



JURNAL AKSI

Akuntansi dan Sistem Informasi

<http://aksi.pnm.ac.id>

Digital Transformation and Digital Innovation to Improve the Financial Performance of People's Economic Banks in Indonesia

Dewi Kirowati ¹⁾, Lely Kumalawati²⁾ and Yudha Nauval Prastyanka Putra ³⁾

^{1,2,3)} Madiun State Polytechnic

ARTICLE INFO

Keywords:

Digital
Transformation,
Digital Banking
Innovation,
Financial Services
Authority
Regulation no.
12/POJK.3/2018,
Financial
Performance.

Article History:

Received: 25 March 2025

Accepted: 24 April 2025

Corresponding author:

E-mail: dewi@pnm.ac.id

ABSTRACT

The aim of this research is to determine the extent of digital transformation and digital banking innovation carried out by BPRs in Indonesia to improve financial performance. The type of research used is qualitative research, using descriptive methods and secondary data sources where data collection is obtained by observation and documentation. /literature study that examined data on digital innovation and financial performance of People's Economic Banks (BPR) from 2019 to 2024. The results of the research show that the level of digitization of BPR transaction products or services in Indonesia is still low which has an impact on financial performance, namely a decline in the quality of BPR credit which is quite significant and the BPR Return on Assets (ROA) ratio continues to show a significant decline. Under these conditions, BPR's financial performance is still in a positive or maintained condition. Steps that must be taken by BPR can be to carry out analyzes related to customer needs and values, evaluate product and service development capabilities in accordance with BPR business strategy, and design development including developing IT infrastructure, quantity and quality of human resources, capital, and collaboration and cooperation with conventional banks. , Government, and the business/industrial world and other institutions in a sustainable manner.

INTRODUCTION

Along with the development of digitalization, various activities are starting to shift to follow existing developments. Technological innovations that make life easier have also penetrated the financial world. One of the areas leading to a shift to the industrial era 4.0 occurs in the banking sector. Many companies in the financial services sector are transforming to digital technology in response to a business environment that continues to change dynamically and increasingly fierce competition. One of the banking industries, namely BPR in Indonesia, in digital banking transformation and innovation is still below conventional banks and Indonesian sharia banks as well as online-based financial technology (fintech) services. The development of BPRs in Indonesia is based on data from the Financial Services Authority (OJK), namely from 2019 to January 2024. Bankruptcies and licenses being revoked continue to increase in errors in BPR governance, causing unhealthy financial flows. Agus Kurniawan (2021) states that digital transformation has a direct influence on the performance of Bank bjb (West Java Regional Development Bank and Banten, Tbk) as well as indirectly through innovation, Dinda Dalina

p-ISSN: 2528-6145, e-ISSN: 2541-3198 Accredited Third Grade by Ministry of Research, Technology and Higher Education of The Republic of Indonesia, Decree No: 148/E/KPT/2020

Cite this as: Kirowati, D. ., Kumalawati, L. ., & Nauval Prastyanka Putra , Y. . Digital Transformation and Digital Innovation to Improve the Financial Performance of People's Economic Banks (BPR) in Indonesia. *Jurnal AKSI (Akuntansi Dan Sistem Informasi)*, 10(1). <https://doi.org/10.32486/aksi.v10i1.847>

and Fajra Octrina (2024). Capital will support the implementation of digital transformation which will reduce production time and costs, as well as create efficiency and encourage innovation, so that it will have a positive effect on financial performance (Sasmita Maharani Lantip and Daljono, 2023).

Many companies in the financial services sector are transforming to digital technology in response to a business environment that continues to change dynamically and competition is increasingly fierce and currently BPRs in Indonesia in digital banking transformation and innovation are still below conventional banks and Indonesian sharia banks as well as financial technology services (fintech). online based (Afiqoh, 2018). Digital transformation is translated as changes in the way of working, roles and business offerings caused by the adoption of digital technology in an organization, or the organization's operational environment. Warner & Wa'gger in 2019 said that digital transformation is a continuous process, strategic renewal that utilizes advances in digital technology to build capabilities that refresh or replace business models, collaborative approaches and organizational culture (Agus Kurniawan, 2021) (Arpe, 2019).

Increasing implementation of information technology leads to the digital banking era. Digital-based services aim to meet customer needs by using digital technology with devices and software as delivery channels. As per POJK regulation no. 12/POJK.03/2018, this includes automated teller machines, cash deposit machines, telephone banking, short message banking services, electronic data retrieval, e-money, e-payment, internet banking, and mobile banking. Digital-based services can be accessed anytime and anywhere. This minimizes direct interaction between customers and bank staff. Digital banking aims to improve operational efficiency and quality for customers (Kasmir, 2014) (Fahmi, 2014).

MATERIALS AND METHODS

The type of research carried out includes case study research with problem characteristics that are closely related to the background and conditions of the objects studied in this research. Qualitative methods are used to research in depth and describe the extent of digital banking innovation in improving the financial performance of Economic Banks. People registered with the Financial Services Authority (OJK). With secondary data sources in the form of financial reports from the People's Economic Bank (BPR). The data analysis technique that researchers use is qualitative descriptive analysis. The following are the analysis stages carried out in this research (Sugiyono, 2017), namely:

1. Data Reduction (Data Reduction), Reducing data means summarizing, selecting the main things, focusing on the important things, looking for themes and patterns. In this way, the reduced data will provide a clearer picture, and make it easier for researchers to collect further data and search for it if necessary. The data that researchers reduce is data from observations, interviews and documentation methods, such as data from observations related to digital transformation, digital innovation and the financial performance of People's Economic Banks (BPR).
2. Data Display (Data Presentation) After the data has been reduced, the next step is to display the data. In qualitative research, data presentation can be done in the form of short descriptions, charts, relationships between categories, flowcharts and the like. This was done in order to describe the data to facilitate understanding for researchers and readers in analyzing the extent of digital transformation and digital banking innovation in improving the financial performance of People's Economic Banks (BPR).
3. Conclusion Drawing/Verification (Conclusion Drawing/Verification) The third and final step according to Miles and Huberman is drawing conclusions and verification. Conclusions were drawn by researchers by collecting data from interviews, observations and documentation related to digital transformation and digital banking innovation carried out by BPRs in improving financial performance between 2019 and 2024.

RESULTS AND DISCUSSION

The results of research on digital analysis and digital innovation to improve the financial performance of People's Economic Banks (BPR) in Indonesia are topics that are relevant to the development of financial technology (Fintech) in the banking industry. Digital transformation and innovation of banking services can improve management and increase financial performance. Based on the research topic, we must understand digital transformation, digital innovation in banking services

carried out by the People's Economic Bank (BPR). The theory that is relevant to the topic is transformation. Warner & Wa'gger in 2019 said that digital transformation is a continuous process, strategic renewal that utilizes advances in digital technology to build capabilities that refresh or replace business models, collaborative approaches and organizational culture. Next theory Digital banking is also regulated in Central Bank Regulation no. 9/15/PBI/2007 concerning Risk Management and Application of Information Technology by Conventional Banks. The regulation explains that digital banking allows customers to carry out banking transactions using electronic media such as automated teller machines, telephone banking, electronic fund transfers, internet banking, and cell phones and digital innovation is a new discovery that aims to find solutions to problems that arise. Faced, where by transforming business prospects to become digital-based, it will affect the course of production and transactions in the market.

In its development, the number of BPRs continues to show a downward trend throughout the period from 2020 to the beginning of 2024, which originally numbered 1,506 BPRs, decreased by 113 BPRs to 1,393 BPRs and BPR branch offices in Indonesia in February 2024 numbered 1,814 branch offices, which is shown in table

Table 1. Development of the Number of BPR Banks

Information	Year				
	2020	2021	2022	2023	2024
Number of BPRs	1.506	1.468	1.441	1.402	1.393
Number of Offices	5.913	5.871	6.044	6.047	1.814

Source : Data processed, 2025

Table 1 shows that the reduction in the number of BPRs and BPR branch offices is largely due to the consolidation of the BPR industry, either through mergers or consolidation. However, the decline in the number of BPRs was accompanied by a trend of increasing the number of BPR office networks in number. Even though there has been a decline in the number of BPRs, performance based on total assets, credit and third party funds of BPRs continues to show a positive trend with growth that is almost close to the performance before the Covid-19 pandemic. Based on the trend of decreasing number of People's Economic Banks (BPR), the banking world was shocked by the phenomenon that occurred at the beginning of 2024, where the OJK together with the Deposit Insurance Corporation (LPS) have revoked the business permits of seven BPRs.

The results of a study conducted by BPR using a sample of 860 samples related to BPR bookkeeping systems and transaction bookkeeping between BPR office networks, are presented in table 2.

Table 2. Results of the OJK Study with a Sample of 860 BPRs

No.	BPR Bookkeeping System	Transactions between BPR office networks		
1.	Integrated Computerization	60%	Online and real time	54%
2.	Partial computerization	37%	On the same day	34%
3.	Manual and Spreadsheet / excel	1%	Doesn't use CBS	5%
4.	No answer	2%	No answer	7%

Source : Data processed, 2025

Table 2. shows that the results of an OJK study on 860 People's Economic Banks (BPR) that have carried out digital transformation are around 60%, so that under these conditions the number of BPRs continues to decline and can cause fraud or fraud in BPR management. Second, the results of an OJK study of 860 BPRs regarding bookkeeping between BPR networks in Indonesia showed that 54% were online and real time, 34% on the same day, 5% did not use CBS (Core Banking System), and 7% did not answer. The results of the OJK study can be concluded that the use of computerized technology is still relatively not optimal. Third, looking at the form of digitalization of BPR operational/internal processes, namely the process of using and/or adopting technology to optimize operational processes which were previously carried out manually, guided by 12 aspects of operational digitalization of Financial Services Institutions (LJK). The 12 aspects measured in the OJK study are in table 3

Table 3. Aspects of Digitalization of BPR Operations

Ranking	Operational Digitalization Aspects
1	Monthly Financial Report System to OJK
2	CBS (Core Banking System)
3	Marketing
4	Customer data
5	Customer service
6	Complaint handling service
7	Credit risk reporting system for internal
8	Credit risk reporting system for externals
9	Paperless
10	Internal audit system to detect fraud
11	HR performance/productivity dashboard
12	Customer digital queuing system

Based on table 3, namely the operational digitization aspect of Financial Services Institutions (LJK), it shows the top 2 ranking aspects, BPR operational digitalization is still focused on fulfilling obligations to regulators and has not yet fully led to digitalization that supports service providers for consumers, namely the monthly financial reporting system to the OJK and CBS. (Core Banking System) which is used for the most part also cannot communicate with other institutions (for example switchable, transferable between CBS, API for a CBS which can communicate with other CBS).

Table 4. Level of Digitalization of Operations and Products/services

Types of Financial Services Institutions	Number of samples	Already Developing Operational Digitalization	%	Already Developing Digitalization of Products and Services	%
BPD	14	14	100	14	100
BPR	865	833	96.3	473	54.6
BPRS	77	74	96.1	51	66.2
Total	956	921	96.34	538	56.28

Next, looking at the level of digitalization of BPR operations and products/services can be seen in table 4. shows that all BPDs (100%) have digitized operations and products and services, 96.3% of BPRs and 96.1% of BPR Syariah have developed at least 1 of 12 aspects in digitalizing financial institution operations, and 54.68% of BPRs and 66.23% of BPR Syariah have developed at least 1 of 18 aspects in digitalizing financial institution products and services.

Table 5. Level of Digitalization of BPR Products/services

Rangking	Aspects of Product/Service Digitalization	Type of Product or service
1	Bill payment services/PPOB (Payment Point Online Banking), for example payments pajak, tagihan listrik, tagihan telepon, dll.	<i>Transfers & Payments</i>

2	Savings deposit service without coming to the branch office	<i>Savings</i>
3	Transfer services with other/off-US banks	<i>Transfers & Payments</i>
4	Mobile collector untuk AO	<i>Credit</i>
5	Notification/notification of financial transactions via SMS/WA/email	<i>Digital Channel</i>
6	Transfer service with fellow BPR/BPRS or BPD accounts (on-us)	<i>Transfers & Payments</i>
7	Credit assessment process	<i>Credit</i>
8	Online identification and verification process	<i>Savings</i>
9	Balance information service via SMS / application	<i>Savings</i>
10	Applying for credit online/digitally	<i>Credit</i>
11	Services to receive and perform	<i>Transfers & Payments</i>
12	Open an account	<i>Savings</i>
13	Credit application progress information	<i>Credit</i>
14	Credit disbursement approval/information process secara	<i>Credit</i>
15	Mobile banking service (application)	<i>Digital Channel</i>
16	Internet banking services	<i>Digital Channel</i>
17	ATM services / ATM card less services	<i>Digital Channel</i>
18	Insurance digital services	<i>Digital Channel</i>

Based on the results of the analysis of the results of the OJK study/survey and the opinions of experts, it can be concluded that the current condition of BPRs triggers an urgency for BPRs to immediately make significant changes, one of which is through adopting digitalization in order to achieve modernization. In order to adopt digitalization, strategic digital transformation must be carried out to accelerate the change towards digital banking or Bank 5.0, which focuses on improving services through advanced technology and more personalized interactions..

Table 6. Level of digitization of BPR products/services

Savings	%	Credits	%	Transfer/Payment	%
Savings deposit service without coming to a branch office	19.8	Mobile collector for AO	16.6	Bill payment services/PPOB (Payment Point Online Banking), for example paying taxes, electricity bills, telephone bills, etc.	28.1
Online identification and verification process	7.5	The credit assessment process utilizes technology and non-financial information	8.1	Transfer services with other banks/off-US	19.5
Balance information service via SMS or other applications	7.3	Applying for credit online/digitally	6.2	Transfer service with fellow BPR/BPRS or BPD accounts (on-us)	8.5
Open an account	4.4	Information on the progress of customer/potential customer credit applications	3.9	Services for receiving and making non-cash/digital payments (for example QRIS/QR Code, E-Wallet, Shopee, Dana, OVO, etc.)	5.9
		Disbursement approval/information process	3.1		

The current condition of BPRs based on data from the OJK shows firstly, the level of digitalization of Regional Credit Bank (BPD) product or service transactions is 100%, BPRs are 54.6% and BPRSs are 66.2%, meaning that if you look at the number of BPRs currently operational, transaction services digitally it is still below Regional Credit Banks (BPD), namely 54.6%. Second, based on the level of digitization of BPR transaction products and services including savings, credit, and transfers/payments, it can be seen in table 6. The results of the analysis in table 6 show that savings services are below 20%, credit is below 17%, and transfers/payments are below 30%. The conclusion is that the level of digitalization of transaction products or services at BPRs is still low, which has resulted in the number of BPRs in Indonesia shrinking or continuing to go bankrupt. Based on this analysis, BPRs are required to increase digital service innovation with OJK Regulation no. 25/PJOK.03/2021 concerning the principle and efficient implementation of BPR and BPRS products in the licensing process. The development of BPR financial performance can be seen in table 7 below

Table 7. Level of Development of BPR Financial Performance Indicators

Finance (Milliar Rp)	Years				
	2019	2020	2021	2022	2023
Total Assets	Rp 149,623	Rp 158,075	Rp 168,443	Rp 182,302	Rp 194,984
Credit	Rp 108,784	Rp 110,770	Rp 116,580	Rp 129,295	Rp 140,791
Third-party funds	Rp 102,538	Rp 106,151	Rp 117,006	Rp 126,944	Rp 137,909
Savings	Rp 32,132	Rp 32,867	Rp 35,867	Rp 40,169	Rp 42,617
Deposit	Rp 70,406	Rp 73,389	Rp 81,139	Rp 86,775	Rp 95,293
Finance (Milliar Rp)					
Ratio (%)					
CAR (Capital Adequacy Ratio)	28,88	29,89	32,15	30,76	29,98
LDR (Long Distance Relationship)	79,09	75,44	73,67	75,83	76,56
CR (Current Ratio)	17,08	18,67	14,05	13,66	13,66
KAP (Quality of Productive Assets)	4,48	4,85	1,78	5,22	6,56
ROA (return on assets)	2,31	1,87	15,77	1,74	1,00
ROE (Return on Equity)	21,00	16,40	83,61	15,39	8,74
BOPO (Operating Expenses Operating Income)	81,50	84,24	86,66	86,66	89,37
NPL (Non Performing Loan (NPL)	5,22	5'33	4,37	5,23	6,51

Based on the results of the analysis of BPR's financial performance up to 2023, it can be concluded that BPR's financial performance is still in a positive condition or maintained despite a significant decline in the quality of BPR credit. develop and strengthen digital transformation and digital service innovation on an ongoing basis because the BPR industry still needs to answer structural challenges, such as aspects of capital that still tend to be low, implementation of better governance, adequate risk management, quantity and quality of infrastructure (IT and human resources), as well as the role and contribution of BPR and BPRS which is still low to the economy of the regions where BPR and BPRS kaioperate.

CONCLUSIONS AND SUGGESTION

Based on the research results, it can be concluded as follows: The current condition of BPRs in Indonesia in digital transformation is still under Regional Development Banks (BPD) and BPRS. For this reason, BPR immediately made significant changes, one of which was through implementing digitalization in order to achieve modernization. The level of digitalization of transaction products or services is still low, so BPR can carry out analyzes related to customer needs and values, transmit product and service development capabilities in accordance with BPR business strategy, and design development. BPR financial performance is still in a positive condition or maintained despite a significant decline in BPR credit quality and the BPR Return on Assets (ROA) Ratio continues to show a significant decline.

Limitations in research, data from the Financial Services Authority (OJK) up to 2024, the number of BPRs is 1393 with 1814 offices, the results of a survey conducted by the OJK of the number of BPRs using computerized information technology and innovation in BPR banking services are still relatively not optimal, namely around 860 with an integrated BPR bookkeeping system and transaction bookkeeping between BPR office networks.

The hope for future researchers is to increase the number of BPRs used as samples and be able to compare digital transformation and digital service innovation with other financial institutions in Indonesia. BPR develops IT infrastructure, quantity and quality of human resources, capital, and collaboration and cooperation with conventional banks, the Government, and the business/industrial world and other institutions on an ongoing basis.

REFERENCES

- Afiqoh, L. d. (2018). Pengaruh Kinerja Keuangan Terhadap Risiko Kebangkrutan Bank Umum Syariah Di Indonesia (Metode Altman Z-Score Modifikasi). . *Jurnal Ekonomi dan Bisnis Islam*, 4(2), 166-183.
- Agus Kurniawan, d. (2021). Pengaruh Transformasi Digital Terhadap Kinerja Keuangan Bank Pembangunan Daerah Di Indonesia. *Jurnal Ilmu Keuangan Dan Perbankan* ., Vol.10 No.2. ISSN : 2689-2845.
- Arpe, B. &. (2019). Supervisor: Matts Kärreman Managing Digital Transformation How organizations turn digital transformation into business practices Master's Programme in International Strategic Management.
- Fahmi, I. (2014). *Analisis Kinerja Keuangan*. . Bandung: : Alfabeta.
- Kasmir. (2014). *Analisis Laporan Keuangan, edisi pertama: cetakan ketujuh*. . Jakarta: : PT. Rajagrafindo Persada.
- Sugiyono. (2017). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Bandung: : CV. Alfabeta.
- Sasmita Maharani Lantip dan Daljono, 2023, Pengaruh Transformasi Digital Terhadap Kinerja Keuangan Dengan Ukuran Perusahaan Sebagai Variabel Moderasi (Studi Empiris Pada Perusahaan Perbankan yang terdaftar di BEI Tahun 2019-2022), *Diponegoro Journal Of Accounting*, Volume 12, Nomor 4, Tahun 2023, Halaman 1-11
<http://ejournal-s1.undip.ac.id/index.php/accounting> ISSN (Online): 2337-3806
- Dinda Dalina dan Fajra Octrina . 2024, Pengaruh Era Digitalisasi Terhadap Kinerja Keuangan Perbankan BUMN Periode 2013 – 2020, *e- Proceeding Of Management*: Vol.9, No. 4 .2022 .Page 1773 -1780.

Ida Ayu Putu Megawati dan Ni Nengah Rupadi Kertiriasih, 2024, Dampak Layanan Perbankan Digital Terhadap Kinerja Perbankan Di Indonesia, *JURNAL LENTERA BISNIS* Vol.13. No.2ISSN Cetak 2252-9993, ISSN Online 2598-618X
DOI: 10.34127/jrlab.v13i3.1205 1578

Warner, K. S. R., & Wäger, M. (2019). Building dynamic capabilities for digital transformation: An ongoing process of strategic renewal. *Long Range Planning*, 52(3), 326–349.
<https://doi.org/10.1016/j.lrp.2018.12.001>