MIX: Jurnal Ilmiah Manajemen
Management Scientific Journal
ISSN (Online): 2460-5328, ISSN (Print): 2088-1231
https://publikasi.mercubuana.ac.id/index.php/jurnal_Mix

The Influence of Digital Talent and Green Innovation and Its Impact on the MSME Business Model in the Metaverse Era

Reniati Reniati[1*]; Endang Bidayani[2]; Sumiyati Sumiyati[3]

[1]r3ni4ti@gmail.com, University of Bangka Belitung, Indonesia[*]
[2]endangbidayani@gmail.com, University of Bangka Belitung, Indonesia
[3]sumiyati.lec2019@gmail.com, University of Bangka Belitung, Indonesia
**) Corresponding Author*

ABSTRACT

***Objectives**: The study aims to look at MSME Business Models Entering the Metaverse Era Through Digital Transformation with an Increase of Digital Talent and Green Innovation*
***Methodology**: The type of research used is quantitative research. A study was carried out in 5 regencies/cities on Bangka Island with respondents 10 2 SMEs, dominated in the culinary sector. In this study, the author uses the analytical method used to test the PLS (Partial Least Square) variable using SmartPLS software. The path analysis model of all latent variables in Partial Least Square (PLS) consists of an outer model, convergent validity, and discriminant validity which is then carried out with a reliability test and a structural model consisting of coefficient of determination (R 2 Value), Effect Size (f 2), and Predictive Relevance (Q2 Value). Ending with a test on the hypothesis and the moderating effect.*
***Conclusion**: The results of this study indicate that hypothesis testing concluded that two research hypotheses are accepted and the other three are rejected. The accepted research hypotheses are Digital Talent effect on Digital Transformation and Digital Talent effect on MSME Business Model in the Metaverse Era. These results indicate that only digital talent currently contributes significantly to Digital Transformation and the MSME business model in the metaverse Era.*

***Keywords**: Metaverse, Digital Talent, Green Innovation, and Digital Transformation.*

Submitted:	Revised:	Accepted:
2022-10-13	2023-05-24	2023-06-20

Article Doi:
http://dx.doi.org/10.22441/jurnal_mix.2023.v13i2.011

p-ISSN: 2088-1231
e-ISSN: 2460-5328

INTRODUCTION

The presence of globalization, the industrial revolution 4, the digitalization of the economy, and the Covid-19 pandemic pose a formidable challenge to micro, small, and medium enterprises (MSMEs) in Indonesia. The crisis that occurred during the last two years forced all business entities to think hard about how to carry out digital transformation. The challenge for MSME actors is their low digital talent in carrying out the change even though the presence of digital talent is significant to keep business afloat in creating a market and keeping up with the competition. This shows that MSMEs are not fully ready to face this condition.

When viewed from the digital economy ecosystem in Indonesia, Indonesia's Digital Competitiveness or Index (DCI) still needs improvement ranking in 2020 ranks 56 out of 63 DCI countries. This index measures countries' ability, capacity, and readiness to adopt and export digital technology for economic transformation. The low digital competitiveness further sharpens the threat when global competitors enter the domestic market is urgent. As a dominant force in the Indonesian economy, it is very likely to reduce their income, increasing poverty, and unemployment rates.

The rapid development of the disruptive era has now entered a period of Metaverse or 3D which is known as an age that rests on four areas: immersive realism, ubiquitous access and identity, interoperability, and scalability (Dionisio et al., 2013). The current astonishing speed, coupled with the Covid-19 Pandemic has made every organizational leader, both profit-oriented and non-profit-oriented, successful in facing a market full of uncertainty (VUCA). Digitalization has penetrated all aspects of life and in the business world, it is not only for big businesses but also for small businesses that must innovate (Reniati et al., 2021). Increasing digitization accelerates collaboration and companies must be more democratic in their decision-making processes. Companies must be able to adapt quickly and continuously due to uncertain and rapidly changing conditions. This is done to maintain market efficiency, strengthen the pressure to adapt, and be innovative and agile. Habicher et al., (2022) the main objective of digital transformation is redesigning an organization's business through the introduction of digital technology, achieving benefits such as increased productivity, reduced costs, and innovation. Digital transformation is the practical use of the Internet in data-driven design, manufacturing, marketing, sales, presentation, and management models (Ulas, 2019).

Ismail Gulle (2021), Chair of the Turkish Exporters Assembly stated that the Covid-19 crisis changed the state's science, technology, and innovation (STI) policy while prioritizing resilience, environmental, and sustainability and encouraging innovation in tools. Therefore, the digital economy can spur economic growth as a form of technological transformation (Ratnawati & Susilowati, 2022). However, the basic foundation must be strong to carry out the transformation. Technology, entrepreneurial behavior, skills, educational background, and service quality, according to (Cahyani & Marcelino, 2022) will support business success.

Based on data from the Office of Industry and Trade 2021 in The Province of Bangka Belitung Islands, the number of SMEs is 20,403 units spread over seven regencies/cities. The number is still dominated by the food-based industry amounted to 13,908 classified in food and beverage-based commodities, followed by Chemicals and Building Materials amounting to 2,516 consisting of industries made from chemicals and building materials as well as furniture for households, then Metal and Electronics amounting to 1,598 related to metal mining and

p-ISSN: 2088-1231
e-ISSN: 2460-5328

electronics industry, then there are 1,445 handicrafts which produce goods from hand skills and contain elements of art and added value, then the last is clothing of 936 which is an industry related to the manufacture of clothing and apparel materials. However, the performance and competitiveness of small and medium enterprises in Bangka Belitung is still low due to low digital competence and the absence of environmentally friendly measures. Therefore, the digital economy has not been fully able to become a solution for a humane and prosperous economy for all people (Telagawathi et al., 2021).

As seen from the growth of business units and personnel work, the condition of the Century pandemic continuously increased. However, there is little experience decline in development. This matter needs to be anticipated by the related arena of digital talent, green innovation, and digital transformation to become imperative for SMEs. This is similar to research conducted by Glich, et al (2021) and also Feng.H. et al (2022). Research related to Digital Talent, Digital Tranformation, and Green Innovation has been examined by several previous researchers, for example by Gilch & Sieweke (2021) with the title "Recruiting Talenta Digital: The strategic role of recruitment in organizations' Transformasi Digital", Guo & Chen (2020) with the title "Green Entrepreneurial Orientation and Green Innovation: The Mediating Effect of Supply Chain Learning" and Li & Mao (2018) with the title "Digital transformation by SME entrepreneurs: A capability perspective". However, it is rare for research on business models in the metaverse era. Therefore, the researcher has an interest in conducting this research. Especially as stated by the owner of FaceBook, Mark Zuckerberg. In the future, the metaverse era will be one of the challenges for business actors.

Table 1. Growth and Percentage of Business Units and IKM Workers in the Province of the Bangka Belitung Islands 2016-2020

Year	Growth of Small and Medium Industry Business Units in the Province of Bangka Belitung Islands 2016-2020	Percentage of Growth of Small and Medium Industry Business Units in Bangka Belitung Islands Province 2016-2020 (%)	Growth of Small and Medium Industry Manpower in Bangka Belitung Islands Province 2016-2020	Percentage of Labor Growth for Small and Medium Industries in Bangka Belitung Islands Province 2016-2020 (%)
2016	12.843	5,22	35.036	3,84
2017	15.219	18,50	37.990	8,43
2018	17.123	12,51	40.004	5,30
2019	18.544	8,30	41.954	4,87
2020	20.403	10,02	45.351	8,10

Source: Department of Industry and Trade of the Bangka Belitung Islands Province (2021)

Therefore, research related to the MSME business model in the metaverse era is urgent as its era will be coming soon. How far is the digital transformation that they have carried out, the digital talent they have, and the implementation of green innovation that has been carried out in order to deal with the environmental crisis.

p-ISSN: 2088-1231
e-ISSN: 2460-5328

LITERATURE REVIEW

Metaverse

The word Metaverse is a portmanteau of the prefix "meta" (meaning "beyond") and the suffix "verse" (short for "universe") which means the universe beyond the physical world. More specifically, this "outer universe" refers to the computer-generated world, distinguishing it from metaphysical or spiritual concepts from domains outside the physical realm. Moreover, Metaverse refers to a fully immersive three-dimensional digital environment, in contrast to the more inclusive idea of cyberspace (Dionisio et al., 2013). Metaverse is a multi-user, real-time virtual space where individuals worldwide can connect through networks, coexist, socialize, and exchange value (Davis, 2021). Based on the book (Peters, 2021), "The Metaverse is a vast network of persistent 3D environments rendered in real-time that supports identities, objects, history, payments, and rights, and can be experienced simultaneously by an almost unlimited number of users. Limited, each with their sense of presence."

Corwen (2021) states that Metaverse can be characterized as a multi-user, real-time virtual world where individuals from all over the world can connect via networks, coexist, socialize, and exchange value. Metaverse distinguishes itself with the potential for users to create and exchange materials used to modify the environment around them in a more or less continuous state. A further statement on the Metaverse by (Russel, 2021), Metaverse is set to be a digital world that takes pieces from several other planets to create a world that includes everything from social media, online gaming, virtual reality, augmented reality, cryptocurrency, and even the physical world which will unite to form the Metaverse. Metaverse is set to grow and create an online space where users interact in more multidimensional layers than today's technology supports. Augmented reality uses visual, sound, and other sensory input elements to provide the best user experience.

Digital Talent

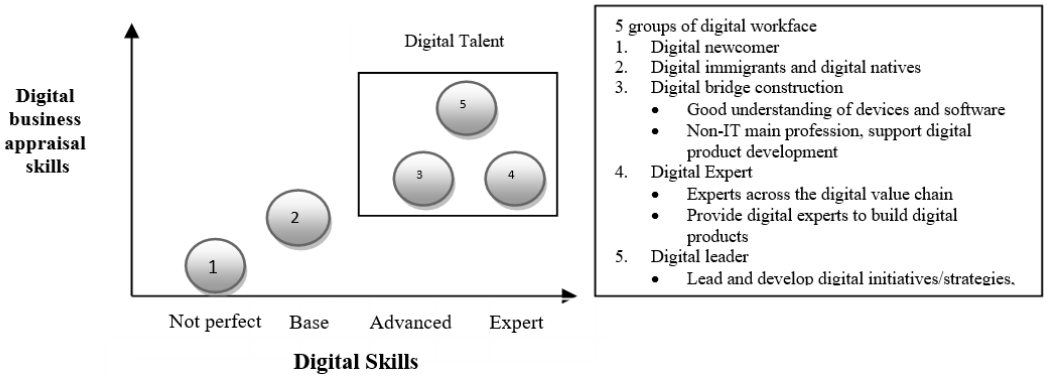
Due to digitization, organizations across all industries aim to digitize products, services, and processes, leading to a significant increase in the demand for digital talent (Nafi'ah, 2021). To be able to process and do business digitally, there are several key capabilities that the organization must master. Some key capabilities include mastery of digital technology, application of digital culture, development of digital talent, and other essential characteristics of the digital era. In order to obtain and develop existing talents so that they become digital talents who are ready to contribute, large companies need to accelerate the acquisition of digital talent who are already working and are often assisted by several digital talent provider partners. In some practices, these companies may cooperate with more than 1 (one) partner provider. Over time, it is necessary to periodically evaluate the quality of digital talents supplied by the existing partners so that in the future, it can be prioritized in the collaborative process of procuring digital talent with these partners so that the order of procurement priority can be carried out based on the ranking of the provider partners existing digital talent (Kurniawan, 2020).

According to Fai Pun (2006), digital talent is a cluster of human resources in an organization that values digital skills at the advanced and expert levels and has high digital business judgment skills. In 2020, it was estimated that the global average composition of digital talent in an organization is 20%. In general, 5 (five) human resource clusters can be called digital

p-ISSN: 2088-1231
e-ISSN: 2460-5328

talents, namely (1) digital bridge-builders, (2) digital experts, and (3) digital leaders. Below is a chart of digital talent clusters in an organization according to Caye:

Figure 1. Digital Talent Cluster



Source: Caye, 2015

The lack of digital competence in the workforce means that many pre-digital companies are trying to recruit digital talent. For example, in the process of developing more than sixty percent of the internal operating system, Volkswagen company aims to increase the number of IT professional staff from 2000 employees in 2019 to 10,000 employees in 2025 (Menzel, 2020). However, as demand for digital talent far exceeds supply, many pre-digital companies have struggled with digital transformation. Given that one of the tasks of recruitment is to produce a large number of qualified candidates who meet the requirements of the company (Barber, 1998), Employee recruitment has a role in the digital transformation of pre-digital companies. In other words, the recruitment carried out needs to support digital transformation by attracting digital talent. However, pre-digital companies have problems recruiting digital talent. Two reasons cause companies to have difficulty recruiting digital talent: First, the limited supply of digital talent combined with the high demand for digital talent which leads to a 'war for digital talent' (Gilch & Sieweke, 2021) between the two, pre-digital and born-digital organizations. Second, unlike digital-born organizations, pre-digital organizations are somewhat unfamiliar with the new target group of digital talent. Also, many skilled workers are not familiar with these pre-digital organizations, so attracting digital talent is a challenge, especially for pre-digital companies.

The digital talent variable is broken down into three dimensions, namely digital bridge builders, which consist of newcomer indicators, understanding of hardware and software, and profession and support for developing digital products. The digital expert's dimension consists of the expertise of the entire digital chain and digital expertise for product development. And the digital leader's dimension consists of leading and developing digital initiatives, and digital strategies, and the expert's dimension consists of the expertise of the entire digital chain, digital expertise for product development

p-ISSN: 2088-1231
e-ISSN: 2460-5328

Green Innovation

Fussler and James (1996) first put forward the concept of green innovation. It refers to the development and innovation of production processes to maximize the company's environmental performance. Borghesi et al (2015) and Imaningsih et, al. (2022) also stated that green innovation is an innovative process and utilization of resources that has the potential to reduce operational costs which can maximize organizational performance. Previous research has revealed that green innovation is important in enhancing economic performance, environmental, corporate social, and organizational excellence. (Asadi et al., 2020;Tamayo-Orbegozo et al., 2017).

(Luo et al., 2005) point out the importance of leveraging green innovations by adequately allocating resources that reduce harmful environmental impacts. In particular, some scholars assert that green entrepreneurial orientation includes environmental and social orientation (Guo et al., 2020). Further, GEO consists of social orientation and innovation. In particular, as a strategic move, green entrepreneurial orientation (GEO) can facilitate the production of innovative green products that will help improve sustainable business performance (Teece, 2016). Green innovation allows companies to develop and produce products that positively impact the environment (Huang & Li, 2017).

In practice, green innovation is related to the use of products, methods, raw materials, and so on. This can reduce the use of natural resources and the release of toxic substances into the environment (Ghisetti et al., 2017). This can act as a good solution to overcoming the problem of SMEs. SME owners try to run their businesses by implementing green practices. By implementing effective green practices, SMEs Owners can generate a competitive advantage over their competitors and be sustainable in the long run (Zhu & Sarkis, 2004). However, SMEs face many obstacles in implementing and eventually adopting green innovation practices.

Green innovation is the production, assimilation, or exploitation of products, production processes, services or management, or methods of business that are new to an organization to reduce environmental risks, pollution, and other negative impacts from the use of natural resources. (Gupta & Barua, 2018). Similarly, green innovation is considered a new or improved process, product, or service that reduces environmental damage. Beise & Rennings, 2005; De Marchi, 2012. It is also defined as the introduction of new or significantly improved products (goods or services), processes, organizational changes, or marketing solutions that reduce the use of natural resources (including materials, energy, water, and land) and reduce the release of hazardous substances throughout the product life cycle world (Ghisetti et al., 2017).

Green innovations are new processes, tools, systems, practices, products, and methods that add business value by minimizing the negative impact on the environment and promoting sustainable goals Leal-Millán et al., 2016; Oltra & Saint Jean, 2009. In the new environmental era, green innovation practices (e.g. recycling, reuse, eco-friendly design, etc.) play a role as actions that positively contribute to eliminating carbon emissions and conserving energy, water, and natural resources, controlling the use of toxic materials, and controlling the adverse effects of global warming on resource conservation. Green innovation is becoming an important topic in contemporary business and innovation literature due to greater awareness of sustainability and its impact on business performance. (Cheng et al., 2014). The implementation of green innovation has been widely carried out and assimilated to the company's needs. For example,

p-ISSN: 2088-1231
e-ISSN: 2460-5328

green marketing arises due to increased public knowledge and awareness about the importance of sustainable living in the future (Adi et al., 2022); (Rohman et al., 2019).

Digital Transformation

According to (Fitzgerald et al., 2014), digital transformation is the use of new digital technologies such as social media, mobile, analytics, or embedded tools to improve the business like enhancing customer experience, creating effective operations, or designing new business models. Meanwhile, (Liu, et al., 2011) define digital transformation as an organizational transformation that combines digital technology and business processes in a digital economy. Digitalization in an organization is not only about using technology but also implementing the appropriate strategy. The senior leadership team must devise strategies to leverage new business model innovation by optimizing customer needs and experiences. Based on this, it can be concluded that digital transformation is a process for companies to strengthen relationships between customers and the company itself by simplifying various processes to changing business models that are effective and efficient through the latest technology (Fachrunnisa et al., 2020).

Research by (Li, et al., 2018) on digital transformation in SMEs explains that SME actors carry out digital transformation by applying the availability of digital platforms, digital investment (ICT), social capital development (Torres, et al., 2018), creating business team, and improve the capabilities of all members in the company, not only using technical capabilities to carry out digital transformation (Information Systems). In a business team, leadership is very important as a manifestation of digital transformation. (Yuwanda et al., 2022) stated that digital leadership mediates creativity into innovative work behavior and competitive advantage but does not mediate psychological empowerment and creativity into a competitive advantage.

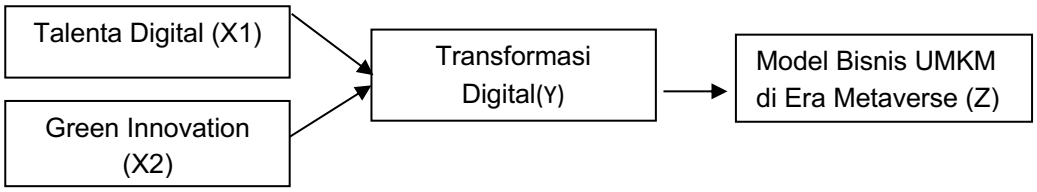
According to (Henry Lucas, et al, 2013), digital transformation causes changes driven by technological developments in organizations and society. These changes are related to the adjustment of business processes and changes in the relationship between companies, employees, customers, and markets. Digital transformation and innovation of fundamental business models are changing the resulting expectations and behavior of consumers, suppressing traditional companies, and disrupting many markets (Verhoef, 2019). Ongoing changes in customer needs and behavior are forcing companies and public administrations to take the lead in digital transformation (Nachit & Belhcen, 2020).

Measurement of digital transformation through digitization level indicators, namely the process of converting analog data into digital format. Such as written documents on paper into electronic documents such as pdf and other formats. In addition, questions were asked regarding the level of digitization, namely the use of digital technology to change a business model and prepare new revenue and value opportunities that generate or can be called the process of moving to digital business.

The following is a picture of the framework of thought in the research. The independent variables are digital talent (X1) and Green Innovation (X2). In contrast, the dependent variable is digital transformation (Y) and is moderated by the MSME Business Model variable in the Metaverse Era (Z).

p-ISSN: 2088-1231
e-ISSN: 2460-5328

Figure 2. Framework of Thought



The hypotheses in this study are:

H_1: There is an influence of digital talent on Digital Transformation.

Glich's research, *et al*. (2021) states that there is an influence of digital talent on Digital Transformation. Verhoef Peter research, *et al.* (2019) also stated that digital transformation is closely related to digital talent. Based on the research done by Karaboga., et al. (2020), digital talent is interrelated with digital transformation. Digital talent can build success in digital transformation and create a competitive advantage. Research from Hartati & Giovanni (2022) states that digital talent influences digital transformation since to face the digital transformation in the era of Industry 4.0, digital talent is needed.

H_2: There is an influence of green innovation on Digital Transformation.

Based on the research of Feng, H., et al. (2022), green innovation is related to digital transformation. While research of Shunjun Sun & Lin Guo (2022) state that the results show that enterprise digital transformation can significantly promote green innovation and pass a series of endogenous and robustness tests. Sincheng Zhang, Mingzeng Yang & Shanshan Lv (2022) states that there is a link between green innovation and digital transformation. They suggest that enterprise digital transformation has a more significant effect on green innovation in regions with weaker digital economies, in industries with less competition, and in firms of larger size. Based on research by Yangjun Ren & Botang Li (2022), green technology innovation plays a complete mediating role in the impact of digital transformation on the financial performance of renewable energy companies.

H_3: There is an influence of Digital Transformation on the MSME business model in the metaverse era.

Based on research by Fachrunnisa., *et al.* (2020), there is an influence of Digital Transformation on the MSME business model in the metaverse era. While research by Liang li*, et al.* (2018) stated that there was an effect of Digital Transformation on the MSME business model in the metaverse era. Research conducted by Ulas (2023) states that there is a significant influence between digital transformation and SME activities. While another research by Liang Li, et al. (2017) suggests that there is a link between digital transformation and MSMEs.

p-ISSN: 2088-1231
e-ISSN: 2460-5328

H_4: There is an influence of digital talent on the MSME business model in the metaverse era.

Based on research conducted by Kurniawan (2020), digital talent is an essential component for an organization, both business, government, and social to be able to develop a business and maintain its existence in the digital era. Research by Winda (2022) states that digital technology is indispensable for MSME actors in running their businesses. While research by Purbasari, et al. (2021) states that there is an influence of digital talent on MSMEs. According to Marwati & Istiantin (2022), it is stated that the need for digital talent for MSMEs absolutely must be met.

H_5: There is an influence of green innovation on the MSME business model in the metaverse era.

Based on research by Asadi, *et al.* (2020) stated that green innovation is essential in promoting sustainable performance in the hotel industry. Based on research by Muangmee, et al. (2021) stated that green innovation has a strong influence on economic and environmental performance, including MSMEs. Based on research by Sisca & Wijaya (2023), green innovation has a positive and significant effect on MSME business activities. Based on research by Jiwa & Arnawa (2022), there is an effect of green innovation on MSMEs. They argue that SMEs with the support of the empowerment program are expected to innovate based on local wisdom (green innovation) to have a competitive advantage.

METHOD

This research was conducted on MSMEs in Bangka Island's Regency/ City area. The variables measured in this study are Digital Talent, Green Innovation, and Digital Transformation of MSME Business Models in the Metaverse Era. This type of research is quantitative research. Data collection in this study was conducted by survey method with in-depth interviews and questionnaires, providing a list of statements to respondents. The population in this study is MSMEs in the Province of the Bangka Belitung Islands with a sample of 102. Data collection methods used to obtain the data needed in this study are questionnaires and documentation. This study uses a research instrument in the form of questions on a closed questionnaire using a Likert scale (5 points).

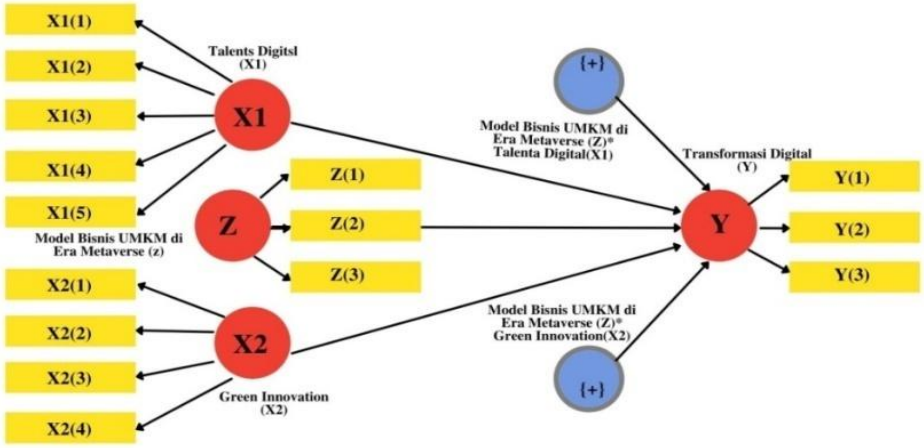
The development of the questionnaire was carried out as stated by McLeod (2018): (1) the questionnaire was prepared according to the research objectives, (2) it was prepared in a short, clear, and direct language related to the information to be asked, namely digital talent, green innovation, digital transformation, and MSME the business model in the Metaverse Era, (3) It was tested to ensure respondents had the same understanding as the researcher, (4) ensured that there was no duplication, and (5) used words and phrases that respondents could understand.

In this study, the author uses the analytical method used to test the PLS (Partial Least Square) variable using SmartPLS software. The path analysis model of all latent variables in Partial Least Square (PLS) consists of an outer model, convergent validity, and discriminant validity. Then carried out with a reliability test and a structural model consisting of Coefficient of Determination (R 2 Value), Effect Size (f 2), and Predictive Relevance (Q2 Value). Next, the researcher tests the hypothesis and the moderating effect.

p-ISSN: 2088-1231
e-ISSN: 2460-5328

The research method design has been adapted to the research objectives, namely to analyze the relationship between digital talent and green innovation variables on digital transformation and impact on the MSME Business Model in the Metaverse Era. So the analysis tool used is PLS. This is because PLS is very accurate for confirming theory and is used to plan models.

Figure 3. Path diagram with PLS



Source: Data processed, 2022

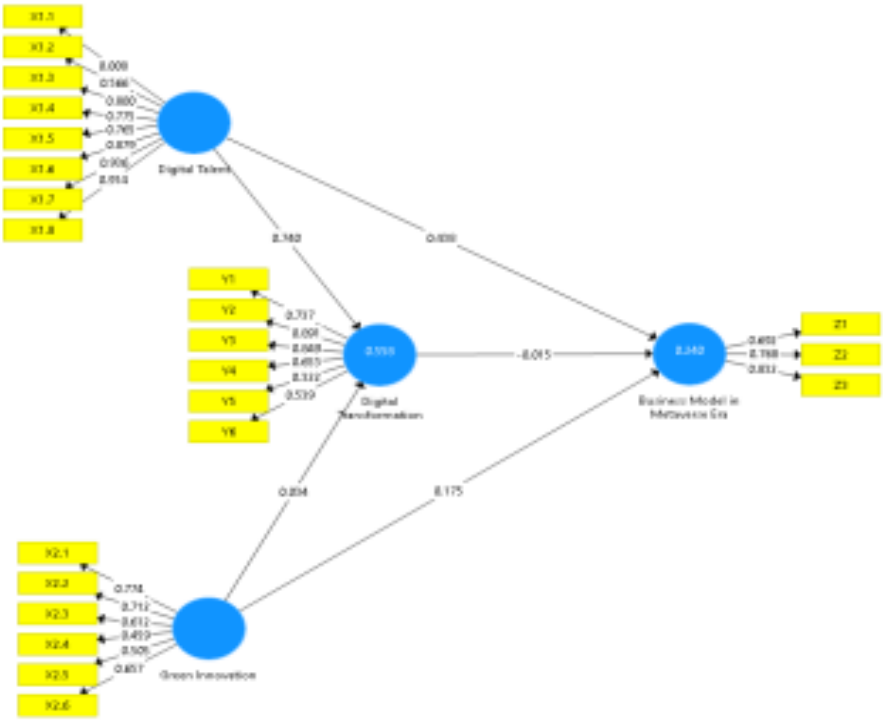
RESULTS AND DISCUSSION

Results

The items' validity analysis results are shown from the loading score. The intelligent method found two items whose loading factor value is less than 0.50, namely items X1.1 and X2.4. (Figure 4) These two items are invalid, with a z-count value of less than 1.96 (Figure 5). So, it should be excluded from the analysis.

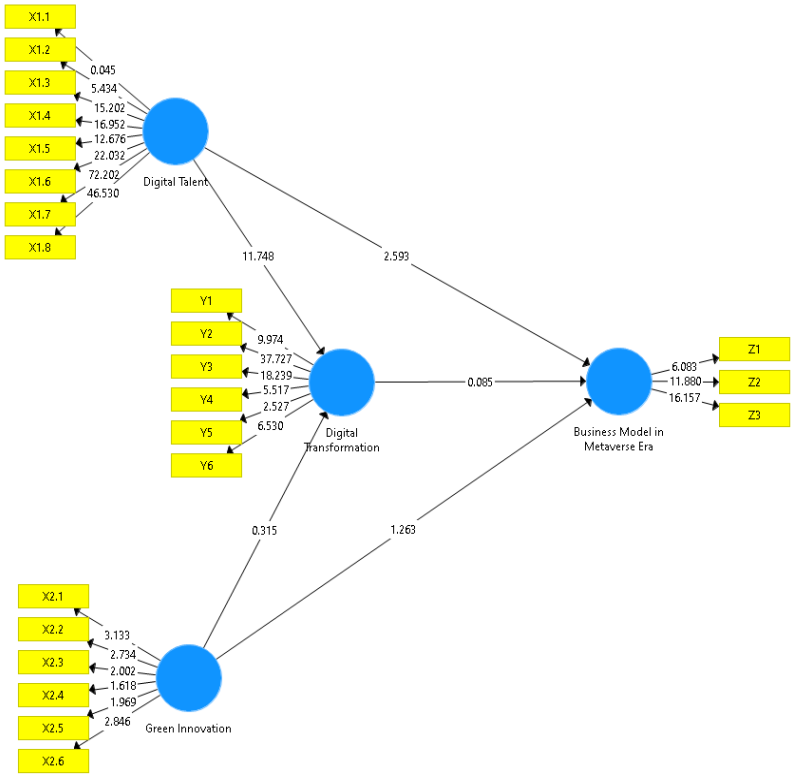
p-ISSN: 2088-1231
e-ISSN: 2460-5328

Figure 4. Initial Model (loading factors)



Source: Data processed, 2022

Figure 5. Initial model (z-values)



Source: Data processed, 2022

p-ISSN: 2088-1231
e-ISSN: 2460-5328

After being ejected from analysis, conducted reliability analysis using four statistics, namely Cronbach's Alpha, rho_A, Composite Reliability, and Average Variance Extracted (AVE). Analysis results find all variables have more Cronbach's Alpha, rho_A, and Composite Reliability significant from 0.60 to declare all instruments are reliable. Furthermore, both items were excluded from the analysis.

Table 2. Reliability

Variables	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
MSME Business Model in the Metaverse Era (Z)	0.647	0.660	0.809	0.587
Digital Talent	0.910	0.922	0.931	0.661
Digital Transformation	0.765	0.839	0.836	0.480
Green Innovation	0.677	0.683	0.790	0.434

Source: Data processed, 2022

Furthermore, discriminant reliability analysis was carried out. For the measurement of discriminant reliability, Fornel-Larcker criteria, and cross-loading examination were used. The value of discriminant reliability (correlation between constructs) for each variable must be smaller than the square root of AVE. The analysis results show that all correlation values between constructs are smaller than the square root of AVE. So, it can be concluded that the instrument has good discriminant reliability.

Table 3. Discriminant Reliability

	MSME Business Model in the Metaverse Era (Z)	Digital Talent	Digital Transformation	Green Innovation
MSME Business Model in the Metaverse Era (Z)	0.766			
Digital Talent	0.458	0.813		
Digital Transformation	0.341	0.745	0.693	
Green Innovation	0.255	0.185	0.179	0.659

Source: Data processed, 2022

Table 3 describes the factor loadings for testing the research model. All items in external loading must be (>0.50). Furthermore, these values are depicted in Figure 6 and the z-count value is shown in Figure 7.

p-ISSN: 2088-1231
e-ISSN: 2460-5328

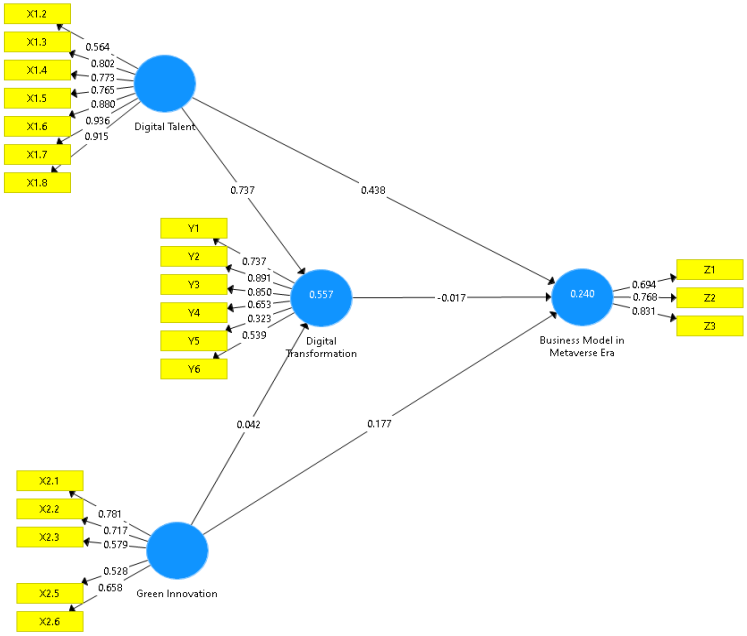
Table 4. Confirmatory Factor Analysis

Indicators	Original Sample (O)	T Statistics (|O/STDEV|)	P Values
Digital Talent			
X1.2 <- Digital Talent	0.564	5.129	0.000
X1.3 <- Digital Talent	0.802	14.927	0.000
X1.4 <- Digital Talent	0.773	16.451	0.000
X1.5 <- Digital Talent	0.765	13.065	0.000
X1.6 <- Digital Talent	0.880	22.326	0.000
X1.7 <- Digital Talent	0.936	76.142	0.000
X1.8 <- Digital Talent	0.915	49.561	0.000
Green Innovation			
X2.1 <- Green Innovation	0.781	3.343	0.001
X2.2 <- Green Innovation	0.717	3.032	0.003
X2.3 <- Green Innovation	0.579	2.257	0.024
X2.5 <- Green Innovation	0.528	2.136	0.033
X2.6 <- Green Innovation	0.658	2.657	0.008
Digital Transformation			
Y1 <- Digital Transformation	0.737	9.981	0.000
Y2 <- Digital Transformation	0.891	34.381	0.000
Y3 <- Digital Transformation	0.850	19.659	0.000
Y4 <- Digital Transformation	0.653	5.249	0.000
Y5 <- Digital Transformation	0.323	2.726	0.007
Y6 <- Digital Transformation	0.539	6.943	0.000
MSME Business Model in the Metaverse Era (Z)			
Z1 <- MSME Business Model in the Metaverse Era (Z)	0.694	5.790	0.000
Z2 <- MSME Business Model in the Metaverse Era (Z)	0.768	12.901	0.000
Z3 <- MSME Business Model in the Metaverse Era (Z)	0.831	16.530	0.000

Source: Data processed, 2022

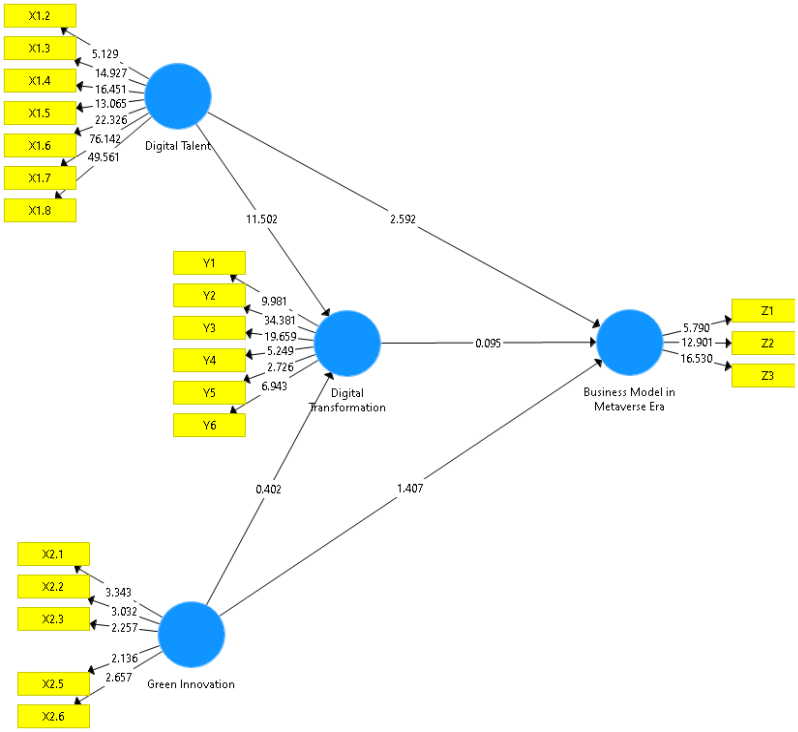
p-ISSN: 2088-1231
e-ISSN: 2460-5328

Figure 6. Final Model (Loading factors)



Source: Data processed, 2022

Figure7. Final Model (z-value)



Source: Data processed, 2022

Figure 6 clearly shows all loading factor values greater than 0.50. Figure 7 shows that all z-values for each outer model have values greater than 1.96, indicating that all items are

p-ISSN: 2088-1231
e-ISSN: 2460-5328

statistically valid. Subsequently, when testing the research hypothesis, the results are shown in Table 5 below:

Table 5. Path Coefficient

Hypothesis	Original Sample (O)	T Statistics (|O/STDEV|)	P Values	Decision
H1: Digital Talent -> Digital Transformation	0.737	11.502	0.000	Accept
H2: Green Innovation -> MSME Business Model in the Metaverse Era (Z)	0.177	1.407	0.160	Reject
H3: Digital Transformation -> MSME Business Model in the Metaverse Era (Z)	-0.017	0.095	0.924	Reject
H4: Digital Talent -> MSME Business Model in the Metaverse Era (Z)	0.438	2.592	0.010	Accept
H5: Green Innovation -> Digital Transformation	0.042	0.402	0.687	Reject

Source: Data processed, 2022

Based on the results of hypothesis testing, two research hypotheses were accepted and the other three were rejected. The accepted research hypotheses are H1: Digital Talent -> Digital Transformation and H4: Digital Talent -> MSME Business Model in the Metaverse Era (Z). These results indicate that only digital talent currently contributes significantly to Digital Transformation and the MSME business model in the metaverse (Z) era.

DISCUSSION

Digital talent affects digital transformation.

Testing the hypothesis using the Partial Least Square approach produces a significant digital talent path coefficient for digital transformation of 0.737 and a t-statistic value of 11.502 at an error rate of 5% (t-statistic value > t-table value = 1.96). Because the t-statistic has a value greater than the t-table and the p-value is less than 5%. Based on the perception of respondents of MSME actors on Bangka Island, digital talent possessed by MSME actors is able to increase the current digital transformation. MSME actors are digital newcomers and require a good understanding of hardware and software, although their main profession is not as an IT expert, they support the development of digital products, provide digital expertise to build digital, lead and develop digital initiatives, develop digital strategies, and promote digital ideas. Even though it is still low as an expert on the whole digital chain, this is in accordance with the findings of research by (Menzel, 2020).

Green innovation doesn't affect the MSME business model in the metaverse era.

Testing the hypothesis with the Partial Least Square approach resulted in the green innovation path coefficient to the MSME business model in the Metaverse Era being not significant with a value of 0.177 and a t-statistic of 1.407 with an error rate of 5% (t-statistic value < t-table value = 1.96). Because the t-statistic has a smaller value than the t-table and the p-value is more than 5%. Based on the respondent's perception of MSME actors on Bangka Island, green innovation carried out by MSME actors is still very limited so it has not become a business model to face the metaverse era. Among other things, the use of production equipment that does not use the concept of green innovation, the product concept has not been in accordance with

p-ISSN: 2088-1231
e-ISSN: 2460-5328

green innovation, the added value of the product is not in accordance with the green innovation concept and does not promote sustainable development goals. But it has always been implemented in trying to minimize the negative impact on the environment. This is in accordance with the research of (Gupta & Barua, 2018).

Digital transformation doesn't affect the MSME business model in the metaverse era.

Testing the hypothesis using the Partial Least Square approach resulted in the digital transformation path coefficient value of the MSME business model in the Metaverse Era being declared insignificant with a value of -0.017 and a t-statistic of 0.095 with an error rate of 5% (t-statistic value < t-table = 1,96). Because the t-count has a value that is smaller than the t-table and the p-value is greater than 5%, it can be concluded that the H3 hypothesis is rejected which states that digital transformation does not have a significant effect on the MSME business model in the Metaverse Era. The digital transformation that has not been carried out is a change in digital payments, 80% of product marketing is still offline, and 20% online. As for what has been implemented, they have been digitized, namely the process of converting analog data into digital format. MSMEs have also done digitization, namely the use of digital technology to change a business model and provide new income from value opportunities that generate or can be called the process of moving to a digital business. MSMEs have also carried out digital transformation supported by leadership driven by challenges to corporate culture, as well as the use of technology that empowers employees which is in accordance with research by (Nachit & Belhcen, 2020).

Digital talent influences the MSME business model in the metaverse era.

Testing the hypothesis using the Partial Least Square approach yields a significant digital talent path coefficient to the MSME business model in the Metaverse Era of 0.438 and a t-statistic of 2.592 with an error rate of 5% (t-statistic value > t-table value = 1.96). Because the t-statistic value is greater than the t-table value and the p-value is less than 5%, it can be concluded that the H4 hypothesis is accepted which states that digital talent has a significant effect on the MSME business model in the Metaverse Era. Based on respondents' perceptions of MSME actors on Bangka Island, the digital talent possessed by MSME actors is able to improve the MSME business model of the Metaverse Era better at this time. The digital transformation carried out by MSME actors is still very limited so it has not become a business model to face the metaverse era. MSME actors still don't know what the metaverse era is but they already have the desire to prepare for the metaverse era but they don't know how. This is in accordance with the research submitted by Corwen (2021).

Green innovation doesn't affect digital transformation.

Testing the hypothesis using the Partial Least Square approach resulted in an insignificant green innovation path coefficient to digital transformation with a value of 0.042 and a t-statistic of 0.402 with an error rate of 5% (t-statistic value < t-table value = 1.96). Because the t-statistic is smaller than the t-table and the p-value is greater than 5%, it can be concluded that hypothesis H5 is rejected which states that green innovation has no significant effect on digital transformation Based on respondents' perceptions of MSME actors on Bangka Island, green innovation carried out by MSME actors is still very limited so it does not encourage digital transformation. This is in accordance with the research of Li, et al (2018). This is because the

p-ISSN: 2088-1231
e-ISSN: 2460-5328

average MSME actor has not implemented the principles of green innovation in managing his business.

From the results of the discussion, it can be found that there are only two variables that affect each other, namely the Digital Talent variable affects Digital Transformation and the Digital Talent variable affects the MSME Business Model in the Metaverse Era. While the Green Innovation variable has no effect on the MSME Business Model in the Metaverse Era, Digital Transformation does not affect the MSME business model in the Metaverse Era, and Green Innovation does not affect Digital Transformation. Here we have new findings to answer the research gap as explained in the introduction, it turns out that the level of knowledge and behavior of MSME players does not reflect a readiness to face the metaverse era and their knowledge of the metaverse era is also still low. This is supported by data on the digital literacy of MSMEs in Indonesia which is only 13% and in the Bangka Belitung Islands Province digital literacy is still very limited.

CONCLUSION

The results of the analysis found two items that were declared invalid, namely X1.1 (I am a digital newcomer) and X2.4 (Do the products produced provide a lot of added value (benefits) according to the concept of green innovation). The results of hypothesis testing found that the digital talent variable was the most dominant in explaining the Digital Transformation variable and the MSME business model in the metaverse era.

The results of this research are as follows:
1. There is an influence of digital talent on Digital Transformation
2. There is no effect of green innovation on Digital Transformation
3. Digital Transformation has no effect on the MSME business model in the metaverse
4. Digital talent does not affect the MSME business model in the Metaverse era
5. Green innovation has no effect on the MSME business model in the metaverse era

SUGGESTION

1. Provincial Cooperatives and MSMEs Office need to assist MSME actors by increasing digital talent which is still at the rudimentary level and essential to advanced and expert levels.
2. Green innovation is believed to be an essential variable in future business management. Therefore, this mindset needs to be built for MSME players to open new markets and have a long-term social and economic impact.
3. The metaverse era is necessary because it needs to be prepared by increasing digital talent so they can carry out digital transformation.

REFERENCES

Adi, I. N. R., Mulyadi, M., Wirsa, I. N., Astawa, I. N. D., & Setini, M. (2022). *Trust is felt to be a Good Trigger in Marketing and Green Products in Generating Purchase Interest*. *Mix: Jurnal Ilmiah Manajemen*, *12*(2), 170–188. http://dx.doi.org/10.22441/jurnal_mix.2022.v12i2.001

Asadi, S., OmSalameh Pourhashemi, S., Nilashi, M., Abdullah, R., Samad, S., Yadegaridehkordi, E., Aljojo, N., & Razali, N. S. (2020). Investigating influence of green innovation on sustainability performance: A case on Malaysian hotel industry. *Journal of*

p-ISSN: 2088-1231
e-ISSN: 2460-5328

Cleaner Production, *258*, 120860. https://doi.org/10.1016/j.jclepro.2020.120860

Barber, A. (1998). *Recruiting Employees: Individual and Organizational Perspectives*. Thousand Oaks, CA: SAGE.

Beise, M., & Rennings, K. (2005). Lead markets and regulation: A framework for analyzing the international diffusion of environmental innovations. *Ecological Economics*, *52*(1), 5–17. https://doi.org/10.1016/j.ecolecon.2004.06.007

Cahyani, L., & Marcelino, D. (2022). Conceptual Understanding of Critical Factors That Drive Technopreneur Success in West Java. *Mix: Jurnal Ilmiah Manajemen*, *12*(2), 334–353. https://doi.org/http://dx.doi.org/10.22441/jurnal_mix.2022.v12i2.012

Cheng, C. C. J., Yang, C. L., & Sheu, C. (2014). The link between eco-innovation and business performance: A Taiwanese industry context. *Journal of Cleaner Production*, *64*, 81–90. https://doi.org/10.1016/j.jclepro.2013.09.050

Corwen, S. (2021). *METAVERSE INVESTING FOR BEGINNERS*. Metaverse.

Davis, W. J. (2021). *Metaverse Explained for Beginners ; A Complete Guide to Investing in Cryptocurrency, NFT, Blokchain, Digitsl Assets, Web 3 & Future Technologies.* Metaverse.

De Marchi, V. (2012). Environmental innovation and R&D cooperation: Empirical evidence from Spanish manufacturing firms. *Research Policy*, *41*(3), 614–623. https://doi.org/10.1016/j.respol.2011.10.002

Dionisio, J. D. N., Burns, W. G., & Gilbert, R. (2013). 3D Virtual Worlds and The Metaverse: Current Status and Future Possibilities. *ACM Computing Surveys*, *45*(3), 1–38. https://doi.org/10.1145/2480741.2480751

Fachrunnisa, O., Adhiatma, A., Lukman, N., & Ab Majid, M. N. (2020). Towards SMEs' digital transformation: The role of agile leadership and strategic flexibility. *Journal of Small Business Strategy*, *30*(3), 65–85.

Fai Pun, K. (2006). Determinants of environmentally responsible operations: a review. *Journal of Quality & Reliability Management*, *23*(3), 279–297.

Fitzgerald, M., Kruschwitz, N., Bonnet, D., & Welch, M. (2014). Embracing digital technology: A new stra¬tegic imperative. *MIT Sloan Management Review*, *55*(2), 1–12.

Ghisetti, C., Mancinelli, S., Mazzanti, M., & M Zoli. (2017). Financial barriers and environmental innovations: evidence from EU manufacturing firms. *Firms Clim Pol*, *17*(1), S131–S147.

Gilch, P. M., & Sieweke, J. (2021). Recruiting digital talent: The strategic role of recruitment in organisations' digital transformation. *German Journal of Human Resource Management*, *35*(1), 53–82. https://doi.org/10.1177/2397002220952734

Guo, Y., Wang, L. F., & Chen, Y. (2020). Green Entrepreneurial Orientation and Green Innovation: The Mediating Effect of Supply Chain Learning. *SAGE Open*, *10*(1). https://doi.org/10.1177/2158244019898798

Gupta, H., & Barua, M. K. (2018). A grey DEMATEL-based approach for modeling enablers of green innovation in manufacturing organizations. *Environmental Science and Pollution Research*, *25*(10), 9556–9578. https://doi.org/10.1007/s11356-018-1261-6

Habicher, D., Erschbamer, G., Pechlaner, H., Ghirardello, L., & Walder, M. (2022). Transformation and Design Thinking: Perspectives on Sustainable Change, Company Resilience and Democratic Leadership in SMEs. *Leadership, Education, Personality: An Interdisciplinary Journal*. https://doi.org/10.1365/s42681-022-00028-x

Henry Lucas et al. (2013). Impactful Research on Transformational Information Technology: An Opportunity to Inform New Audiences. *MIS Quarterly*, *37*(2), 82–371.

p-ISSN: 2088-1231
e-ISSN: 2460-5328

Huang, J. W., & Li, Y. H. (2017). Green Innovation and Performance: The View of Organizational Capability and Social Reciprocity. *Journal of Business Ethics*, *145*(2), 309–324. https://doi.org/10.1007/s10551-015-2903-y

Imaningsih, E. S., Nawangsari, L. C., Saratian, E. T. P., Wibowo M. W. (2022). *Green Management*. Media Edu Pustaka, Jakarta.

Kurniawan, A. (2020). *Peringkatisasi Mitra Penyedia Talenta Digital Menggunakan Metode Analytic Hierarchy Process (AHP) Pada Tribe Enterprise Wholesale Digitization*. *1*(1), 13–29.

Leal-Millán, A., Roldán, J. L., Leal-Rodríguez, A. L., & Ortega-Gutiérrez, J. (2016). IT and relationship learning in networks as drivers of green innovation and customer capital: evidence from the automobile sector. *Journal of Knowledge Management*, *20*(3), 444–464. https://doi.org/10.1108/JKM-05-2015-0203

Li, L., Su, F., Zhang, W., & Mao, J. Y. (2018). Digital trans¬formation by SME entrepreneurs: A capability per¬spective. *Information System Journal*, *28*(6), 1129–1157.

Liu, D. Y., Chen, S. W., & Chou, T. C. (2011). Resource fit in digital transformation. *Management Decision*, *49*(10), 1728–1742.

Luo, X., Zhou, L., & Liu, S. S. (2005). Entrepreneurial firms in the context of China's transition economy: An integrative framework and empirical examination. *Journal of Business Research*, *58*(3 SPEC. ISS.), 277–284. https://doi.org/10.1016/S0148-2963(03)00159-0

Menzel, S. (2020). *VW-software-Einheit startet im Juli - Betriebssystem soll bis 2024 kommen*.

Nachit, H., & Belhcen, L. (2020). Digital Transformation in Times of COVID-19 Pandemic: The Case of Morocco. *SSRN Electronic Journal*, *1*. https://doi.org/10.18202/jamal.2015.12.6031

Nafi'ah, B. A. (2021). Kesiapan Kebijakan Digital Talent Di Indonesia. *Public Administration Journal of Research*, *3*(1), 17–28.

Oltra, V., & Saint Jean, M. (2009). Sectoral systems of environmental innovation: An application to the French automotive industry. *Technological Forecasting and Social Change*, *76*(4), 567–583. https://doi.org/10.1016/j.techfore.2008.03.025

Peters, L. (2021). *NFT Metaverse & DEFI "The Complete Guide To Invest And Build Wealth in a Decentralized World-How to Lend, Trade & Invest in Crypyocurrency and Digital Assets*. NFT.

Ratnawati, K., & Susilowati, C. (2022). Implication of Digital Economy and Financial Technology Towards Performance of Financial Services Sector in Indonesia. *Mix: Jurnal Ilmiah Manajemen*, *12*(1), 140–157. https://doi.org/http://dx.doi.org/10.22441/jurnal_mix.2022.v12i1.011

Reniati, R., Khairiyansyah, K., & Thoyib, S. (2021). Shifting Product-Platform and Business Strategy of Micro Small Medium Enterprises to Improve Business Performance in Digital Industry 4.0. *Linguistica Antverpiensia*, *3*, 1073–1091. https://www.hivt.be/linguistica/article/view/1149

Rohman, F., Abadi, Y. B., Soelton, M., Prasetyo, N., & Saratian, E. T. P. (2019). *The Effect of Environmentally Friendly Paper Toward Purchasing Intention*. *120*(Icmeb 2019), 120–126. https://doi.org/10.2991/aebmr.k.200205.023

Russel, J. (2021). *Metaverse for Beginners: A Complete Guide on How to Invest in the Metaverse*.

Tamayo-Orbegozo, U., Vicente-Molina, M. A., & Villarreal-Larrinaga, O. (2017). Eco-innovation strategic model. A multiple-case study from a highly eco-innovative European region. *Journal of Cleaner Production*, *142*, 1347–1367.

p-ISSN: 2088-1231
e-ISSN: 2460-5328

https://doi.org/10.1016/j.jclepro.2016.11.174

Teece, D. J. (2016). Dynamic capabilities and entrepreneurial management in large organizations: Toward a theory of the (entrepreneurial) firm. *European Economic Review*, *86*, 202–216. https://doi.org/10.1016/j.euroecorev.2015.11.006

Telagawathi, N. L. W. S., Suci, N. M., & Heryanda, K. K. (2021). Implikasi Kewirausahaan Terhadap Digitalisasi Ekonomi dan Ekonomi Kemanusiaan UMKM Kerajinan Tenun di Provinsi Bali. *Mix: Jurnal Ilmiah Manajemen*, *11*(2), 228–240. http://dx.doi.org/10.22441/mix.2021.v11i2.006

Torres, A. P., Marshal, M. I., & Sydnor, S. (2018). Does social capital pay off? The case of small business resilience after Hurricane Katrina. *Journal of Con¬tingencies and Crisis Management*, *27*(2), 168–181.

Ulas, D. (2019). Digital Transformation Process and SMEs. *Procedia Computer Science*, *158*(137), 662–671. https://doi.org/10.1016/j.procs.2019.09.101

Verhoef Peter, et al. (2019). Digital Transformation: A Multidisciplinary Reflection and Research Agenda. *Journal of Business Research 122(July 2018): 889–901.*, *122*(july), 889–901.

Yuwanda, T., Gustina, L., & Bella, S. (2022). Increasing Competitive Advantage Through Creativity and Innovative Behavior: The Moderating Role of Digital Leadership. *Mix: Jurnal Ilmiah Manajemen*, *13*(1). https://doi.org/http://dx.doi.org/10.22441/jurnal_mix.2023.v13i1.005

Zhu, Q., & Sarkis, J. (2004). Relationships between operational practices and performance among early adopters of green supply chain management practices in Chinese manufacturing enterprises. *Journal of Operations Management*, *22*(3), 265–289. https://doi.org/10.1016/j.jom.2004.01.005