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The Impact of Economic Digitalization and the Digital Divide on Community Welfare in West Sulawesi Province

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Abstract

This research paper aims to explore the impact of economic digitalization and the digital divide on the welfare of the people in West Sulawesi, Indonesia. The study acknowledges that while economic digitalization has the potential to reduce poverty rates, the unequal conditions regarding internet access in Indonesia, particularly in West Sulawesi, have resulted in a digital divide. The term "digital divide" describes the disparity in access to information and communication technologies among individuals, households, businesses, or regions that are at varying socio-economic statuses. In the context of West Sulawesi, inadequate internet coverage has created this divide, potentially hindering the benefits of economic digitalization. The research employs a quantitative method to analyze the situation. Quantitative investigation entails gathering and transforming data into numeric format to facilitate statistical computations and deductions.

This method is beneficial for obtaining objective and generalizable data. Primary data for the research was collected through questionnaires, interviews, and observations. These methods allow for direct interaction with the subjects and provide first-hand, original data. Questionnaires and interviews can provide valuable insights into the subjects' experiences, opinions, and behaviors, while observations can offer additional context and information. Secondary data was collected through articles, previous research, books, and reference journals related to the research topic. This type of data provides a broader context, supports or contradicts the primary data, and can help refine the research focus. The population of this study is Micro, Small, and Medium Enterprises (MSMEs) in West Sulawesi Province. MSMEs are often seen as a driving force for economic growth, innovation, and social integration. Therefore, understanding the impact of the digital divide on these businesses can provide valuable insights into the overall welfare of the region. The sample size in Structural Equation Modeling (SEM) used in this research follows a minimum ratio of 5 respondents for each parameter in the research, or 10 respondents for every 1 parameter, or 15 respondents for every 1 parameter. This approach ensures a sufficient sample size for reliable and valid results. In conclusion, this research aims to provide a comprehensive understanding of the impact of economic digitalization and the digital divide on the welfare of the people of West Sulawesi. The findings could potentially inform policies and strategies to bridge the digital divide and maximize the benefits of economic digitalization.

Keywords: *Economic Digitalization, Digital Divide, Welfare, West Sulawesi, Micro, Small, and Medium Enterprises (MSME), Structural Equation Modeling (SEM), Sample Size.*

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Introduction

1.1 Background

According to data from the Central Statistics Agency (BPS), the number of impoverished individuals in West Sulawesi (Sulbar) in March 2021 was 157.19 thousand. This figure is down by 1.86, 000 individuals or 1.17% from September 2020. However, compared with the same period in the previous year, the figure rose by 3.4% or 5.17 thousand individuals. During the period from March 2017 to 2021, the highest recorded impoverished population in West Sulawesi occurred in September 2020, reaching 159.05 thousand individuals. The lowest recorded number was in September 2017, with 149.47 thousand individuals.

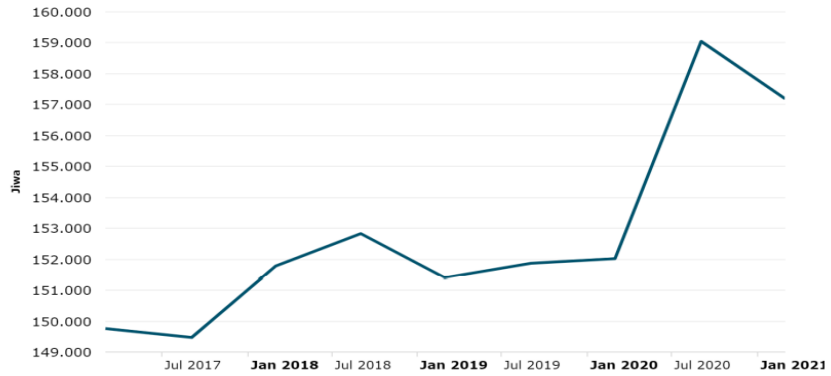

Figure 1.1 Total Poor Population in West Sulawesi from 2017 to 2021

Source : Coordinating Ministry Economic Sector-katadata.co.id, 2021

The study is conducted by Dawood et al. (2019), one method for alleviating poverty is through technology frequent information and communication (ICT), promoted as center revival and sustaining public area. A number of studies previously, as Research conducted by Risner and Gadhavi (2016), Rivera and Mora (2020), Alderete (2019), and Lin et al. (2017) demonstrates the significant impact of internet accessibility in alleviating poverty within a region. The global count of internet users is close to 3.2 billion, with Indonesia contributing 42,258,824 to this number, as reported by Azzasyofia and Adi (2017).

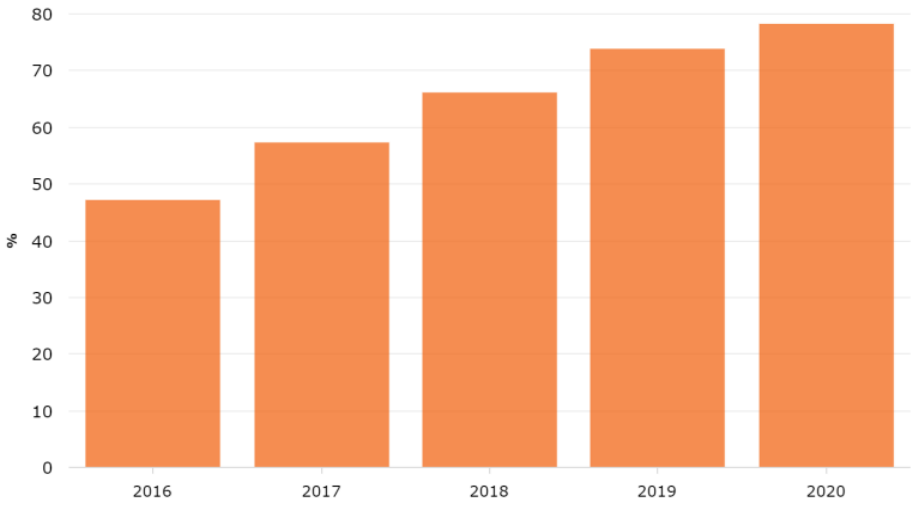

Figure 1.2 Development of house holding the Internet (2016-2020)

Source: Central Statistics Agency (BPS) data books, 2021

The Central Statistics Agency (BPS) reported that 78.18% of house ladder in Indonesia used the in the internet in 2020. Total That increased by 4.43 points compared to a year previously, which was 73.75%. Enhancement of internet penetration in line with existing restrictions activity public moment COVID-19 coronavirus pandemic. Various activity work, study, shop more Lots done with utilizing digital technology from House. Apart from the internet, 18. 83% of homes in Indonesia have at least one computer, such as a desktop, laptop, or tablet. The percentage increased slightly from the year previously, at 18.78%. BPS also reports that development technology, information and communications (ICT) in Indonesia is experiencing repair. This is reflected in the ICT Development Index score, which rose 5.08% from 5.32 in 2019 to 5.59 in 2020 (Central Statistics Agency (BPS) – data books, 2021).

According to a survey conducted by the Association of Indonesian Internet Services Providers (APJII), regarding contribution Internet use in every province in Indonesia, West Sulawesi, Gorontalo, and West Papua only own contribution internet users 0.3 % . Mentioned West Sulawesi only get figure 30%. Survey West Sulawesi it's losing Far from penetration Internet users in Papua reach 80% and West Papua and Maluku each reaches 60%. This matter caused low internet penetration in West Sulawesi with the lowest amount of Base Transceiver Station (BTS) data after North Maluku (Sulbarkita.com-Tri, 2019).

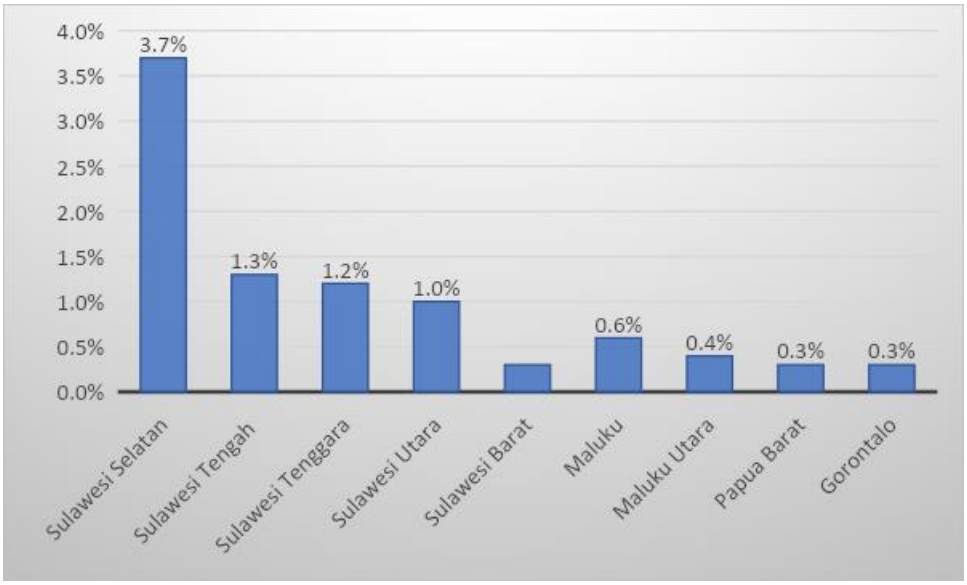

Figure 1.3 Contribution of Internet users in Sulawesi, Maluku, and Papua

Source: Sulbarkita.com-Tri, 2019

Prof. Sri Adiningsih, Ph. D., the Chairman of the Presidential Advisory Council, states that in the era of technology, participation from various parties, including society and government, is necessary through the digital economy to help alleviate poverty and inequality in villages. Similarly, Prof. Fukunari, the Chief Economist at ERIA Jakarta, added that breakthrough technology has changed international work power mapping. Prof. Fukunari explained that there are four regime unbundlings: the pre-globalized world with a heavy emphasis on farming, level 1 unbundling with a heavy emphasis on mining and manufacturing, level 2 unbundling with a heavy emphasis on engine work power, and level 3 unbundling with a heavy emphasis on the digital economy. Indonesia has entered the third level of unbundling, namely the era of the digital economy, using advanced communication technology (Mahsa Edgina - ugm.ac.id, 2018).

The digital economy in Indonesia, the economy of Southeast Asia’s highest country was valued at approximately USD 70 billion in 2021, and it is projected to grow to USD 146 billion by 2025, as stated by Airlangga Hartarto, the Coordinating Minister of Economy.

Indonesia aims to become the strongest digital economy in ASEAN by 2020. According to the Indonesian Internet Service Provider Association (APJII) and We Are Social, about 52% of Indonesians are internet users, with a significant portion spending around 4 hours a day on mobile internet. Currently, the number of active SIM cards in Indonesia is 370 million, which exceeds the country's population of nearly 270 million, as reported by Wirawan Agahari in 2017.

The influence of the digital economy on Indonesia's progress is substantial. Oxford Economics (2016) reported that information and communication technology (ICT) plays a crucial role in Indonesia's gross domestic product (GDP) and overall employment market. More specifically, for every 1% rise in anticipated mobile usage, there's an additional contribution of 640 million US dollars to Indonesia's GDP, and it creates 10,700 new jobs in just the year 2020. It's well-documented by Good that digitalization fuels economic growth (Bukht and Heeks, 2017). The successful implementation of digital technology has far-reaching implications (Tong and Wohlmuth, 2019). In 2017, the digital economy accounted for 6.9% of the U.S GDP, equivalent to USD 1.4 trillion (Solomon & Klyton, 2020).

In this era of globalization, information and communication technology (ICT) plays an important role in economic activity through the use of Internet access (Wardhana et al. 2020). Additionally, another positive impact of internet access is that it can reduce the poverty level in a region (Ruhyana and Essa 2020). This means that the digitalization of the economy will impact the decline in poverty. However, conditions in Indonesia not yet equal regarding the internet, such as in West Sulawesi where there is not yet adequate internet coverage. This is what leads to the digital divide.

Digitally enabled economic transformation (DEET) influences poverty reduction, but digital technology can also be a threat and exacerbate inequality (Karishma et al., 2020). When the COVID-19 pandemic hit Indonesia, the digital divide experienced by rural areas became more obvious (Ismail, 2021). Based on APJII data (2020), out of the 75,436 villages in Indonesia, 12,548 villages still do not have decent broadband access. According to a survey by KPAI (Hidayat, 2020), there are still 1,300 villages in several regions of West Java facing poor internet quality, making distance learning (PJJ) difficult during the COVID-19 pandemic.

Despite the growing trend of digital activity among Indonesians, the development of telecommunications infrastructure has not been evenly distributed across the country. Major advancements are primarily seen in Java and Sumatra, while the eastern regions of Indonesia still rely on existing telecommunications infrastructure. This has led to a significant digital divide within the country. According to APJII, 70 million internet users in Indonesia are concentrated in Java, Sumatra, and Bali, while the combined total of internet users in Nusa Tenggara, Maluku, and Papua is only 5.9 million. This disparity is also reflected in Indonesia's ranking on various indices such as the Networked Readiness Index (NRI) and GSMA Mobile Connectivity Index, where Indonesia lags behind other ASEAN countries like Malaysia and Thailand (Wirawan Agahari, 2017).

The pandemic has brought awareness of the importance of digital skills and connectivity for _ alleviating poverty and improving education. Even before the pandemic, the proof was clear that digital losses were strong with the loss of social and economic education. In England, people are at least three times more likely disadvantaged digitally if they live in poverty and do not have a qualification education (Ofcom, 2020). COVID-19 has sped up the rate of deep digital transformation systems, services, and life. This has also been done to expose the digital divide, and the risks posed by it. This deepens poverty and expands inequality in education and work. This matter happened in Indonesia COVID-19 resulted in enhancement unemployment, a decline level of productivity in individuals and companies, and encouraged the emergence of new poor people who

aggregate increase amount poor residents (Izzati 2020; Suryahadi et al. 2020; Herlina et al., 2020).

Zia Qureshi (2019) posits that the digital revolution is transforming the economic landscape. The potential for economic gains from digital technology is immense, however it also brings forth new challenges along with the opportunities it presents. As digitalization restructures markets and business and work environments, disparities in income and wealth have escalated. This inequality is evident not only among companies but also among workers. The distribution of capital and labor income has become more skewed, with a noticeable shift in income from labor to capital. This issue forms the foundation of the digital divide, which is increasingly serving as a variable mediator in the influence of digitalization on the economy to alleviate poverty.

The following is a research gap previously about the impact of the digitalization economy on digitalization economy on the impact of the poverty and the digital divide.

Table 1.1 Research GAP

	Significant	Not significant
Digitalization to Poverty		
Pantjar and Herlina (2021)	√	
Hidayat et al. (2021)	√	
Kohnert (2021)	√	
Banga et al 2020)	√	
Sharifah et al (2019)	√	
Solomon and & Klyton (2020)	√	
Digitalization of Gaps		
Darus et al. (2021)	√	
Zia Qureshi (2019)	√	
Igor et al, (2019)	√	
Sharifah et al (2019)	√	
Education against Gaps		
Ninda Putti Arrochmah and Kharisma Nasionalita (2020)	√	
Ismail Fajar (2021)		√
Age to gap		
Ninda Putti Arrochmah and Kharisma Nasionalita (2020)		√
Ismail Fajar (2021)	√	
Gender _ To Gaps		
Mulrean , Céline (2020)	√	

Source: (From various source studies

From the problem above, the objective of the research is to analyze the impact of the digitalization economy and the digital divide on the well-being community in West Sulawesi Province.

The significant issue of the digital divide cannot be ignored. It becomes even more complex when we examine various factors. According to Yohanis and Sri Ariyanti (2013), the problem can be categorized into four main components:

1. Infrastructure: is a vital support facility for accessing technology. It is considered the most crucial factor because individuals with adequate infrastructure will experience convenience and gain broader insights than those without access, such as those who have internet access via a computer.

2. Skills Deficiency (Human Resources): Human resources are the most influential factor in the realm of knowledge, technology, and information. Skilled individuals can disseminate their knowledge to the public.

3. Content Deficiency (in Indonesian): The availability of content in the Indonesian language can determine an individual's understanding of internet access. Content can be tailored to specific regions, considering local languages and customs.

4. Underutilization of the Internet: Not using the internet effectively can result in no benefits or profits derived from the internet.

Kemly Camacho, as cited by Dyah, A. Djoko, and Alb. Joko Santoso (2015), identified three interrelated aspects that need to be focused on in the digital divide:

1. Access/Infrastructure: The disparity in individuals' ability to gain access to ICT infrastructure leads to a difference in information distribution.

2. Skills and Training: The disparity in individuals' ability to us or use the existing access and infrastructure obtained. This also includes the disparity between individuals in achieving the ICT skills required to take advantage of access and infrastructure.

3. Content/Resource: The disparity between individuals in utilizing the available information after someone can access and use technology according to their needs.

These factors highlight the multifaceted nature of the digital divide and the need for comprehensive strategies to address it.

1.2 Economic Digitalization

According to Asaniyah (2017), digitalization is defined as an internal process in which media changes from print to electronic form. This aligns with Marilyn Deegan's opinion in Mustofa (2018), which interprets digitization as a pro from all forms of printed documents or other presentations to a digital format. This includes all types of documents, audio, video, and others, converted into digital form to minimize risk. Siregar (2019) further explains that digitization is a process of changing characteristics from the original physical and analog form to a virtual and digital form. For example, in recent years, various forms of media such as like music, movies, and songs have become available in digital format. Digitalization does not replace the original document but adapts to technological progress while preserving and storing the authenticity of the original document as files.

Several experts have defined digitalization. According to Sukmana, digitalization is the process of transferring media from its original print form to a digital form. This process creates digital files that require supporting tools such as like computers, scanners, and other software. Lasa agrees, stating that digitization is a management process in which printed documents are converted into electronic documents. Brennen and Kreiss further explain that digitization enhances the availability of digital data because technological advancements in creating, transferring, storing, and analyzing digital data. It also can arrange, shape, and influence the contemporary world. Therefore, it can be concluded that

digitalization is the process of changing media from a conventional form to a digital form, through document processing that can be converted into digital data using method such as document scanning, and then stored in a folder on a PC or computer.

The Encarta Dictionary defines the digital economy as business transactions on the Internet, focusing on transactions and markets that occur in the online world. A broader understanding of the digital economy also known as the new economy according to PC Magazine, emphasizes the implementation of information technology in the field of economy (Suwarni et al., 2018).

The idea of the digital economy was initially presented by Tapscott. He described it as a socio-political and economic structure with features like an intelligence sphere, encompassing data, diverse tools for accessing and processing information, and communication capabilities. The key elements of the digital economy, recognized initially, include the ICT sector, e-commerce operations among businesses and individuals, digital delivery of products and services, and assistance for merchandise sales, particularly systems and services utilizing the internet (Suwarni et al., 2018).

Amir Hartman defines the digital economy as a virtual arena where business is conducted, value is created and exchanged, transactions occur, and relationships mature, using the internet as the initiation and medium of exchange. The digital economy is changing the global economy, potentially transforming small industries into micro-industries with their elasticity and dynamics. This provides high opportunities for beginners to be born globally (Sari, 2019).

According to Abdurakhmanova et al. (2020), economic development is a special form of scientific progress organization that guarantees competitiveness, superiority and technological progress. Shumpeter refers to entrepreneurs who possess the required skills and knowledge to become key subjects of innovation.

1.3 Strengths and weakness of the digital economy

E- entrepreneurship or can be called businessman based technology own lots excess in efficiency during activity business occurring . The role of the internet in E - entrepreneurship make effort can be more innovative and creative especially in matter marketing product with ecommerce. In addition the role of social media such as online, Instagram, etc. can be a marketing stimulus business. There are other advantages to the role of social media entrepreneurs can directly respond related criticism and suggestions for marketed product so that it is easier to evaluate . As for some influence of the internet in sustainability of E – entrerenuership, it is as follows; According to Onggo, there is some some numbers of matters :

1. Internet improves consumer satisfactions.
2. The internet helps in networking and sales.
3. The internet makes it easier to make transaction payment.
4. The internet helps in marketing product.
5. The internet helps recruitment power Work competent.

Trend use technology in Indonesia continues to increase sustainability Entrepreneurship the expected capable trigger entrepreneur new in pioneering business .With Thus , entrepreneurs in Indonesia are capable of pushing growth economy toward positive .

Temporary that , the digital economy also has some readiness resource human resources (HR) in Indonesia achieve development target economy Still lots own constraint . Indonesia still lacks competent human resources (HR). in fulfillment of these targets . HR readiness becomes a problem. Serious in realizing mission digital economy causes in practice , activity The digital economy is dominated by performance (HR) and

technology . Specifically in the field of entrepreneurship, Indonesia still lacks businessmen. According to Kotler and Armstrong, there is lack economy digital :

1. Weakness Lack of understanding and experience SME players in using digital technology hinders development business , starting from low mastery of hardware to software or application .

2. Infrastructure information and technology Not yet adequate , especially in rural regions.

3. Most perpetrator business micro Still constrained in matter capital .

4. Instability quality product .

5. Business margin tends to be low remembering high competition, both in offline and online markets.

1.4 Digital Divide

Impact of Positive and Negative Digital Divide

The digital divide has a positive and negative impact. For some people who haven't used to know what we can be certain of is will motivated For follow as well as take part in improvement and utilization technology information which can unite and collect various information , data and sources For use as knowledge knowledge and information naturally with use technology information like computers and telecommunications others which one will Keep going develop and own role important in life man . The positive impact makes it easier for people communicate between one with oanother obtain information quickly naturally with existing technology from computers and others.

According to Retno Setyowati , the positive impact of the digital divide is what ICT provides for chance entrepreneurship , opportunity to get work , and costs included cheap. The Internet is also considered , to empower female which is half resident a country even give convenience for work on site alone for example at home (Renggana , 2008).

Apart from the positive impact of course the most felt is the impact that is the negative significant most felt is the the negative significant. According to Budi Santoso, the negative impact from the digital divide is those who are rich and capable follow development technology will own source Power new that is mastery digital information , meanwhile those who because condition its economy still or the more lagging behind and getting worse Far from ability For control information (Santoso, 2019).

For those who can afford it produce and use technology own opportunity more big in matter development and management source Power economy , while those without technology the must accept its limitations just . As a result, it can be concluded that it is rich The richer you get, the poor stay poorer. The smart one will be smarter and incapable to utilize.

1.5 Public Welfare

According to the dictionary (KBBI) welafare save and prosper. The term public originate from musyarakah Arabic. In Arabic itself, public called mujtama' according to Ibn Manzur in Lisan al'Arab contains basic meaning from all something, I, e, place growing descendants . Whereas deliberation contains the meaning of association , alliance, and mutuality cooperate . So from the words musyarakah and mujtama, it can already be drawn that public is gathering from different from people, but merges in bond cooperation, and compliance agreed regulations together (Big Indonesian Dictionary, 2019).

Means in other words welfare public That Alone is efforts made a individual or n institution in give something contribution from facet material or action, use with activity

the Can direct public become more adequacy in fulfillment his life as well as give security.

Meanwhile, according to Constitution Number 11 of 2009 concerning Well-being Social, " Well-being is condition fulfillment material, spiritual and social needs citizens to live worthy and capable develop self so that perform function social. Well-being can be seen from equality easy income, education reach and quality increasing health _ increasing and evenly distributed . Equalization income is related to existing field jobs , opportunities and conditions efforts, and factors economy others . Chance work and opportunities try necessary for society capable twist wheel final economy _ capable increase amount income received (Edi Suharto, 2015).

The well-being of citizens can create a structured public sphere and a balanced, orderly state by providing opportunities for all citizens to build a decent life. Those who are weak receive assistance from the government. The government, as the state leadership, has the primary task of promoting general welfare. This includes not only physical well-being but also inner welfare. Therefore, general welfare encompasses both inner and outer aspects, meaning that basic citizenship rights are recognized and respected, and goods and services needed for life are within the purchasing power of the people. To realize this, the country must do several things:

1. It must determine and enforce basic rights.

2. It is obligated to provide goods and services needed for life in sufficient quantities to meet the needs of its citizens. These should be distributed quickly, safely, and sold at a reasonable price, balanced with the purchasing power of the citizen.

3. It must strive to ensure that every capable citizen can work productively under reasonable working conditions and receive a salary sufficient for their needs and those of their family. It must provide necessary assistance to those who are physically and mentally challenged.

According to Nasikun, welfare can be expressed as an equivalent meaning from the concept of visible human dignity, based on four indicators: a sense of security, prosperity, freedom, and self-identity. These indicators are used to gage the level of prosperity that creates a sense of security, well-being, freedom, and self-identity in individual as they fulfill their needs (Nasikun, 1996).

1.6 Challenges and Threats

Based on issues raised previously research This want to study more in related impact digitalization economy and the digital divide toward well-being society , Next want to formulate proposal necessary approach _ done in increase digitalization economy and reduce digital divide , use increase health society .

For makes it easier elaboration problem, then developed in question study that is;

1. How does the digitalization economy influence well-being people in West Sulawesi?

2. How does the digital divide influence the people well-being of people in West Sulawesi?

3. How is the form necessary approach done for increasing the digital economy and reducing the digital divide to increase the wellbeing of people in West Sulawesi?

1.7 Framework Study

The overall framework of thought stated can be depicted in Figure 1.3 as follows :

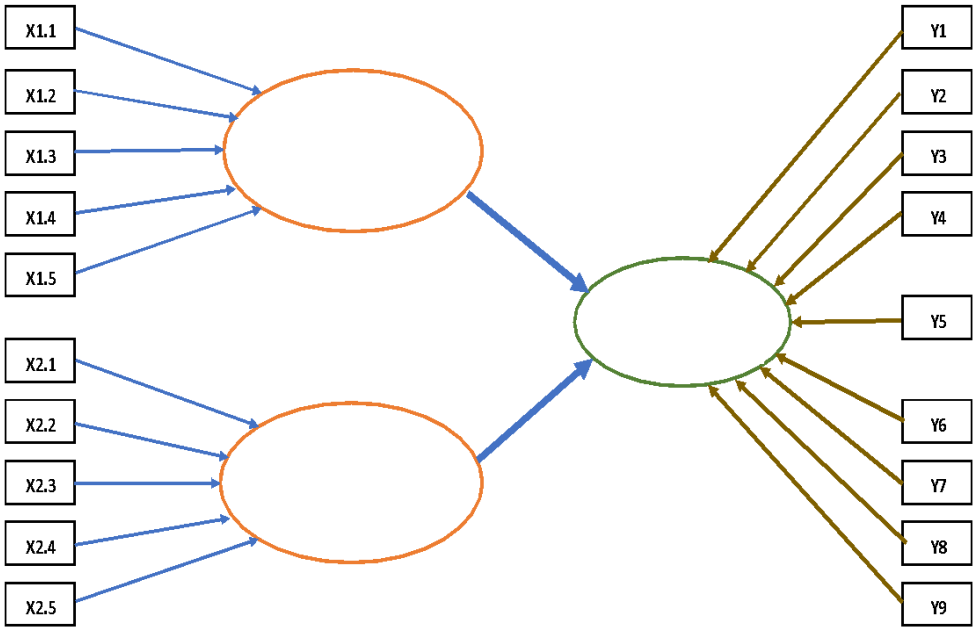

Figure 1.3 Framework Thinking

a. Objective of the Research

In accordance with formulation of the above problem research. This was made with objective.

(1)Analyze influence digitalization economy to well-being of people in West Sulawesi

(2)Analyze the influence of the digital divide against well-being people in West Sulawesi

(3) Formulate proposal necessary approach done in increasing the digital economy and reducing digital divide, use increase well-being people in West Sulawesi.

b. Usefulness Study

Research result This expected give benefit in a way theoretical nor aspect practical More specifically displayed as follows :

(1) Aspect Theoretical :: By theoretical expected results study this can provide contribution thinking in development draft connection between digitalization , prosperity society and the digital divide .

(2) Aspect Practical :: By practical results study This is expected to be source information and materials consideration for the government for determining policy.

Research Methods

The research sites are in West Sulawesi Province , where the target respondents are spread in six district, include :

1. Regency Majene with 6 sub-districts and 82 villages
2. Mamasa Regency with 17 subdistricts and 185 villages
3. Mamuju Regency with 11 subdistricts and 103 villages
4. Central Mamuju Regency with 5 sub-districts and 54 villages / sub-districts
5. Pasang Kayu Regency with 12 subdistricts and 63 villages/ subdistricts

6. Regency Polewali Mandar with 16 subdistricts and 167 villages/ subdistricts.

Based on objective research, the type of research used is descriptive verification. According to Malhotra (2010:93), descriptive research aims to systematically, factually, and accurately describe, depict, and paint facts, traits, and the connections between phenomena that occur. On the other hand, verification research tests the connection between independent and dependent variables.

This study is characterized as descriptive –verification, where data collection is carried out in the field. The research method used was the survey method. According to Malhotra (2010), survey research is a structured questionnaire administered to respondents designed to gather specific information. This method obtains information on the basis of questions asked respondents. Respondents were asked various questions about their behavior, intent, knowledge, motivation, demographic characteristics, and lifestyle. These questions can be submitted verbally, in written form, or through a computer, and responses can be obtained in one form or another.

According to Sugiyono (2014), the survey method was used to gather data from certain natural places. Surveys are conducted because of their ability to capture common trends in a certain population, whereas interviews are conducted to act upon survey results so that any gaps obtained can be resolved. Data collection through surveys involves the distributing of questionnaires to the public in West Sulawesi Province.

The types of Research

In conducting research, planning is essential to ensure that the research is conducted in a good and systematic manner. A research design serves as a blueprint for fulfilling objectives and answering questions (Sigh, 2006). It can also be understood as the plan and structure of an investigation to answer a research question. This plan contains ongoing research schemes and programs executed comphrehensively.

This study is a correlational research, aimed at identifying variables in a certain situation that influence the observed phenomenon (Ghozali, 2009). On the basis of the developed research model, it is hoped that the causal connections between the analyzed variables can be further explained. Simultaneously, it can create useful research implications for the development of knowledge, methods, and techniques for solving problems, as well as theories and results from previous studies that produced a theoretical model on which the current model is built.

The population in research refers to the entire subject of research, consisting of objects or subjects that possess certain qualities and characteristics determined by the researcher. The population in this research is the public of West Sulawesi Province. According to Hair et al. (2014), there are no single criteria to determine the sample size in SEM, however, the ratio of sample to parameters (indicators) needs to be considered. The minimum ratio in SEM is 5 respondents for every parameter in, the research 10 respondents for every 1 parameter, or 15 respondents for every 1 parameter. The determination of the number of respondents for every parameter in the sample involves various factors, including model misspecification, model size, normality aspect, and approximation procedure (Heir et al. 2010).

The method of sampling employed is purposive sampling. As per Ronald and his colleagues (2011), purposive sampling is a method used to identify a sample based on specific considerations. This research utilizes purposive sampling to select samples with pre-determined characteristics, based on the following criteria:

1. Micro, Small and Medium Enterprises (MSMEs), with business domiciled in West Sulawesi Province.

2. Own assets or Asset Turnover (ATO) is in the range of Rp. 50 million to Rp. Fifty in a year. ATO can be viewed as the number of sales.

3. Still operational and productive.

4. Willing to be a sample in the study.

5. The respondents in this matter are SME actors aged over 17 years or who are already married.

This study uses some variables, including digitalization of the economy, digital divide, societal prosperity, age, gender, education and income. Variable operationalization is used to define completely the information about the variables used. This information comprises dimensions, indicators, and scales. The operationalization of the internal variables in this study is shown in the following table:

Table. 3.1. Operationalization Variable

Variable	Definition	Dimensions	Scale
Divide (X2)	The recent global employment study reveals that the information and communications technology (ICT) revolution is leading to an expanding worldwide digital gap due to its varied rate of spread in affluent and less developed nations (ILO, 2019).	Does MSMEs have smartphones?	Ordinal
		How good is the quality network?	Ordinal
		Do MSMEs have ability players and buy data packages ?	Ordinal
		Is MSME actors aware of methods to use smartphones?	Ordinal
		Ownership of digital bank accounts by MSME players	Ordinal
Welfare (Y)	Welfare is condition fulfillment material, spiritual and social needs citizens to live worthy and capable develop self so that perform function social (Law Number 11 of the Year , 2009)	FamilyMSME players can eat at least twice?	Ordinal
		Actors and families buy at least one piece of clothing in a year	Ordinal
		The condition of MSMEs houses is still poor worthy of occupation	Ordinal
		Condition Family MSME actors in healthy condition	Ordinal
		Family MSME actors in circumstances of peaceful and mutual love	Ordinal
		Member education	Ordinal

Variable	Definition	Dimensions	Scale
		family MSME players reach 12 years of age	
		MSME actors have good relations with society _	Ordinal
		MSME actors have been saving guarantee for the future	Ordinal
		Member Family MSME actors will/ have already taken higher education (university)	Ordinal
Age (M1)	Age is period time since exists person and can be measured use unit time seen from facet chronologically , normal individuals can be seen degrees development anatomical and physiological the same (Nuswantari , 1998).	category age according to the World Health Agency	Categorical
Gender (M2)	Gender is classification in a way grammatical to the words and other related words with him in broad terms relate with the existence of two types of sex or neutrality (Fakih, 2016)	Man	Categorical
		Woman	Categorical
Education (M3)	Education is a transfer process knowledge in a way systematic from somebody to others accordingly standards that have been determined by experts (Melmambessy , 2012)	Elementary school	Categorical
		Junior High School	Categorical
		Senior High School	Categorical
		D3	Categorical
		S1/S2/S3	Categorical
Revenue (M4)	Income results work (effort or so on) (Ministry of Education and Culture , 2008).		Categorical

1. 9. Data collection technique

The methods employed for gathering information in this research are as follows:

Study Field

Research conducted with collect the data and information obtained directly from respondents that is public West Sulawesi Province with Meaning obtain data and information through

Observation (observation)

Observation that is technique data collection carried out with observation in a way direct without a mediator object study

Interview

Interview that is technique data collection with method ask answer directly with public West Sulawesi Province

Questionnaire

Questionnaire that is technique data collection with method giving some in number questions in a way written as possible nature open or closed ones _ shared by researchers to respondents that is public West Sulawesi Province

Study Literature

Literature namely , research with method gather ingredients from various sources and study related literature with that is digitalization economy , digital divide , prosperity society, age, gender, education and income. This technique done writer to obtain relevant information _ with topic or moderate problem _ researched . Study literature obtained from books , reports, research scientific essays, theses, and dissertations as well as written resources, good print or electronic .

2. 10 Data Analysis Techniques

Study statistics inferential , that is the technique statistics used for analyzing sample data and results enforced for population (Sugiyono , 2013). In accordance with the hyphothesis that has been developed in the study. This statistical data analysis can inference be measured using the partial least squares model software SmartPLS .

Abdillah and Jugiyanto (2015) stated that partial least squares(PLS) (PLS) analysis is technique statistics does comparison between variable dependent multiple and multiple independent variables . PLS is one the method SEM based statistics variant . In general, there are two known types of SEM in a

Discussion and Results

The PLS approach is more suitable for nature analysis predictive with base weak theory and inadequate data. SEM assumptions are based on covarion with the PLS technique , is assumed that all useful variance measure For explained . PLS-SEM is precisely capable of handling the usual problem appearing in SEM- based on analysis covariance . First , an unacceptable model solution (inadmissible solution) such as an appereance standardized loading factor value > 1 or variant value 0 or negative . Second , the indeterminacy factor , namely undetermined factors _ like mark observation for latent variables, can not be processed . Because PLS has characteristics algorithm typical interactive , then PLS can be applied in the measurement model reflective nor formative. CB-SEM analysis only analyze reflective measurement models (Yamin and Kurniawan, 2011). In SEM, in addition to the characteristics of the estimated model, the sample must be improved in the following circumstances (1) deviant data from normality multivariate , (2) technique estimation intensive-sampling (eg. ADF) is used , or (3) missing data exceed 10 percent. Based on the understanding that the number of samples is restricted and there's a concern they might not meet various parametric assumptions, PLS becomes an appropriate analysis technique to achieve optimal results from the study. In the application of PLS, evaluations are conducted for both the measurement model (also known as the outer model) and the structural model (or the inner model). During the evaluation of the measurement model, we examine convergent validity, discriminant validity, composite reliability, and the average variance extracted (AVE). On the other hand, in the evaluation of the structural model, we perform the R-squared test (R2) and the path coefficient estimation test.

1 Measurement (Outer Model)

The outer model is often also called (outer relations or measurement model) which defines how every block indicator is related variable latent . Blocks with reflexive indicators can be written in the equation as follows:

$$x = \Lambda_x \xi + \varepsilon_x \quad \text{……………………………………… (3.1)}$$

$$y = \Lambda_y \eta + \varepsilon_y \quad \text{…………………………………….. (3.2)}$$

Where x and y are indicator variable for exogenous and endogenous latent variables (ξ and η) , whereas Λ_x and Λ_y is a loading matrix that describes coefficient regression by simply connecting the latent variable with the indicator. The measure residuals with x and ye can be interpreted as error measurement.

The measurement model (outer model) is used to evaluate the validity and reliability of the model. Validity test done to study measure it should be measured (Cooper and Schindler in Abdillah and Jugiyanto 2015). Meanwhile, reliability testing used for measurement consistency tool measuring in measure something draft or can also be used for measuring consistency respondents in answer statement items in questionnaire or research instrument.

Validity test Convergent

Validity convergence in SEM PLS is used as one of the evaluations for the measurement model (outer model). Validity convergent is something type related validity _ with principle that gage something construct must have correlation tall so that used for measure big correlation between latent variable with manifest variables in the measurement model reflexive . In evaluation, validity convergence can be assessed based on the correlation between mark component (item score) and mark construct, or in other words, it can be assessed based on loading factors . According to Chin (1998) and Ghozali (2013), a correlation can be said to fulfil validity convergent if its owen mark loading is larger than 0.5 and an AVE value of 0.5. The AVE value can be determined using the formulation as follows:

$$\text{AVE} = \frac{\Sigma \quad \gamma_i^2}{\Sigma \quad \gamma_i^2 + \Sigma_i \quad \text{var}\varepsilon_{(i)}} \text{…………………………………………… (3.3)}$$

Where state loading factor (convergent validity) and var ε(i) = 1 – i

3 Validity test for discriminant

A method for assessing the measurement model (also known as the outer model) is through discriminant validity. The concept of discriminant validity is tied to the idea that different constructs should not have a high correlation. Therefore, the discriminant validity of a reflexive measurement model can be determined based on the cross-loading marks from each manifest variable to every latent variable. If the correlation between a latent variable and all its indicators (manifest variables) is higher than its correlation with other latent variables, it can be inferred that the latent variable is a better predictor of the indicator compared to other latent variables.

Reliability Test

The trustworthiness assessment of the SEM-PLS model serves as a criterion for evaluating the measurement model (also known as the outer model). It can be inferred that latent variables possess satisfactory reliability if the composite reliability score exceeds 0.6, and this can be further reinforced if the Cronbach’s alpha score surpasses 0.7 (Sarwono and Narimawati, 2015).

Composite reliability can be determined using formulation as follows:

$$\rho c = \frac{(\Sigma \quad \gamma_i)^2}{(\Sigma \quad \gamma_i)^2 + \Sigma_i \quad var\varepsilon_{(i)}} \text{.............................. (3.4)}$$

Where i state loading factor (convergent validity) and var ε(i) = 1 – i^2

Measurement Structural (Inner Model)

The structural model (inner model) is a structural model used to predict connection causality between latent variables . Through a bootstrapping process with see path coefficient For predict exists connection causality . The structural model (inner model) is evaluated with the percentage variance explained by the R value of ^{2}, for variable dependent, the Stone- Geisser the Stone - GQ-square test is used G hozali and Hengky , 2012).

R-Squared Test (R^2)

The R-squared (R 2) test is a method used to evaluate the adequacy of a structural model. It uses the R-squared value (R 2) to assess the impact of specific independent latent variables on the dependent latent variable. As per Ghozali (2012), an R 2 result of 0.67 signifies that the model is classified as 'Good'. An R 2 result ranging from 0.33 to 0.67 suggests that the model falls under the 'Moderate' category. Conversely, an R 2 result of 0.33 implies that the model is deemed 'Weak'.

Predictive Relevance

The predictive relevance of the PLS model can be assessed by examining the R-square. The Q-square is a measure that quantifies the number of valid observations generated by the model and also provides parameter estimates. If the Q-square value is greater than 0 (zero), it indicates that the model has predictive relevance. Conversely, a Q-square value less than 0 (zero) suggests that the model lacks relevance. However, if the calculated results show a Q-square value greater than 0 (zero), then the model can be considered to have predictive relevance. The formula for Q-square is as follows:

Q^2 = 1 - (1 - R1^2) * (1 - R2^2) * (1 - Rp^2) (3.5)

Hypothesis testing

Testing the proposed hypothesis was done by testing the inner structural model with the R-square value, which is a model goodness-fit test. Apart from that, also with see path coefficients that show parameter coefficients and values t statistical significance .

According to Abdillah and Jugiyanto (2015)explained that size significance supportability hypothesis can be used to compare T-table and T-statistic values . If the T-statistic is taller T-table values,, then the hypothesis is supported or accepted . In research This For level 95 % confidence (alpha 95 percent) then T-table values for hypothesis One tail (one-tailed) is >1.969. The estimated value for the connection track in the structural model is used to understand the significance of relationships between latent variables. The significant value can be determined using the bootstrapping procedure developed by Geisser & Stone. If the path coefficient is positive, it suggests a proposed influence on the path. The hypothesis formulation in significance testing is as follows:

H0: The independent variable does not impact the dependent variable. H1: The independent variable has an effect on the dependent variable.

$$T_{statistik} = \frac{b_j}{s(b_j)} \text{ .... (3.6)}$$

Where is state mark estimate for i s(bj) denotes the standard error for bj . Criteria the test that is with level The significance of H0 is rejected if |T statistic | > Tα, df or p-value < α. Based on the formula above , the p-value obtained must be smaller than 0. 05 buffer

stated there are connection significant . On research This using the SmartPLS program version 3.0 is running on computer media.

Research questions

1). How does the digitalization economy influence the influence well-being of people in West Sulawesi?

Digitalization has a significant impact on the economy and well-being of people in West Sulawesi, and in Indonesia as a whole. Here are some key points based on my findings:

Economic Impact:

Digitalization is expected to be the core of economic recovery post- COVID-19, especially in Indonesia.

Indonesia's large number of internet users creates opportunities to promote digitalization and transform the country a digital economy environment.

In 2021, the digital trade valuation will reach IDR 401 Trillion with an increasing preference for online spending habits.

The digital economy in Indonesia is projected to reach USD 146 billion valuations by the end of 2025.

Impact on Well-being

The pandemic has had caused severe impacts, both economically and mentally, particularly onto MSMEs and women1.

Approximately 60% of people surveyed reported a decline in income and savings during the pandemic, with over 40% reporting a significant deterioration1.

Adverse psychosocial effects on the well-being of employees affected by digitalization during the COVID-19 outbreak have been identified, including technostress, work stress, workload, anxiety, burnout, fatigue, and isolation3

However, it is important to note that these are general trends and the specific impact can vary based on numerous factors such as the individual's profession, age, education level, and more. It is also worth mentioning that while digitalization brings numerous benefits, it also comes with challenges that need to be addressed, such as ensuring equal access to digital resources and managing the psychosocial impacts of increased digitalization.

(2)How is the influence digital divide influence well-being of West Sulawesi people?

The digital divide, or the gap between those who have access to digital technologies and those who do not, can significantly impact people. While I could not find specific studies on West Sulawesi, It found some relevant information on Indonesia as a whole. As per a report by the World Bank, Indonesia is witnessing one of the most rapid expansions of its digital economy in Southeast Asia. This growth might not be evenly distributed, particularly affecting the most susceptible groups. The report highlights three policy areas to harness digital technologies for broader inclusion:

1. Enhance digital connectivity and make high-quality internet access universal.
2. Make sure the digital economy benefits everyone.
3. Utilize digital technologies to deliver superior public services, improve interactions between citizens and the state, and foster confidence in the digital realm.

Despite strides in broadening internet access over the past ten years, a considerable connectivity disparity persists. Nearly half of the adult populace still lacks access, and the gap in connectivity between urban and rural areas remains unchanged. Another research indicates that the use of mobile internet boosts consumers' outlook on their personal economic conditions, subsequently improving life satisfaction. However, this impact may

differ based on ethnic status and national wealth. Nonetheless, more targeted research is required to fully comprehend the situation in West Sulawesi.

3)What is the shape necessary approach done, for increasing the Digital Economy and reducing The Digital Divide uses increase well-being people in West Sulawesi? To increase the didgital economy and reduce the digital divede for the well-being of people in West Sulawesi, a multi-faceted approach is necessary:

1. Enhancing Digital Infrastructure: The digital divide in Indonesia, particularly in regions such as West Sulawesi, is often due to the complex geographic landscapes and the difficulty of connecting remote regions with terrestrial network infrastructure[1]. Therefore, enhancing the digital infrastructure, possibly through satellite technologies, could be a viable solution.

2. Improving Trust in Online Transactions: Lack of trust in online transactions is another factor that hinders the growth of the digital economy. Efforts should be made to improve the security and reliability of online transactions.

3. Investing in Digital Education and Training: To fully participate in the digital economy, people should have the necessary digital skills. This includes not only basic digital literacy but also more advanced skills for creating and managing digital content.

4. Encouraging Public Participation: The people of West Sulawesi have shown good participation in development planning discussions and other activities[3]. This spirit of participation should be leveraged to involve the public in the planning and implementation of digital economy initiatives.

5. Addressing Non-Income Dimensions of Poverty: In West Sulawesi, many children experience deprivation in the non -income dimensions of poverty. Addressing these deprivations can improve the well-being of people and make them better equipped to participate in the digital economy.

6. Prioritizing ICT Development in Areas with the Smallest Info state Index: The areas with the smallest info state index, such as Papua, Nusa Tenggara Timur, and Sulawesi Tengah, should be prioritized for ICT development.

Conclusion

Digitalization's Impact on Economy and Well-being in West Sulawesi: Digitalization has significantly impacted the economy and well-being of people in West Sulawesi. The digital economy is anticipated to be the driving force behind economic recovery in the aftermath of COVID-19, particularly in Indonesia. Nonetheless, the pandemic has had profound economic and psychological effects, especially on Micro, Small, and Medium Enterprises (MSMEs) and women. The digitalization process during the COVID-19 crisis has led to several negative psychosocial impacts on employees, such as technostress, work-related stress, increased workload, anxiety, burnout, fatigue, and feelings of isolation.

In West Sulawesi, the digital divide has a substantial influence on people's well-being. Despite strides made in broadening internet access over the past ten years, a considerable connectivity gap persists. Nearly half of the adult population still lacks access, and the disparity in connectivity between urban and rural areas remains unchanged. The use of mobile internet improves consumers' views of their economic status, which subsequently boosts life satisfaction. However, this effect may differ based on ethnic status and national wealth.

To enhance the digital economy and bridge the digital divide for the benefit of West Sulawesi's residents, a comprehensive strategy is required. This strategy should include

the improvement of digital infrastructure, potentially through the use of satellite technologies, and fostering trust in online platforms.

It also comes with challenges that need to be addressed, such as ensuring equal access to digital resources and managing the psychosocial impacts of increased digitalization. More specific research would be needed to fully understand the situation in West Sulawesi.

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