (SMEs) can effectively utilize it to accomplish their objectives of long-term sustainability and expansion.

The application of information technology has an effect on the sustainability of small and medium businesses, this is in line with research conducted by: (Harto et al., 2024), (Fatmawaty et al., 2024), (Tri Murti et al., 2021).

## **2. The Influence of Innovation on the Sustainability of Small and Medium Enterprises**

In the realm of finance, business innovation assumes a significant role in generating additional value and augmenting the profitability of small and medium-sized enterprises (SMEs). Through innovative thinking, small and medium-sized enterprises (SMEs) can produce novel concepts for products or services that are distinctive and sought-after in the market, hence potentially augmenting their income and profits. Thorough market analysis enables small and medium-sized enterprises (SMEs) to gain a deeper understanding of consumer needs, preferences, and trends. This knowledge helps them allocate capital in the most lucrative route. In addition, performing market tests and assessments enables small and medium-sized enterprises (SMEs) to assess and evaluate new product or service ideas prior to



their introduction to the broader market. This process mitigates the potential for failure and financial setbacks that may occur. Business innovation can enhance the financial performance of small and medium-sized enterprises (SMEs) by augmenting revenues, diminishing expenses, and enhancing risk management.

Furthermore, in terms of operations, business innovation aids small and medium-sized enterprises (SMEs) in enhancing their efficiency, productivity, and competitiveness. The application of creative thinking enables small and medium-sized enterprises (SMEs) to identify novel approaches for addressing prevailing operational obstacles, such as enhancing manufacturing efficiency or optimizing supply chain management. Market analysis enables small and medium-sized enterprises (SMEs) to discover potential openings and risks in the market, hence informing decision-making processes pertaining to operational strategy. In addition, the implementation of market tests and evaluations enables small and medium-sized enterprises (SMEs) to assess the viability and effectiveness of their novel offerings, while also facilitating the adaptation of their operational approaches in response to customer and market input. Through the integration of business innovation into their operational framework, small and medium-sized enterprises (SMEs) have the potential to enhance process efficiency, mitigate production expenses, and enhance the caliber of their offerings. These outcomes collectively contribute to the enduring viability of their operations.

Moreover, corporate innovation can exert a beneficial influence on society and the surrounding environment in terms of social and environmental factors. Innovative thinking enables small and medium-sized enterprises (SMEs) to create ecologically sustainable products or services by utilizing recycled raw materials or employing more energy-efficient production methods. Market analysis enables small and medium-sized enterprises (SMEs) to comprehend consumer demands and preferences pertaining to sustainability, so enabling them to offer products or services that promote a sustainable way of life. Moreover, the implementation of market tests and evaluations enables small and medium-sized enterprises (SMEs) to assess the societal and ecological consequences of their offerings, while also facilitating the implementation of requisite enhancements or modifications to mitigate their ecological impact. Through the adoption of sustainability-focused business innovations, small and medium-sized enterprises (SMEs) can mitigate their adverse environmental effects while simultaneously generating social advantages for local communities, such as job creation and community support.

In general, the sustainability of small and medium firms is significantly influenced by business innovation, encompassing creative thinking, market analysis, and the implementation of market testing and evaluations across multiple dimensions. SMEs can enhance their financial performance, operational efficiency, and social and environmental impact by incorporating business innovation into their operations. These improvements are crucial for ensuring the long-term success and sustainability of their enterprises. Nevertheless, it is crucial for small and medium-sized enterprises (SMEs) to be mindful of the difficulties and hazards linked to innovation. They should consistently oversee and assess the consequences of their innovative endeavors to guarantee that they are in line with their long-term objectives of sustainability and expansion.

Innovation influences the sustainability of small and medium businesses, this is in line with research conducted by: (Pranjoto, 2021), (Rama & Prasetyaningrum, 2023), (Saputra & Saputra, 2023).

### **3. The Effect of Collaboration on the Sustainability of Small and Medium Enterprises**

The sustainability of small and medium enterprises (SMEs) is significantly influenced by business collaboration, encompassing shared goals, resource sharing, trust, and dedication. This influence is observed across multiple dimensions, such as financial, operational, and

social and environmental factors. In the realm of finance, business collaboration has the potential to enhance the profitability and competitiveness of small and medium-sized enterprises (SMEs). By engaging in collaborative goal planning with partners, small and medium-sized enterprises (SMEs) can focus their efforts on attaining more favorable outcomes, such as enhancing income or minimizing expenses. Furthermore, the act of sharing resources with cooperation partners enables small and medium-sized enterprises (SMEs) to gain access to resources that may be inaccessible or prohibitively costly to obtain on their own. These resources may include technology, infrastructure, or experience. This can decrease the initial capital outlay and enhance the operating effectiveness of small and medium-sized enterprises (SMEs). Moreover, establishing corporate collaboration founded on confidence and a dedication to reciprocal assistance among partners can foster a stable and enduring atmosphere conducive to collective economic expansion. Hence, business collaboration can have a beneficial impact on the financial aspects of small and medium-sized enterprises (SMEs) by augmenting revenue, diminishing expenses, and enhancing risk mitigation.

Furthermore, from an operational perspective, business collaboration enables small and medium-sized enterprises (SMEs) to enhance their operational efficiency and adaptability. By establishing common objectives, small and medium-sized enterprises (SMEs) can concentrate their endeavors on the projects or initiatives that are most pertinent and advantageous to all stakeholders. Facilitating the exchange of resources, such as infrastructure, manufacturing facilities, or people, can assist small and medium-sized enterprises (SMEs) in minimizing operational expenses and enhancing their production or service capabilities. Moreover, trust-based business cooperation enables small and medium-sized enterprises (SMEs) to seamlessly and efficiently integrate their operational processes with their collaboration partners, hence minimizing potential impediments or disputes that may develop during the collaboration. The dedication to common objectives also allows small and medium-sized enterprises (SMEs) and their collaborative partners to tackle shared operational difficulties and identify mutually advantageous resolutions. Hence, engaging in business collaboration can enhance the operational efficiency, maximize resource utilization, and bolster the competitiveness of small and medium-sized enterprises (SMEs) in the market.

Moreover, with regards to social and environmental dimensions, the partnership between businesses can yield favorable outcomes for both society and the surrounding environment. By establishing shared objectives that encompass both social and environmental dimensions, small and medium-sized enterprises (SMEs) and their collaborative partners can together strive towards the development of products or services that are more sustainable and socially responsible. The act of resource sharing can contribute to the mitigation of the environmental impact associated with corporate operations, encompassing aspects such as energy consumption and manufacturing waste. Trust-based and committed business collaborations can also generate chances for small and medium-sized enterprises (SMEs) and their collaboration partners to offer social advantages to local communities, such as job creation or support for social programs. Through the implementation of business partnership that prioritizes social and environmental values, small and medium-sized enterprises (SMEs) can significantly contribute to the betterment of society and the surrounding environment.

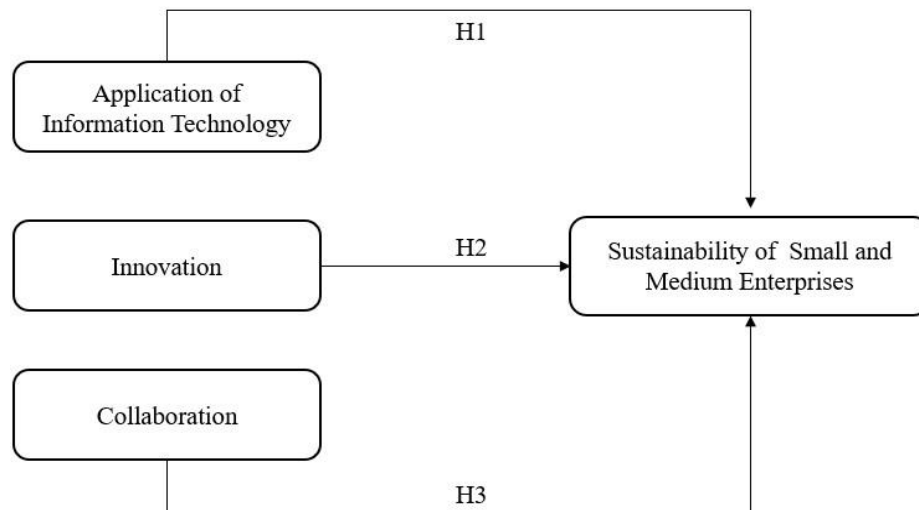
In general, the sustainability of small and medium firms is significantly influenced by business collaboration characterized by shared goals, resource sharing, trust, and dedication across multiple dimensions. SMEs can enhance their financial performance, operational efficiency, and social and environmental impact by effectively employing business collaboration. These factors all contribute to the long-term success and sustainability of their operations. Nevertheless, it is imperative for small and medium-sized enterprises (SMEs) to

establish and sustain robust collaborative partnerships with their counterparts, while also prioritizing social and environmental principles across all facets of their activities, in order to attain optimal favorable outcomes.

Collaboration influences the sustainability of small and medium businesses, this is in line with research conducted by: (Deviastri & Annisa, 2022), (Marianti, 2021), (Fuadi et al., 2021).

### Conceptual Framework

Based on the research results, previous research and the discussion above, the following framework of thought has been determined:



Source: Research Result, 2024

**Figure 1. Research Framework**

Based on Figure 1 above, it shows that the application of information technology, innovation and collaboration has an influence on the sustainability of small and medium businesses. However, apart from the independent variables which influence the dependent variable, there are also variables which influence, among others:

- 1) Leadership: (Pambudy & Handayati, 2022), (Agustin, 2020), (Pratama, 2020).
- 2) Training: (Eddyanto, 2022), (Septiandika & Fitria, 2022), (Dora et al., 2022).

Promotion: (Widiyanto et al., 2021), (Hasan, 2021), (Riyanti & Aini, 2022)

### CONCLUSION

Based on the problem formulation, results and discussion, previous research and the conceptual framework above, the conclusions of this research are:

1. The application of information technology has an impact on the sustainability of small and medium businesses.
2. Innovation influences the sustainability of small and medium businesses.
3. Collaboration influences the sustainability of small and medium businesses.

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