

Analysis on the Implementation of Enterprise Risk Management and the Role of Internal Audit in Business Risk Management (Case Study of PT. Bank Tabungan Negara (Persero) Tbk)

Fitri Leris Febriana Sianturi, Wahyudin Zarkasyi, Dede Abdul Hasyir

Program Studi Magister Akuntansi, Fakultas Ekonomi dan Bisnis, Universitas Padjadjaran

Correspondence: fitrileris01@gmail.com, moh.wahyudin@unpad.ac.id, dede.hasyir@unpad.ac.id

ABSTRACT

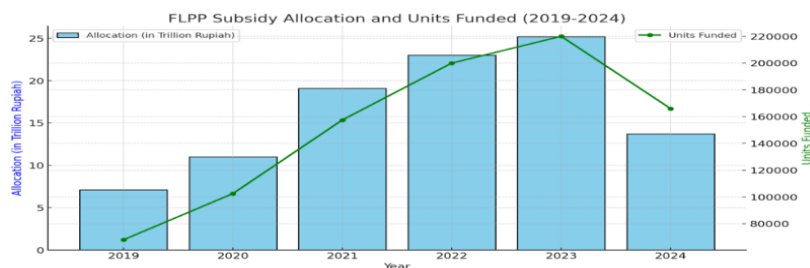
This study aims to analyze the implementation of Enterprise Risk Management (ERM) and the role of Internal Audit in managing business risk at PT Bank Tabungan Negara (Persero) Tbk. This study uses a qualitative approach by utilizing secondary data analysis, including annual reports, audit reports, and official publications of BTN. The focus of the study is to explore the implementation of ERM in identifying, mitigating, and controlling risks, as well as assessing the contribution of Internal Audit in ensuring compliance and providing recommendations for improvement. The results of the study indicate that the implementation of Enterprise Risk Management and the role of Internal Audit have a significant influence on business risk management at Bank BTN.

Keywords: business risk management, enterprise risk management, liquidity, market, credit, compliance, internal audit, home ownership credit, business transformation

INTRODUCTION

Business activities are constantly exposed to potential risks, ranging from losses to failures. In today's digital era, business risk management within organizations has become a crucial element in addressing various uncertainties (Tabun et al., 2023). The increasingly complex and dynamic business environment poses significant risk challenges for companies, especially in the banking sector, as experienced by PT Bank Tabungan Negara (Persero) Tbk.

Bank Tabungan Negara (Bank BTN), recognized as a specialist in the housing sector, plays an essential role in meeting housing needs by providing Mortgage Loans (KPR), primarily through its flagship program, the subsidized KPR under the Housing Financing Liquidity Facility (FLPP). This program offers a solution for individuals seeking home ownership amid Indonesia's high population growth rate (Bank BTN, 2023). Designed to support the public, the program provides interest and principal subsidies, making installment payments more affordable (Ministry of Public Works and Public Housing, 2023). BTN serves as an FLPP distributor in compliance with regulations established by the Ministry of Public Works and Public Housing (PUPR) and the Public Service Agency for the Management of Housing Financing Funds (BLU PPDPP), as outlined in PUPR Ministerial Regulation No. 20/PRT/M/2014 concerning Housing and Settlement Areas, along with other related provisions. However, in recent years, there has been a limitation on the FLPP quota, as illustrated in the following diagram.



Source: Ministry of Public Works and Public Housing (PUPR), 2019-2024

Figure 1
Subsidy for Housing Financing Liquidity Facility (FLPP)

In the graph, the years 2019–2023 show an increase in FLPP subsidy quota assistance. However, in 2024, FLPP quota limitations arose as the government attempted to reduce dependency on the state budget (APBN) by developing a housing endowment fund scheme. This scheme aims to support sustainable housing financing through investments, with profits used to fund housing programs efficiently, without burdening the annual budget (Fiqih, 2024). This situation raises concerns, as it may impede public access to home ownership and decrease the absorption of already constructed housing stock (Ruhlessin, & Alexander, 2024).

As a bank dominating the subsidized Mortgage Loan (KPR) sector, BTN's reliance on the FLPP program is a critical issue that could impact its performance and business sustainability. According to BTN's annual report (2023), the company controls 83% of the subsidized mortgage market share and 39% of the total mortgage market in Indonesia (BTN, 2023). This dominance reflects BTN's strategic focus on subsidized mortgages as its primary product. However, the FLPP quota limitation in 2024, covering only 166,000 units with an allocation of IDR 13.72 trillion, raises concerns that this quota may be exhausted before the year ends (Ruhlessin, & Alexander, 2024). This indicates a potential decrease in housing absorption, which could ultimately hinder low-income communities' ability to own homes. Moreover, this quota limitation may prompt people to switch to non-subsidized mortgages with higher market interest rates, potentially increasing credit risk and the Non-Performing Loan (NPL) ratio (Adhitiawarman, 2024). This risk is further complicated by intense competition from other banks offering more flexible and attractive mortgage products. In this situation, BTN must not only maintain its market share but also reduce its dependence on subsidized mortgages to ensure sustainable business growth (BTN, 2023). BTN's dependence on mortgage products has created challenges in diversifying its product and service offerings. The public's perception of BTN as a KPR provider limits the bank's capacity to innovate and offer other financial products. Additionally, the public's lack of awareness about BTN's non-KPR products could impede the company's business growth. Therefore, BTN faces an urgent need to transform its business and strengthen risk management in addressing future FLPP quota uncertainties.

This situation creates a significant research gap, posing a unique challenge for Bank BTN in its efforts to manage business risks. As it shifts focus from housing finance towards transforming into a modern bank with expanded business services, Bank BTN faces increasingly complex and dynamic business challenges. Therefore, it is crucial to examine how Bank BTN can effectively manage business risks in addressing these challenges. This study aims to analyze the implementation of Enterprise Risk Management (ERM), with a focus on financial and compliance aspects, as well as the role of Internal Audit in enhancing BTN's business risk management.

METHOD

This study uses a qualitative method with a case study approach. According to Creswell (2019), qualitative research aims to explore and understand the meanings individuals or groups assign to a social or human issue. The analysis is conducted inductively, starting from specific themes and leading to general conclusions. The object of this research is the implementation of Enterprise Risk Management (ERM) concerning financial risk and compliance aspects, as well as the role of Internal Audit in managing business risks at PT Bank Tabungan Negara (Persero) Tbk. The focus of this study is on the application of ERM in risk management and the contribution of Internal Audit to risk monitoring and management. The subject of this research is PT Bank Tabungan Negara (Persero) Tbk.

The case study approach is well-suited for investigating contemporary phenomena within real-life contexts, especially when the boundaries between the phenomenon and the context are unclear (Yin, 2023). This method was chosen because it aligns with research criteria that focus on "how" or "why" questions, involves limited control over the situation, and emphasizes a real-world context. The data used are secondary data obtained from Bank BTN's annual reports, publications from Bank Indonesia, the Financial Services Authority (OJK), the Ministry of Public Works and Public Housing (PUPR), and literature related to business risk management, risk management, and auditing. The unit of analysis is PT Bank Tabungan Negara (Persero) Tbk, focusing on ERM implementation, the role of Internal Audit, and risk management strategies. The population includes data related to risk management, internal audit, and BTN's operational performance, available in annual reports, sustainability reports, policy documents, and academic publications. Purposive sampling is used to select the most relevant data and documents. The sample analyzed includes Bank BTN's annual reports (2019–2023), audit reports, risk

management reports, internal policy documents, and relevant articles and case studies. Data were collected through a literature review (Sekaran & Bougie, 2016).

The analytical technique applied is content analysis, beginning with data reduction to simplify relevant information. Data is categorized and coded based on themes, then organized into narratives to facilitate analysis, ultimately leading to conclusions derived from the analyzed findings. The analysis aims to understand the relationships between ERM, Internal Audit, and risk management at Bank BTN, including patterns in the implementation of ERM and Internal Audit concerning the limitations of subsidized mortgage quotas. Data interpretation provides meaning to findings, such as the implementation of ERM, the effectiveness of Internal Audit, and risk management practices. Data validity is maintained through data triangulation, comparing information from various sources and verification by banking risk management experts to ensure interpretations align with the research context. This study's limitations include constraints in secondary data, a focus on Bank BTN, and a specific context that may not be universally applicable to other banks in Indonesia. The data used is current but may require updates in the future.

RESULTS

Financial Aspects of the Bank (Liquidity, Credit, and Market)

Financial Risk Management (Liquidity)

The research results indicate that BTN Bank actively identifies liquidity needs and funding sources, while calculating the Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) in accordance with OJK regulations. This is done to ensure the bank's readiness to face liquidity pressures, both short-term and long-term. Liquidity risk monitoring is conducted regularly, taking into account internal limits such as Risk Appetite and Risk Tolerance. Additionally, the bank utilizes an Early Warning Indicator (EWI) to detect potential liquidity issues at an early stage. The results of this monitoring are reported to the Board of Directors and relevant work units for immediate evaluation and, if necessary, for appropriate mitigation actions. In implementing liquidity management, the Asset Liability Committee (ALCO) plays an essential role through regular coordination meetings. These meetings aim to review liquidity management strategies and adjust policies based on market developments. The bank also routinely conducts stress testing as a simulation of worst-case scenarios, such as large withdrawals within a short period. The LCR and NSFR chart shows that, although the NSFR consistently remains above 100%, the LCR experienced a sharp decline in 2021 and dropped again in 2023, as illustrated in the following chart.



Source: Processed data

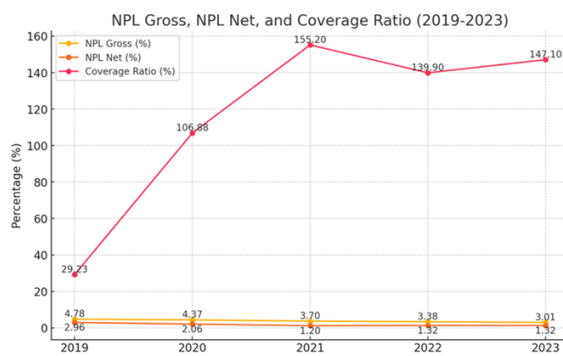
Figure 2
LCR and NSFR of Bank BTN (2019-2023)

BTN Bank's LCR shows fluctuations, with a strong position in 2019-2020 but experiencing pressure in 2021 and 2023, indicating short-term liquidity pressures that necessitate an increase in liquid assets and cash flow optimization. The NSFR has consistently remained above 100% since 2020, indicating solid long-term funding. Although the pandemic impacted liquidity, a focus on funding strategies successfully maintained stability. The decline in LCR reflects short-term liquidity pressure, especially when funding needs increase or cash inflows decrease. The issue of limited FLPP (subsidy)

quota in 2024 also poses the potential for unsold housing stock, putting additional pressure on BTN Bank's cash flow. Moreover, the slowdown in installment payments and low housing absorption could heighten the risk of a liquidity deficit, exacerbated by competition with other banks offering non-subsidized mortgages with more competitive interest rates. As a mitigation measure, BTN implements Early Warning Indicators (EWI) to identify potential risks early and develops a Contingency Funding Plan (CFP) to address possible cash flow disruptions or large withdrawals. This aligns with research by Shin and Park (2017), which emphasizes that using EWI helps detect potential liquidity risks at an early stage. Thus, BTN Bank's proactive approach to liquidity monitoring reflects a forward-looking strategy for risk management, as suggested by Altanashat et al. (2019). Furthermore, the role of the Asset Liability Committee (ALCO) is crucial in ensuring that asset and liability management strategies align with market dynamics and operational needs.

Financial Risk Management (Credit)

BTN Bank routinely updates its credit policies and monitors risks from initiation to maturity. Monitoring is conducted by evaluating exposure against risk limits (Risk Appetite & Risk Tolerance). The bank actively holds a Portfolio Quality Review Forum, reporting the outcomes monthly or as needed to the Board of Directors, Divisions, CBC, and Branch Offices. To enhance credit decision-making, the bank has established a credit committee and centralized the process. For the commercial segment, a Commercial Banking Center (CBC) serves as the credit processing hub, while for the SME segment, the bank has implemented the SME Processing Center (SPU) to improve credit productivity and quality. The bank is also introducing Portfolio Guidelines for Wholesale Credit to manage credit concentration risks prudently. System developments include a Credit Scoring Model for SMEs and an Early Warning System (EWS) for the SME, Commercial, and Corporate segments. This aligns with the bank's performance, as shown in the chart below.



Source: Processed data

Figure 3
Credit Risk (2019-2023)

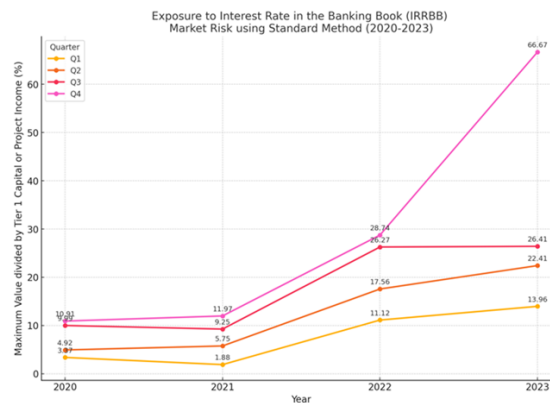
The results of this implementation can be observed through changes in the Non-Performing Loan (NPL) ratio. Based on data, Bank BTN's Gross NPL ratio was successfully reduced from 4.78% in 2019 to 3.23% in 2023, Net NPL also decreased in 2019 by 2.96%, reaching 1.32% in 2023. This decline indicates an improvement in credit monitoring quality and the Bank's success in managing credit risk through various initiatives, such as the use of digital applications like iCremo and iLoan, which aid in more effective credit monitoring and management. This finding supports Lam's (2017) research, which states that technology plays a crucial role in credit risk management by providing faster insights for mitigation. Additionally, the application of prudential principles promoted by Shad et al. (2019) is also reflected in Bank BTN's credit management strategy to maintain portfolio quality.

On the other hand, the Coverage Ratio, or the reserve ratio for non-performing loans, has significantly increased from 29.23% to 147.1% in the same period. This increase indicates that Bank BTN has strengthened its loss reserves to cover potential loan losses, in line with ERM principles, which emphasize the importance of reserve readiness to manage risks. However, the change in the subsidized Home Ownership Loan (KPR) quota under the FLPP Subsidy scheme, which is a flagship product of Bank BTN, has led some customers to shift to non-subsidized KPR products with higher interest rates.

This shift has the potential to increase credit risk in the non-subsidized segment, requiring increased vigilance and careful risk mitigation to maintain the NPL ratio and prevent a rise in credit risk. Overall, the implementation of ERM in Bank BTN’s credit financial aspect has successfully improved the quality of credit risk management through periodic monitoring, the use of technology such as an Early Warning System, and the strengthening of credit loss reserves. However, the Bank must continue to monitor risks in non-subsidized loans and prepare appropriate mitigation measures to maintain NPL stability and the overall financial health of the bank.

Financial (Market) Risk Management

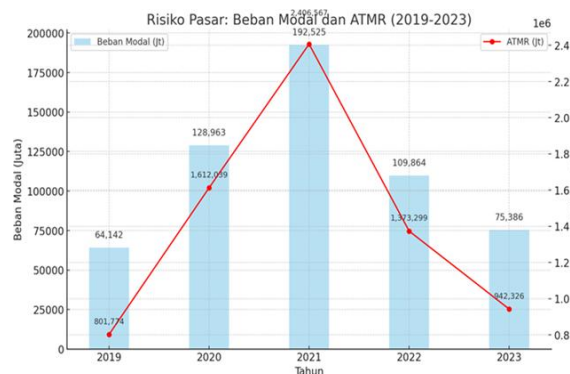
Bank BTN faces market risk in the form of interest rate fluctuations and changes in Risk-Weighted Assets (RWA) during the 2019–2023 period. The implementation of ERM helps the bank comprehensively manage this exposure, maintaining the stability of equity, interest income, and capital requirements.



Source: Bank BTN Annual Report 2019-2023

Figure 4
Eksposeur Interest Rate in the Banking Book (IRRBB)

The Interest Rate in the Banking Book (IRRBB) exposure chart shows a significant increase from 2020 to 2023, particularly in Q4, which rose from 28.74% in 2022 to 66.67% in 2023. In the context of ERM, this trend indicates increased market risk that must be strategically managed to maintain financial stability. Implementing the ERM framework in managing financial (market) risk is crucial, focusing on mitigation strategies such as adjusting interest rate positions and utilizing hedging instruments to minimize the impact of volatility on capital and profitability. With some customers shifting from subsidized mortgages to non-subsidized mortgages, whose interest rates are more sensitive to market conditions, BTN must remain vigilant and appropriately adjust its interest rate strategies.



Source: Bank BTN Annual Report 2019-2023

Figure 5
Market Risk: Capital Charge and RWA (2020-2023)

Capital expenses peaked at 192,525 million in 2021 and decreased to 75,386 million in 2023. RWA (Risk-Weighted Assets) followed a similar pattern, increasing to 2,406,567 million in 2021 and declining to 942,326 million in 2023. The increase in 2021 reflects risk mitigation efforts due to global economic uncertainty during the post-pandemic recovery period. The subsequent decline in the following years indicates the effectiveness of efficient asset and capital risk management. BTN's success in reducing Δ EVE and Δ NII demonstrates the effectiveness of its interest rate management. This step extends the findings of Gonzalez et al. (2020), which indicate that market risk monitoring can reduce interest income volatility. Thus, BTN's strategy aligns with adaptive market risk management principles.

The decline in capital expenses and RWA reflects a reduction in risky assets and capital efficiency. However, intense competition and interest rate exposure through non-subsidized KPR require continuous adaptation. ERM enables BTN to manage market risk through stress testing and ongoing monitoring, maintaining capital stability, interest income, and equity, and aligning strategies with macroeconomic conditions. Product and service innovations must continue to be developed to keep BTN competitive, balancing risk mitigation with business growth amidst market changes.

Compliance Aspect

The management of compliance risk at Bank BTN is carried out through collaboration between the Risk Management Unit and the Compliance Unit (CMGD). This coordination reflects the principles of Enterprise Risk Management (ERM), emphasizing risk integration across all work units to proactively identify and manage any potential compliance risks as part of operational risk management. The cooperation between these two units strengthens compliance governance and ensures that each risk policy aligns with current regulations. Bank BTN also utilizes the Compliance Regulatory & Monitoring System (CRMS) application to facilitate employees' access to external regulations and remind work units of reporting obligations. This application serves as a real-time compliance monitoring tool aligned with a technology-based ERM concept. Results show that the implementation of CRMS has reduced administrative violations by up to 15%, indicating an increase in compliance awareness within the workplace. This finding supports the studies of Hardani (2021) and Shad et al. (2019), which emphasize that technology utilization in compliance helps improve monitoring efficiency and accuracy, strengthening operational risk governance.

The use of technology supports ERM principles by enhancing efficiency and minimizing risks arising from administrative negligence. Additionally, Bank BTN places Regional Compliance Officers (RCOs) in each Regional Office to monitor and evaluate operational compliance at the branch level. RCOs act as the first line of defense, ensuring that compliance risks are identified and addressed promptly. This function aligns with the ERM framework, where risk monitoring should occur at all organizational levels. Through regular monitoring by RCOs, potential risks from branch activities can be swiftly managed, strengthening the compliance risk management system. In response to the Personal Data Protection Act (UU PDP) regulations, Bank BTN has established a Data Privacy Sub-Unit and conducted a gap assessment to evaluate the bank's readiness. The formation of this sub-unit and the implementation of Privacy by Design reflect proactive compliance with new regulations. The gap assessment helps identify shortcomings in the bank's readiness to face the Personal Data Protection Act (UU PDP), with the results used to mitigate data breach risks. This implementation aligns with ERM principles by ensuring that risks related to personal data are managed comprehensively from the start of the business process.

Bank BTN has also achieved ISO 37301:2021 certification for compliance management and ISO 37001:2016 for anti-bribery. These certifications strengthen compliance risk governance and operational integrity, which are critical components of ERM. ISO 37301:2021 ensures that all bank activities meet global compliance standards, while ISO 37001:2016 ensures integrity in the procurement process. Both certifications support ERM principles by enhancing transparency and accountability in the bank's operations. Bank BTN faces challenges in product diversification due to its reliance on Home Ownership Loans (KPR), particularly subsidized KPR. This finding aligns with Meiryani et al. (2022), who highlight the need for product diversification to reduce dependence on a single product type and maintain competitiveness. However, as Shin and Park (2017) noted, diversification strategies must align with the company's risk profile and operational capacity. Product diversification is essential to enhance the bank's competitiveness, but it must be approached with consideration for business risks and

compliance. With ERM implementation, every diversification effort at Bank BTN is carefully planned and compliant with regulations, ensuring that business and compliance risks remain controlled. This demonstrates that ERM helps the bank maintain a balance between product innovation and regulatory obligations. Bank BTN also uses a Compliance Dashboard to monitor and evaluate the compliance levels of work units in real-time. This dashboard enables the bank to mitigate risks more swiftly and increase work units' awareness of the importance of compliance. The use of this monitoring tool aligns with ERM principles, emphasizing responsiveness to risks and continuous operational monitoring.

From the above results and discussion, it can be concluded that Bank BTN has successfully integrated Enterprise Risk Management (ERM) into its compliance aspects. The implementation of technology such as CRMS, the placement of RCOs, and the establishment of the Data Privacy Sub-Unit reflect the bank's proactive approach to managing compliance risks. ISO certifications and the use of a compliance dashboard further strengthen the bank's governance framework, ensuring that operations are transparent and accountable. However, the product diversification challenge requires further strategy so that Bank BTN does not rely solely on KPR. With measured risk management and strict compliance, Bank BTN is expected to expand its product portfolio without neglecting regulations and to maintain its business sustainability.

Accordingly, in alignment with ISO 31000:2018, Bank BTN applies ERM to integrate risk management into its operations and business strategies, aiming to achieve operational sustainability amid economic uncertainty. Overall, these findings are consistent with the research of Altanashat et al. (2019), Shin and Park (2017), and Gonzalez et al. (2020), which emphasize the importance of an integrated approach in managing financial, market, and compliance risks. The implementation of ERM at Bank BTN not only strengthens risk governance but also enhances the company's resilience in facing economic shifts and market competition.

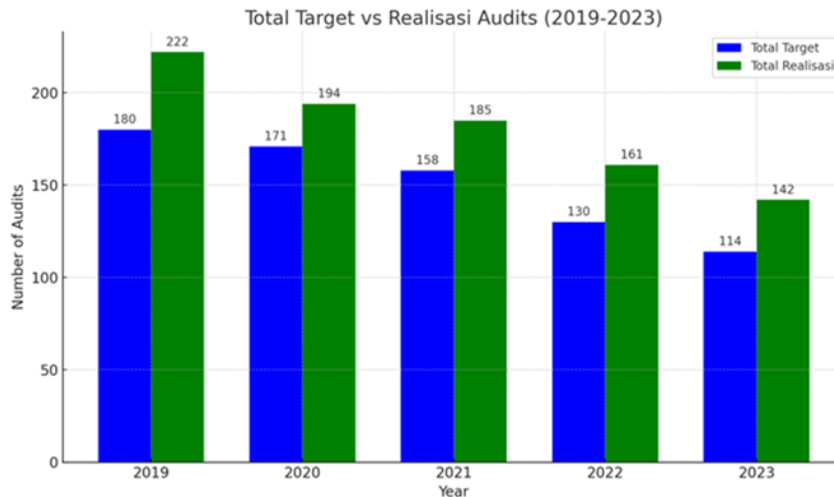
The Role of Internal Audit at Bank BTN

Based on the evaluation conducted by Internal Audit (IA) at Bank BTN, the establishment of the Internal Audit Division (IAD) serves as both a supervisory and strategic partner in ensuring the effective implementation of Enterprise Risk Management (ERM). In accordance with the Three Lines of Defense framework introduced by the Institute of Internal Auditors (IIA), internal audit, as the Third Line of Defense, acts as an independent oversight function, ensuring that risks are well managed by the first and second lines and providing improvement recommendations to management (The IIA, 2017). The focus of IA is to verify and evaluate the implementation of established risk policies, offer improvement suggestions, and ensure compliance with regulations and international standards. IAD does not directly engage in daily operations or business decision-making but is responsible for identifying gaps in controls and recommending mitigation measures to management. In the areas of liquidity and credit, IA assesses whether policies like the Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) are consistently and effectively applied. This aligns with the research of Ardianingsih et al. (2024), highlighting that the IA function's deployment across various divisions effectively mitigates credit risk. IA also monitors the use of Early Warning Indicators (EWI) and the Contingency Funding Plan (CFP) to ensure that prepared mitigation measures can anticipate potential liquidity risks in a timely manner.

This is consistent with the findings of Akkucuk & Kayhan (2022), which underscore the importance of specific indicators in risk monitoring. IA's function centers on verifying policy implementation rather than the operational execution of ERM and providing recommendations to management if potential improvements are identified in the risk monitoring and mitigation processes. The Internal Audit Division (IAD) also plays a critical role in ensuring Bank BTN's compliance with regulations, including the Personal Data Protection Law (UU PDP). In this regard, IA conducts gap assessments to identify compliance deficiencies and collaborates with relevant units to ensure the bank's readiness in meeting regulatory requirements. IAD supports the implementation of Privacy by Design principles and verifies the execution of the Data Privacy Sub-Unit. IA's function not only ensures regulatory adherence but also assists the bank in maintaining ISO 37301:2021 certification for compliance management and ISO 37001:2016 for anti-bribery measures.

Collaboration between IA and management is also essential to support the effectiveness of internal controls and risk governance. IA provides consultative input on business policies, particularly in product diversification processes and the development of new services, such as the BTN Mobile

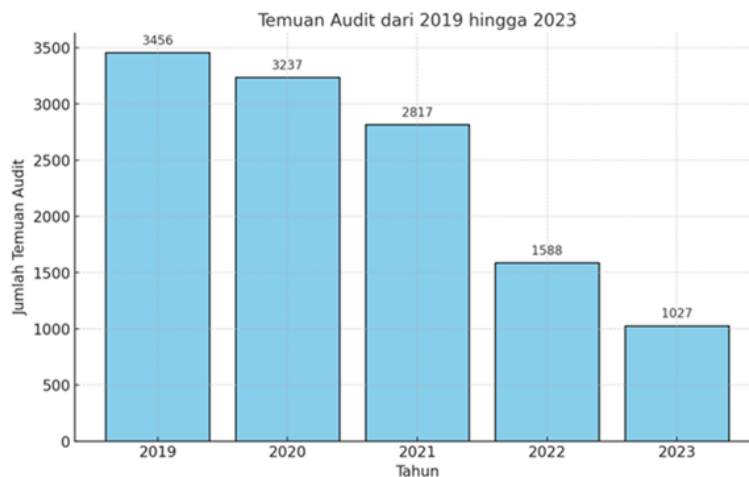
SuperApp. As noted by Betti and Sarens (2020), a consultative IA role can assist management in making accurate and mitigative decisions. Although not involved in operational strategy, IA ensures that product and digital platform development aligns with established security standards and risk governance. This reflects IA's role as a proactive management partner in maintaining stability and optimizing business processes. Consistent with Qizi (2024), which emphasizes the importance of governance and compliance through audit mechanisms, Bank BTN supports good governance by achieving certification through audits conducted under the 2019-2023 work program, as illustrated in the following chart.



Source: Bank BTN Annual Report 2019-2023

Figure 6
Total Target and Audit Realization (2019-2023)

The graph shows that the internal audit team consistently achieved and even exceeded the set targets each year. Although audit targets decreased from 2019 to 2023, the actual audit results remained higher than expected, indicating efficiency and solid performance in audit implementation. The ICT Audit and Internal Quality Audit categories consistently demonstrated excellent performance. Additionally, the following audit findings data were obtained.



Source: Bank BTN Annual Report 2019-2023

Figure 7
Audit Findings (2019-2023)

The graph from 2019 to 2023 shows a significant decrease in the number of internal audit findings, from 3,456 findings in 2019 to 1,027 findings in 2023, indicating improved effectiveness of

internal controls and corporate compliance each year. Audit realization also consistently met the target, reaching 100% in 2023. This aligns with the research by Azizah et al. (2024) and Carcello et al. (2020), which emphasizes the importance of Internal Audit (IA) in supporting Enterprise Risk Management (ERM), demonstrating that effective internal audits contribute to performance improvement and risk reduction. Although annual audit targets were adjusted, audit realization continued to exceed expectations, indicating solid performance by the audit team. Besides its role as an overseer, IA also serves as a strategic advisor to management in enhancing the quality of internal controls and risk mitigation. Overall, the role of Internal Audit at Bank BTN not only ensures compliance and effectiveness of ERM policies but also makes a tangible contribution to maintaining the bank's operational and financial stability. IA acts as a consultative partner, assisting management in identifying areas for improvement and optimizing risk governance. With this proactive approach, IA supports the bank in facing business challenges and ensuring sustainability amid increasing competition.

The following comparative table highlights the differences in focus between ERM and IA, illustrating how both complement each other.

Table 1
Comparative Differences in Focus between ERM and IA

Aspek	Enterprise Risk Management (ERM)	Internal Audit (IA)
Focus	Identification, mitigation, and risk management	Evaluation and audit of risk management implementation
Operational Involvement	Actively involved in business processes	Independent, not involved in daily operations
Role	Assists management in making risk decisions	Provides recommendations and strategic input
Key Outcome	Controlled risk in line with risk appetite	Evaluation of control and mitigation effectiveness

Source : Processed data

Business Risk Management

According to the 2023 Financial Report, Bank BTN successfully maintained its position as the fifth-largest bank in Indonesia by assets, with total assets amounting to IDR 423 trillion, a 6.53% growth from the previous year. The company also recorded a net profit of IDR 3.5 trillion, reflecting its success in expanding its asset portfolio and increasing funding. However, this profit remains lower than that of its competitors and does not fully reflect BTN's substantial assets (Bank BTN, 2023).

BTN faces fierce competition from both domestic and foreign banks, especially in the housing loan segment, where domestic banks are the main competitors due to the limited reach of foreign banks in this sector. The global financial crisis has intensified competition for funding in the retail sector. To stay competitive, BTN offers easy access, a variety of products, excellent service, and technological support, although larger banks have advantages in branch numbers, ATM networks, and resources.

Since the government regulation in 1999 that allowed foreign banks to open branches in Indonesia, competition has intensified. Foreign banks, through partnerships or investments in domestic banks, have increased competition by offering more competitive products and the potential to capture market share (Bank BTN, 2023). This situation requires Bank BTN to continue innovating products and enhancing services to maintain competitiveness. Adaptive strategies and resource optimization are essential to ensure the company remains competitive amid rapid changes in the Indonesian banking industry.

The increasingly intense competition in the banking sector, particularly in the mortgage business, now also targeted by competitors, has prompted Bank BTN to seek alternative strategies to reduce reliance on mortgages, especially its flagship subsidized mortgage product. External factors such as the reduction in FLPP quota in 2024 and the uncertainty of future allocations add to the complexity of the challenges faced. Internally, BTN is also faced with the need to improve efficiency and expand its business coverage to remain competitive amid market shifts (Bank BTN, 2022).

In response to these challenges, BTN has adopted six strategic initiatives as part of its operational transformation toward becoming a modern bank with broader services. As described in the BTN Gallery website, the transformation strategies are as follows (BTN Gallery, 2023).

Table 2
Transformation Strategy

Aspect	Details
strategic Initiatives	<ol style="list-style-type: none"> 1. Centralization of consumer and commercial credit processes 2. Centralization of operational processes to regional and headquarters 3. Optimization of unproductive sub-branches 4. Implementation of a sales center focused on emerging affluent mortgage customers 5. Implementation of SME-focused sub-branches 6. Development of BTN Mobile and Digital Mortgage Ecosystem
Branch Transformation	Refocused branch offices on business activities rather than operational tasks
Closure of Outlets & Unproductive Sub-branches	157 outlets/sub-branches closed since 2019 (reduced from 769 to 612 outlets/sub-branches)
Branch Transformation Implementation	Implemented since April 2022, enhancing productivity and efficiency
Digital Channel Growth	<ul style="list-style-type: none"> - Significant growth in mobile banking, QRIS Merchant, and EDC - New BTN Mobile: 621,000 users - BTN Property: 28.7 million visitors - BTN Property for Developer: 7,940 developers
BTN Mobile Banking Performance	<ul style="list-style-type: none"> - Predicted 262 million transactions in 2023 (up 51% YoY) - Average monthly transactions: 26.6 million (up from 14.5 million in 2022)
Digital Transformation & Governance	<ul style="list-style-type: none"> - 2019: Strategy Preparation and Development - 2020-2021: Adaptation to the Pandemic and initial recovery with improvements in governance and business processes - 2022-2023: Expansion into New Business Areas - 2024: Accelerating Growth through Digital Solutions

Source: Bank BTN Annual Report 2019-2023

Additionally, as part of its digital transformation, BTN also focuses on product diversification to increase brand awareness by expanding its reach beyond the mortgage market, aiming to reduce dependency on a single business segment, including commercial credit, microcredit, and investment products (Bank BTN, 2024). The company offers additional financial services, such as deposits, insurance, and foreign exchange, to broaden its business portfolio and mitigate risks arising from fluctuations in the housing sector (Bank BTN, 2024). Rebranding has also been undertaken as part of this business transformation, aimed at strengthening BTN's image as a financial institution that provides a wide range of financial solutions, not solely focused on mortgages.

According to the BTN Gallery website, BTN's rebranding was marked by the launch of a new logo—a symbol of BTN's success and commitment to transforming into a more modern and digitally adaptive bank. On its 74th anniversary, BTN introduced this new logo at the BTN Anniversary Festival 2024, held on March 3, 2024, at Indonesia Arena. This launch represents a pivotal moment in accelerating BTN's transformation, maintaining its focus on being the community's housing bank while expanding its service segments, including digitalization to support its operations and business.

With its modern brand image, BTN is ready to compete at a higher level as the preferred bank of choice. The new logo reflects BTN's role as a "one-stop financial solution" for the public's financial needs—not only in terms of mortgages but also through other services. Through innovation and ecosystem-based housing solutions, BTN positions itself as a bank that goes beyond mortgage services (beyond mortgage) (Bank BTN, 2024). This strategy is adopted to thrive amid increasingly complex business competition by expanding segments through digitalization, aiming to make BTN's products more widely recognized by the public. Below are the categories for Bank BTN's business risk management.

In facing competition with other banks, BTN's services and innovations offer several advantages that make them unique in the market. According to the BTN Gallery website, the BTN Money Changer service, with its booking and scheduled pickup system, provides time flexibility not available in competing banks (Bank BTN, 2024). Likewise, the BTN Smart Residence product is a flagship platform that offers convenience in residential management, including bill payments, resident complaints, and temporary housing rentals like apartments and boarding houses. This service is not widely available in other banks in Indonesia, giving BTN a competitive advantage. The BTN Digital Mortgage product allows easier accessibility for customers anytime and anywhere. Although other competing banks also offer similar services, BTN continues to innovate to provide a better user experience.

On the other hand, the BTN Property platform enables online property transactions and mortgage applications, a feature also found in several major banks. In the future, Bank Tabungan Negara (BTN) will integrate various services such as money changer, BTN Smart Residence, merchant services, BTN Property, and mortgage products into a single SuperApp: BTN Mobile. This application will compete with other banks' SuperApps, highlighting property and residential service integration as a unique value proposition (Bank BTN, 2024). Despite facing challenges in promotion, limited budgets, and specific target markets, BTN is optimistic that this SuperApp can strengthen its brand and market penetration, creating added value for customers and enhancing competitiveness.

Amidst the intense competition in national mobile banking, where basic functions like electricity payments, phone bills, and e-money top-ups are also offered by fintech and e-commerce platforms, the BTN Mobile SuperApp not only provides basic features but also services supporting the housing ecosystem. From ownership to everyday home needs, the application covers transactions such as electricity, water, gas, and property tax (PBB) payments. These features make the BTN Mobile SuperApp a comprehensive banking solution, setting it apart from similar applications by competitors (Bank BTN, 2024).

Table 3
New Product Innovations by Bank BTN

Service/Innovation	Description	Advantages	Integration with SuperApp
Money Changer	A currency exchange service with a booking system for scheduled pickups.	Provides time flexibility that competitors' banks do not offer.	Integrated within the SuperApp transaction features.
BTN Smart Residence	A digital platform connecting residents and residential managers, offering temporary housing rental services like apartments and boarding houses.	Simplifies bill payments, service charges, and resident complaints, and offers easy access to rent apartments and boarding houses.	Available in the SuperApp as part of property services.
Digital Mortgage Product	Mortgage services available on mobile and web platforms.	Provides 24/7 accessibility for customers.	Integrated as one of the main features of the SuperApp.
BTN Property	A digital platform for property and mortgage transactions.	Eases online mortgage applications and monitoring.	To be integrated into the BTN Mobile SuperApp.
BTN Mobile SuperApp	A primary application combining all BTN digital services, including banking, property, and merchant services.	Unites all services within a single digital ecosystem, enhancing efficiency and BTN's branding.	Menjadi pusat Serves as the central access point for all BTN digital services.
Challenges: Promotion, Funding, and Target Market	Limitations in promotion, funding constraints, and difficulties in reaching the target market effectively.	Requires an effective promotional strategy and optimized funding.	The SuperApp is expected to strengthen branding and market penetration.

Source: Bank BTN Website

Overall, BTN's operational strategy reflects a targeted effort to maintain stability and drive sustainable growth amid external and internal challenges in managing business risks. Product diversification, digital transformation, strategic partnerships, and technology utilization are BTN's main pillars in addressing risks arising from dependency on subsidized mortgages. These measures not only help the bank maintain credit portfolio quality and mitigate NPL risks but also strengthen BTN's position as a competitive bank in Indonesia's banking industry.

CONCLUSION

This research confirms that PT. Bank Tabungan Negara (Persero) Tbk has successfully implemented ISO 31000:2018-based Enterprise Risk Management (ERM) to manage business risks, including financial and compliance risks. The ERM implementation contributed to a decrease in the

Non-Performing Loan (NPL) ratio from 4.78% in 2019 to 3.23% in 2023 through the use of Early Warning Indicators (EWI) and monitoring technology. The bank also maintains liquidity, equity stability, and interest income through stress testing and interest rate adjustments. Additionally, Bank BTN's compliance is supported by the implementation of CRMS and ISO certification, strengthening governance and systematically mitigating risks.

REFERENCES

- Altanashat, M., Dubai, M. A., Alhety, S., 2019. The impact of enterprise risk management on institutional performance in Jordanian public shareholding companies. *Journal of Business and Retail Management Research*, 13(3), 1–13.
- Akkucuk, U., Kayhan, F., 2022. Internal Audit, Internal Control Systems in Finance Industry in the Changing Business Environment, Evidence From Turkey as an Emerging Economy: Banking Applications, Internal Systems. *Managing Inflation and Supply Chain Disruptions in the Global Economy*, 282-292, Chapter: 18, Publisher: Igi-Global
- Adhitiawarman, D., 2024, *Kuota KPR Subsidi Menipis, Dirut BTN Harap Ada Tambahan 35 Ribu Unit*. accessed via the website <https://www.detik.com/properti/berita/d-7455481/kuota-kpr-subsidi-menipis-dirut-btn-harap-ada-tambahan-35-ribu-unit>
- Annual Report Bank BTN, B. (2019–2023). *Laporan keuangan Bank BTN tahun 2019–2023*. accessed via the website <https://www.btn.co.id>.
- Azizah, T. N., Evitasari, P. A., Kustiwi, I. A. (2024). Peran strategis internal audit dalam meningkatkan tata kelola perusahaan: Studi kasus pada perusahaan sektor keuangan. *Jurnal Ekonomi, Bisnis dan Manajemen (EBISMEN)*, 3(1), 240–251.
- Betti, N., Sarens, G., 2020. Understanding the internal audit function in a digitalised business environment. *Journal of Accounting & Organizational Change*, 16(4), 567–582.
- Carcello, J. V., Essen, E. D., Kansas, A. M., Wood, D. A., 2020. Are internal audits associated with reductions in perceived risk?, *AUDITING: A Journal of Practice & Theory*. 39(3)
- Creswell, J. W., 2019. *Research Design: Qualitative, Quantitative, and Mixed Method Approaches*. Sage Publications.
- Fiqih, M., 2024, *Atasi Backlog, Kementerian PUPR Mulai Rancang Skema Dana Abadi Perumahan*, accessed via the website <https://deras.id/atasi-backlog-kementerian-pupr-mulai-rancang-skema-dana-abadi-perumahan/>
- Gonzalez, L. O., Santomil, P. D., Herrera, A. T., 2020. The effect of enterprise risk management on the risk and the performance of Spanish listed companies. *European Research on Management and Business Economics*, 26(2), 111–120.
- The Institute of Internal Auditors (The IIA), 2007, *International Standards for the Professional Practice of Internal Auditing*, accessed via the website <https://www.theiia.org/en/content/guidance/mandatory/standards/international-standards-for-the-professional-practice-of-internal-auditing/>
- ISO, 2018. ISO 31000:2018 risk management — Guidelines. accessed via the website <https://www.iso.org/standard/65694.html>.
- Kementerian PUPR, 2023. *Tingkatkan Akses Kepemilikan Rumah Layak Huni, Kementerian PUPR Tambah Kuota Bantuan Subsidi Perumahan Tahun 2023*, accessed via the website <https://pembiayaan.pu.go.id/news/detail/162/Tingkatkan-Akses-Kepemilikan-Rumah-Layak-Huni-Kementerian-PUPR-Tambah-Kuota-Bantuan-Subsidi-Perumahan-Tahun-2023>
- Ruhlessin, M. F., Alexander, H. B., 2024, *Kuota KPR FLPP Tahun 2024 Hampir Habis, REI Minta Jatah Ditambah*, accessed via the website <https://www.kompas.com/properti/read/2024/08/22/200000821/kuota-kpr-flpp-tahun-2024-hampir-habis-rei-minta-jatah-ditambah>.
- Lam, J. 2017. *Implementing Enterprise Risk Management: From Methods to Applications*. Canada: John Wiley & Sons.
- Qizi, S. N., 2024. Issues of use of internal audit in ensuring the stability of financial activities of business subjects. *International Scientific Academic Research in Modern Science*, 3(2), 206–213.
- Sekaran, U., Bougie, R., 2016. *Research methods for business: A skill-building approach*, 7th ed. United States: John Wiley & Sons Inc.

Fitri Leris Febriana Sianturi et al., *Analysis on the Implementation of Enterprise Risk Management and the Role of Internal Audit in Business Risk Management (Case Study of PT. Bank Tabungan Negara (Persero) Tbk)*

Shad, M. K., Lai, F. W., Fatt, C. L., Klemes, J. J., Bokhari, A., 2019. Integrating sustainability reporting into enterprise risk management and its relationship with business performance: A conceptual framework. *Journal of Cleaner Production*, 215, 415–425.

Shin, I., Park, S., 2017. Integration of enterprise risk management and management control system: Based on a case study. *Investment Management and Financial Innovations*, 14(1), 19–26.

Tabun, M. A., Maria, Mastap, S., Hariyani, D. S., Anwar, Karollah, B., Sulistyowati, M., Mariana, Indriani, R., Moonti, A., Nursansiwi, D. A., Sijabat, F. N., 2023. *Manajemen Risiko Bisnis Era Digital (Teori dan Pendekatan Konseptual)*. Lombok Barat, Nusa Tenggara Barat: Seval Literindo Kreasi.

Yin, R. K. 2023. *Studi Kasus Desain Dan Metode*. Indramayu, CV Adanu Abimata.