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The effects of IFRS 9: A systematic literature review

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Abstract
Purpose: This study aims to review the existing literature on the effects of IFRS 9.
Design/methodology/approach: This study uses the systematic literature review methodology to review the literature focusing on the effects of IFRS 9.
Findings: The current literature focuses on various topics, such as the impact of IFRS 9 on financial reporting, the banks' behaviour, and capital ratios. Most of them concentrate on the bank level, and the research on the economic level is relatively limited.
Research limitations/implications: The literature review on the effects of IFRS 9 summarized the multifaceted impacts of the new standard. It provided a knowledge base for policy formulation, academic exploration, and accounting practices. The corresponding stakeholders, such as standard setters, policymakers, scholars, and practitioners, can benefit from some information from the literature review.
Practical implications: This study presented the widespread influence of IFRS 9 on various aspects, bank-level and economic. It provided empirical evidence for implementing the new standard, and positive and negative effects were involved. This evidence plays a vital role in refining and updating the accounting standards because it can inform the standard setters of the intended and unintended consequences of the IFRS 9.
Originality/value: This study contributes to the overall understanding of the current effects of IFRS 9 and references the standard setters, policymakers, and accounting practitioners. It also facilitates future studies by identifying the limitations of the current literature.

Keywords: IFRS 9, impact, financial reporting, bank behaviour, economic.

Introduction
The global financial crisis in 2008 exposed several deficiencies in International Accounting Standard 39 (IAS 39), the former accounting standard for the accounting treatment of financial instruments. The IAS 39's impairment model was based on the incurred loss, and it was criticized for the delayed and inadequate loan loss provision recognition (Gornjak, 2020).

Many banks faced significant losses during the crisis because of their exposure to risky assets, including nonperforming loans (Pastiranová & Witzany, 2022). The delayed and inadequate provision increases the impairment loss suddenly in a short period (called the cliff effect) during the crisis. It exacerbates the economy's downturns (Kund & Rugilo, 2021), exposing that the existing accounting standards did not provide sufficient guidance on capturing credit losses of the financial instruments.

For the deficiencies of IAS 39, many researchers and practitioners believed that the regulations of IAS 39 synchronize the impairment loss of financial assets with the fluctuation of the economy and thus contribute to the crisis. The deficiencies highlighted the need for a new accounting standard that could provide more forward-looking impairment models to mitigate the pro-cyclical effect of IAS 39 (Gornjak, 2020).

In response to the critique during the financial crisis, the International Accounting Standard Board (IASB) initiated efforts to create a new framework for financial instruments. This endeavour culminated in the International Financial Reporting Standard 9 (IFRS 9) launch in 2014. IFRS 9 was crafted to rectify the deficiencies exposed during the crisis and enhance the quality of financial reporting. It was subsequently mandated for adoption by companies following IFRS, effective January 1, 2018 (Gornjak, 2020).

The transition of the accounting standard for financial instruments brings about a reformation to the accounting treatment of firms, especially financial institutions (Dong & Oberson, 2022). After the implementation of the new standard, much research on the impact of IFRS 9 has been conducted; scholars and practitioners have investigated various aspects, including its influence on financial statements, financial ratios, and banking behaviour (ElKelish, 2021; Madah Marzuki et al., 2021; Giner & Mora, 2019; Gomaa et al., 2019; Nnadi et al., 2023). Certain studies have delved into its impact at an economic level, particularly concerning its effects on financial stability Pastiranova et al., (2021). This study will endeavour to consolidate the existing body of literature, offering a comprehensive comprehension of the implications of IFRS 9. Furthermore, this study will spotlight critical discoveries while pinpointing opportunities for future research.

Existing studies on the impact of IFRS 9 hold significant importance for scholars, practitioners, investors, and policymakers. They offer a deeper understanding of the impacts of this new accounting standard on financial institutions and the broader economy. For scholars, comprehending the ramifications of IFRS 9 is crucial because it can pave the way for further studies and generate insightful recommendations. Financial institutions can benefit from this knowledge by leveraging it in their decision-making processes, enabling more effective resource allocation within their operations (Avgouleas, 2015).

Investors require a clear grasp of how IFRS 9 influences financial entities to make informed investment choices and enhance profitability (Mechelli & Cimini, 2021). Meanwhile, policymakers ensure that IFRS 9 contributes to financial stability and facilitates economic growth (Sánchez Serrano, 2018). Research related to IFRS 9 provides invaluable insights into the repercussions of altering accounting standards, guiding policy decisions related to financial regulation and supervision. Thus, comprehending the implications of these changes and their potential effects on financial and economic outcomes remains paramount.

This review-based study contributes to the current body of literature in several ways. First, this study collects the current literature that concentrates on the impact of IFRS 9 and summarises the current understanding of the new standard's impact on the banks and economy. This study highlighted the current understanding of IFRS 9 by identifying and synthesizing the important points and findings in the current literature. Second, it contributes to the future study directions by identifying the research gaps in the current literature. Through the systematic literature review, the trend of the studies, the gaps in the studies, the limitations in the existing literature, and the uninvestigated issues could be identified. For example, why is the effect of IFRS 9 different in different countries, and what factors could affect the effect of IFRS 9? Emphasizing the field that needs further research could facilitate future studies related to the effect of IFRS 9. Finally, this study also sheds light on the practical implications of IFRS 9 for banks, other financial institutions, and regulators. It may improve decision-making and policy development. The remainder of the paper is as follows. The second section is the methodology used to review the literature. The third section is the findings of the review. The fourth section is the discussion and conclusions. The fifth section is the limitations and the suggestions for future research.

Methods

This study adopts the systematic literature review technique, which aims to assess the literature related to the effect of implementing IFRS 9. The systematic literature review methodology is a popular method in the IFRS research field, and it could substantiate the critical findings from the existing literature (Ab Talib et al., 2020). This study follows Denyer and Tranfield (2009) and Zimmermann et al. (2016), adopting the five-step systematic literature review process. This method was regarded as more systematic, replicable, and transparent in collecting, analyzing, and synthesizing the existing studies (Denyer & Tranfield, 2009).
The five steps involved: constructing the research question, collecting the relevant literature, evaluating and selecting the literature, analyzing and synthesizing the literature, and reporting the findings concluded by the review. The process is illustrated in Figure 1.

Step 1: Constructing the research question

What are the impacts of IFRS 9 since its implementation?

Step 2: Collecting literature

Literature was downloaded from the Web of Science
Specific words should be involved in the title, abstract, and keywords.
The literature should be published in English

Step 3: Evaluating and selecting literature

Tabulate the key point in the article into a form, and choose the articles that concentrate on the effect of IFRS 9.

Step 4: Analyzing and synthesizing the data

Review the selected articles and synthesis the key information.

Step 5: Reporting the result of the review

Present the impact of IFRS 9

Figure 1 Five steps process
Source: Adapted from Ab Talib et al. (2020)

Constructing the research question

The research question is necessary to make the review direction more specific. The research question could give us a more precise focus on the literature and avoid a broad exploration. It

provides the research objective. Moreover, the specific research question could also act as a basis for the research organization. It could facilitate the construction of the review by using keywords, relevant themes, and some other variables. It helps us maintain consistency and logical flow throughout the review process.
The research question has been formulated in alignment with the study's research objective, which is to assess the impact of IFRS 9 since its implementation. This research question is as follows: What has been the impact of IFRS 9 since its implementation?

Collecting literature

The process of literature collection holds a pivotal role as the subsequent steps and the outcomes of the review all hinge upon the data amassed during this phase. In this research endeavour, we intend to source articles from the Web of Science (WOS) database, which is widely recognized as a reputable scientific literature repository (Ab Talib et al., 2020). This database involves an extensive array of literature related to accounting and economics, marked by their consistent content validation (Levine-Clark & Gil, 2008). WOS is integral to the contemporary scientific scenario (Ab Talib et al., 2020). It grants access to over 34,000 journals and is an impressive repository of more than 2.2 billion cited references. Furthermore, employing a single database streamlines the data collection process, enhancing the potential for data standardization (Bramer et al., 2017).
The data collection process involves searching the articles related to the research questions. This study adopted the method developed by Ahmed et al. (2013) to collect the relevant articles for review. It used several combinations of keywords to search for the literature on the effects of IFRS 9. The keywords include the impact of IFRS 9, the impact of the Expected Credit Loss (ECL) model, the effect of IFRS 9, the effect of the ECL model, IFRS 9, and the ECL model. Furthermore, for compelling the related studies to review, the terms "IFRS 9," "expected credit loss model" or "ECL model," and "impact or effect" should be included in the title, the keywords, or the abstract part.
Moreover, this study only involves the literature in the type of articles. The publications of conference proceedings, books or chapters, and editorials are excluded. The time duration of the publications will be restricted from the beginning of 2018 to May of 2023 because the IFRS 9 became mandatory on January 1, 2018. Then, 81 articles were collected.

Evaluating and selecting the literature

In this step, the researcher will evaluate and select the literature because some articles are irrelevant to the research question by reviewing the titles, abstracts, keywords, and structures of the literature to determine whether it is eligible. While scrutinizing if the following criteria could be met, the literature will be selected for review in the next stage. The criteria are: (1) focusing on the impact of IFRS 9. (2) the transaction with questions related to the financial instruments' classification and measurement, financial instruments' impairment, and hedge accounting. (3) studies concerning how to estimate ECL for banks, financial institutions, and other firms. By evaluating and selecting the literature, 58 articles were excluded because they did not meet the criteria, and the remaining 22 articles will be carefully reviewed in the next step.

Analyzing and synthesizing the data

After the most appropriate articles are selected, the content of the articles will be analyzed and synthesized. Each article will be read individually, assessed, and scrutinized. The evidence of the intended contents (e.g., the impact of IFRS 9) will be extracted (Denyer & Tranfield, 2009). The content analysis method was deliberate during the analysis process because it aimed to establish a robust methodological foundation for conducting a meticulous, structured, and replicable literature review (Seuring & Gold, 2012). Along with the analysis process, the critical points of the articles should be synthesized. The analysis output will be tabulated using a spreadsheet and displayed (Zimmermann et al., 2016). The critical points of the selected literature are listed in Table 1.

Table 1 The main points of the selected articles

Year	Authors	Article Title	Source Title	Main findings	Method	Sample location	Level
2023	Nnadi, M; Keskudee, A; Amaewhule, W	IFRS 9 and earnings management: the case of European commercial banks	INTERNATIONAL JOURNAL OF ACCOUNTING AND INFORMATION MANAGEMENT	The findings indicate that banks not listed on the stock market are more inclined to conduct the activities of earnings management, and even when audit quality is considered, it doesn't effectively curb such behavior. The author contends that solely enhancing accounting standards may not lead to an enhancement in accounting quality.	Empirical investigation	EU	Bank level
2023	Buesa, A; Poblacion, J; Tarancon, J	The Procyclicality of Impairment Accounting: Comparing Expected Losses Under IFRS 9 and US GAAP	JOURNAL OF FINANCIAL SERVICES RESEARCH	The research revealed that IFRS 9 has indeed reduced its pro-cyclical nature when compared to IAS 39. However, it still exhibits more pro-cyclicality than CECL under US GAAP. This discrepancy is rooted in the fact that IFRS 9 recognizes credit losses within a one-year timeframe, whereas CECL spreads this recognition over the entire lifetime of the asset.	Comparative analysis	Cross country	Economic level
2023	Utami, ER; Sumiyana, S; Barokah, Z; Mustakini, JH	IFRS 9 implementation indicating asset opacities: even though predicting earnings' forecasts and value relevance in Asia-Pacific countries	JOURNAL OF FINANCIAL REPORTING AND ACCOUNTING	This study's findings suggested that the implementation of IFRS 9 has introduced opacity into the banks' assets, which finally has had an adverse effect on their future earnings and has exacerbated the information asymmetry.	Empirical investigation	Indonesia	Bank level
2022	Li, X; Ng, J; Saffar, W	Accounting-Driven Bank Monitoring and Firms' Debt Structure: Evidence from IFRS 9 Adoption	MANAGEMENT SCIENCE	These results demonstrate that IFRS 9 has resulted in a decline in firms' dependence on debt from the banks relative to the public debt. Furthermore, it reveals that this effect is stronger when regulatory oversight is stricter. Additionally, the research highlights that the adverse impact is more substantial when banks have greater flexibility in shifting from bank debt to public debt.	Empirical investigation	Cross country	Bank level
2022	Abuaddous, MY	The Implementation of IFRS 9 in Gulf Banks: A Comprehensive Analysis	JOURNAL OF ASIAN FINANCE ECONOMICS AND BUSINESS	After the IFRS 9 became mandatory, there has been a significant increase in loan loss provisions, accompanied by a decrease in nonperforming loans, with little change in incurred loan losses. This research also highlights that there is a higher degree of alignment between the provisions for loans and non-performing loans under the IFRS 9.	The two-way fixed effect model (TWFE) estimation and the DiD approach	Cross country	Bank level
2022	Gomez-Ortega, A; Gelashvili, V; Jalon, MLD; Menendez, JAR	Impact of the application of IFRS 9 on listed Spanish credit institutions: implications from the regulatory, supervisory and auditing point of view	JOURNAL OF RISK FINANCE	The adoption of IFRS 9 has produced both favorable and adverse impacts on financial reporting. On the positive side, this new standard enhances the prompt recognition of losses. However, it has also introduced complexity as a significant challenge.	Descriptive analysis	EU	Bank level
2022	Fatouh, M; Bock, R; Ouenniche, J	Impact of IFRS 9 on the cost of funding of banks in Europe	JOURNAL OF BANKING REGULATION	The findings from this research suggest that the initial impact of IFRS 9 on the cost of financing for European banks is relatively minor on day 1. This outcome can be attributed to the presence of a weak low-risk anomaly, which does vary from country to country, but it is typically low when compared to the long-term cost of equity financing for banks.	Empirical investigation	EU	Bank level
2022	Pinto, I; Morais, AI	Classification of Equity Instruments under IFRS 9: Determinants and Consequences	AUSTRALIAN ACCOUNTING REVIEW	Risk plays a pivotal role in determining the classification and measurement of financial instruments under IFRS 9. Meanwhile, the compensation of the CEO and the fair value hierarchy are significant factors that influence the classification of equity instruments.	Two steps method	Portugal	Bank level
2022	Malovana, S; Tesarova, Z	Banks' Credit Losses and Provisioning over the Business Cycle: Implications	REVIEW OF ECONOMIC PERSPECTIVES	Asymmetries exist in the connection between banks and the economic cycle. Provisioning procyclicality is most pronounced during the later contractionary stages and the initial phases of recovery, and also it is absent	Empirical investigation	Czech	Bank level

		for IFRS		during the early contractionary stage. Credit risk is a crucial factor influencing banks' procyclical behavior, potentially causing a delayed transition between phases and exacerbating cyclical fluctuations.			
2022	Pastiranova, O; Witzany, J	IFRS 9 and its behavior in the cycle: The evidence on EU countries	JOURNAL OF INTERNATIONAL FINANCIAL MANAGEMENT & ACCOUNTING	IFRS 9 introduces a procyclical effect, and the selection of models and assumptions regarding forward-looking information can significantly impact the calculation of loan loss provisions.	Empirical investigation	EU	Economic level
2021	Engelmann, B	Calculating lifetime expected loss for IFRS 9: which formula is measuring what?	JOURNAL OF RISK FINANCE	The commonly employed formulas do not align with the measurement of expected loss through the cash flows which discounted by the effective interest rate. Instead, formulas which use the discounted cash flows consistently yield more ideal figures.	New method proposed	Vietnam	Bank level
2021	Lopez-espinosa, G; Ormazabal, G; Sakasai, Y	Switching from Incurred to Expected Loan Loss Provisioning: Early Evidence	JOURNAL OF ACCOUNTING RESEARCH	The ECL model has the potential to enhance the predictability of banks' risk compared to IAS 39. This model is more informed and has the additional effect of reducing stock returns while simultaneously increasing the volatility of credit default swap spreads.	Descriptive analysis	Cross country	Bank level
2021	Marzuki, MM; Rahman, ARA; Marzuki, A; Ramli, NM; Abdullah, WAW	Issues and challenges of IFRS 9 in Malaysian Islamic financial institutions: recognition criteria perspective	JOURNAL OF ISLAMIC ACCOUNTING AND BUSINESS RESEARCH	IFRS 9 has bolstered the relevance as well as the reliability of accounting information. It has achieved this by enhancing the recognition of financial assets and liabilities, and it is strengthening the effective of business models. Meanwhile, it also has presented certain challenges for Islamic financial institutions, particularly at the aspect of achieving faithful representation and determining the fair values.	semi-structured interviews	Malaysia	Bank level
2021	Groff, MZ; Morec, B	IFRS 9 transition effect on equity in a post bank recovery environment: the case of Slovenia	ECONOMIC RESEARCH-EKONOMSKA ISTRAZIVANJA	IFRS 9 results in an increase in loan losses for banks without extensive asset portfolios. Conversely, banks that have undergone external assisted loan portfolio restructuring experience the opposite effect.	Comparative analysis	EU	Bank level
2021	Jassem, S; Razzak, MR; Sayari, K	The Impact of Perceived Transparency, Trust and Skepticism towards Banks on the Adoption of IFRS 9 in Malaysia	JOURNAL OF ASIAN FINANCE ECONOMICS AND BUSINESS	The mandatory of IFRS 9 has result in the enhancements in the perceptions of transparency and trust. Furthermore, it has contributed to a reduction in skepticism towards banks.	Descriptive analysis	Malaysia	Bank level
2021	ElKelish, WW	The International Financial Reporting Standards 9 financial instruments, information quality and stock returns in the modern technology era	JOURNAL OF APPLIED ACCOUNTING RESEARCH	Announcements related to IFRS 9 have a positive effect to the companies with lower accounting quality. The effect is particularly strong in smaller firms, and it is even more pronounced within the financial sector. The influence of modern technology is a significant determining factor, and the industry type and legal system play a moderate role to affect the relationship between information quality and the profit of the shares.	Event study	Cross country	Bank level
2021	Pastiranova, O; Witzany, J	IMPACT OF IMPLEMENTATION OF IFRS 9 ON CZECH BANKING SECTOR	PRAGUE ECONOMIC PAPERS	The adoption of IFRS 9 has introduced greater volatility in the calculation of the provisions for financial instruments, primarily attributable to the complexity of the ECL model. Additionally, fluctuations in economic forecasts have also played a role in increasing this volatility.	Empirical investigation	Czench	Bank level
2020	Alves, ATARBA; Bordin, MPR; Gonzales, A; Santos, FD	The adapting of the IFRS 9 (CPC 48) on expected credit losses (ECL) in Brazilian energy companies	REVISTA AMBIENTE CONTABIL	IFRS 9 did not exert a significant impact on Brazilian energy companies. This is primarily because not all the firms explained the modification and the standard of the Specific Credit Risk Provisions (SCPPs) in their Explanatory Notes.	Documentary and exploratory method	Brazil	Bank level
2019	Giner, B; Mora, A	Bank loan loss accounting and its contracting effects: the new expected loss models	ACCOUNTING AND BUSINESS RESEARCH	Both FASB and IASB's new accounting models introduce conservatism into financial reporting, albeit in distinct ways. The level of informativeness is closely linked to the business models adopted by banks. Additionally, the research suggests that the presence of two expected loss models may be	Comparative analysis	Cross country	Bank level

				partially attributed to variations in the business models embraced by different banks.			
2019	Gomaa, M; Kanagaretnam, K; Mestelman, S; Shehata, M	Testing the Efficacy of Replacing the Incurred Credit Loss Model with the Expected Credit Loss Model	EUROPEAN ACCOUNTING REVIEW	IFRS 9 has led to an increase in both the amount and adequacy of reserves. Furthermore, the Expected Credit Loss (ECL) approach has made earnings management more prevalent and its impact in this regard is somewhat less than expected. On balance, the positive effects of IFRS 9 outweigh the negative effects.	Simulation study	Canada	Bank level
2019	Gornjak, M	Forward-looking approach in the accounting of financial instruments: case study of Slovenian Pension Company	INTERNATIONAL JOURNAL OF INNOVATION AND LEARNING	The findings indicate that the influence of IFRS 9 extends beyond just daily accounting operations; it also affects the overall strategies adopted by companies.	Comparative analysis	Slovenia	Bank level
2018	Kruger, S; Rosch, D; Scheule, H	The impact of loan loss provisioning on bank capital requirements	JOURNAL OF FINANCIAL STABILITY	The outcomes of this research reveal that both ECL under IFRS 9 and CECL under US GAAP contribute to a decrease in Tier 1 capital.	counterfactual analysis	Germany	Bank level
2018	Bholat, D; Lastra, RM; Markose, SM; Miglionico, A; Sen, K	Non-performing loans at the dawn of IFRS 9: regulatory and accounting treatment of asset quality	JOURNAL OF BANKING REGULATION	IFRS 9 has altered the relationship between nonperforming loans and provisions. This new standard has introduced a more flexible and principle-based approach to estimating provisions, which has posed challenges in assessing the quality of assets.	Comprehensive analysis	England	Bank level
2018	Choez, CGP; Llanos, FDC	Analysis of IFRS 9 Financial Instruments from an industrial perspective	CONTABILIDAD Y NEGOCIOS	IFRS 9 has brought about enhancements in the recognition and measurement of financial instruments, which crucial for accurate accounting practices. Furthermore, it has improved the informativeness of financial information, especially benefiting small and medium-sized companies.	Descriptive analysis	Ecuador	Bank level

Source: Hand collected by the author

Findings

This research will follow Zimmerman et al. (2016) to report the quantitative and qualitative summarization of the selected articles. Table 2 shows the description of the report content.

Table 2 The content of the report

Categories	Criteria	Description
Quantitative	Year of Publication	List the year of the publication in chronological sequence
	Source of Publication	List the names of the journals
	Location (country)	List the location of the sample or data based on which the article was constructed.
	Method	List the research method used in the selected articles (empirical studies, case studies, interviews, proposed method)
Qualitative	Impact on the bank and economic level	Synthesize the articles to explain the impact of IFRS 9, both on the bank level and the economic level

Source: Adapted from Zimmerman et al. (2016)

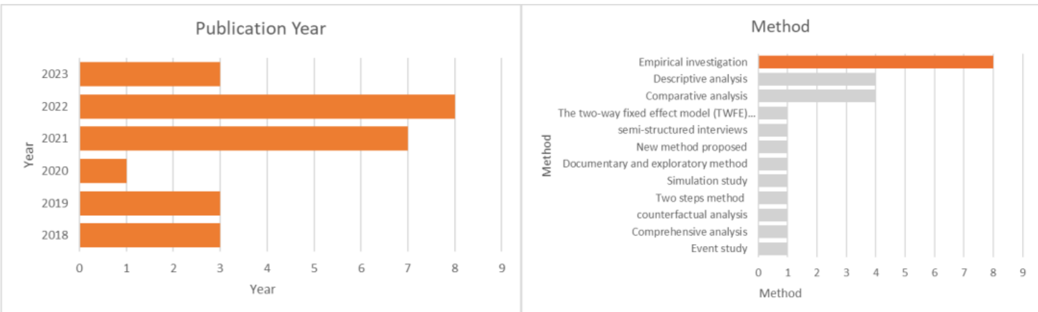
The quantitative summarization of the selected articles

As of May 2023, there were three pieces of articles related to the impact of IFRS 9 were published. The articles published in 2022 (eight) occupy the most significant part, followed by those published in 2021 (7). One piece of the article was published in 2020, and three pieces in 2019 and 2018 respectively. This publication trend indicates that the effect of IFRS 9 was emphasized, and the related studies are increasing.

There were 21 different journals in which the articles were published. The journals can be divided into three categories according to their subjects: accounting research, management research, and economic research. It indicates that IFRS 9 has an impact on multiple levels, including the accounting level, the risk management level, the bank level, and the economic level.

These studies include 12 different research methods, and experimental investigation is the most popular one, which complements mainstream research methods. Other research methods are descriptive analysis, comparative analysis, two-way fixed effect model, semi-structured interview, new proposed method, documentary and exploratory method, simulation study, two steps method, counterfactual analysis, comprehensive analysis, and event study.

Regarding the sample location, a major stream of authors concentrates on the cross country. Another stream concentrated on a single country, and most of them are European countries. For example, the Czech, Portugal, Slovenia, Germany, and England. The rest of the authors concentrated on the American and Southeast Asian countries, including Canada, Ecuador, Brazil, Malaysia, and Vietnam. It indicates that the effect of IFRS 9 on the most developing countries in Asia and Africa was not investigated. Figure 2 shows the four aspects of the articles.



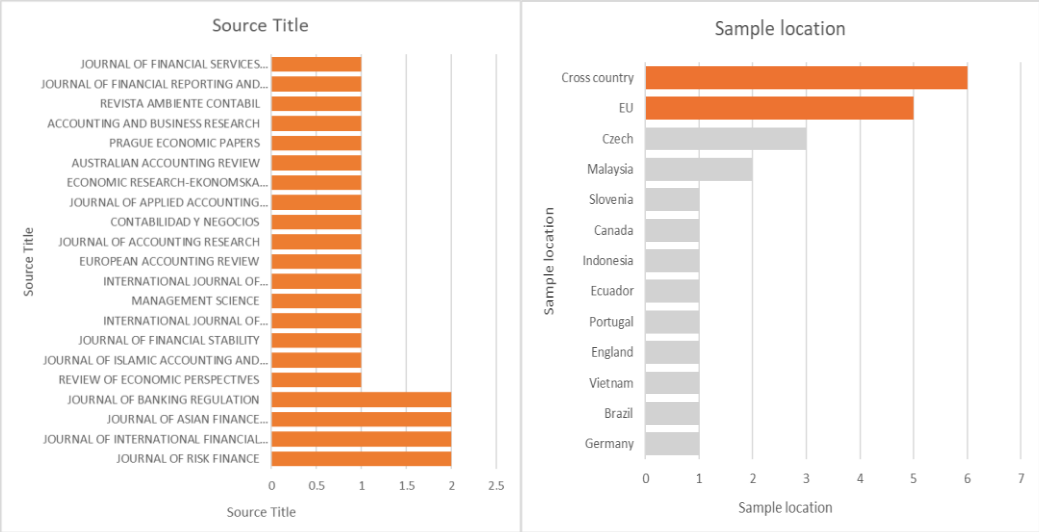


Figure 2 Quantitative summarization of selected articles
Source: Hand collected by the author

Qualitative summarization of selected articles

IFRS 9 impacts the bank and the broader economic levels. Most of the existing research focuses on the effects of IFRS 9 on the bank level (shown in Figure 3), which includes the impact on the financial reporting (ElKelish, 2021; Madah Marzuki et al., 2021), the impact on the banks' behaviour (Giner & Mora, 2019; Gomaa et al., 2019; Nnadi et al., 2023), the impact on the financial ratio (Abuaddous, 2022; Groff & Mörec, 2021), and the impact on the calculation of the loan loss provision (Engelmann, 2021).

Research findings regarding the effect of IFRS 9 on banks generally reflect a mixed picture of positive and negative effects. For instance, Lopez-espinosa et al. (2021) suggest that the expected credit loss (ECL) model offers better predictiveness of future credit risk relative to incurred credit loss (ICL) provisions. Madah Marzuki et al. (2021) highlight that IFRS 9 enhances the relevance, reliability, and recognition of financial instruments and improves the identification of business models. Jassem et al. (2021) indicate that implementing IFRS 9 has increased perceptions of banks' transparency and trust while reducing scepticism toward these institutions. ElKelish (2021) suggests that IFRS 9 announcements significantly positively affect companies who have previously low-quality information before implementing IFRS 9.

Conversely, Utami et al. (2023) argue that implementing IFRS 9 has facilitated the opacity of bank assets. Gomaa et al. (2019) suggest that the ECL model has led to higher provisions and has increased earnings management activities, facilitated the varying outcomes based on compensation schemes, and decreased predictability in company performance, which ultimately failing to fully offset the potential positive effects of the ECL model. Pastiranova et al. (2021) reveal that the complex ECL models, coupled with the fluctuating macroeconomic expectations, lead to greater volatility in loan loss allowances. Moreover, other research indicates that applying IFRS 9 has generated positive and negative outcomes for the subject companies. IFRS 9 has made loan loss provisions timelier and has increased the complexity and reliance on accounting estimates in financial statements (Gómez-Ortega et al., 2022).

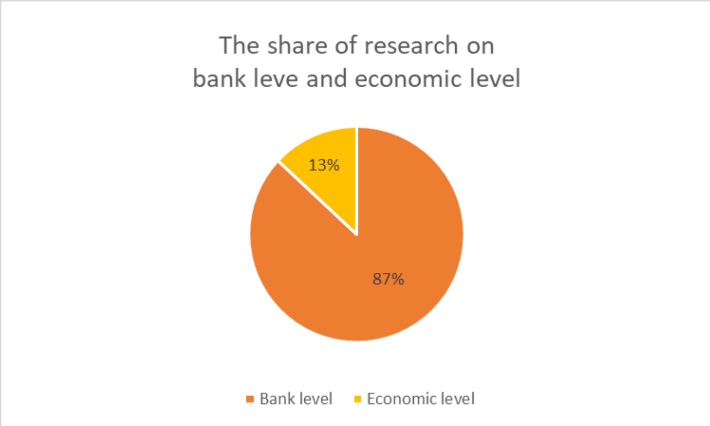


Figure 3 The share of the research on the bank level and economic level
Source: Created by the author

The research on the impact of IFRS 9 on the economic level is relatively scarce. Among the selected articles, only three of them (e.g., Buesa et al., 2023; Pastiranová and Witzany, 2022; Malovaná & Tesařová, 2022) investigated the effect of IFRS 9 on the procyclicality, and their results are mixed. The three research are all based on European countries. Two of them use data from the European Union (EU), and one uses data from the Czech Republic. In the study conducted by Buesa et al. (2023), procyclicality was examined across three distinct accounting standards: IFRS 9, IAS 39, and CECL under US GAAP. Their findings reveal that IFRS 9 exhibits lower procyclicality levels than IAS 39 but remains more procyclical than the US GAAP. Moreover, the study conducted by Pastiranová and Witzany (2022) was based on data from the EU, and their research corroborates that IFRS 9 still exhibits signs of procyclicality. Furthermore, Malovaná and Tesařová (2022) highlight that the degree of procyclicality varies significantly across different phases of the economic cycle. Specifically, the loan loss provision's procyclicality is the highest in the later contractionary stage and the early recovery stage, and it is virtually absent in the early contractionary stage.

Discussion and Conclusion

The existing literature has investigated the multifaceted impact of IFRS 9 on banks from diverse perspectives, encompassing its ramifications on financial reporting (Marzuki et al., 2021; Utami et al., 2023) and effects on banks' behaviour (Li et al., 2022; Giner, 2019; Gomaa, 2019). Undoubtedly, IFRS 9 has brought about a lot of beneficial effects. For example, the improved classification and measurement (Marzuki et al., 2021), enhanced financial statement presentation (Jassem's 2021), and forward-looking expected credit loss model (Lopez-espinosa et al., 2021). It has also led to a commendable enhancement of banks' risk management practices (Pinto & Morais, 2022). These positive outcomes underscored the standard's intent to foster transparency and prudence in financial reporting. However, alongside these advantageous effects, IFRS 9 has not been without its share of challenges. The heightened degree of judgment and flexibility inherent in the ECL model presents a notable hurdle, which requires careful consideration and expertise in its application (Gomaa, 2019). Furthermore, the increased data and information system requirements have posed significant challenges for many financial entities (Pastiranova & Witzany, 2021). Moreover, unintended consequences, such as the potential for earnings management, are also considerable adverse effects (Nnadi, 2023). When juxtaposed with the positive outcomes, these negative effects underscore the intricate landscape shaped by IFRS 9. Acknowledging the benefits and challenges emphasizes the importance of a holistic and nuanced approach to understanding and implementing the standard. As the financial community grapples with the implications of IFRS 9, further investigation is indispensable for mitigating risks, optimizing benefits, and ensuring the continued integrity of financial reporting practices.

Current studies (e.g., Pastiranova & Witzany 2022; Buesa et al. 2023; Malovana & Tesarova 2022) also investigated the impact of IFRS 9 on the economic cycle. The researchers have explored how IFRS 9 influences the lending practices of financial institutions over different phases of the economic cycle and how the lending practice further affects the economic operation (e.g., the pro-cyclical effect). These studies highlighted the role of the IFRS 9 in the economic cycle. Banks might be more optimistic during economic expansions and set aside fewer provisions, which may increase loan granting, further stimulating economic growth. Banks might adopt a more conservative approach and more provisions during economic downturns but will decrease loan granting, further exacerbating the downturns (Kund & Rugilo, 2021). IFRS 9 was designed to recognize earlier provisions and mitigate the procyclical effect (Gornjak, 2020). However, the studies on the impact of IFRS 9 on the procyclical effect are relatively limited (just three articles investigate the procyclical effect of IFRS 9 adoption), and they only focus on European countries. Furthermore, these studies also obtained mixed results. Some of them indicated that adopting IFRS 9 exacerbated the procyclicality and fueled the instability of the financial system (Pastiranova & Witzany, 2022). Some others indicated that adopting IFRS 9 has mitigated the procyclicality compared with IAS 39, contributing to economic development sustainability (Buesa et al., 2023). The limited and mixed results indicate that further research is essential to provide a more comprehensive understanding of the impact of IFRS 9 on the procyclical effect, particularly across diverse global contexts.

Moreover, evident disparity is observed in research findings of IFRS 9 across different countries. The results of country-specific studies and cross-country analyses highlighted the substantial variations in the effects of IFRS 9. Generally, developed countries with mature financial markets and robust regulatory systems often experience a more pronounced positive impact from IFRS 9. Under such institutional settings, the improved classification and measurement criteria and the forward-looking expected credit loss model contribute to more accurate and timely recognition of credit losses (Frykström & Li, 2018). By contrast, the impact of IFRS 9 in developing countries is more mixed (Choez & Llanos, 2018; Alves et al., 2020). Given the immature capital market, developing countries often encounter challenges related to the availability and reliability of data required by the ECL model. Consequently, the implementation process of the new standard in these countries tends to be more intricate and usually produces diverse outcomes. This variety highlights the importance of considering the specific conditions of different countries in deciding the impacts of IFRS 9. Given these incongruities, more investigation ought to be conducted to identify the factors and mechanisms that affect the consequence of IFRS 9 adoption.

Implications

The literature review on the effects of IFRS 9 summarized the multifaceted impacts of the new standard. It provided a knowledge base for policy formulation, academic exploration, and accounting practices. The corresponding stakeholders, such as standard setters, policymakers, scholars, and practitioners, can benefit from some information from the literature review. For standard setters, this study presented the widespread influence of IFRS 9 on various aspects, bank-level and economic. It provided empirical evidence for implementing the new standard, and positive and negative effects were involved. This evidence plays a vital role in refining and updating the accounting standards because it can inform the standard setters of the intended and unintended consequences of the IFRS 9. This evidence can further address the emerging challenges and better align them with the ongoing transitional financial conditions. Policymakers can recognize the real effects of IFRS 9 in practice through the literature review. Such recognition enables them to evaluate the effectiveness of the new standard better, facilitate regulatory adjustments, and formulate matched policies to improve accounting quality and enhance financial stability. For scholars and researchers, this literature review provides a foundation for advancing research. The gaps and limitations identified by this paper serve as the basis for the new research topics, including new research methods, questions, and theoretical frameworks. These new topics will facilitate the continuous advancement of knowledge in this field. For practitioners, such as managers, accountants, auditors, and analysts, the literature review can provide practical insights into their daily professional activities. Gaining a deeper understanding of the nature of IFRS 9's principle can help them improve the accounting practice's conformity to the standard and promote risk management activities. Moreover, the literature review sheds light on the different accounting practices and experiences derived from adopting IFRS 9 in different countries. This provides a valuable reference for the practitioners, especially for those who are seeking guidance on how to effectively implement the new standard, how to overcome the challenges, and how to maximize the benefits of the new standard. The summarisation of the current studies provides them with insights into the cross-border effects of IFRS 9, which helps them to identify the most suitable accounting practice to implement the new standard.

Suggestions for Future Research

The first suggestion is research on the impact of IFRS 9 on the economic level in developing countries. The literature review reveals that most current research has focused on the bank level. Research related to the economic level is relatively scarce. A few articles have investigated the procyclical effect of IFRS 9 in European countries. The results are mixed. They just showed the results and failed to consider the factors that could affect the consequences of IFRS 9. The pro-cyclical effect of IFRS 9 in non-Euro countries is little known, and which factors could influence the implementation of IFRS 9 remains to be investigated.

More than 160 countries have followed or adopted IFRS, most of which are developing countries (Tran et al., 2019). Thus, the effect of IFRS in developing countries is an important question. The institutional settings of developing countries, such as the political system, the legal environment, and the economic conditions, are different from those of developed countries. The effects of the IFRS 9 adoption in developed countries cannot represent the effect in developing countries. Has IFRS 9 mitigated the procyclicality of loan loss provision? If so, to what extent did the new standard mitigate the procyclicality of loan loss provision? What is the interaction mechanism between IFRS 9 and the loan loss provision? Whether other factors could affect the effect of IFRS 9? All these questions are essential for understanding the effect of IFRS 9, and they all remain to be investigated. Therefore, one area of future research can be the relationship between IFRS 9 and the procyclicality of loan loss provision in developing countries.

Second is the research on the effect of IFRS 9 in a specific country.

As most of the current research is based on cross-country data, the research related to the effect of IFRS 9 in a specific country may be another area that needs further investigation. Though some of the current literature has investigated the effects of IFRS 9 in some specific countries, the results of these studies are mixed and the single country effect in many countries still unknown. Therefore, the effect of IFRS 9 should be tested country by country, especially in developing countries with imperfect and transitional institutional settings.

A more specific potential research direction may be conducted on the relationship between IFRS 9 and other institutional environments in the country, including cultural, legal, and political factors. This further investigation may help identify potential conflicts or synergies between different regulatory requirements and inform ongoing efforts to harmonize accounting and regulatory standards at the national levels.

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