The Use of Digital Finance Applications, Competitiveness, and Green Economy on Village Development

I Gusti Ayu Purnamawati¹, Kadek Rai Suwena², and Komang Krisna Heryanda³

Abstract
Conducting an analysis of the role of digital financial applications, competitiveness, and a green economy for village development innovation is the aim of this research. The research uses an explanatory approach with research locations in the Province of Bali. Primary data was collected using a questionnaire with a Likert scale of 1 to 5. Respondents included 165 owners of micro, small, and medium enterprises and were determined purposively which were then analyzed using Structural Equation Modeling. The results of the study provide evidence of a positive and significant relationship between the variables of implementing digital finance, competitiveness, and the development of village development innovations. The application of the green economy has not fully influenced village development innovations. In the future, it is expected to provide optimal opportunities to encourage a low-carbon economy. The digital village has contributed to improving the village government service system, community, and empowerment based on information technology.

Keywords: Competitiveness; green economy; digital; finance; innovation; development; village.

Introduction
The process of development of knowledge-based regional development occurs quickly, motivated by increased competitiveness and the economy. Future efforts to achieve sustainability as the main mission that provides motivation for regional development in a smaller scope (Gerritsen et al., 2019). This development’s primary purpose is so villages with developed business units can implement knowledge and technology. In the end, it is in line with expectations and accelerates the recovery of the national economy. The facts show that knowledge and technology can significantly drive economic growth, encourage innovation, and seek to improve people’s welfare (Asian Development Bank, 2014). At the same time, it is also a solid foundation for social and political development, people’s economy, and the creation of people’s independence. The most strategic factor of production is entrepreneurship to increase the competitiveness of a country’s economy, apart from other production factors such as land, labor, and capital. The pandemic in Indonesia caused business activities and the economic sector to be severely hit, so MSMEs experienced operational difficulties, were hampered in running their businesses, and could not survive (Indriyanti, 2022; Setyahuni & Triyani, 2021).

MSME actors and business entities developed by villages must be adaptive and able to face changes in the highly competitive economic situation (Gherghina et al., 2020). Various adjustments and adaptation actions to improve their financial plans so that they can survive in the ecosystem, invest and be stable in responding to changes or current business dynamism. One thing that must be watched out for in a crisis is that a healthy MSME depends on a stable financial position because finance is a source of transactions to carry out business operations. Activities can be hampered if the economic situation is terrible. Therefore, to survive the COVID-19 pandemic, MSME actors must be creative and innovative in maintaining a financial stabilization situation (Purnamawati & Yuniarta, 2021).

¹²³Faculty of Economics, Universitas Pendidikan Ganesha, Singaraja, INDONESIA
Corresponding author; Email: iayu.purnamawati@undiksha.ac.id

Received 31 May 2023
Revised 30 June 2023
Accepted 04 July 2023

International Journal of Organizational Behavior and Policy
Vol. 2, No. 2, July 2023
pp. 67-76
Department Accounting, UKP
eISSN 2961-9548
DOI 10.9744/ijobp.2.2.67-76
MSMEs are one of the main pillars of the national economy (Ishak et al., 2022), which has been proven by their strength in dealing with several crisis pressures. MSMEs are one of the driving wheels of the economy in Indonesia; even MSMEs are one of the leading sectors because they continuously experience an increase in the amount of growth every year. In the current era of rapid development of information technology and in line with digital transformation efforts, this is one of the steps that the government can take to help MSME actors. This transformation is significant, especially after entering the 4.0 industrial revolution; the government hopes that MSME players can compete on a large scale with digital transformation efforts in their business activities. MSMEs occupy a strategic position in the economy in general; this makes MSMEs very important in the Indonesian economy. The efforts developed by the village government are also beginning to lead to these significant adjustments. The shift that has occurred is marked by the use of technology, as is the case with business actors in rural areas through digital media and Artificial Intelligence in the agricultural sector which are aligned with products that are able to pay attention to environmental sustainability (Williams & Schaefer, 2013).

MSMEs have hopes for sustainable resources at affordable prices through improvisation, readiness for change and new innovations, especially the use of technology towards renewable energy. The government has pursued various training programs in developing digital MSMEs together with the Ministry of Communication and Informatics so that they can increase the role and competitiveness of MSMEs in using digital platforms and media for their businesses. This effort is not fully in line with expectations, where in 2021 only a maximum of 12 million MSMEs use digital media from the existing 60 million MSMEs. Various efforts are still needed to encourage the implementation of online marketing to be able to achieve the desired target. MSMEs in agriculture, trade, accommodation, and restaurants have a very low level of internet use, which is 1% for MSMEs in the agricultural sector in product sales (Wicaksono & Simangunsong, 2021).

Some MSME sectors that are still unable to adapt digitally will be so affected that they close their businesses (Liu & Cheng, 2018) (Tengeh & Talom, 2020). Major reforms in the business world occurred when the Covid-19 pandemic hit the world which then resulted in a shift from traditional methods to digital technology-based entrepreneurship. MSMEs are getting used to marketing their products using social media and marketplaces so that they are able to expand their business as a whole. Digital platforms are a significant business need today, especially after the COVID-19 pandemic (Kankam, 2022). Previous research explained the digital MSME development model during the pandemic. MSME actors must continuously innovate products, through strategies, namely developing knowledge and technology both from books and the internet (Sutanegara, 2022).

A developed and developing country has different economic, population, socio-culture, technological, and educational characteristics. Developed countries have the main factors that are superior to developing countries. Developed countries, from an economic point of view, have high per capita income, availability of capital, leading activities in the industrial and service sectors, optimal use of natural resources, and high national productivity (Kim, 2018). In addition, in terms of population conditions, growth in developed countries is less than 1% per year. This triggers the number of people who do not occupy much of a region or country. Based on the technological aspect, technological developments in developed countries are rapid, which can affect various parts of people's lives. Economic activity in developing countries has almost accelerated compared to developed countries. The economic characteristics of developing countries are low income.

Healthy MSMEs depend on a stable financial position because finance is the source of transactions to carry out business operations. Operational activities in the business can also be hampered if the economic situation is terrible. Therefore, to survive the COVID-19
pandemic, MSME actors must be creative and innovative in maintaining their financial situation (Adawiyah & Adhitya, 2021).

MSME actors must also manage finances, record transactions, and prepare financial reports properly. During the COVID-19 pandemic, digital financial reporting is required (Rohmatin et al., 2021; Pakpahan & Naibaho, 2023). It is designed to facilitate financial reporting for MSME actors. It is necessary to manage finances easily and control every transaction. It will be effective and efficient if it is done systematically rather than manually. MSME actors must be able to take advantage of digital financial reporting to facilitate financial transactions and bookkeeping in the post-pandemic using digital applications.

Digital financial reports are also used as the basis for paying taxes to the government. It will make it easier for MSME actors to calculate the amount of tax that must be paid. With this digital financial report, the amount of tax that must be paid can be known and easily calculated, so there are minimal errors in calculating sales tax. In addition, digital financial reporting will make it easier for MSME actors to borrow business capital from banks. The Bank also requires strict and formal procedures in analyzing MSME actors who wish to apply for loans. One of the requirements that must be met is the administrative presentation of financial statements, which is systematic and structured from time to time. MSME actors must use this opportunity to compete with other MSME actors and larger companies. Therefore, the presence of digital applications helps businesses increase their profits. Digital applications can help companies interact with their internal and external environments.

It shows that digital application factors influence the decision of MSME owners or managers to use or refuse to use digital applications. Digital applications that are currently developing also have an impact on making it easier for MSME actors to record financial transactions. Parties interested in developing MSMEs also take advantage of digital applications to make it easier for MSME actors to manage their finances according to standards (Nurjannah et al., 2022). Through the digital recording of financial transactions, business activities can be seen in detail, and financial reporting can be immediately organized and clear. Various software or digital applications are released for use; this is also a concern of Bank Indonesia. One of Bank Indonesia’s efforts to encourage business capacity building and access to MSME financing is to provide a standard and simple way of recording financial transactions.

This study’s purposes to analyze the role of digital finance applications, competitiveness, and the green economy for village development innovation. The indicators of questionnaire were developed related to current situation where MSMEs have a vital role in the economy of Indonesia. The MSME sector is the most significant contributor to Gross Domestic Product, absorbs the most employment opportunities, and is relatively resistant to financial crises (Rinaldi et al., 2022).

**Literature Review**

Digital marketing strategy is one of the efforts to promote a brand using digital media that can connect customers with real-time, personal, and relevant information (Yuniarta et al., 2023). This digital marketing includes many methods and activities found through internet-based marketing. Furthermore, digital marketing combines aspects of psychology, humanism, anthropology, and technology leading to the development of new media with extensive interactive and multimedia capabilities. The interaction between producers, market intermediaries, and consumers is a product of a new era. Calls for green development that are in line with the improvement of digital financial services are currently not fully showing strong impacts and benefits for the surrounding ecosystem (Zhuang et al., 2022).

**H1:** The use of digital financial applications has a positive effect on village development innovation.
One of the efforts to increase the competitiveness of a country's economy, apart from other production factors such as land, labor, and capital, the most strategic element of the production is entrepreneurship. Business digitization is the most advanced type of enterprise today and is expected to continue to grow yearly and significantly (Verhoef et al., 2021). These companies place great emphasis on internet-based platforms such as e-commerce and e-business. Businesses that use the Internet go beyond traditional e-commerce, enabling electronic networks to be accessed via ordinary personal computers via a prepared telecommunications infrastructure. (Crompton et al., 2021) Leveraging the Internet and browsers is cheap, easy, and highly flexible to meet the needs of a wide variety of companies. In addition, browsers have different functions and are compatible with various computer systems. Business digitalization requires companies to establish the right marketing strategy to deal with these changes.

H:\ Competitiveness has a positive effect on village development innovation.

This green economy is a model of an economic development approach that no longer relies on economic development based on excessive exploitation of natural resources and the environment (Söderholm, 2020). The green economy is a giant leap from financial practices emphasizing short-term profits, which have left various pressing problems to address, including driving a low-carbon economy. Indonesia itself has enormous potential for a green economy. Indonesia’s abundant resources can not only be exploited for its wealth but also can be used as an energy source that can replace non-renewable energy sources such as fossil fuels (Nugroho et al., 2021). For that, the government needs to start managing the green economy because, in the future, countries will begin to abandon goods that come from fossil energy.

H\s: The green economy has a positive effect on village development innovation.

The development of knowledge-based entrepreneurship is primarily aimed at forward-looking areas such as the creative economy through community culture projects, which require continuous support, as well as the promotion and strengthening of favorable government policies (Kruja, 2013). So that new entrepreneurs based on knowledge and technology can grow according to expectations and accelerate the national economy after the outbreak of economic recovery. Facts and experiences from various countries show that learning and technology-based entrepreneurship can significantly drive economic growth, encourage innovation, and seek to improve people’s welfare. It is also a solid foundation for social and political development, the people's economy, and the creation of people’s independence.

**Methodology**

This research was conducted with explanatory research approach. Collecting data in this study using primary sources through a questionnaire with a Likert scale of 1-5. Respondents in this study were the community and MSMEs who carried out activities using technical assistance in agriculture and plantations in Bali Province. This study used a sample of 165 people who met certain criteria. Structural Equation Modeling with WarpPLS 7.0 assists researchers in analyzing the data collected related to village development innovations, digital finance implementation, competitiveness, and green economy.

Model:

\[ Y = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon \]
Analysis and Discussion

Analysis

A developing country certainly wants its government to have economic growth that continues to increase. This is generally known as inclusive and sustainable economic growth, where it is not only expected to create competitive advantages and economic opportunities but also ensure justice for all levels of society without exception. A sustainable strategy should pay attention to harmonization with the surrounding environment and future ecosystems (Holden et al., 2014). The meaning of this growth will be able to create a space for justice for society and harmonization of social relations, ecological principles, and prioritizing human rights. Figure 1 shows the direct influence of endogenous variables, namely village development innovation, and exogenous variables, namely the application of digital finance, competitiveness, and a green economy. The P value < 0.05 can be said to be fulfilled as a reflective indicator.

Figure 1. Direct Effect

Inclusive and sustainable economic growth must, of course, be based on knowledge and technology (Pavlova, 2018) (Ozili, 2018). As a result of economic growth, the thing that needs to be considered is an understanding of the economy itself. Economics will always be related to finance, where finance is a reference or indicator in economic aspects (Wen et al., 2021). To increase economic growth inclusively and sustainably, it is necessary to implement digital financial management. Digital financial applications can make it easier to prepare financial reports to achieve maximum economic growth later. Digital financial applications help individuals in business activities to be more effective and efficient (Leon et al., 2022). This financial problem will undoubtedly be constructive in running a business.

Outer model to test the validity and reliability of the instrument. Convergent validity in this study, based on table 1, it is known that the combined loadings and cross-loadings have met the criteria for fulfilling validity (loading value 0.5 to 0.6).

Discriminant validity is seen from the value of the square root of average variance extracted (AVE) greater than the correlation of the variables in question. In table 2, the discriminant validity can be fulfilled.
### Table 1. Convergent Validity

<table>
<thead>
<tr>
<th></th>
<th>X1</th>
<th>X2</th>
<th>X3</th>
<th>Y</th>
<th>SE</th>
<th>P value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1.1</td>
<td>0.763</td>
<td></td>
<td></td>
<td>0.069</td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>X1.2</td>
<td>0.774</td>
<td></td>
<td></td>
<td>0.068</td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>X1.3</td>
<td>0.743</td>
<td></td>
<td></td>
<td>0.067</td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>X1.4</td>
<td>0.767</td>
<td></td>
<td></td>
<td>0.066</td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>X2.1</td>
<td></td>
<td>0.895</td>
<td></td>
<td>0.064</td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>X2.2</td>
<td></td>
<td>0.876</td>
<td></td>
<td>0.065</td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>X2.3</td>
<td></td>
<td>0.899</td>
<td></td>
<td>0.064</td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>X3.1</td>
<td></td>
<td></td>
<td>0.834</td>
<td>0.065</td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>X3.2</td>
<td></td>
<td></td>
<td>0.887</td>
<td>0.065</td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>X3.3</td>
<td></td>
<td></td>
<td>0.816</td>
<td>0.066</td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Y.1</td>
<td></td>
<td></td>
<td></td>
<td>0.809</td>
<td>0.066</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Y.2</td>
<td></td>
<td></td>
<td></td>
<td>0.872</td>
<td>0.065</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Y.3</td>
<td></td>
<td></td>
<td></td>
<td>0.769</td>
<td>0.066</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

SE and P values are for loading, while P values < 0.05 are basic for reflective indicators.

Source: Data Processed, 2022

*Valid = p-value < 0.001

### Table 2. Discriminant Validity, Path coefficients, P-Values

<table>
<thead>
<tr>
<th>Correlations among lvs. With sq.rts. of AVEs</th>
<th>Path coefficients</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>X2</td>
<td>X3</td>
</tr>
<tr>
<td>X1</td>
<td>0.691</td>
<td></td>
</tr>
<tr>
<td>X2</td>
<td>0.890</td>
<td>0.265</td>
</tr>
<tr>
<td>X3</td>
<td>0.846</td>
<td>-0.356</td>
</tr>
<tr>
<td>Y</td>
<td>0.817</td>
<td></td>
</tr>
</tbody>
</table>

Source: processed data

***Highly Significant

### Table 3. Model Fit and Quality Indices

<table>
<thead>
<tr>
<th>No.</th>
<th>Model Fit and Quality Indices</th>
<th>Kriteria Fit</th>
<th>Indeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Average path coefficient</td>
<td>p &lt; 0.05</td>
<td>0.349*</td>
</tr>
<tr>
<td>2</td>
<td>Average R-squared</td>
<td>p &lt; 0.05</td>
<td>0.647*</td>
</tr>
<tr>
<td>3</td>
<td>Average adjusted R-squared</td>
<td>p &lt; 0.05</td>
<td>0.640*</td>
</tr>
<tr>
<td>4</td>
<td>Average block VIF</td>
<td>acceptable if &lt;= 5, ideally &lt;= 3.3</td>
<td>1.295*</td>
</tr>
<tr>
<td>5</td>
<td>Average full collinearity VIF</td>
<td>acceptable if &lt;= 5, ideally &lt;= 3.3</td>
<td>1.726*</td>
</tr>
<tr>
<td>6</td>
<td>Tenenhaus GoF</td>
<td>small &gt;= 0.1, medium &gt;= 0.25, large &gt;= 0.36</td>
<td>0.655**</td>
</tr>
<tr>
<td>7</td>
<td>Symposson's paradox ratio</td>
<td>acceptable if &gt;= 0.7, ideally = 1</td>
<td>1.000*</td>
</tr>
<tr>
<td>8</td>
<td>R-squared contribution ratio</td>
<td>acceptable if &gt;= 0.9, ideally = 1</td>
<td>1.000*</td>
</tr>
<tr>
<td>9</td>
<td>Statistical suppression ratio</td>
<td>acceptable if &gt;= 0.7</td>
<td>1.000*</td>
</tr>
<tr>
<td>10</td>
<td>Nonlinear bivariate causality direction ratio</td>
<td>acceptable if &gt;= 0.7</td>
<td>1.000*</td>
</tr>
</tbody>
</table>

Source: processed data

* Fulfilled; ** fulfilled, medium category

### Table 4. Latent Variable Coefficients

<table>
<thead>
<tr>
<th></th>
<th>X1</th>
<th>X2</th>
<th>X3</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-squared coefficients</td>
<td>0.647</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared coefficients</td>
<td>0.640</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composite reliability coefficients</td>
<td>0.783</td>
<td>0.920</td>
<td>0.883</td>
<td>0.858</td>
</tr>
<tr>
<td>Cronbach's alpha coefficients</td>
<td>0.832</td>
<td>0.869</td>
<td>0.800</td>
<td>0.750</td>
</tr>
<tr>
<td>Average variances extracted</td>
<td>0.478</td>
<td>0.792</td>
<td>0.715</td>
<td>0.668</td>
</tr>
<tr>
<td>Full collinearity VIFs</td>
<td>1.734</td>
<td>1.420</td>
<td>1.365</td>
<td>2.384</td>
</tr>
<tr>
<td>Q-squared coefficients</td>
<td>0.646</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: processed data, 2022
Discussion

In addition, competitiveness can also strengthen a country’s economic growth. Financial management is carried out for accountability to obtain accurate financial information in utilizing the available resources. Support innovation in economic development, technology, and increasing competitiveness can support efforts to achieve future prosperity. Green investment has an essential role in the growth of the national economy (Aiginger et al., 2013). It is because investing in fields that sustainably support environmental conservation will be able to increase the value of the company and provide hope for better survival in the future for all generations. Based on the description above, the first hypothesis proposed is $H_1$: the use of digital financial applications positively affects village development innovation. $H_2$: competitiveness has a positive effect on village development innovation acceptable. It cannot be accepted in hypothesis $H_3$: the green economy positively impacts village development innovation.

Online resellers use WhatsApp, which facilitates and makes it easy to get product photos or catalogues with a price list from the store. Other processes, such as ordering products or submitting criticism and suggestions (testimonials), can be carried out by resellers to suppliers through the private message feature. Unlike the conventional sales system, the problem will be more related to a good and strategic place of business in reaching consumers. The more affordable the location in the eyes of consumers, the more purchasing decisions will be made. However, this problem can be helped by the presence of a marketplace feature in the Facebook application so that business actors and resellers no longer must have a physical place.

However, an online business also has several weaknesses for the middle to the lower economic community, such as limited public knowledge of online business, the number of frauds in cyberspace that makes consumer confidence in online business decrease (Nasution et al., 2018), there is high business competition, constrained internet connections, difficulty finding suppliers of goods, and prone to problems between resellers and suppliers that lead to termination of employment.

Development that aims to improve the community’s welfare cannot be avoided using natural resources. However, exploitation of natural resources that do not heed the capabilities and carrying capacity of the environment results in a decline in environmental quality. Many factors have contributed to the deterioration of environmental quality and damage, particularly to environmental management in the era of regional autonomy. Differences in the interests of development goals have created a conflict of interest between the purposes of improving economic welfare and the destination of preserving the environment, both the natural environment and the social community. The fact shows that many countries still carry out development at the expense of environmental factors to pursue economic gain (single bottom line development). Development-oriented only on maximizing profits, it is confident that it is exploitive and has a short-term dimension. Meanwhile, national development innovation must be long-term oriented or known as sustainable development so that it is aligned, harmonious, and balanced between the three main pillars of action known as the 3Ps, namely economy (profit), environment (planet), and social (people).

Conclusions and Recommendations

Efforts to realize the village towards digitalization are not easy efforts, responsive efforts are urgently needed to facilitate collaboration with stakeholders regarding capital, mentoring and training, and digital literacy, where the distribution of village funds has begun to focus on increasing the use of digital technology. The opportunities that exist today are of course through the green economy which then begins to provide motivation to replace economic
practices that emphasize short-term profits and address the urgency of problems towards a low-carbon economy. The digital village is a solution in providing fast and comprehensive government services, community service, and community empowerment using an information technology platform. This program basically seeks to develop village potential, assist in marketing activities for MSMEs, and speed in providing public services. Public services will be based on a digital database connected via the internet. The digital village will later have a website and social media accounts to publish various news and promote village potential, e-commerce systems, and applications that adapt to the characteristics of the village. The inclusion of internet access is expected to be able to improve the village economy and assist in empowering the community (for example marketing activities or promotion of BUMDES activities and products), and of course improve the quality of service for village communities which then leads to prosperity.

Acknowledgement
We thank for the funding provided by The Center of Research and Community Service Universitas Pendidikan Ganesha and related parties, by a research grant number: 1108/UN48.16/LT/2023.

References


