

ANALYSIS OF DIGITAL SKILL CONFIRMATION FACTORS IN THE USE OF MOBILE BANKING SERVICES IN BOGOR REGENCY

Rafid Maulana Akbar¹, Refi Rifaldi Windya Giri²
Faculty of Economics and Business, Telkom University^{1,2}

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ABSTRACT

This research was conducted to confirm what digital skills factors could represent the construct, at least one that represented the use of mobile banking services in Bogor Regency. This research uses non-probability sampling and purposive sampling techniques and the number of samples used is 366 who are banking customers who use mobile banking in Bogor Regency. In this study, the analysis technique used Confirmatory Factor Analysis (CFA) and by using AMOS software version 24 as a tool for conducting analysis in the research conducted. The research variables used in this study include operational mobile skills, information navigation skills, creative skills, and social skills with a total of 30 indicators used. The results obtained based on digital skills factor analysis on the use of mobile banking services in Bogor Regency show that all the indicators used in this study represent the construct because the loading factor value is more than > 0.30 which is stated to be valid but the fit model in this study is still found to be a model that does not fit, so that the modification of the model is carried out to get a fit model. This research is a form of researcher's contribution to confirm what factors influence digital skills in the use of mobile banking services then suggestions that can be given for further research using exploratory factor analysis (EFA) so that the model to be used gets a fit model when reprocessed using confirmatory factor analysis (CFA).

E-mail:

mrfdkbr@student.telkomuniversity.ac.id

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1. INTRODUCTION

Currently, the financial condition in Indonesia has several challenges, such as supply chains that are unable to keep up with demand-side recovery and also inflationary pressures caused by the COVID 19 pandemic and other factors such as geopolitical conditions between Russia-Ukraine with these conditions resulting in a more serious and wider impact. (Ministry of Finance, 2022).

However, banking conditions in Indonesia are in good condition. This can be proven by the national banking assets as of February 2022 increasing by 10.3% year on year to 10,062 trillion. Primus Dorimulu as Reporting Director of Berita Satu Media Holdings (BSMH) said that the national banking system posted 30.9 trillion net profits, an increase of 43% when compared to the same period in the previous year (Ardianto, 2022). With a relatively high increase in Indonesian banking revenue, digital banking transactions in Indonesia will increase by 29.47% in 2022 (Burhan, 2022).

The Ministry of Home Affairs (Kemendagri) conveyed through the Directorate General of Dukcapil that the total population in Indonesia on December 30 2021 was 273,879,750 people. This number is divided into 138,303,472 people (50.5%) are men and 135,576,278 people (49.5%) are women (Ministry of Home Affairs, 2022). While the total population in Bogor Regency in 2019 was 5,965,410 million people, in 2020 there were 5,427,068 million people, and in 2021 the population in Bogor Regency was 5,489,536 million people (Central Bureau of Statistics, 2021).

The number of internet users in the world increased by 4% from the previous year to as many as 4.95 billion users based on the Data Reportal report in January 2022 (Databox, 2022). In a report issued by We Are Social in January 2022, there were 205 million people using the internet in Indonesia or 73.7% of the total Indonesian population using the internet. The time spent using the internet is an average of 8 hours 36 minutes every day and the majority of the population in Indonesia uses the internet using a smartphone, 94.1% of the population (Karnadi, 2022). The number of internet users in Bogor Regency in 2019 was 56.25% or 3,355,544 million people. Whereas in 2020 as many as 61.27% or as many as 3,325,165 million people use the internet (Central Bureau of Statistics, 2020).

With the development of the era that has increasingly developed, companies continue to strive to make all the work of their customers easier. One of the products currently being developed by many

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companies, especially in the banking sector, is digital banking. With this service, it can streamline bank operational activities for its customers.

Digital banking is an electronic banking service that aims to make optimal use of customer data, with the aim of providing services that are faster, easier, according to needs, and allows customers to do it independently. In addition, security also remains a major concern in this service (OCBC NISP, 2022).

Currently there are many digital banking such as Livin', Jenius, blu, Bank Jago, Digibank, Motion bank, etc. Customers will find it easier if they use digital banking in carrying out all forms of transactions anytime and anywhere. The growth of digital banking in Indonesia is still very promising because there are still many people or MSMEs who have not used banking services. However, the challenges in developing digital banking are still quite difficult, especially in terms of internet network coverage, especially 4G networks, which are not evenly distributed throughout Indonesia (Ministry of Finance DJPB, 2022).

Mobile banking currently it is increasingly being used by the people of Indonesia because using mobile banking will make it easier for all activities that require a transaction process. Currently, the volume of transactions through mobile banking continues to grow, reaching 3.2 billion (Perwitasari, 2022). Currently the regional representative office of Bank Indonesia, West Java Province, is collaborating with the Bogor District Government to run a digitization program using QRIS, which is the first step in the digitization program in West Java and currently has 5.5 million users or 26% of national users. (Susianti, 2022).

From the information that has been described, the reason why this research is set in Bogor Regency is due to the level of internet distribution and penetration in the Bogor Regency area, where some areas even already have a 5G network, as well as the digitization program held by the Bogor Regency government. In implementing digitization, especially in using mobile banking, it certainly requires skills in operating it. Skills in operating can also be referred to as digital skills where these abilities are very useful for individuals in using hardware and software and especially in using mobile banking. There is a research gap in the research conducted by Van Dijk entitled "*The Evolution of the Digital Divide: The Digital Divide Turns to Inequality of Skills and Usage*" and there are four types of access in using digital technology, including motivation, physical and material access, digital skills, and usage (Van Dijk, 2012). Then there are four types of skills in digital skills or digital skills including: operational mobile skills, information navigation skills, social skills, and creative skills (Van Deursen, Helsper, & Eynon, 2015). Of the four factors, it is not yet known which factors are included in digital skills that directly affect people's ability to use mobile banking services (Van Deursen, Helsper, & Eynon, 2015).

In this research, the collaboration between research conducted by Van Dijk which discusses the digital divide and research conducted by Van Deursen which discusses digital skills in using the internet and internet skills. Therefore, this research was conducted to find out which factors are included in digital skills and which factors influence the use of mobile banking.

Based on the phenomena that have been described in the background, this research was conducted based on the influence of digital skills on mobile banking user access. The lack of research discussing digital skills in the banking industry made the authors conduct this research and raise the title "ANALYSIS OF DIGITAL SKILL CONFIRMATION FACTORS ON THE USE OF MOBILE BANKING SERVICES IN BOGOR DISTRICT".

Literature Review

Consumer behavior

David L. Mothersbaugh and Del I. Hawkins in their book entitled *Consumer Behavior "Building Marketing Strategy"* explains that the customer or consumer behavior is a study conducted to find out individuals, groups, or organizations to choose, use, or dispose of products or services. Can also be interpreted as a consequence obtained in the process of buying a product or service directly to the community (Mothersbaugh & Hawkins, 2015). Consumer behavior has a very complex nature, consumers who decide to buy a product or service will be influenced by many factors such as demographics, lifestyle and cultural values. Organizations must collect consumer data in order to appropriately treat consumers according to the situation and product category (Mothersbaugh, Hawkins, & Kleiser, 2019).

Mobile banking

The internet and technology are increasingly developing to help businesses to innovate in developing their products. Banking develops its product, namely mobile banking which is innovative and keeps abreast of the times to pursue the success of internet banking. (Afshan & Sharif, 2016). With the existence of mobile banking technology, customers can improve their quality of life so as to provide

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efficiency to the bank concerned (Malaquias & Hwang, 2016). Mobile banking is a type of banking service that allows customers to carry out banking transactions through mobile banking applications or applications provided by cellular operators, using smartphones. (OJK, 2022).

Digital Skills

There are several digital skills and one of the biggest factors is the factor of instrumental skills and there are also structural skills and strategic skills. Instrumental skills are individual capacities to use hardware and software, in contrast to structural skills or information skills, which are individual abilities to understand the data sought, select, and process data that has been obtained on computers and networks. Meanwhile, individual capacity in using computers and networks for specific purposes is the meaning of strategic skills (Van Dijk, 2012).

Research Framework

The research framework used in this study uses previous research entitled "The evolution of the digital divide: the digital divide turn to inequality of skills and usage" written by Van Dijk (Van Dijk, 2012).

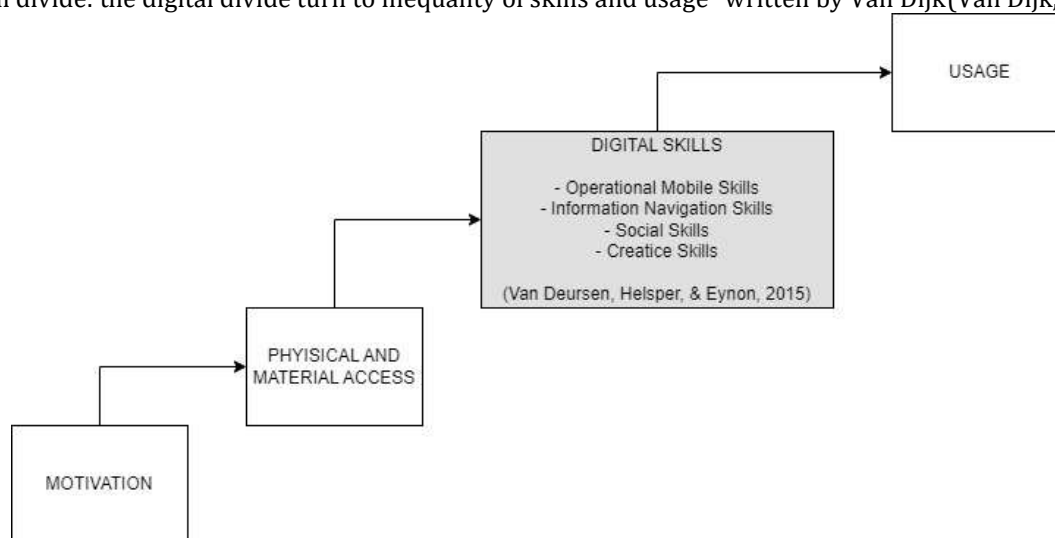


Figure 1. Thinking Framework

Source: (Van Dijk, 2012) (Van Deursen, Helsper, & Eynon, 2015) *Previous Research (Processed Data, 2023)*

In this study the framework was obtained from a collaboration between research conducted by Van Dijk in 2012 entitled "The evolution of the digital divide: The digital divide turns to inequality of skills and usage" (Van Dijk, 2012) and research conducted by Van Deursen et al in 2016 with the title "Development and Validation of the Internet Skills Scale (ISS)" (Van Deursen, Helsper, & Eynon, 2015). However, in previous research, no one specifically discussed the factors in digital skills that affect the use of mobile banking. Therefore this research was conducted and focused on digital skills which included operational mobile skills, information navigation skills, social skills, and creative skills. For Mconfirm what factors in digital skills influence the use of mobile banking services in Bogor Regency.

Research Hypothesis

Based on the theory that has been explained and the framework of thought, the following hypotheses are obtained in this study: "At least one indicator is suitable or valid for latent variables after confirmatory factor analysis".

2. METHOD

Types of research

Research with the title "ANALYSIS OF DIGITAL SKILLS CONFIRMATION FACTORS IN THE USE OF MOBILE BANKING SERVICES IN BOGOR DISTRICT" carried out with the type of descriptive research with a quantitative methodological approach. Descriptive research is a data analysis used to assist in describing, presenting, or summarizing data points in a constructive way so as to allow patterns that satisfy each data condition (Treat, 2021).

Quantitative research has one method, namely survey, (Kerlinger 1973) states that, "survey research is research that can be carried out using a large population or a small population. However, the data to be studied is obtained through samples obtained from the population, to find relative, distributive events, and relationships between sociological and psychological variables. (Sugiyono, 2018). In addition,

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statistical description refers to statistical methods that are generally used to analyze data with the aim of objectively describing or explaining data that has been collected, without providing general or general conclusions. (Sugiyono, 2018).

Data collection can be done using a questionnaire and in this study there are several variables that form the framework of thought. Questionnaires will be distributed to respondents obtained from the results of independent research sampling on banking customers in Bogor Regency. Involvement in this research was minimal, in which this research was only carried out by collecting data and analyzing it in a natural or non-contrived research environment. When the research was conducted simultaneously or cross-sectional.

3. RESULT AND DISCUSSION

Research result

Model Identification

This analysis is used to find out how well a measurement indicator is for measuring concepts (constructs). The following is a picture of the results of model measurement processing on latent variables including *digital skills*, *operational mobile skills*, *information navigation skills*, *social skills*, and *creative skills*.

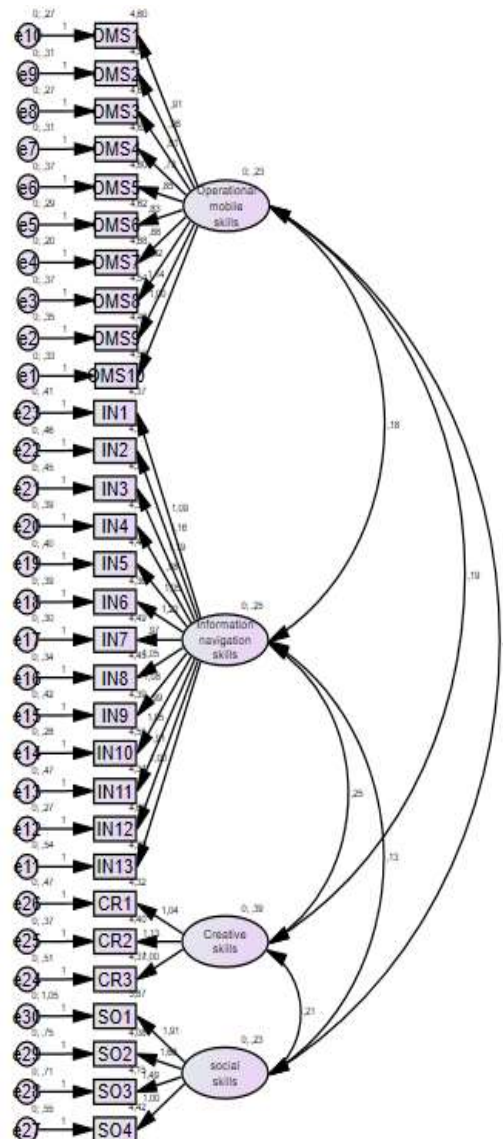


Figure 2. Digital Skills Measurement Model

Source: Results of CFA Data Processing using AMOS (Processed data, 2023)

Table 1. Model Identification Results

Number of distinct sample moments:	495
Number of distinct parameters to be estimated:	96
Degrees of freedom (495 - 96):	399

Source: Results of CFA Data Processing using AMOS (Processed data, 2023)

The value of the Chi-Square can be said to be very high, therefore it can be said to be unfit and the value of the degree of freedom (df) is 399. Because the value of df is positive, the conditions have been met for the identified model.

Normality and Outlier Test

Table 2. Statistics of Skewness and Kurtosis for Data Normality

Variables	min	max	skew	cr	kurtosis	cr
SO1	1,000	5,000	-,968	-7,561	-,482	-1,882
SO2	1,000	5,000	-1.326	-10.355	,793	3,096
SO3	1,000	5,000	-1,262	-9,855	,629	2,457
SO4	1,000	5,000	-1,839	-14,362	3,261	12,736
CR1	1,000	5,000	-1,613	-12,594	2.305	9.003
CR2	1,000	5,000	-1,816	-14,184	2,989	11,674
CR3	1,000	5,000	-1,821	-14,224	3.107	12.133
IN1	1,000	5,000	-1,642	-12,822	2,978	11,630
IN2	1,000	5,000	-1,753	-13,689	3,513	13,720
IN3	1,000	5,000	-1.538	-12,015	2,267	8,852
IN4	1,000	5,000	-1,469	-11,470	2.155	8,414
IN5	1,000	5,000	-1,607	-12,552	2,582	10,081
IN6	1,000	5,000	-1,776	-13,872	3,480	13,591
IN7	1,000	5,000	-1,703	-13,300	3,335	13,026
IN8	1,000	5,000	-1,952	-15,248	4,962	19,376
IN9	1,000	5,000	-1,669	-13,036	2,971	11.603
IN10	1,000	5,000	-2.178	-17,014	6,117	23,887
IN11	1,000	5,000	-1.515	-11,834	2,180	8,513
IN12	1,000	5,000	-2,286	-17,854	6,486	25,329
IN13	1,000	5,000	-1,743	-13,617	2,951	11,523
OMS1	1,000	5,000	-2,021	-15,783	4,759	18,583
OMS2	1,000	5,000	-2,098	-16,386	5,142	20,082
OMS3	1,000	5,000	-1,928	-15,056	4,723	18,443
OMS4	1,000	5,000	-2,161	-16,878	5,936	23,180
OMS5	1,000	5,000	-2,297	-17,940	5,906	23,064
OMS6	1,000	5,000	-2.505	-19,564	8,464	33,054
OMS7	1,000	5,000	-2,569	-20,067	8,958	34,983
OMS8	1,000	5,000	-2.171	-16,959	5,167	20,178
OMS9	1,000	5,000	-2.065	-16,128	4,959	19,366
OMS10	1,000	5,000	-2,193	-17,126	5,638	22.015
Multivariate					590,669	128,945

Source: Results of CFA Data Processing using AMOS (Processed data, 2023)

In this study the data were not normally distributed univariate if using the rule of thumb from Curran et al. (1997), provided that the value of the skewness coefficient is < 3 and the value of the kurtosis coefficient is < 8. So that in this study the data were not normally distributed univariately. Therefore it is necessary to remove outliers and can be seen from the mahalanobis table below:

Table 2. Mahalanobis Table

observation number	Mahalanobis d-squared	p1	p2
290	60,225	,001	,223
292	59,783	,001	.034

observation number	Mahalanobis d-squared	p1	p2
207	58,148	,002	,011
5	57,846	,002	,002
23	56,466	,002	,001

Source: Results of CFA Data Processing using AMOS (Processed data, 2023)

By looking at the first 5 rows which have small p1 and p2 values (<0.001) and after removing outliers the data used in this study is valid or has a univariate distribution.

Validity test

Parameter Significance

Table 3. Regression Weights

		Estimates	SE	CR	P	Label
OMS10	<---	Operational_mobile_skills	1,000			
OMS9	<---	Operational_mobile_skills	1,141	,103	11.028	***
OMS8	<---	Operational_mobile_skills	1.021	,099	10.332	***
OMS7	<---	Operational_mobile_skills	,885	.080	11.117	***
OMS6	<---	Operational_mobile_skills	,826	.084	9,842	***
OMS5	<---	Operational_mobile_skills	,850	,091	9,335	***
OMS4	<---	Operational_mobile_skills	,733	.082	8,983	***
OMS3	<---	Operational_mobile_skills	,812	.081	9,973	***
OMS2	<---	Operational_mobile_skills	,984	,093	10.563	***
OMS1	<---	Operational_mobile_skills	,911	.086	10,580	***
IN13	<---	Information_navigation_skills	1,000			
IN12	<---	Information_navigation_skills	,912	,093	9,776	***
IN11	<---	Information_navigation_skills	1.052	,113	9,287	***
IN10	<---	Information_navigation_skills	,988	,098	10.034	***
IN9	<---	Information_navigation_skills	1,084	,113	9,624	***
IN8	<---	Information_navigation_skills	1,048	,106	9,912	***
IN7	<---	Information_navigation_skills	,968	,099	9,820	***
IN6	<---	Information_navigation_skills	1.225	,120	10.172	***
IN5	<---	Information_navigation_skills	1,046	,109	9,598	***
IN4	<---	Information_navigation_skills	,979	,105	9,350	***
IN3	<---	Information_navigation_skills	1,187	,121	9,826	***
IN2	<---	Information_navigation_skills	1.158	,119	9,709	***
IN1	<---	Information_navigation_skills	1,092	,112	9,715	***
CR3	<---	Creative_skills	1,000			
CR2	<---	Creative_skills	1,131	,097	11,642	***
CR1	<---	Creative_skills	1,041	.096	10,855	***
SO4	<---	social_skills	1,000			
SO3	<---	social_skills	1,493	,181	8,236	***
SO2	<---	social_skills	1,662	,197	8,413	***
SO1	<---	social_skills	1,906	,228	8,346	***

Source: Results of CFA Data Processing using AMOS (Processed data, 2023)

Significance in this study can be seen from the p-value which must be less than 0.05, it can be stated as significant because in this study the p-value indicates (***) a very small p-value or <0.001. In this study it can be concluded that the value of the p-value is very significant because the value is <0.001.

Factor Loading

Table 4. Standardized Regression Weights

		Estimates	
OMS10	<---	Operational_mobile_skills	,643
OMS9	<---	Operational_mobile_skills	,681
OMS8	<---	Operational_mobile_skills	,629

		Estimates
OMS7	<--- Operational_mobile_skills	,687
OMS6	<--- Operational_mobile_skills	,593
OMS5	<--- Operational_mobile_skills	,558
OMS4	<--- Operational_mobile_skills	,534
OMS3	<--- Operational_mobile_skills	,603
OMS2	<--- Operational_mobile_skills	,646
OMS1	<--- Operational_mobile_skills	,647
IN13	<--- Information_navigation_skills	,563
IN12	<--- Information_navigation_skills	,656
IN11	<--- Information_navigation_skills	,608
IN10	<--- Information_navigation_skills	,683
IN9	<--- Information_navigation_skills	,641
IN8	<--- Information_navigation_skills	,670
IN7	<--- Information_navigation_skills	,660
IN6	<--- Information_navigation_skills	,697
IN5	<--- Information_navigation_skills	,638
IN4	<--- Information_navigation_skills	,614
IN3	<--- Information_navigation_skills	,661
IN2	<--- Information_navigation_skills	,649
IN1	<--- Information_navigation_skills	,650
CR3	<--- Creative_skills	,659
CR2	<--- Creative_skills	,757
CR1	<--- Creative_skills	,688
SO4	<--- social_skills	,544
SO3	<--- social_skills	,648
SO2	<--- social_skills	,677
SO1	<--- social_skills	,666

Source: Results of CFA Data Processing using AMOS (Processed data, 2023)

The loading factor value used in this study is 0.30 because the amount of data used is 366. From the table it can be said that the resulting factor loading value meets convergent validity for each indicator because the loading factor value exceeds the minimum limit of 0, 3.

Indicator Reliability

Table 5. Squared Multiple Correlation

	Estimates
S01	,443
S02	,458
S03	,420
S04	,296
CR1	,473
CR2	,573
CR3	,435
IN1	,422
IN2	,421
IN3	,437
IN4	,377
IN5	,407
IN6	,486
IN7	,436
IN8	,449
IN9	,410

	Estimates
IN10	,466
IN11	,370
IN12	,430
IN13	,317
OMS1	,418
OMS2	,417
OMS3	,363
OMS4	,285
OMS5	,311
OMS6	,352
OMS7	,473
OMS8	,395
OMS9	,463
OMS10	,414

Source: Results of CFA Data Processing using AMOS (Processed data, 2023)

The results of the reliability of reliable indicators have a value of $R^2 > 0.5$ so that in this study the only reliable indicator is the CR2 indicator because the estimated value is > 0.5 while for the indicators OMS1, OMS2, OMS3, OMS4, OMS5, OMS6, OMS7, OMS8, OMS9, OMS10, IN1, IN2, IN3, IN4, IN5, IN6, IN7, IN8, IN9, IN10, IN11, IN12, IN13, CR1, CR3, SO1, SO2, SO3, and SO4 were declared unreliable because their estimated values were < 0.5 .

Construct Reliability

Construct reliability can be used to measure construct reliability by using the construct reliability (CR) and AVE formulas.

$$CR = \frac{(\sum SLF)^2}{(\sum SLF)^2 + \sum \varepsilon}$$

$$AVE = \frac{\sum SLF^2}{\sum SLF^2 + \sum \varepsilon}$$

$$\varepsilon = 1 - SLF^2$$

Source: (Wijanto, 2008).

The measure of the reliability of this construct can be seen from the value of composite reliability and average variance extracted.

a. Composite reliability

The reference limit in CR is > 0.7 so it can be said to be reliable but if the value is < 0.7 it is said to be unreliable.

Table 6. Construct Reliability Test Results

Variable	Reference Limits	CR	Results
Operational_Mobile_Skills	0.70	0.863698	Reliable
Information_Navigation_Skills	0.70	0.902894	Reliable
Creative_Skills	0.70	0.744485	Reliable
Social_Skills	0.70	0.729548	Reliable

It can be seen from table 4.6 that the values of all variables show > 0.7 so that the reliability of all CR instruments is declared reliable.

b. Average Variance Extract

The reference limit in AVE is > 0.5 so it can be said to be reliable but if the value is < 0.5 it is declared invalid.

Table 7. Average Variance Extract

Variable	Reference Limits	AVE	Results
Operational_Mobile_Skills	0.50	0.389252	Invalid
Information_Navigation_Skills	0.50	0.417639	Invalid
Creative_Skills	0.50	0.493558	Invalid
Social_Skills	0.50	0.404431	Invalid

Source: Results of CFA Data Processing using AMOS (Processed data, 2023)

It can be seen from table 4.7 that the values of all variables show results <0.5 so that the AVE is not fulfilled, in other words, the reliability of the instrument for AVE is not valid.

Model Fit Test

The model fit test is used to find out how well the model is built and in this study the fit index used includes:

1. CMIN

Table 8. Chi-Square and P-Value Statistics to Assess Model Fit

Model	NPAR	CMIN	DF	P	CMIN/DF
Default models	96	1250,105	399	,000	3,133
Saturated models	495	,000	0		
Independence models	60	5131,749	435	,000	11,797

Source: Results of CFA Data Processing using AMOS (Processed data, 2023)

The resulting Chi-square value is 1250.105 with a p-value of 0.000 which is less than $\alpha = 5\%$ so that the model can be said to be unfit.

2. CFI

Table 9 . CFI and Other Incremental Fit Indices

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default models	,756	,734	,820	,802	,819
Saturated models	1,000		1,000		1,000
Independence models	,000	,000	,000	,000	,000

Source: Results of CFA Data Processing using AMOS (Processed data, 2023)

The model can be said to be fit if the resulting value is > 0.90 but the CFI obtained only has a value of 0.819 which the model does not fit as well as the NFI, RFI, IFI, and TLI values indicate an unfit model because the value of CFI is less than 0,9.

3. RMSEA

Table 10. RMSEA Fit Index

Model	RMSEA	LO 90	HI 90	PCLOSE
Default models	.076	.072	.081	,000
Independence models	,172	,168	,176	,000

Source: Results of CFA Data Processing using AMOS (Processed data, 2023)

Based on the results of the default value of the RMSEA model, it was found to be 0.076 so that the model can be said to be fit because it is within the limits of the index value, namely ≥ 0.05 and ≤ 0.10 .

Model Modification

Model Identification After Modification

Modification of the model was carried out because in the validity test and in the model fit test the measurement results were not appropriate, so modifications were made. By modifying the model, the fit value of the model that has been modified needs to be reassessed and this modification is done by removing indicators that have a loading factor value (<0.5) in the standardized *regression weight table* and adding correlations between *error variables* and the results obtained as follows:

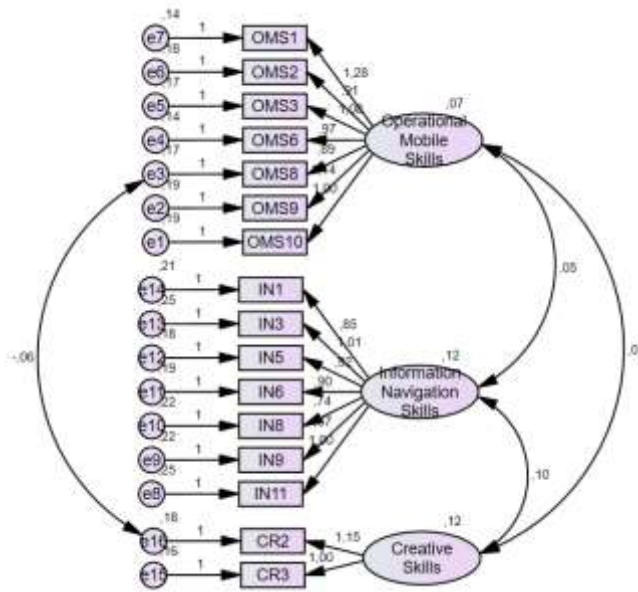


Figure 3. Model Modification

Source: Results of CFA Data Processing using AMOS (Processed data, 2023)

Identify the model that has been modified by adding the correlation between the error variables and the results obtained as follows:

Table 11. Model Identification Results

Chi-Square	171,719
Degrees of freedom (df)	100
Probability levels	0.000

Source: Results of CFA Data Processing using AMOS (Processed data, 2023)

The value of the Chi-Square can be said to be very high therefore it can be said to be unfit and the value of the degree of freedom (df) is 100 because the df value is positive, the conditions have been met for the identified model.

Normality test

The results of the normality test in this study can be said to be normally distributed univariately if the data used in this study has an absolute skewness coefficient < 3 and an absolute kurtosis coefficient < 8 so that the data in this study can be said to be univariately normal because the skewness coefficient < 3 and the kurtosis coefficient < 8 .

Validity test

Parameter Significance

The size of significance in this study is seen from the p-value which must be less than 0.05, it can be stated as significant because in this study the p-value indicates (***) a very small p-value or <0.001. In this study it can be concluded that the value of the p-value is very significant because the value is <0.001.

Factor Loading and Structural Loading

In the *multivariate data analysis book* written by (Hair, Black, Babin, & Anderson, 2019)if the number of samples reaches 350, the loading factor value used is 0.3 so that in this study all indicators are said to be valid.

Indicator Reliability

To determine whether an indicator is reliable or not, it can be seen from the estimated value, if the estimated value is > 0.5 then the indicator can be said to be reliable but also <0.5 then the indicator is not reliable. After modifying the model, the indicators used are not reliable because they have an estimated value of <0.5.

Construct Reliability

Table 12. Construct Reliability

Variable	Reference Limits	CR	Results
Operational_Mobile_Skills	0.7	0.744352	Reliable
Information_Navigation_Skills	0.7	0.754811	Reliable
Creative_Skills	0.7	0.626175	Not Reliable

Variable	Reference Limits	AVE	Results
Operational_Mobile_Skills	0.5	0.295978	Invalid
Information_Navigation_Skills	0.5	0.306432	Invalid
Creative_Skills	0.5	0.455986	Invalid

Source: Results of CFA Data Processing using AMOS (Processed data, 2023)

From table 12. CR values obtained with *operational_mobile_skills* and *information_navigation_skills* indicators that meet the criteria so that they can be said to be reliable but for the *creative_skills* variable it does not meet the criteria so it is said to be unreliable and the AVE value obtained shows results that do not meet the criteria for the three variables so that they are declared invalid.

Model fit/Goodness of Fit test

1. CMIN The resulting Chi-square value is 171.719 with a p-value of 0.000 which is less than $\alpha = 5\%$ so that the model can be said to be unfit.
2. CFI
The model can be said to be fit if the resulting value is > 0.90 . In this study, the CFI value obtained has a default value of 0.927, where the value is > 0.9 , so the model is said to be fit.
3. RMSEA
Based on the results of the default value of the RMSEA model, it is obtained at 0.05 so that the model can be said to be fit because it is still included in the index value limit of ≥ 0.05 and ≤ 0.10 .

Discussion of Research Results

Based on the results of the confirmatory factor analysis that has been carried out using the Amos 24 software and using 30 indicators with 4 hypothesized variables to determine whether the hypothesized indicators really affect the latent digital skills variable in the use of *mobile banking services* in Bogor Regency. The results obtained in this study include the following:

1. The degree of freedom value in this study has positive results with a value of 399 or ≥ 0 , so it can be said that this model is identified.
2. Based on the skewness and kurtosis values in this study with the provisions of the skewness value < 3 and the kurtosis value < 8 , it can be said that the data in this study were not normally distributed univariately. However, after checking and removing outliers, this study has a univariate normal distribution.
3. The results of the significance test or parameter test for all indicators obtained a very small p-value (***) or less than 0.001. It can be said that in this study the indicators were declared significant as a measure of each variable.
4. The factor loading value used in this study was 0.30 because it used 366 data, so all the indicators studied were declared valid because the factor loading value was > 0.30 .
5. The reliability of the indicators can be stated as reliable for the CR2 indicator because it has an estimated value obtained > 0.5 with mark estimate as big 0.537 and for indicators OSM1, OMS2, OMS3, OMS4, OMS5, OMS6, OMS7, OMS8, OMS9, OMS10, IN1, IN2, IN3, IN4, IN5, IN6, IN7, IN8, IN9, IN10, IN11, IN12, IN13, CR1, CR3, SO1, SO2, SO3, and SO4 results obtained < 0.5 so stated No reliable.
6. The construct reliability test obtained CR values for the *operational_mobile_skills*, *information_navigation_skills*, *creative_skills*, and *social_skills* variables > 0.7 so that it can be said to be reliable and for the AVE values obtained on the *operational_mobile_skills*, *information_navigation_skills*, *creative_skills*, and *social_skills* variables < 0.5 so it is said to be invalid.
7. The Chi-square value generated in this study is 1250.105 with a p-value of 0.000. Because the p-value is smaller than $\alpha=5\%$, it can be said that it is not fit.
8. The CFI value can be said to be fit if it exceeds the index value limit of 0.90 while in this study the CFI value obtained was 0.819 so it can be said not to be fit.
9. The RMSEA value can be said to be fit if the value is within the limits of the index value of ≥ 0.05 and ≤ 0.10 and in this study the RMSEA value obtained is 0.76 so that it can be said to be fit because it is still within the limits of the predetermined index value.

It can be concluded from the points that have been presented, in this study the model was identified with a df value of 399 and the data used in this study was normally distributed univariately after done removal of data identified as *outliers*. In the validity test, it was found that the significance of the parameter with a p-value < 0.05 so that the indicator was stated to be very significant as a measure of each variable and the loading factor value for all indicators used in this study had a significance level of > 0.30 so that all indicators could be stated represents the hypothesized latent variable.

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Furthermore, the indicator reliability test obtained an estimated value for CR2 which is > 0.50 so that it can be said to be reliable and for indicators OMS1, OMS2, OMS3, OMS4, OMS5, OMS6, OMS7, OMS8, OMS9, OMS10, IN1, IN2, IN3, IN4, IN5, IN6, IN7, IN8, IN9, IN10, IN11, IN12, IN13, CR1, and CR3 obtained an estimated value of < 0.50 , so it can be said to be unreliable or unreliable. Then the construct reliability test obtained in this study for the CR instrument all variables were declared reliable because they had values that exceeded the reference limit (> 0.7) but for the AVE instrument all variables were declared invalid because they had values less than the reference limit (> 0.5).

Then test the fit of the index model in this study using CMIN, CFI, and RMSEA and the results for CMIN or Chi-square are 1250.105 with a p-value of 0.000 so that it is declared not fit, then the CFI value obtained is 0.819, the value is less of 0.9 so that the model is declared unfit and for RMSEA a default value of 0.076 is obtained so that the model declared fit because it is included in the index value limits, namely ≥ 0.05 and ≤ 0.10 .

Because in the construct validity test there are measurement results that do not fit the criteria or do not fit, modifications are made to obtain a fit model that fits the criteria by removing indicators that have a loading factor value < 0.5 and adding correlations between error variables. After modification, the researcher re-identified and the results for the degree of freedom (df) were 100 because the df value was positive, the model could be identified. In the normality test, the results obtained are that the data used in this study is normally distributed univariately and the significance of the parameters for all indicators is very significant and for the factor loading values obtained in this study, all indicators have an estimate value > 0.30 so that all indicators are stated represents the construct variable.

In the reliability test the CR value indicators obtained for the *operational_mobile_skills* and *information_navigation_skills* indicators meet the criteria so they are said to be reliable but for *creative_skills* it is said to be unreliable because they do not meet the reference limits while the AVE values obtained show results that do not meet the criteria for the three variables so that they are declared invalid. In the model suitability test after being modified, the CMIN results did not meet model fit while CFI and RMSEA fulfills the fir model and is said to be fit , so it can be stated that the model used matches the research that has been done.

4. CONCLUSION

Based on the research that has been carried out and analyzed, it was found that the model under study could be identified and the data used in this study were not normally distributed in a multivariate and univariate manner, then after identification of outliers and removal of outliers, the data used was normally distributed univariately and not multivariate normal distribution Because limitations researcher. Then the parameter significance test carried out in this study showed significant results because all parameters had a significant relationship to the construct variable. The factor loading values generated in this study for all indicators can represent the construct variables. In the indicator reliability test, only the CR2 indicator shows reliable or reliable indicators and other indicators get unreliable or unreliable results. Furthermore, in the construct reliability test the results obtained were unreliable so that the variables used in this study were unreliable. In the model fit test in this study, CMIN, CFI, and RMSEA were used and the results obtained for CMIN and CFI were not fit, but for RMSEA, fit results were obtained. However, after modifying the model by removing indicators with loading factor values < 0.5 and making covariance relationships between error variables, the results are fit for CFI and RMSEA but not fit for CMIN. Based on the research objectives, it can be concluded that the hypothesized factors represent digital skills on the use of mobile banking services. Factors that influence digital skills include: The OMS1, OMS2, OMS3, OMS4, OMS5, OMS6, OMS7, OMS8, OMS9 and OMS10 indicators represent Operational Mobile Skills. The IN1, IN2, IN3, IN4, IN5, IN6, IN7, IN8, IN9 IN10, IN11, IN12 and IN13 indicators represent the Information Navigation Skill. CR1, CR2, and CR3 indicators represent Creative Skills. SO1, SO2, SO3, and SO4 indicators represent Social Skills. So it can be concluded from these factors that it is valid to represent digital skills on the use of mobile banking. In accordance with the research hypothesis, the results of the factor loading values obtained are valid, so all of these indicators can represent the latent variables.

REFERENCES

- [1] Afshan, S., & Sharif, A. (2016). Acceptance of mobile banking framework in Pakistan. *Telematics and Informatics* , 371.

- [2] Alalwan, A., Dwivedi, Y., & Rana, N. (2017). Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust. *International Journal of Information Management*.
- [3] Ardianto, P. (2022, May 30). *National Banking in Healthy Condition*. Retrieved from investor.id: <https://investor.id/finance/295236/perbankan-nasional-dalam-condition-sehat-walafiat>
- [4] Baabdullah, AM, Alalwan, AA, Rana, NP, Kizgin, H., & Patil, P. (2019). Consumer use of mobile banking (M-Banking) in Saudi Arabia: Towards an integrated model. *International Journal of Information Management*, 40.
- [5] Central Bureau of Statistics. (2020). *Percentage of Population Aged 5 Years and Over Who Accessed the Internet in the Last 3 Months by Gender (Percent), 2019-2020*. Retrieved from <https://bogorkab.bps.go.id/>: <https://bogorkab.bps.go.id/indicator/2/272/1/persentase-penduduk-berumur-5-tahun-ke-atas-yang-accessed-the-internet-in-the-last-3-months-by-gender.html>
- [6] Central Bureau of Statistics. (2021). *Total Population by Age Group and Gender in Bogor Regency (Person), 2020-2021*. Retrieved from bogorkab.bps.go.id: <https://bogorkab.bps.go.id/indicator/12/115/1/nomor-penduduk-menurut-group-umur-dan-tipe-kelamin-di-kabupaten-bogor.html>
- [7] BCA. (2021). *Innovation and Collaboration for a Better Tomorrow*. Retrieved from BCA.co.id: <https://www.bca.co.id/-/media/Feature/Report/File/S8/Laporan-Tahunan/2022/20220217-buku-ar-bca-2021-ID.pdf>
- [8] BCA. (2022). *About BCA*. Retrieved from BCA.co.id: https://www.bca.co.id/en/about-bca?funnel_source=searchresult
- [9] BCA Mobile. (2022). Retrieved from <https://www.bca.co.id/id/Individu/layanan/e-banking/BCA-Mobile>
- [10] Binus University. (2014). *Validity Test and Reliability Test*. Retrieved from qmc.binus.ac.id: <https://qmc.binus.ac.id/2014/11/01/ujivaliditasdanujirel-iabilitas/>
- [11] bni. (2022). *BNI Mobile Banking*. Retrieved from bni.co.id: <https://www.bni.co.id/id-id/bnimobilebanking>
- [12] bni. (2022, September 23). *BNI Strengthens Mobile Banking With Additional Featured Features*. Retrieved from bni.co.id: <https://www.bni.co.id/id-id/beranda/kabar-bni/berita/articleid/21603#:~:text=Adapun%2C%20application%20BNI%20mobile%20banking,in%20the%20amount%20of%2034%2C8%25%20YoY>
- [13] BRI. (2022). *BRI Mobile Banking*. Retrieved from bri.co.id: <https://bri.co.id/brimo>
- [14] BRIMobile. (2022). *BRImo*. Retrieved from BRI.co.id: <https://bri.co.id/brimo>
- [15] Burhan, F. (2022, October 24). *Digital Banking Transactions Up 29.47 Percent, Take a Peek at the Achievements of BNI, Mandiri, to BRI*. Retrieved from [finansial.business.com](https://finansial.business.com/read/20221024/90/1590678/transaksi-digital-banking-naik-2947-persen-intip-achievement-bni-mandiri-till-bri): <https://finansial.business.com/read/20221024/90/1590678/transaksi-digital-banking-naik-2947-persen-intip-achievement-bni-mandiri-till-bri>
- [16] Cooper, DR, & Schindler, PS (2014). *Business Research Methods 12th Edition*. New York: McGraw-Hill.
- [17] Cooper, DR, & Schindler, PS (2014). *Business Research Methods 12th Edition*. In DR Cooper, & PS Schindler, *Business Research Methods 12th Edition* (p. 338). New York: McGraw-Hill Companies.
- [18] Dachlan, U. (2014). *Complete Guide to Structural Equation Modeling*. Semarang: Lantern of Science.
- [19] Databox. (2022). *Internet Users in the World Reach 4.95 Billion People As of January 2022*. Retrieved from [databoks.katadata.co.id](https://databoks.katadata.co.id/datapublish/2022/02/07/pengguna-internet-di-dunia-reach-495-miliar-orang-per-januari-2022): <https://databoks.katadata.co.id/datapublish/2022/02/07/pengguna-internet-di-dunia-reach-495-miliar-orang-per-januari-2022>
- [20] Hair, FJ, Black, WC, Babin, BJ, & Anderson, RE (2019). *Multivariate Data Analysis*. Pearson Education Limited.
- [21] Karnadi, A. (2022, April 8). *Internet Users in Indonesia Reach 205 Million in 2022*. Retrieved from dataindonesia.id: <https://dataindonesia.id/digital/detail/pengguna-internet-di-indonesia-reach-205-juta-pada-2022>
- [22] Ministry of Finance. (2022, October 27). *Indonesia's Economy Facing Rapid and Fundamental Changes, Minister of Finance: Economic Recovery is Still Strong*. Retrieved from [Kemenkeu.go.id](https://www.kemenkeu.go.id/): <https://www.kemenkeu.go.id/formasi-public/publikasi/berita-utama/Pemulihan-Ekonomi-Masih-Kuat>

- [23] DJPB Ministry of Finance. (2022, February 14). *Digital Banking* . Retrieved from [djpb.kemenkeu.go.id: https://djpb.kemenkeu.go.id/direktorat/pkn/id/odading/2919-digital-banking.html](https://djpb.kemenkeu.go.id/direktorat/pkn/id/odading/2919-digital-banking.html)
- [24] Livin' by Mandiri. (2022). *Livin' by Mandiri* . Retrieved from [bankmandiri.co.id: https://www.bankmandiri.co.id/livin/edukasi/cara-update-livin-by-mandiri-logo-biru](https://www.bankmandiri.co.id/livin/edukasi/cara-update-livin-by-mandiri-logo-biru)
- [23] Malaquias, RF, & Hwang, Y. (2016). An empirical study on trust in mobile banking: A developing country perspective. *Computers in Human Behavior* , 453.
- [24] Independent. (2022). *Livin' by Mandiri* . Retrieved from [Bankmandiri.co.id: https://www.bankmandiri.co.id/livin](https://www.bankmandiri.co.id/livin)
- [25] Mothersbaugh, DL, & Hawkins, DI (2015). *Consumer Behavior "Building Marketing Strategy"*. McGraw Hill Education.
- [26] Mothersbaugh, DL, Hawkins, DI, & Kleiser, SB (2019). *Consumer Behavior "Building Market strategy"*. McGraw Hill.
- [27] nperf. (2022). *Telkomsel 3G / 4G / 5G coverage map, Indonesia* . Retrieved from [nperf.com: https://www.nperf.com/id/map/ID/-/5119.Telkomsel/signal/?ll=-6.6133786359207845&lg=106.82189946994188&zoom=9](https://www.nperf.com/id/map/ID/-/5119.Telkomsel/signal/?ll=-6.6133786359207845&lg=106.82189946994188&zoom=9)
- [28] OCBC NISP. (2022, January 10). *Digital Bank: Definition, Services, Strengths & Weaknesses* . Retrieved from [ocbcnisp.com: https://www.ocbcnisp.com/id/article/2022/01/10/digital-bank-ada](https://www.ocbcnisp.com/id/article/2022/01/10/digital-bank-ada)
- [29] OJK. (2022). *Internet Banking and Mobile Banking*. Retrieved from [Attitudeuangmu.ojk.go.id: https://sikapiuangmu.ojk.go.id/FrontEnd/images/FileDownload/417_Perbankan-4a%20mudah%20dan%20aman%20dengan%20internet%20banking%20dan%20mobile%20banking_2018_small.pdf](https://sikapiuangmu.ojk.go.id/FrontEnd/images/FileDownload/417_Perbankan-4a%20mudah%20dan%20aman%20dengan%20internet%20banking%20dan%20mobile%20banking_2018_small.pdf)
- [30] Perwitasari, USA (2022, August 11). *BI Records Mobile Banking Transactions Translucent IDR 3,888.09 Trillion until May 2022* . Retrieved from [https://keuangan.kontan.co.id: https://keuangan.kontan.co.id/news/bi-catat-transaksi-mobile-banking-tembus-rp-388809-triliun-dinding-mei-2022](https://keuangan.kontan.co.id/news/bi-catat-transaksi-mobile-banking-tembus-rp-388809-triliun-dinding-mei-2022)
- [31] Rawat, A. (2021, March 31). *An Overview of Descriptive Analysis* . Retrieved from [https://www.analyticssteps.com/: https://www.analyticssteps.com/blogs/overview-descriptive-analysis](https://www.analyticssteps.com/blogs/overview-descriptive-analysis)
- [32] Sugiyono. (2011). *Quantitative Research Methods, Qualitative, and R&D*. Bandung: Bandung Alfabeta Publisher.
- [33] Sugiyono. (2018). *Management Research Methods*. Bandung: Alfabeta.
- [34] Sugiyono. (2018). *Management Research Methods*. Bandung: Alfabeta.
- [35] Sugiyono. (2022). *Quantitative Research Methods*. Bandung: Alfabeta.
- [36] Susianti, D. (2022, August 25). *Digitizing Villages in Bogor Regency to Control Inflation Work Together with BI-Netzme* . Retrieved from [https://mediaindonesia.com/: https://mediaindonesia.com/megapolitan/517577/digitalisasi-desa-di-kabupaten-bogor-untuk-kendalikan-inflasi-kerja-bareng-bi-netzme](https://mediaindonesia.com/megapolitan/517577/digitalisasi-desa-di-kabupaten-bogor-untuk-kendalikan-inflasi-kerja-bareng-bi-netzme)
- [37] Topbrand. (2022). *TOP BRAND INDEX PHASE 1 2022* . Retrieved from [topbrand-award.com: https://www.topbrand-award.com/en/top-brand-index-int/?tbi_find=bank](https://www.topbrand-award.com/en/top-brand-index-int/?tbi_find=bank)
- [38] Van Deursen, A., Helsper, E., & Eynon, R. (2016). Development and validation of the Internet Skills Scale (ISS). *Information, Communication & Society* , 13.
- [39] Van Deursen, A., & Van Dijk, J. (2009). Improving digital skills for the use of online public information and services. *Government Information Quarterly* .
- [40] Van Deursen, A., Dolnicar, V., Burnik, T., & Petrovcic, A. (2021). Measuring internet skills in a general population: A large-scale validation of the short Internet Skills Scale in Slovenia. *Routledge Taylor & Francis Group* .
- [41] Van Deursen, A., Helsper, E., & Eynon, R. (2016). Measuring Digital skills From Digital Skills to Tangible Outcomes project report. In A. Van Deursen, EJ Helsper, & R. Eynon, *Measuring Digital skills From Digital Skills to Tangible Outcomes project report* (p. 9).
- [42] Van Dijk, J. (2012). The Evolution of the Digital Divide: The Digital Divide turns to Inequality of Skills and Usage. *Digital Enlightenment* .
- [43] Van Laar, E., Van Deursen, A., Van Dijk, & Haan, J. (2017). The relation between 21 -century skills and digital skills or literacy: A systematic literature review. *Elsevier* .
- [44] Wijanto, SH (2008). *Structural Equation Modeling with Lisrel 8.8*. Yogyakarta: Graha of Science.