

The Role of Digitalization In Developing Entrepreneurial Spirit In Generation Z

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Abstract– The application of digital technology can provide space for individuals to develop their entrepreneurial skills, both in educational environments and in the real field. The availability of various digital-based financial applications and platforms makes it easier for them to learn, plan, and make investment decisions. This development is very important in equipping Gen Z to face future economic challenges. The purpose of this study is to analyze the role of digitalization in building an entrepreneurial spirit for generation Z, especially in responding to challenges in the digital era. The research method used is a systematic literature review (SLR) design to document efforts to overcome natural disasters in the context of digitalization of entrepreneurship, by exploring relevant and indexed related literature. Data collection techniques through publish or perish software, then data analysis techniques with vosviewer to analyze novelty data. The results of the analysis identified that the nodes between the roles of digitalization in building an entrepreneurial spirit in generation Z, where there are new opportunities and potential to develop entrepreneurship, especially in a digital context. The digitalization era, if utilized properly in building an entrepreneurial spirit, will also have a good impact. Therefore, digitalization will have an impact on Gen Z's insight in building an entrepreneurial spirit.

Keywords: digitalization developing, entrepreneurial spirit, generation Z.

I. INTRODUCTION

Digitalization plays a very important role in building an entrepreneurial spirit among the community, especially the younger generation. In this context, the application of digital technology can provide space for individuals to develop their entrepreneurial skills, both in educational environments and in the real field. Students can develop an entrepreneurial spirit by utilizing digital technology, which provides them with access to learn and innovate in the field of entrepreneurship [1]. Furthermore, entrepreneurship education that includes elements of digitalization in its curriculum can encourage students to be more proactive in running their businesses [2] [3].

Micro, Small, and Medium Enterprises (MSMEs) in Indonesia are a significant pillar of the economy, especially in facing the challenges of digitalization. According to [4] MSMEs not only contribute to increasing income but must also be adaptive to technological changes in order to compete. In this context, developing the digital competence of MSME actors is crucial, as explained where soft skills training and digital understanding can help MSMEs succeed in an increasingly digital market. [5].

In addition, effective digital marketing strategies in this era can create new opportunities for entrepreneurial success. The importance of digital marketing strategies can help entrepreneurs access global markets [6]. Digital marketing allows entrepreneurs to reach a wider audience and increase the visibility of their products, and there are about 65 millions e-commerce user in indonesia.[7] Business success also depends on entrepreneurial orientation and the ability to adapt to rapid technological changes, as shown in several studies that found that entrepreneurial orientation has a positive impact on the adoption of e-commerce by MSMEs [8].

In addition, socialization and training that focuses on entrepreneurship and digital technology must be expanded, including practical training in the community of MSME actors in digital marketing [9]. This is in line with the need to improve the skills and understanding of all business actors, so that they can innovate and compete in the market. [10].

Finally, in building an entrepreneurial spirit among the younger generation, the importance of an educational model oriented towards technopreneurship is also considered. The role of technopreneurs is very important in driving innovation and economic growth in the digital context [11]. Therefore, the combination of entrepreneurship



education, digital competency development, and the right marketing strategy is an important foundation in building an entrepreneurial spirit in this digital era [12].

Table 1. Internet User Data in Indonesia

Year	Number of Users (Million)
2019	128
2020	146
2021	169
2022	183
2023	184
2024	185.3

Source : [13]

Based on the table data above, the consistent increase in the number of internet users from 128 million in 2019 to 185.3 million in 2024 shows that the digital ecosystem in Indonesia is increasingly mature. This is a strategic momentum to develop entrepreneurial interests and abilities, especially among the younger generation and MSMEs, through a digitalization approach.

II. LITERATURE REVIEW

2.1 Digitalization

Digitalization plays an increasingly crucial role in shaping the lives of Generation Z (Gen Z), especially in terms of education, financial literacy, and behavior towards information. In the education sector, advances in digital technology such as artificial intelligence (AI) algorithms have opened up opportunities to improve the quality and accessibility of learning, enabling the education system to be more inclusive and equitable, and supporting the achievement of Sustainable Development Goals (SDGs) [14]. Gen Z is now not only involved in conventional capital markets, but is also starting to explore sharia-based capital markets. The availability of various digital-based financial applications and platforms makes it easier for them to learn, plan, and make investment decisions. This development is very important in equipping Gen Z to face the increasingly complex and dynamic challenges of the future economy [15].

The integration of digital technology in various aspects of Gen Z's life must continue to be directed to support the development of self-potential and contribution to society in a sustainable manner [16]. First, e-commerce platforms and social media

have become important tools in supporting entrepreneurship among Gen Z, allowing them to reach a wider market and promote sustainable products [17]. Second, digitalization also includes the development of better digital literacy through interactive multimedia, which has been shown to provide them with a deeper understanding in dealing with the information they receive from the internet [18]. Third, the adoption of new technologies, such as mobile payments, has been well received by Gen Z, they feel comfortable and impressed with the convenience offered, which in turn supports the adoption of modern financial technologies [19]. Thus, these three indicators illustrate how digitalization continues to shape Gen Z's habits and preferences, creating new patterns of consumption and social interaction in the digital era.

2.2 Entrepreneurial Spirit

The entrepreneurial spirit among Generation Z (Gen Z) has unique characteristics that distinguish them from previous generations. First, Gen Z shows a strong entrepreneurial orientation, as seen from their ambition to pursue business opportunities through digital initiatives. According to Hidayat, Gen Z tends to use digital tools and social media to create and develop businesses quickly, and pay attention to sustainable and ethical business practices [20], [21]. Thus, Gen Z's entrepreneurial spirit is not only individualistic but also oriented towards social impact and sustainability.

Second, psychological factors also play an important role in shaping Gen Z's entrepreneurial spirit. Aryoko et al. showed that a positive attitude towards entrepreneurship has a significant impact on their entrepreneurial intentions [22]. The nature of Gen Z, which is known to always seek value contributions and continuous learning, makes them more adaptable in a rapidly changing and challenging environment. In addition, the mindset faced by Gen Z, including limitations in terms of capital and access to information, is a challenge in developing their entrepreneurial spirit.

Indicators of entrepreneurial spirit in Generation Z can be identified through several characteristics that are relevant to the current social and economic context. First, the courage to take risks is one of the important indicators that reflect entrepreneurial traits. Gen Z, as a generation that grew up in the digital era, is known to be more open to innovation and change, making them more ready to take risks in starting a business. In addition, this generation has high

motivation in achieving success, indicated by a strong desire to gain identity and recognition from society. This is in line with the findings that they strive to achieve their goals and manage existing challenges. This is reflected in their independent, confident, and innovative nature. To further maximize this potential, entrepreneurship education implemented early on is expected to foster a strong entrepreneurial spirit, so that Gen Z can contribute as independent and creative economic actors.

2.3 Gen Z

They grew up in an era where the internet and social media have become an integral part of everyday life, making them “digital natives” who are adept at utilizing information technology. Research shows that Gen Z has unique characteristics that set them apart from previous generations, including a strong preference for interactive learning methods, a need for personalized experiences, and a tendency to prioritize sustainability and social responsibility in their choices. In addition, Gen Z shows significant interest in environmental issues, which is reflected in their increasing awareness and preference for environmentally friendly products [21].

III. RESEARCH METHODS

The literature study research method, or literature review, is an approach used in various fields of science to collect, analyze, and synthesize information from various relevant sources [20]. This method allows researchers to gain a comprehensive understanding of a topic by exploring various existing writings, such as journal articles, books, and previous research reports.

Literature studies are also related to the systematization of information. This study uses a systematic literature review (SLR) design to document disaster management efforts in the context of digitalization of entrepreneurship, by exploring relevant and indexed related literature [21]. This indicates the importance of this method in understanding complex problems and providing strong data-based solutions. Literature studies are not only useful for collecting data, but also for conducting in-depth analysis of issues that need to be solved [19]. Literature study research aims to summarize the state of the art related to a phenomenon, identify gaps in research, and build a theoretical framework that can be used for further research. [18]. Techniques for analyzing documentation data are reviewed from relevant previous research and analyzed using publish or

perish software and analyzed using VosViewer to analyze the newness of the data.

IV. RESULT AND DISCUSSION

Based on the research findings by analyzing literature studies, this study aims to examine digitalization as a major driver in the development of entrepreneurial spirit among Generation Z. The characteristics of this generation, known as digital natives, allow them to utilize digital technology in various aspects of life, including in the context of entrepreneurship. In a study by Saeedikiya et al., it was found that this generation has cognition related to innovation supported by existing digital infrastructure, showing how important technology is in their entrepreneurial journey [19].

Entrepreneurship education supported by digital tools can trigger entrepreneurial intentions among Generation Z, who are highly receptive to the use of technology [21]. In addition, the integration of fintech in supporting entrepreneurial intentions among Gen Z students shows that digital-based financial services play a significant role in increasing their involvement in entrepreneurial activities [20]. Data shows that up to 84% of Generation Z show interest in digital-based financial services, illustrating the potential for adoption and growth of entrepreneurship through digital tools [22].

From the results of in-depth identification, it is important to note that Generation Z's attitudes towards entrepreneurship reflect a combination of innovation, use of digital tools, and supportive social conditions. The rise of digital entrepreneurship seen in Indonesia, as described by Purwandari and Sadik, suggests that student participation in digital entrepreneurship can help address youth unemployment issues as well as support the country's economic development [23]. In this context, values rooted in social principles such as business responsibility and ethics, particularly within the Gen Z community, become relevant in integrating entrepreneurship with larger social goals [17].

The digitalization process provides a channel for Generation Z to build a strong social network that greatly contributes to the development of their entrepreneurial spirit. Research by Mayvita and Rifani focuses on how digital innovation in green marketing helps Generation Z entrepreneurship, showing that this generation is not only involved in entrepreneurial activities but also aligned with sustainability values [30]. The following can be identified from the results of the publish or perish



search analysis regarding previous literature that is relevant to the research and the novelty of the data is interpreted, as follows:

Table 2. Data from previous research articles on *Publish or Perish*

Cite s	Autho rs	Title	Source	Sourc e
495	B Barhat e, KM Dirani	Career aspirations of generation Z: a systematic literature review	European journal of training and development	2021
137	T Nguye n Ngoc, M Viet Dung	Generation Z job seekers' expectations and their job pursuit intentions: Evidence from transition and emerging economies	Journal Business	2022
115	D. Pandit a	Innovation in talent management practices: creating an innovative employer branding strategy to attract generation Z	International Journal of Innovation Science	2022
99	MIS Ahmad , MI Idrus, S Rijal	The role of education in fostering entrepreneur ial spirit in the young generation	Journal of Entrepreneur ial	2023

Source: *Publish or perish*, 2025.

Based on the results of the literature study above, to determine the position and existence of research on the realization of entrepreneurial values in learning, all articles obtained were then analyzed using

VOSviewer software. The visualization results of this software can be seen in Figure 1. Basically, VOSviewer positions the variable nodes in a two-dimensional spatial network, where the strength between nodes is related to the proximity of the nodes [31], [32]. The closer the relationship between two nodes is, the stronger the relationship between the nodes or the more research related to the two variables has been done and vice versa.

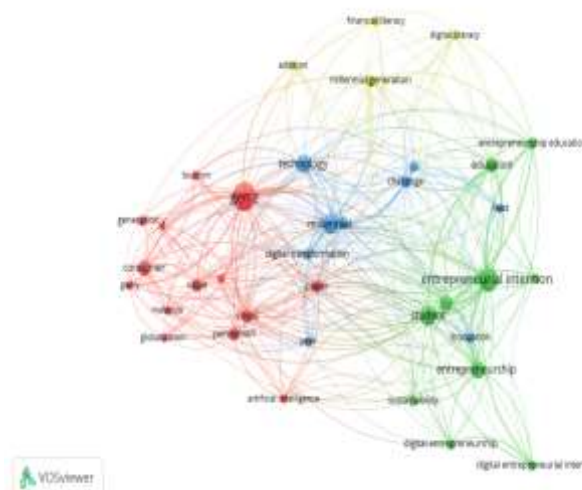


Figure 1. Vosviewer Analysis Results

Source: *Vosviewer*, 2025.

The Vosviewer data analysis above can be interpreted as nodes regarding entrepreneurial development, generation Z which have distant nodes [33]. The digital era, if utilized properly to build an entrepreneurial spirit, will also have a positive impact. Thus, the role of digitalization in building an entrepreneurial spirit is very important, especially for generation Z.

V. CONCLUSION AND SUGGESTION

Based on the research results that have been analyzed regarding the role of digitalization in building an entrepreneurial spirit in generation Z, it certainly plays an effective role. Closely related to the abilities possessed by the generation in the digital aspect which is used as an opportunity to build entrepreneurship. This is relevant to the existence of social principles such as responsibility and business ethics, especially in Gen Z. Therefore, the integration of fintech in supporting entrepreneurial intentions among Gen Z students shows that digital-based financial services play an important role in increasing their involvement in entrepreneurial activities.

The suggestions in this study are expected to provide in-depth opportunities for Generation Z in building an entrepreneurial spirit that can be studied in further research. This is important so that Generation Z can more optimally utilize technology, including fintech, in entrepreneurial activities. Further research is recommended to explore other variables that influence entrepreneurial intentions in the digital era, such as the influence of social media, digital communities, or government policy support for the digital entrepreneurship ecosystem.

VI. REFERENCE

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