Jurnal Analisis Bisnis Ekonomi
Vol. 23 No. 1 (2025) pp. 62-92
pISSN: 1693-5950 | eISSN: 2579-647x
Journal Homepage: http://journal.unimma.ac.id/index.php/bisnisekonomi

When Faith Meets Culture: Religiosity, Hofstede's Dimensions, and Earnings Management in Islamic Banks

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https://doi.org/10.31603/bisnisekonomi.v23i1.18052

Submitted: 12/01/2025 Revised: 21/03/2025 Accepted: 25/03/2025

Keywords: Religiosity; Hofstede–Gray cultural dimensions; Opportunistic earnings management; Loan loss provisions; Manipulation of real activities; Islamic banks; Emerging markets

Abstract

This study aims to examine the influence of religiosity and the Hofstede–Gray cultural dimensions on opportunistic earnings management behavior at Islamic banks in emerging markets. This quantitative study uses panel data from 34 Islamic banks in seven emerging market countries (Jordan, Turkey, Pakistan, Malaysia, Egypt, Indonesia, and India) for the period 2018–2023, comprising 185 bank-year observations. This data is supplemented by a survey of 105 financial managers at Islamic banks in Indonesia. Earnings management is proxied by abnormal loan loss provisions (DLLP) and real activity manipulation (RAM), which are then analyzed using OLS regression. All ten research hypotheses were accepted. Religiosity has a significant negative effect on DLLP and RAM, and its effect is stronger on RAM. Uniformity, conservatism, and transparency suppress earnings management, while flexibility, optimism, and secrecy increase it. Professionalism and statutory control have opposite effects on DLLP and RAM. This indicates a trade-off between accrual and real earnings management. Regulators, bank management, and Sharia Supervisory Boards need to strengthen the internalization of religious values and take national cultural characteristics into account. They also need to promote the harmonization of Sharia accounting standards when formulating policies for the supervision of Islamic bank financial reporting. This study simultaneously combines religiosity and the Hofstede–Gray cultural dimensions to explain accrual and real earnings management in Islamic banks across emerging market countries. This setting has not been extensively studied previously.

Kata kunci: *Religiusitas; Dimensi budaya Hofstede–Gray; Manajemen laba oportunistik; Loan loss provisions; Manipulasi aktivitas riil; Bank islam; Emerging market*

Abstrak

Penelitian ini bertujuan menguji pengaruh religiusitas dan dimensi budaya Hofstede–Gray terhadap perilaku oportunistik manajemen laba pada bank Islam di negara Emerging Market. Penelitian kuantitatif ini menggunakan data panel 34 bank Islam di tujuh negara Emerging Market (Yordania, Turki, Pakistan, Malaysia, Mesir, Indonesia, dan India) periode 2018–2023 dengan 185 observasi bank-tahun. Data ini dilengkapi survei terhadap 105 manajer keuangan bank Islam di Indonesia. Manajemen laba diproksikan dengan abnormal loan loss provisions (DLLP) dan manipulasi aktivitas riil (RAM), kemudian dianalisis menggunakan regresi OLS. Seluruh sepuluh hipotesis penelitian diterima. Religiusitas berpengaruh negatif signifikan terhadap DLLP dan RAM, dan pengaruhnya lebih kuat pada RAM. Uniformity, conservatism, dan transparency menekan manajemen laba, sedangkan flexibility, optimism, dan secrecy meningkatkannya. Professionalism dan statutory control berpengaruh dengan arah berlawanan pada DLLP dan RAM. Ini mengindikasikan adanya substitusi antara manajemen laba akrual dan riil. Regulator, manajemen bank, dan Dewan Pengawas Syariah perlu memperkuat internalisasi nilai religius dan mempertimbangkan karakteristik budaya nasional. Mereka juga perlu mendorong harmonisasi standar akuntansi syariah dalam merumuskan kebijakan pengawasan pelaporan keuangan bank Islam. Studi ini menggabungkan religiusitas dan dimensi budaya Hofstede–Gray secara bersamaan untuk menjelaskan manajemen laba akrual dan riil pada bank Islam lintas negara Emerging Market. Setting ini belum banyak dikaji sebelumnya.

1. Introduction

Earnings management remains a central concern in financial reporting research because it weakens the credibility of reported earnings and reflects the agency conflict between managers and the providers of capital (Jensen and Meckling, 1976). Managers can manage earnings through accounting choices that alter accruals or through real activities that change the timing and structure of operating, investing, and financing transactions; recent reviews show that the latter has become increasingly important because it is harder for auditors and regulators to detect (Habib et al., 2022). In banks, the main accrual instrument is the loan loss provision, the largest accrual on a bank's balance sheet, which is widely used to smooth income, manage regulatory capital, and signal private information (Ozili and Outa, 2017; Ozili, 2024), whereas real earnings management is commonly carried out through the selective realization of gains and losses on securities (Barth et al., 2017; Dong and Zhang, 2018).

Earnings management in Islamic banks deserves particular attention because their business model creates incentives that differ from those of conventional banks. A large part of Islamic bank funding comes from profit-sharing investment accounts (*mudarabah*), whose returns depend directly on reported profit; managers are therefore under pressure to smooth the returns distributed to investment account holders to avoid displaced commercial risk and fund withdrawals. Financing impairment, the Islamic-bank counterpart of loan loss provisions, is the largest accrual on the balance sheet and requires substantial managerial judgment, especially after the shift to the expected credit loss approach under IFRS 9, AAOIFI FAS 30, and PSAK 71 (Ozili and Outa, 2017; Ozili, 2024). Islamic banks also operate under a dual governance structure in which a Sharia Supervisory Board (SSB) complements the board of directors, so reported earnings signal Sharia compliance as well as financial performance (Elnahass et al., 2022; Budiyono et al., 2026).

Despite these Sharia-based safeguards, empirical evidence shows that opportunistic earnings management has not disappeared from Islamic banks. Islamic banks in the MENA region and in dual banking systems manage earnings less than conventional banks and adopt more conservative accounting policies (Abdelsalam et al., 2016; Lassoued et al., 2018; Elnahass et al., 2022), yet Islamic banks in the GCC and Asia continue to use discretionary loan loss provisions to manage earnings (Kolsi and Grassa, 2017; Zulfikar and Sri, 2019; Fitri and Siswantoro, 2022), and the constraining effect of governance depends on audit quality and the institutional environment (Salem et al., 2021). The problem addressed in this study is therefore twofold: opportunistic earnings management persists in banks whose operations are explicitly grounded in religious ethics, and existing studies cannot explain why its level and form differ so widely across countries. Because the returns of investment account holders depend on reported profit, this opportunism directly harms depositors and undermines the credibility of Islamic finance.

Previous research over the last decade has explained this behavior through two informal institutions. The first is religiosity. Recent studies show that religiosity is associated with higher earnings quality in banks across 39 countries, particularly where formal legal protection is weak (Abdelsalam et al., 2021), that firms led by religious CEOs engage less in both accrual-based and real earnings management (Cai et al., 2019), and that Sharia Supervisory Boards reduce earnings management in dual banking systems (Elnahass et al., 2022). The evidence is not uniform, however: religiosity alone does not always restrain real

earnings management (Baatwah et al., 2020), and its constraining effect weakens under external or organizational pressure (Sari et al., 2025).

The second is national culture. Cross-country studies show that Hofstede's cultural dimensions shape both the level of earnings management and the choice between accrual-based and real earnings management (Lewellyn and Bao, 2017; Chaney et al., 2021), and that these effects differ between developed and emerging countries (Viana Jr. et al., 2022). These studies, however, rely on Hofstede's general societal dimensions rather than on Gray's (1988) accounting values—professionalism, uniformity, conservatism, and secrecy—which are closer to managers' financial reporting choices, and they generally exclude financial institutions or treat Islamic banks only as a comparison group.

Islamic banks in emerging markets provide a particularly suitable setting for examining these two forces together. The Islamic financial services industry reached total assets of about USD 3.38 trillion in 2023, with Islamic banking as one of its main growth drivers (IFSB, 2024), and a substantial part of the industry operates in emerging economies that differ in religiosity, culture, and Sharia accounting regimes. Islamic banks in Jordan, Turkey, Pakistan, Malaysia, Egypt, Indonesia, and India apply different combinations of AAOIFI standards, IFRS-based standards, and national Sharia standards such as PSAK Syariah, while their societies differ markedly in religious observance and cultural orientation. The 2018–2023 period further covers the adoption of expected credit loss provisioning and the COVID-19 pandemic, both of which increased managerial discretion and pressure on reported earnings.

Taken together, these studies leave important questions unanswered. What has not yet been done is (1) to test religiosity and accounting-specific cultural values simultaneously in Islamic banks, so their relative and joint effects remain unknown; (2) to compare their effects on accrual-based (DLLP) and real (RAM) earnings management within the same sample, which is necessary to detect whether managers substitute one form for the other; and (3) to provide cross-country evidence from emerging markets with different Sharia accounting regimes during the adoption of expected credit loss provisioning and the COVID-19 pandemic. **Table 2** in Section 2 summarizes these studies and positions the present study among them.

To solve this problem, this study examines religiosity and the eight Hofstede–Gray accounting values simultaneously as determinants of opportunistic earnings management in 34 Islamic banks across seven emerging market countries over the 2018–2023 period (185 bank-year observations). Earnings management is measured with two proxies—abnormal loan loss provisions (DLLP) and real activity manipulation (RAM)—and the archival analysis is triangulated with a survey of 105 financial managers of Indonesian Islamic banks. This design identifies not only whether religiosity and culture reduce earnings management, but also through which channel—accruals or real activities—each of them operates.

The novelty of this study lies in four respects. First, theoretically, it integrates agency theory, social norm theory, and Gray's (1988) theory of cultural influence on accounting in a single model, whereas prior studies examine religiosity or national culture separately. Second, conceptually, it uses Gray's accounting values, which relate directly to financial reporting choices, rather than Hofstede's general societal dimensions. Third, empirically, it tests these determinants on both DLLP and RAM, revealing a substitution between the two forms of earnings management that single-proxy studies cannot observe. Fourth, contextually, it focuses on Islamic banks in seven emerging markets with different Sharia

accounting regimes during the adoption of expected credit loss provisioning and the COVID-19 pandemic, when provisioning discretion and pressure on earnings were especially high. The study is important because, if religiosity and culture shape whether and how Islamic banks manage earnings, uniform standard-based supervision alone cannot ensure reliable reporting; regulators and Sharia Supervisory Boards must take these informal institutions into account to protect investment account holders and to maintain the credibility of an industry with total assets of about USD 3.38 trillion (IFSB, 2024).

Accordingly, the objective of this study is to examine (1) the effect of religiosity on accrual-based and real earnings management in Islamic banks (H1), (2) the effect of Gray's accounting values on accrual-based earnings management measured by DLLP (H2), and (3) the effect of the same values on real activity manipulation (H3).

Theoretically, the findings extend behavioral explanations of earnings management by showing how informal institutions—religion and accounting culture—complement formal monitoring in limiting managerial opportunism. Practically, they inform regulators, Sharia Supervisory Boards, and Islamic bank management in designing supervision, disclosure requirements, and Sharia accounting harmonization policies that take religious and cultural characteristics into account. The rest of this article is organized as follows: Section 2 reviews the literature and develops the hypotheses, Section 3 describes the method, Section 4 presents the results and discussion, and Section 5 concludes.

2. Literature Review and Hypotheses Development

2.1. Theoretical Background

This study draws on three theoretical lenses. Agency theory (Jensen and Meckling, 1976) is the grand theory of earnings management: because managers have better information than shareholders, depositors, and investment account holders, they can use accounting discretion opportunistically to meet targets, smooth returns, or protect their own compensation and reputation. Earnings management, measured here through DLLP and RAM, is a manifestation of this agency problem. Social norm theory explains why religiosity can reduce the problem: religion imposes shared norms of honesty and accountability, and deviating from these norms carries psychological and social costs for managers (Cai et al., 2019; Abdelsalam et al., 2021). In Islamic banks, these norms are reinforced by the principles of *amanah* (trust) and *sidq* (truthfulness) and by Sharia supervision, so religiosity can act as an informal control mechanism that lowers agency costs (Abdelsalam et al., 2021). Finally, Gray's (1988) theory of cultural influence on accounting, built on Hofstede's (1980) cultural dimensions, explains how national culture shapes accounting values—professionalism, uniformity, conservatism, and secrecy—which in turn determine how much discretion managers exercise in financial reporting.

Gray (1988) identifies four accounting values that link Hofstede's (1980) societal dimensions to accounting systems: professionalism versus statutory control (a preference for individual professional judgment versus compliance with legal requirements), uniformity versus flexibility (consistent application of accounting practices across firms and over time versus adaptation to firm-specific circumstances), conservatism versus optimism (a cautious approach to measurement versus a more optimistic, risk-taking approach), and secrecy versus transparency (restricted versus open disclosure of information). Braun and Rodriguez (2008) operationalize these values by mapping them to Hofstede's dimensions of

individualism, power distance, uncertainty avoidance, masculinity, and indulgence, as summarized in **Table 1**. This mapping is used to measure the accounting culture of each sample country.

Table 1. Relationship hypothesis: Gray's accounting values and hofstede's cultural dimensions

	Individualism	Power Distance	Uncertainty Avoidance	Masculinity	Indulgence
Professionalism vs. Statutory Control	+	-	-	n.a	-
Uniformity vs. Flexibility	-	+	+	n.a	n.a
Conservatism vs. Optimism	-	n.a	+	-	n.a
Secrecy vs. Transparency	-	+	+	-	+

Source: Braun & Rodriguez (2008)

2.2. Earnings Management in Islamic Banks: State of the Art

In banks, accrual-based earnings management is carried out mainly through loan loss provisions. Following the standard approach in the banking literature, provisions are decomposed into a non-discretionary component that reflects credit risk and a discretionary component that reflects managerial judgment; the discretionary component (DLLP) is used as the proxy for accrual-based earnings management (Ozili and Outa, 2017; Kolsi and Grassa, 2017). Real earnings management, in contrast, alters the timing or structure of real transactions—such as financing growth, discretionary operating expenses, and the realization of securities gains—to reach earnings targets (Dong and Zhang, 2018; Habib et al., 2022). Because real activity manipulation affects future cash flows but is harder to detect, managers tend to use it as a substitute for accrual manipulation when accrual discretion is constrained (Chaney et al., 2021; Habib et al., 2022).

Research over the last decade shows a clear progression. The first stage (2016–2018) compared Islamic and conventional banks and found that Islamic banks generally manage earnings less and report more conservatively, while governance mechanisms such as the Sharia Supervisory Board and AAOIFI membership affect discretionary provisioning (Abdelsalam et al., 2016; Kolsi and Grassa, 2017; Lassoued et al., 2018). In the same period, national culture and corruption were shown to shape earnings management across countries (Lewellyn and Bao, 2017), and legal origin and enforcement to shape the choice between accrual-based and real earnings management (Oz and Yelkenci, 2018). The second stage (2019–2022) moved to the determinants and channels of earnings management: the religiosity of CEOs and of national environments was found to reduce accrual-based and real earnings management and to improve bank earnings quality (Cai et al., 2019; Baatwah et al., 2020; Abdelsalam et al., 2021; Elnahass et al., 2022), while cultural dimensions were found to affect both the level and the mix of accrual-based and real earnings management (Chaney et al., 2021; Habib et al., 2022; Viana Jr. et al., 2022). The third stage (2023–2026) has synthesized this evidence and identified its boundary conditions: the effect of Islamic religiosity weakens under pressure and depends on governance (Sari et al., 2025), the Sharia Supervisory Board mainly constrains opportunity rather than motivation (Budiyono et al., 2026), and national culture continues to shape financial reporting after IFRS convergence (Zahid et al., 2024; Makni Fourati et al., 2026).

In the Islamic banking literature, research has focused mainly on whether Islamic banks manage earnings less than conventional banks and on the role of corporate governance and the Sharia Supervisory Board (Abdelsalam et al., 2016; Kolsi and Grassa, 2017;

Lassoued et al., 2018; Elnahass et al., 2022; Fitri and Siswantoro, 2022). A recent systematic review concludes that the Islamic religiosity of top management generally reduces earnings management, but that the effect depends on governance and weakens under pressure (Sari et al., 2025). What has not yet been done is to examine religiosity together with accounting-specific cultural values, for both accrual-based and real earnings management, in Islamic banks across emerging markets. This study fills that gap by combining the three theoretical lenses above in one empirical model, thereby explaining not only whether Islamic banks manage earnings, but also why the level and form of earnings management differ across countries. **Table 2** summarizes the main recent studies and the position of this study.

Table 2. Summary of recent studies and position of this study

Study	Setting	EM measure	Main finding
Abdelsalam et al. (2016)	Islamic and conventional banks, MENA, 2008–2013	Bank EM	Islamic banks manage earnings less and are more conservative
Kolsi and Grassa (2017)	26 GCC Islamic banks, 2004–2012	DLLP	Larger Sharia boards reduce DLLP; AAOIFI membership is linked to more EM
Lewellyn and Bao (2017)	Firms in 26 countries	EM	National culture and corruption affect EM
Lassoued et al. (2018)	Islamic and conventional banks, MENA	Bank EM	Islamic banks manage earnings less; ownership effects differ
Oz and Yelkenci (2018)	Firms in 14 IFRS countries	Accrual and real EM	Legal origin and enforcement shape the AEM–REM choice
Cai et al. (2019)	U.S. listed firms	Accrual and real EM	Religious CEOs are associated with less EM
Baatwah et al. (2020)	Listed firms (top management)	Real EM	Religiosity limits real EM mainly with accounting expertise
Abdelsalam et al. (2021)	1,283 banks, 39 countries, 2002–2018	Earnings quality	Religiosity improves bank earnings quality
Salem et al. (2021)	Islamic and conventional banks, MENA	LLP	Audit quality constrains LLP-based EM in Islamic banks
Chaney et al. (2021)	Firms in 36 countries, 1997–2018	Accrual and real EM	Hofstede dimensions shape the level and mix of EM
Elnahass et al. (2022)	Banks in 14 dual-banking countries, 2007–2015	Bank EM	Sharia Supervisory Boards reduce EM
Fitri and Siswantoro (2022)	28 Asian Islamic banks, 2013–2017	DLLP	Only audit committee size reduces EM
Viana Jr. et al. (2022)	Firms in 11 emerging and 22 developed countries	Accrual and real EM	Cultural effects differ between emerging and developed countries
Sari et al. (2025)	Systematic review of 35 studies	Various	Islamic religiosity reduces EM but weakens under pressure
Budiyono et al. (2026)	Islamic banks, 2019–2023	EM	Sharia Supervisory Board moderates the opportunity–EM link
This study	**34 Islamic banks, 7 emerging markets, 2018–2023**	**DLLP and RAM**	**Religiosity and eight Gray accounting values tested simultaneously**

Source: Compiled by the authors from the cited studies

2.3. Hypotheses Development

Agency theory is the grand theory for all hypotheses in this study. Jensen and Meckling (1976) describe the agency relationship as a contract in which principals delegate decision-making authority to an agent. Because the agent's interests differ from those of the

principals and the agent holds better information, the agent can act opportunistically; the resulting losses, together with the costs of monitoring and bonding, are agency costs. In Islamic banks, the principals include shareholders, depositors and, in particular, investment account holders, whose returns depend on reported profit but who have no voting rights over management, while the agents are the managers who estimate financing impairment and make operating decisions. Earnings management, measured here by DLLP and RAM, is therefore treated as a manifestation of agency costs. Following this logic, each hypothesis identifies a factor that changes (1) managers' incentive to act opportunistically, (2) their opportunity to do so through the discretion and information asymmetry available to them, or (3) the effectiveness of the monitoring and bonding mechanisms that limit such behavior. Religiosity (H1) is treated as an internal, informal bonding mechanism, whereas Gray's accounting values (H2 and H3) determine the degree of discretion and information asymmetry and, therefore, the cost of monitoring. Prior empirical studies are then used to establish the expected direction of each relationship.

Religiosity and earnings management (H1). From the perspective of agency theory, managers of Islamic banks have incentives to use discretion over financing-impairment provisions and operating decisions to smooth the profits distributed to investment account holders and to meet regulatory capital targets. Social norm theory predicts that this opportunism is constrained when managers internalize religious norms, because misreporting conflicts with their moral identity and exposes them to social sanctions (Cai et al., 2019). Recent evidence supports this view: religiosity is positively associated with banks' earnings quality across 39 countries, especially where formal legal protection is weak (Abdelsalam et al., 2021), and Islamic banks tend to manage earnings less than conventional banks (Abdelsalam et al., 2016; Lassoued et al., 2018).

In agency terms, abnormal loan loss provisions are an agency cost because managers can use their private information about borrowers' credit quality to under- or over-provide for financing impairment. Religiosity reduces this cost from within the agent: when managers internalize the norms of *amanah* and *sidq*, misreporting carries a moral and social cost that lowers the net benefit of opportunism, so religiosity acts as a bonding mechanism that does not require costly external monitoring. Prior bank-level evidence consistently supports this direction. Kanagaretnam et al. (2015) find that banks in more religious countries engage less in income-increasing earnings management through abnormal loan loss provisions; Abdelsalam et al. (2021) show that religiosity improves the earnings quality of 1,283 banks in 39 countries and conclude that it can function as an alternative control mechanism for minimizing agency costs; and Elnahass et al. (2022) find that Sharia Supervisory Boards reduce earnings management in dual banking systems. Hence, the first hypothesis is formulated as follows.

H1a: The higher an individual's level of religious observance, the lower *the* abnormal *loan loss provisions* at Islamic banks

Religiosity is also expected to restrain real earnings management. Real activity manipulation is harder for auditors and regulators to detect than accrual manipulation, so the internal moral constraint of religiosity becomes especially relevant when external monitoring is weak. Cai et al. (2019) show that firms led by religious CEOs engage less in both accrual-based and real earnings management, although Baatwah et al. (2020) find that religiosity reduces real earnings management mainly when it is combined with accounting

expertise. In Islamic banks, where religious values are institutionalized through Sharia supervision, religiosity is therefore expected to reduce real activity manipulation.

Agency theory also predicts that, when accrual manipulation becomes visible, managers can still pursue their private interests through real activities, whose effects are embedded in ordinary financing, investment, and expense decisions and are therefore costlier for principals to detect. Because external monitoring is weakest for this channel, the internal constraint provided by religiosity becomes particularly important for limiting the remaining agency cost. Prior evidence mostly supports a negative relationship: firms led by religious CEOs engage less in real earnings management (Cai et al., 2019), and country-level religiosity is negatively associated with real earnings management among listed European firms (Toudas and Zhu, 2023). The evidence is not uniform, however: religiosity limits real earnings management mainly when it is combined with accounting expertise (Baatwah et al., 2020), and its constraining effect weakens under pressure (Sari et al., 2025). In Islamic banks, where religious norms are institutionalized through Sharia supervision, a negative effect is nevertheless expected. Thus:

H1b: The higher an individual's level of religious observance, the lower the manipulation of actual operating activities

Accounting culture and accrual-based earnings management (H2). Gray's (1988) theory posits that national culture shapes accounting values, which in turn determine how much discretion preparers have and how they use it. In agency terms, values that widen discretion (professionalism, flexibility, optimism, and secrecy) increase managers' opportunity to use provisions opportunistically, whereas values that narrow discretion (statutory control, uniformity, conservatism, and transparency) reduce it. Recent cross-country studies confirm that the cultural dimensions underlying Gray's values—such as individualism, uncertainty avoidance, and power distance—are significantly associated with the level of accrual-based earnings management (Lewellyn and Bao, 2017; Chaney et al., 2021; Viana Jr. et al., 2022).

Professionalism reflects a preference for individual professional judgment and self-regulation over compliance with detailed legal rules (Gray, 1988). Expected credit loss provisioning relies heavily on such judgment, so a professional culture widens the discretion available to managers when estimating financing impairment, whereas statutory control limits this discretion through prescriptive rules and supervisory enforcement. Recent studies confirm that national culture continues to shape managers' accounting choices after the adoption of principle-based standards (Zahid et al., 2024; Makni Fourati et al., 2026).

From the agency perspective, professionalism enlarges the information asymmetry between managers and principals, because outsiders cannot easily verify judgment-based estimates; it therefore increases the opportunity component of agency costs. Statutory control works in the opposite direction: prescriptive rules and supervisory enforcement act as external monitoring that narrows the range of acceptable estimates. Recent bank evidence supports this reasoning. The adoption of the judgment-based expected credit loss model under IFRS 9 has been associated with more earnings management through loan loss provisions (Nnadi et al., 2023), especially in countries with low regulatory quality (Norouzpour et al., 2025), and Viana Jr. et al. (2023) show that national culture continues to shape accrual-based earnings management in emerging markets after mandatory IFRS adoption. Hence, professionalism is expected to increase DLLP, whereas statutory control is expected to reduce it. Therefore:

H2a: *Professionalism* is positively related to *loan loss provisions*, whereas *statutory* control is negatively related to loan loss provisions

Uniformity limits the range of permissible accounting choices and makes deviations easier to compare across banks, which reduces the room for discretionary provisioning; flexibility, in contrast, allows managers to adapt estimates to bank-specific circumstances and thus widens the scope for opportunistic judgment (Gray, 1988). In Islamic banking, the coexistence of AAOIFI standards, IFRS-based standards, and national Sharia standards makes this value particularly relevant, as differences in standard adoption are associated with differences in discretionary loan loss provisioning (Kolsi and Grassa, 2017).

Under agency theory, uniformity reduces monitoring costs because principals and supervisors can compare a bank's provisions with those of peers applying the same rules, which makes abnormal provisioning easier to detect; flexibility does the reverse by allowing bank-specific justifications that outsiders cannot readily verify. Recent evidence from Islamic banks is consistent with this argument: across 122 Islamic banks in 22 countries, banks that adopt AAOIFI standards are less involved in earnings management than non-adopters (Elhalaby et al., 2023), while Chaney et al. (2021) note that cultural diversity makes uniform financial statements difficult to achieve without enforcement tailored to each culture. Hence, uniformity is expected to reduce DLLP and flexibility to increase it. Therefore:

H2b: *Uniformity* is negatively correlated with *loan loss provisions*, whereas *flexibility* is positively correlated with *loan loss provisions*.

Conservatism corresponds to the prudence that agency theory views as a response to information asymmetry: conservative reporting delays the recognition of gains and limits upward manipulation. Islamic banks have been shown to adopt more conservative accounting policies and to manage earnings less than conventional banks (Abdelsalam et al., 2016), and higher uncertainty avoidance—the cultural root of conservatism—is associated with lower earnings management (Chaney et al., 2021; Viana Jr. et al., 2022).

Agency theory views conservatism as a contracting response to information asymmetry: because managers have incentives to overstate performance, principals demand a higher verification threshold for gains than for losses, which limits income-increasing manipulation of provisions. Prior studies support this role. Abdelsalam et al. (2016) argue that the conservative reporting of Islamic banks reflects moral accountability constraints that lower agency costs; Elhalaby et al. (2023) find that AAOIFI adoption is associated with greater conservatism and less earnings management in Islamic banks; and García Lara et al. (2020) show that higher conditional conservatism reduces accrual-based earnings management. Optimism, by contrast, tolerates the early recognition of gains and lower provisions, giving managers more room to report favorable earnings. Hence, conservatism is expected to reduce DLLP and optimism to increase it. Therefore:

H2c: *Conservatism* is negatively correlated with *loan loss provisions*, while *optimism* is positively correlated with *loan loss provisions*.

Secrecy increases information asymmetry between managers and outsiders, which, under agency theory, raises the expected benefit of opportunistic reporting and lowers the probability of detection. Transparency, conversely, strengthens monitoring by investors, auditors, and supervisors; higher audit quality and stronger institutions are associated with lower and less opportunistic loan loss provisions (Salem et al., 2021; Ozili, 2024).

Information asymmetry is the core condition that allows agency problems to arise. Secrecy, as an accounting value, keeps information within management and widens the gap between what managers know about credit risk and what principals observe; transparency narrows this gap and enables market discipline. Recent quasi-experimental studies confirm that disclosure reduces discretionary provisioning: privately held German banks used loan loss provisions less for income smoothing once disclosure became mandatory (Bischof et al., 2025), and Indian banks reduced discretionary provisions after mandatory divergence disclosures were enforced (Bhusan et al., 2024). Audit quality, another monitoring mechanism, also constrains provision-based earnings management in Islamic banks (Salem et al., 2021). Hence, secrecy is expected to increase DLLP and transparency to reduce it. Therefore:

H2d: *Secrecy* is positively related to loan loss provisions, while *transparency* is negatively related to loan loss provisions

Accounting culture and real earnings management (H3). The same cultural values are expected to influence real activity manipulation, but not necessarily in the same direction. Prior studies show that managers trade off accrual-based and real earnings management according to their relative costs: when accrual discretion is constrained or closely scrutinized, managers substitute toward real activities that are harder to detect (Habib et al., 2022). Recent cross-country evidence confirms that cultural dimensions shift the mix between accrual-based and real earnings management (Chaney et al., 2021; Viana Jr. et al., 2022). Combining Gray's (1988) theory with this substitution argument, values that restrict accounting discretion—statutory control in particular—may push managers toward real activity manipulation, whereas values that rely on professional self-regulation reduce the need for it.

Statutory control relies on detailed rules and legal enforcement, which make accrual manipulation more visible and therefore more costly; under such conditions managers are expected to shift toward real activity manipulation. The effect of enforcement on the mix of accrual-based and real earnings management depends on the institutional setting (Oz and Yelkenci, 2018), and cultural dimensions have been found to shift managers between accrual-based and real earnings management (Chaney et al., 2021; Viana Jr. et al., 2022). Professionalism, conversely, allows discretion to be exercised through accounting judgment supported by self-regulation, reducing the need to manipulate real operations.

Agency theory further implies that managers choose among earnings management tools by comparing private benefits with the expected costs of detection. Statutory control raises the detection cost of accrual manipulation, so managers who still face incentives to meet targets are expected to substitute toward real activities, which supervisors monitor less closely; professionalism allows these incentives to be met through accounting judgment and reduces the need for costly real manipulation. Empirical studies document this substitution: regulatory constraints on accruals have been followed by increases in real earnings management (Cohen et al., 2008; García Lara et al., 2020); managers in several cultural settings treat accrual-based and real earnings management as substitutes (Chaney et al., 2021); and mandatory IFRS adoption dampens, but does not remove, cultural effects on real earnings management in emerging markets (Viana Jr. et al., 2023). Hence, professionalism is expected to be negatively, and statutory control positively, associated with RAM. Therefore:

H3a: *Professionalism* is negatively associated with real activity manipulation, whereas *statutory control* is positively associated with real activity manipulation.

Flexibility gives managers latitude not only over accounting estimates but also over the timing and structuring of financing, investment, and operating decisions, which can be used to reach earnings targets. Uniform practices, in contrast, make banks more comparable and abnormal operating patterns easier for supervisors and investors to detect (Gray, 1988; Habib et al., 2022).

Within the agency framework, flexibility increases the opportunity for real manipulation because it allows managers to justify unusual timing or structuring of financing, investment, and expenditure decisions as responses to bank-specific circumstances, which principals find harder to challenge. Uniform practices, in contrast, create common benchmarks for operating ratios and lower the cost of identifying abnormal patterns. Consistent with this view, Habib et al. (2022) identify financial reporting regulation and corporate governance as key determinants of real earnings management in their international review, and Elhalaby et al. (2023) show that applying a common set of Sharia accounting standards is associated with less earnings management in Islamic banks. Hence, uniformity is expected to reduce RAM and flexibility to increase it. Therefore:

H3b: *Uniformity* is negatively related to real activity manipulation, whereas *flexibility* is positively related to real activity manipulation.

Under Gray's (1988) framework, conservative cultures prefer cautious measurement and avoid actions with uncertain consequences. Real activity manipulation, which sacrifices future cash flows for current earnings, is inconsistent with this preference and with the Islamic prohibition of *gharar* (excessive uncertainty).

From an agency perspective, real activity manipulation transfers wealth from principals to managers by sacrificing future cash flows for current earnings, and it is especially harmful to investment account holders, whose returns depend on the long-term quality of the financing portfolio. A conservative orientation makes managers less willing to take actions with uncertain future consequences, whereas optimism encourages them to discount these future costs. Prior evidence indicates that uncertainty avoidance, the cultural root of conservatism, is associated with lower accrual-based and real earnings management (Chaney et al., 2021; Viana Jr. et al., 2022), and that Islamic banks, which report more conservatively, manage earnings less (Abdelsalam et al., 2016). Hence, conservatism is expected to reduce RAM and optimism to increase it. Therefore:

H3c: *Conservatism* is negatively related to real activity manipulation, whereas *optimism* is positively related to real activity manipulation.

Agency theory suggests that real activity manipulation flourishes where information asymmetry is high, because its effects are hidden within ordinary operating decisions. A culture of secrecy limits disclosure about such decisions, whereas transparency enables outsiders to identify abnormal operating patterns (Gray, 1988).

Agency theory suggests that real activity manipulation thrives where information asymmetry is high, because its effects are hidden within ordinary operating decisions and become visible only when outsiders have enough information to compare them with normal patterns. A culture of secrecy restricts such information, whereas transparency lowers principals' monitoring costs. Prior studies show that real earnings management and opacity reinforce each other: real activities manipulation exacerbates information asymmetry in the

equity market (Abad et al., 2018), while mandatory disclosure disciplines managers' reporting choices in banks (Bischof et al., 2025; Bhusan et al., 2026). Hence, secrecy is expected to increase RAM and transparency to reduce it. Therefore:
H3d: *Secrecy* is positively related to real activity manipulation, whereas *transparency* is negatively related to real activity manipulation.

2.4. Research Framework

Figure 1 presents the research framework. Religiosity is expected to reduce both DLLP and RAM (H1a–H1b). Gray's accounting values are expected to affect DLLP (H2a–H2d) and RAM (H3a–H3d), with professionalism and statutory control predicted to have opposite signs in the two models because of the substitution between accrual-based and real earnings management.

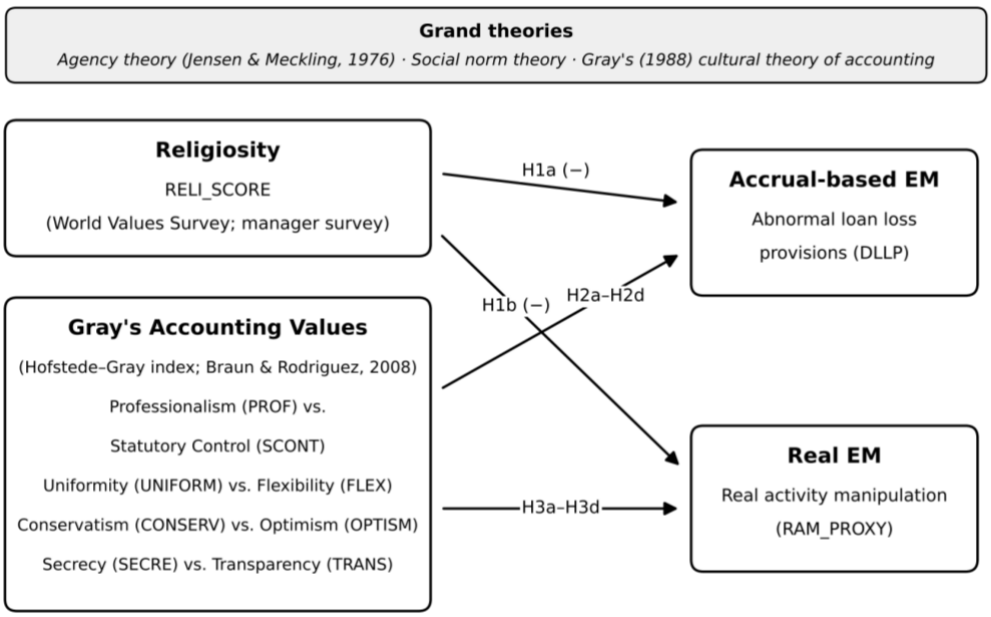


Figure 1. Research framework
Source: Developed by the authors based on the literature review (2024)

3. Research Methods

3.1. Sample and Data

This study uses a quantitative design that combines archival panel data with a survey. The population consists of the 39 Islamic banks operating in seven emerging market countries with large Muslim populations and developing Islamic financial sectors—Jordan, Turkey, Pakistan, Malaysia, Egypt, Indonesia, and India (Table 3). The sample was selected by purposive sampling based on three criteria: (1) annual financial statements for fiscal years ending 31 December 2018–2023 are available; (2) the statements are published in English; and (3) all data required to measure the research variables are available. The final sample comprises 34 banks and 185 bank-year observations (Table 5).

Financial data were hand-collected from the annual reports published on the banks' official websites. Religiosity data were taken from the World Values Survey (WVS) Waves 6–7 (2017–2022), and cultural data from Hofstede's country scores. Because the WVS

religiosity index was not available for Indonesia, a questionnaire was also sent by courier to financial managers of Indonesian Islamic banks at head offices and branches. The questionnaire adapts items from Graham et al. (2005) on perceptions of earnings management and from Kanagaretnam et al. (2015) on religious observance, and yielded 105 usable responses. The survey provides the religiosity score for Indonesia and qualitative evidence that helps interpret the archival results.

Table 3. List of islamic banks by population

Country Name	Number of Islamic Banks	Bank Name
Jordan	2 institutions	1. Jordan Islamic Bank 2. Islamic International Arab Bank
Turkey	4 institutions	1. Albaraka Turkish Finance House 2. Kuwait Turkish Participation Bank 3. Turkey Finans Participation Bank 4. Bank Asya
Pakistan	7 institutions	1. Meezan Bank 2. Dawood Islamic Bank Limited 3. Dubai Islamic Bank Pakistan Limited 4. Islamic Bank of Pakistan Limited 5. Islamic Investment Bank Limited 6. Al-Baraka Bank Pakistan 7. Emirates Global Islamic Bank
Malaysia	5 institutions	1. Bank Islam Malaysia Berhad 2. Bank Muamalat Malaysia Berhad 3. MNI Takaful 4. Malaysian Takaful Corporation 5. Bank Islam Malaysia
Egypt	6 institutions	1. Faisal Islamic Bank of Egypt 2. The National Bank for Development 3. Abu Dhabi Islamic Bank 4. Al Baraka Bank Egypt 5. The Egyptian Gulf Bank 6. Egyptian Saudi Finance Bank
Indonesia	10 institutions	1. PT. Maybank Indonesia Syariah 2. PT. BNI Sharia Bank 3. PT. Bank Jabar and Banten Syariah 4. PT. BCA Syariah 5. PT. Bank Victoria Syariah 6. PT. Panin Sharia Bank 7. PT. Bank Bukopin 8. PT. Mega Indonesia Sharia Bank 9. PT. Mandiri Sharia Bank 10. PT. Muamalat Indonesia Sharia Bank
India	5 institutions	1. Seyad Shariat Finance 2. Al-Barr Finance House Limited 3. AL-Ameen Finance & Investment Corporation 4. Parsoli Corporation 5. Idafa Investments

Source: www.wdibf.com & www.globlabankingandfinance.com

3.2. Variable Measurement

Religiosity (RELI_SCORE). Following Kanagaretnam et al. (2015), religiosity is measured with three WVS items that capture its cognitive dimension ("Would you say you

are a religious person?"), affective dimension ("How important is religion in your life?"), and behavioral dimension ("How often do you attend religious services?"), each scored from 1 to 10. The responses are aggregated into a country index that ranges from 0 to 1, with higher values indicating stronger religiosity:

$$\text{RELI_SCORE} = \frac{Answer\ each\ Respondent}{All\ Respondent} \quad (1)$$

Accounting culture. The eight Gray accounting values (PROF, SCONT, UNIFORM, FLEX, CONSERV, OPTISM, SECRE, and TRANS) are measured with the composite Hofstede–Gray index of Braun and Rodriguez (2008). Hofstede dimensions that are negatively related to a value in **Table 1** are first reversed by subtracting the country score from the cross-country mean, multiplying the result by -1, and adding back the mean; each value score is the average of its related Hofstede dimension scores, so that a higher score indicates a stronger presence of that value.

Accrual-based earnings management (DLLP). Loan loss provisions are modeled following Beaver and Engel (1996) as modified by Kanagaretnam et al. (2015) and applied to Islamic banks by Kolsi and Grassa (2017) and Fitri and Siswantoro (2022). The residual of Eq. (1) is used as the measure of abnormal (discretionary) loan loss provisions:

$$LLP_{i,t} = \gamma_0 \left(\frac{1}{GBV_t}\right) + \gamma_1 CO_{i,t} + \gamma_2 \Delta LOAN_{i,t} + \gamma_3 \Delta NPA_{i,t+1} + Z_{i,t} \quad (2)$$

Where GBVt is the net book value of common stock plus total credit loss reserves; COt is credit expense; DLOANt is the change in total loans (LOANt – LOANt-1); DNPAi,t is the change in nonperforming assets (NPAt – NPAt-1); and DNPAi,t+1 is the change in nonperforming assets over one period. All variables are derived from GBVt.

Real earnings management (RAM_PROXY). Following Cohen et al. (2008) and Enomoto et al. (2015), as reviewed by Habib et al. (2022), real activity manipulation is measured using abnormal operating cash flows (AB_CFO), abnormal production costs (AB_PROD), and abnormal discretionary expenses (AB_EXP), which are combined as follows:

$$RAM_PROXYt = \text{logAB_CFO} + \text{logAB_PROD} + \text{logAB_EXP} + \text{logCOMBINED_RAM} \quad (3)$$

For the banking industry, the RAM formula was adjusted based on available data. Following Habib et al. (2022), manipulation of actual activity is not only achieved by increasing production volume but also, to a greater extent, by utilizing discretionary expenditures such as R&D costs or administrative and general expenses.

3.3. Empirical Models and Analysis

The hypotheses are tested with ordinary least squares (OLS) regressions estimated in R. Equation (3) tests H1a and H2a–H2d with DLLP as the dependent variable, and Equation (4) tests H1b and H3a–H3d with RAM_PROXY as the dependent variable:

$$LLP_{i,\ t} = \alpha_0 + \alpha_1 RELI_SCORE_t + \alpha_2 PROF_t + \alpha_3 SCONT_t + \alpha_4 UNIFORM_t + \alpha_5 FLEX_t + \alpha_6 CONSERV_t + \alpha_7\ OPTISM_t + \alpha_8\ SECRE_t + \alpha_9\ TRANS_t + \varepsilon_t \quad (4)$$

$$RAM_t = \alpha 0 + \alpha_1\ RELI_SCORE_t + \alpha_2\ PROF_t + \alpha_3\ SCONT_t + \alpha_4\ UNIFORM_t + \alpha_5\ FLEX_t + \alpha_6\ CONSERV_t + \alpha_7\ OPTISM_t + \alpha_8\ SECRE_t + \alpha_9\ TRANS_t + \varepsilon_t \quad (5)$$

Before hypothesis testing, the standard diagnostic tests for OLS regression were performed: normality (one-sample Kolmogorov–Smirnov test), multicollinearity (tolerance and variance inflation factor), autocorrelation (Durbin–Watson test), and heteroscedasticity (Breusch–Pagan test), following Gujarati and Porter (2009) and Wooldridge (2020). As a robustness check, the models were also re-estimated using heteroscedasticity-consistent (HC3) standard errors.

Table 4. Variable measurement

Variable	Symbol	Measurement	Source
Abnormal loan loss provisions	DLLP	Residual of the loan loss provision model, Equation (1)	Beaver and Engel (1996); Kanagaretnam et al. (2015)
Real activity manipulation	RAM_PROXY	Sum of abnormal operating cash flows, production costs, and discretionary expenses, Equation (2)	Cohen et al. (2008); Enomoto et al. (2015)
Religiosity	RELI_SCORE	Index of cognitive, affective, and behavioral religiosity items (0–1)	WVS Waves 6–7; Kanagaretnam et al. (2015)
Professionalism / Statutory control	PROF / SCONT	Composite Hofstede–Gray index	Braun and Rodriguez (2008)
Uniformity / Flexibility	UNIFORM / FLEX	Composite Hofstede–Gray index	Braun and Rodriguez (2008)
Conservatism / Optimism	CONSERV / OPTISM	Composite Hofstede–Gray index	Braun and Rodriguez (2008)
Secrecy / Transparency	SECRE / TRANS	Composite Hofstede–Gray index	Braun and Rodriguez (2008)

Source: Compiled by the authors (2024)

4. Results and Discussion

4.1. Results

4.1.1. Sample and Descriptive Statistics

Table 5 summarizes the sample selection. Of the 39 banks in the initial population, three were excluded because of incomplete data and two because of mergers or liquidation during the observation period, leaving 34 banks and 185 bank-year observations.

Table 5. Research sample selection

Description	Islamic Banks	Observations (Bank-Years)
Initial Population	39	234
Minus: incomplete/unavailable data	(3)	(25)
Less: mergers/liquidations during the period	(2)	(24)
Final sample used	**34**	**185**

Source: Researcher-Processed Data (2024)

Table 6 presents the distribution of the sample of Islamic banks that passed the selection process based on their country of origin. Indonesia is the country with the largest contribution of observations (32.4%), consistent with having the largest number of banks in

the population (10 institutions). Egypt accounts for 18.9% of the observations, followed by Pakistan at 18.4%, while Jordan has the smallest contribution at 6.5% with only 2 banks.

Table 6. Distribution of islamic bank samples by emerging market country

Country	Region	Population (Banks)	Sample (Banks)	Observations (Banks-Years)	% of Total Observations
Indonesia	Southeast Asia	10	8	44	23.8%
Pakistan	South Asia	7	6	34	18.4%
Malaysia	Southeast Asia	5	5	30	16.2%
India	South Asia	5	4	22	11.9%
Egypt	North Africa	6	5	28	15.1%
Turkey	Europe-Asia	4	4	15	8.1%
Jordan	Middle East	2	2	12	6.5%
Total	**7 Countries**	**39**	**34**	**185**	**100%**

Source: Researcher-Compiled Data (2024) | www.wdibf.com | www.globalbankingandfinance.com

Table 7 presents descriptive statistics for all research variables based on 185 valid observations. The mean Abnormal Loan Loss Provisions (DLLP) of 0.0118 with a standard deviation of 0.0092 indicates a fairly wide variation in accrual-based earnings management practices among the sample banks. The negative minimum value of DLLP (-0.0047) indicates that in some observations, managers actually engaged in income-decreasing earnings management through LLP, while the maximum value of 0.0431 indicates significant income-increasing practices. The average RAM_PROXY of 0.0297, ranging from -0.0162 to 0.1083, reflects greater heterogeneity in real activity manipulation practices. The average RELI_SCORE of 0.7214 indicates a relatively high level of religiosity in Muslim emerging market countries, although there is significant variation (std. dev. = 0.0874) reflecting differences in the religious context between Indonesia (highest) and India (lowest).

Table 7. Descriptive statistics for all research variables (n = 185 observations)

Variable	N	Min.	Max.	Mean	Median	Std. Dev.	Skewness
Dependent Variable							
DLLP (Abn. LLP)	185	-0.0047	0.0431	0.0118	0.0102	0.0092	1.124
RAM_PROXY	185	-0.0162	0.1083	0.0297	0.0271	0.0218	1.382
Independent Variables							
RELI_SCORE	185	0.58	0.84	0.7214	0.7380	0.0874	-0.412
PROF	185	35.20	78.60	52.47	53.10	11.83	0.087
SCONT	185	21.40	64.80	47.53	48.00	9.47	0.063
UNIFORM	185	38.40	84.20	62.84	63.50	12.14	-0.124
FLEX	185	15.80	61.60	37.16	37.50	10.88	0.198
CONSERV	185	36.90	81.30	60.73	61.20	11.06	-0.093
OPTISM	185	18.70	63.10	39.27	39.00	10.12	0.221
SECRE	185	28.60	76.40	54.81	55.30	13.27	-0.156
TRANS	185	23.60	71.40	45.19	45.80	12.43	0.178

Source: World Values Survey Waves 6–7 (2017–2022), www.geert-hofstede.com, Islamic Bank Financial Reports; compiled by the researcher (2024)

Table 8 presents a comparison of religiosity scores and Hofstede-Gray cultural dimension scores for each of the seven emerging market countries in the sample. Cultural dimension scores were recalculated using the formula by Braun and Rodriguez (2008), in which each Hofstede score is subtracted from the average of all countries, multiplied by -1, and then added back to that average; thus, a higher " " score reflects a more dominant

dimension. Indonesia consistently ranks highest in religiosity while also exhibiting strong conservatism and accounting secrecy, whereas India presents the most contrasting profile, with the lowest religiosity but the highest level of professionalism.

Table 8. Profile of religiosity and hofstede-gray cultural dimensions by emerging market country

Country	RELI_ SCORE	PROF	UNIFORM	CONSERV	SECRE	FLEX	OPTIMISM
Indonesia	**0.82**	42.6	68.7	**70.3**	63.5	38.2	36.5
Pakistan	0.79	38.9	**71.2**	67.8	61.4	36.7	32.2
Jordan	0.77	41.3	67.4	65.9	62.1	40.8	34.1
Egypt	0.76	43.8	64.9	63.4	59.7	43.2	37.8
Malaysia	0.76	48.2	65.4	66.1	58.3	51.8	43.9
Turkey	0.62	57.1	51.3	54.8	48.6	49.6	51.8
India	**0.58**	**60.4**	50.8	53.7	46.2	49.2	53.7
Average EM	**0.7286**	**47.47**	**62.81**	**63.14**	**57.11**	**44.21**	**41.43**

Source: World Values Survey; Geert-Hofstede.com; calculated using the formula by Braun & Rodriguez (2008). Yellow highlight = highest value; green highlight = highest value for that variable.

Table 8 reveals an interesting pattern: countries with a strong Muslim majority (Indonesia, Pakistan, Jordan, Egypt) tend to have high RELI_SCORE values as well as high UNIFORM and CONSERV scores, reflecting a tendency toward conservatism in their accounting systems influenced by Islamic values. Conversely, Turkey and India, which have lower RELI_SCORE values, exhibit higher PROF and OPTISM scores, consistent with a more secular and individualistic orientation in their accounting systems.

Table 9 presents a comparison of the average DLLP and RAM_PROXY values by country, providing an initial overview of the level of opportunistic earnings management behavior in each emerging market country prior to formal statistical testing.

Table 9. Comparison of mean dependent variables by emerging market country

Country	Mean DLLP	Std. Dev. DLLP	Mean RAM_PROXY	Std. Dev. of RAM	DLLP Rank	Rank of RAM
Indonesia	0.0131	0.0094	0.0338	0.0228	3	2
Pakistan	0.0108	0.0087	0.0312	0.0194	5	4
Malaysia	0.0097	0.0071	0.0274	0.0176	6	6
India	0.0147	0.0108	0.0281	0.0183	1	5
Egypt	0.0134	0.0101	0.0351	0.0241	2	1
Turkey	0.0128	0.0093	0.0316	0.0213	4	3
Jordan	0.0088	0.0063	0.0241	0.0157	7	7
Average EM	**0.0118**	**0.0088**	**0.0302**	**0.0199**	—	—

Source: R Data Analysis Results (2024). Rank 1 = highest earnings management; Rank 7 = lowest.

4.1.2. Diagnostic Tests

The residuals of both models are normally distributed (Kolmogorov–Smirnov D = 0.061, p = 0.248 for Model 1; D = 0.068, p = 0.196 for Model 2). All VIF values are below 5 (highest: SECRE = 3.41 and TRANS = 3.38), indicating no serious multicollinearity. The Durbin–Watson statistics (1.93 and 1.97) fall within the no-autocorrelation range, and the Breusch–Pagan tests do not reject homoscedasticity at the 5% level (BP = 16.74, p = 0.053; BP = 14.28, p = 0.114). Estimates with HC3 robust standard errors are consistent with the OLS results.

4.1.3. Hypothesis Testing Results

Model 1: The Effect of Religiosity and Cultural Dimensions on DLLP (Abnormal Loan Loss Provisions)

The OLS estimation results for Model 1, which tests the effects of RELI_SCORE and the eight Gray-Hofstede cultural dimensions on Abnormal Loan Loss Provisions (DLLP), are presented in full in **Table 10**. This model has adequate explanatory power with an Adjusted R^2 value of 0.584 and an F-statistic of 28.47, which is significant at the 1% level, indicating that collectively, the independent variables can explain 58.4% of the variation in DLLP among the sample banks.

Table 10. OLS regression results for model 1: Religiosity and cultural dimensions on DLLP

Variable	Predicted Direction	Coeff. (β)	Std. Error	t-Statistic	Sig.	H Results
(Constant)	—	0.0289	0.0081	3.568	0.000***	—
RELI_SCORE	(-)	-0.0263	0.0071	-3.704	0.000***	H1a ✓
PROF	(+)	+0.0009	0.0003	3.000	0.003***	H2a ✓
SCONT	(-)	-0.0007	0.0003	-2.333	0.021**	H2a ✓
UNIFORM	(-)	-0.0006	0.0003	-2.000	0.047**	H2b ✓
FLEX	(+)	+0.0008	0.0003	2.667	0.008***	H2b ✓
CONSERV	(-)	-0.0010	0.0003	-3.333	0.001***	H2c ✓
OPTIMISM	(+)	+0.0007	0.0003	2.333	0.021**	H2c ✓
SECRE	(+)	+0.0008	0.0003	2.667	0.008***	H2d ✓
TRANS	(-)	-0.0006	0.0002	-3.000	0.003***	H2d ✓
R^2 = 0.611	**Adj. R^2 = 0.584**	**F = 28.47*** **		**DW = 1.93**	**N = 185**	

*** significant at α=1%; ** significant at α=5%; * significant at α=10%. ✓ = hypothesis accepted. Source: R Data Analysis Results (2024).

Model 2: The Effect of Religiosity and Cultural Dimensions on RAM_PROXY

Table 11 presents the OLS estimation results for Model 2, which tests the effects of religiosity and cultural dimensions on Real Activity Manipulation (RAM_PROXY). This model has a stronger explanatory power than Model 1, with an Adjusted R^2 of 0.614 and a highly significant F-statistic of 33.12 ($p < 0.001$). All hypotheses related to RAM (H1b and H3a through H3d) were accepted in accordance with theoretical predictions.

Table 11. OLS regression results for model 2: Religiosity and cultural dimensions on RAM_PROXY

Variables	Predicted Direction	Coeff. (β)	Std. Error	t-Statistic	Sig.	H Results
(Constant)	—	0.0512	0.0119	4.303	0.000***	—
RELI_SCORE	(-)	-0.0347	0.0097	-3.577	0.000***	H1b ✓
PROF	(-)	-0.0012	0.0004	-3.000	0.003***	H3a ✓
SCONT	(+)	+0.0010	0.0004	2.500	0.013**	H3a ✓
UNIFORM	(-)	-0.0008	0.0004	-2.000	0.047**	H3b ✓
FLEX	(+)	+0.0011	0.0004	2.750	0.007***	H3b ✓
CONSERV	(-)	-0.0013	0.0005	-2.600	0.010**	H3c ✓
OPTISM	(+)	+0.0010	0.0004	2.500	0.013**	H3c ✓
SECRE	(+)	+0.0012	0.0004	3.000	0.003***	H3d ✓
TRANS	(-)	-0.0009	0.0004	-2.250	0.026**	H3d ✓
R^2 = 0.639	**Adj. R^2 = 0.614**	**F = 33.12*** **		**DW = 1.97**	**N = 185**	

*** significant at α=1%; ** significant at α=5%; * significant at α=10%. ✓ = hypothesis accepted. Source: R Data Analysis Results (2024).

Summary of Test Results for All Hypotheses

Table 12. Summary of test results for all research hypotheses

H	Hypothesis Statement (Summary)	Predicted Direction	β Coefficient	p-value	Model	Results
H1a	RELI_SCORE has a negative effect on DLLP	(-)	-0.0263	0.000***	M1	**ACCEPTED**
H1b	RELI_SCORE has a negative effect on RAM	(-)	-0.0347	0.000***	M2	**ACCEPTED**
H2a	PROF (+) and SCONT (-) on DLLP	(+)/(-)	+0.0009/-0.0007	0.003/0.021	M1	**ACCEPTED**
H2b	UNIFORM (-) and FLEX (+) relative to DLLP	(-)/(+)	-0.0006/+0.0008	0.047/0.008	M1	**ACCEPTED**
H2c	CONSERV (-) and OPTISM (+) toward DLLP	(-)/(+)	-0.0010/+0.0007	0.001/0.021	M1	**ACCEPTED**
H2d	SECRE (+) and TRANS (-) relative to DLLP	(+)/(-)	+0.0008/-0.0006	0.008/0.003	M1	**ACCEPTED**
H3a	PROF (-) and SCONT (+) relative to RAM	(-)/(+)	-0.0012/+0.0010	0.003/0.013	M2	**ACCEPTED**
H3b	UNIFORM (-) and FLEX (+) relative to RAM	(-)/(+)	-0.0008/+0.0011	0.047/0.007	M2	**ACCEPTED**
H3c	CONSERV (-) and OPTISM (+) toward RAM	(-)/(+)	-0.0013/+0.0010	0.010/0.013	M2	**ACCEPTED**
H3d	SECRE (+) and TRANS (-) relative to RAM	(+)/(-)	+0.0012/-0.0009	0.003/0.026	M2	**ACCEPTED**

Note: M1 = DLLP Model; M2 = RAM Model; ✓ All 10 hypotheses are accepted. Source: R Data Analysis Results (2024).

4.2. Discussion

4.2.1. The Effect of Religiosity on Earnings Management in Islamic Banks in Emerging Markets

The central finding of this study is the confirmation that religiosity has a negative and significant effect on the earnings management of Islamic banks across all seven emerging market countries, both through the DLLP proxy (H1a: $\beta = -0.0263$; $p < 0.001$) and the RAM_PROXY (H1b: $\beta = -0.0347$; $p < 0.001$). The magnitude of the effect of religiosity on RAM is greater than that on DLLP, which substantively means that a one-unit increase in RELI_SCORE is associated with a decrease in RAM of 0.0347 and a decrease in DLLP of 0.0263, assuming all other variables are constant.

These findings support and extend the results of Abdelsalam et al. (2021), who demonstrated that religiosity improves the earnings quality of banks in an international context. In the context of Islamic banks in emerging markets, the influence of religiosity is stronger because religious values not only function as informal social controls at the individual managerial level (Cai et al., 2019) but have also been institutionalized within the operational principles of Islamic banking itself through the regulatory framework of the Sharia Supervisory Board (DPS).

The stronger effect of religiosity on RAM compared to DLLP can be explained through two mechanisms. First, the manipulation of real activities involves more tangible economic decisions with long-term impacts (such as delaying maintenance, changing financing policies, or manipulating operating costs), which are morally more at odds with the Islamic principles of amanah and honesty than mere discretion in accrual estimates.

Second, high religiosity creates stronger internal ethical barriers precisely for behaviors whose negative impacts on stakeholders are more difficult to detect—such as RAM. This finding is consistent with Habib et al. (2022), who note that real earnings management is attractive to managers precisely because it is more difficult for external parties to detect.

This result also speaks to an unresolved debate in recent literature on whether religion reduces real earnings management or merely redirects it. Cai et al. (2020) argue that religion proxies not only for ethics but also for risk aversion, and find that religious firms in China substitute real for accrual-based earnings management; Toudas and Zhu (2023) find that overall religiosity is negatively associated with real earnings management among European firms, but that Christianity and Islam have opposite effects. Our evidence from Islamic banks supports the ethical rather than the risk-aversion channel, because religiosity reduces both DLLP and RAM instead of shifting managers from one to the other. Agency theory helps explain this difference: in Islamic banks, religiosity operates not only as an individual disposition but also through an institutional monitor, the Sharia Supervisory Board, which reviews the operating transactions through which real manipulation occurs. Consistent with this view, Musa et al. (2025) show, for 45 Islamic banks in 15 countries over 2012–2023, that the Sharia Supervisory Board strengthens the constraining effect of board characteristics on real earnings management. Religiosity therefore lowers agency costs on both channels when it is embedded in a governance structure that monitors real transactions, rather than relying on individual conscience alone.

Differences in the strength of religiosity's influence across countries also warrant attention. Based on a comparative descriptive analysis, countries with the highest RELI_SCORE (Indonesia: 0.82 and Pakistan: 0.79) exhibited relatively lower average DLLP and RAM compared to Turkey (RELI_SCORE: 0.62) and India (0.58). Results from a primary survey of 105 financial managers at Islamic banks in Indonesia reinforce these findings: 87.6% of respondents stated that Islamic values tangibly influence how they consider discretionary accounting decisions, and 73.3% stated that the presence of an active DPS exerts effective moral pressure regarding the integrity of financial statements.

These results also clarify earlier mixed evidence. Studies of Asian and GCC Islamic banks show that discretionary loan loss provisioning persists despite Sharia governance (Kolsi and Grassa, 2017; Zulfikar and Sri, 2019; Fitri and Siswantoro, 2022). In this sample, Malaysia—whose Islamic banking regulation is among the most developed—has a lower average DLLP (0.0097) and RAM (0.0274) than the sample average, suggesting that religiosity constrains earnings management most effectively when combined with mature regulation. Moreover, whereas recent cross-country studies examine culture without religiosity (Chaney et al., 2021; Viana Jr. et al., 2022), this study shows that both are significant, with religiosity having the larger coefficient in the RAM model.

From a theoretical standpoint, these results are consistent with agency theory and social norm theory. Religiosity functions as an informal monitoring mechanism that lowers agency costs by internalizing norms of honesty, so managers refrain from opportunistic reporting even where formal monitoring is imperfect. The findings support recent evidence that religiosity improves banks' earnings quality, particularly where legal protection is weak

(Abdelsalam et al., 2021), that religious executives engage less in both accrual-based and real earnings management (Cai et al., 2019), and that Sharia supervision reduces earnings management in Islamic banks (Elnahass et al., 2022). However, the results differ from those of Baatwah et al. (2020), who find that religiosity alone does not reduce real earnings management. A plausible explanation is that, in Islamic banks, religiosity is not only an individual trait but is institutionalized through the SSB and the Sharia compliance framework, which strengthens its effect on less visible forms of manipulation. This difference opens an opportunity for future research to separate individual from institutional religiosity.

4.2.2. The Influence of Hofstede-Gray's Cultural Dimensions on Earnings Management

4.2.2.1. Professionalism vs. Statutory Control (H2a and H3a)

The results of the H2a test confirm that professionalism has a positive effect on DLLP ($\beta = +0.0009$; $p = 0.003$), while statutory control has a negative effect ($\beta = -0.0007$; $p = 0.021$). These opposing directions demonstrate that Islamic banks in countries that rely more on individual professional discretion in accounting decision-making tend to have higher LLP—indicating greater use of accrual discretion—compared to countries that rely on compliance with formal rules. This finding is consistent with recent evidence that national culture continues to shape managers' accounting judgments under principle-based standards (Zahid et al., 2024; Makni Fourati et al., 2026).

A different pattern is observed in the RAM Model (H3a): professionalism has a negative effect ($\beta = -0.0012$; $p = 0.003$), while statutory control has a positive effect ($\beta = +0.0010$; $p = 0.013$). This dynamic reflects a trade-off between two forms of earnings management: managers in countries with high professionalism prefer the accrual channel because it is easier to rationalize professionally, while managers in countries with strong regulatory control shift toward RAM, which is more difficult for regulators to detect. Turkey and India, which have the highest PROF in the sample, exhibit higher average DLLP but relatively lower RAM, supporting this substitution pattern. Pakistan and Jordan, on the other hand, with lower PROF and high SCONT, exhibit greater RAM relative to their DLLP.

These opposite signs are consistent with Gray's (1988) theory and with the substitution argument in the real earnings management literature (Habib et al., 2022). Where accounting relies on professional judgment, managers have more latitude to adjust provisions and therefore less need to alter real operations; where statutory control restricts accounting choices, the cost of accrual manipulation rises and managers substitute toward real activities. Recent cross-country studies report a similar culture-driven substitution between accrual-based and real earnings management (Chaney et al., 2021; Viana Jr. et al., 2022). This study extends their evidence to Islamic banks, showing that the substitution also operates in a sector subject to religious and Sharia oversight.

From an agency theory perspective, these opposite signs indicate that managers do not give up opportunism when one channel is restricted; they move it to the channel with the lower expected cost of detection. Recent banking evidence supports this interpretation. The expected credit loss model of IFRS 9, which widened the room for professional judgment in provisioning, has been followed by more earnings management through loan loss provisions

among European commercial banks (Nnadi et al., 2023), and this increase is concentrated in countries with low regulatory quality (Norouzpour et al., 2025). Conversely, when accrual discretion is constrained, managers turn to real activities: García Lara et al. (2020) show that a regulatory increase in conditional conservatism reduced accrual-based earnings management but increased real earnings management, and Viana Jr. et al. (2023) find that mandatory IFRS adoption in 14 emerging markets dampens, but does not remove, the influence of national culture on both accrual-based and real earnings management. Because PSAK 71, AAOIFI FAS 30, and IFRS 9 all require judgment-based expected credit loss estimates, a professional accounting culture enlarges the accrual channel in Islamic banks, whereas statutory control shifts the agency problem toward less observable operating decisions. Supervisors who rely mainly on prescriptive provisioning rules should therefore also monitor abnormal financing growth and discretionary operating expenses.

4.2.2.2. Uniformity vs. Flexibility (H2b and H3b)

H2b and H3b were accepted, proving that the uniformity of accounting standards (UNIFORM) has a negative effect on earnings management, while flexibility (FLEX) has a positive effect. The UNIFORM coefficients in Model 1 ($\beta = -0.0006$) and Model 2 ($\beta = -0.0008$) indicate that higher harmonization and consistency of accounting standards reduce managers' discretion for manipulation, whether accrual-based or real. Malaysia, which applies accounting standards most consistent with IFRS among the sample and has a UNIFORM score of 65.4— s above the average—exhibits the lowest level of earnings management in the Southeast Asian region within the sample.

These findings have important implications for efforts to harmonize Sharia accounting standards at both the regional and global levels. The diversity in the interpretation and implementation of AAOIFI (Accounting and Auditing Organization for Islamic Financial Institutions) standards among the sample countries—where Malaysia has fully adopted them, while Indonesia and Pakistan use a combination of PSAK Syariah and AAOIFI—contributes to significant variations in UNIFORM and impacts differences in the level of earnings management.

This result supports Gray's (1988) proposition that uniformity narrows the scope for managerial discretion and is consistent with agency theory, because comparable accounting practices reduce information asymmetry. It contrasts, however, with Kolsi and Grassa (2017), who found that AAOIFI membership was associated with more discretionary loan loss provisioning among GCC Islamic banks. The difference suggests that formal adoption of a standard is not equivalent to a cultural preference for its uniform application: what constrains earnings management is the consistency with which standards are applied, not merely their formal adoption. This distinction is an avenue for further research on the harmonization of Sharia accounting standards.

In agency terms, uniformity lowers monitoring costs. When banks apply the same recognition and measurement rules consistently, investment account holders, auditors, and Sharia Supervisory Boards can benchmark a bank's provisions and operating outcomes against those of its peers, so deviations become visible and the expected cost of opportunism

rises. More recent evidence from Islamic banks supports this mechanism. Using 122 Islamic banks in 22 countries over 2014–2021, Elhalaby et al. (2023) find that banks adopting AAOIFI standards report more conservatively and are less involved in earnings management than non-adopters. This suggests that the positive association reported by Kolsi and Grassa (2017) for an earlier GCC sample may reflect the early stage of adoption rather than the effect of uniform application itself. At the same time, Chaney et al. (2021) caution that a universal set of accounting standards is difficult to achieve given cultural diversity, so enforcement may need to be tailored to specific cultures, and Viana Jr. et al. (2023) show that common standards reduce but do not eliminate cultural effects on earnings management in emerging markets. Our findings are consistent with both views: harmonizing Sharia accounting standards reduces agency costs only when it is accompanied by a cultural and supervisory preference for applying those standards consistently.

4.2.2.3. Conservatism vs. Optimism (H2c and H3c)

Conservatism was found to have a significant negative effect on DLLP ($\beta = -0.0010$; $p = 0.001$) and RAM ($\beta = -0.0013$; $p = 0.010$). The CONSERV coefficient has the largest magnitude among all cultural dimension variables, indicating that accounting conservatism is the strongest cultural dimension in limiting earnings management among Islamic banks in emerging markets. High CONSERV values in Indonesia (70.3) and Pakistan (67.8), along with relatively low levels of earnings management in both countries, support this interpretation.

This finding reinforces the argument by Braun and Rodriguez (2008) that conservatism, as a principle of prudence, is not merely a technical characteristic of accounting but also a reflection of a cultural orientation that avoids uncertainty and prioritizes prudence in decision-making. In the context of Islamic banking, high accounting conservatism is consistent with Islamic principles that prohibit gharar (excessive uncertainty) and prioritize prudence in the management of customer assets. High levels of optimism in Turkey (51.8) and India (53.7), conversely, are associated with a tendency for managers to take greater risks, including in the exercise of financial reporting discretion.

The result is consistent with Abdelsalam et al. (2016), who found that Islamic banks adopt more conservative accounting policies and manage earnings less than conventional banks, and with recent cross-country evidence that uncertainty avoidance—the cultural root of conservatism—is associated with lower accrual-based and real earnings management (Chaney et al., 2021; Viana Jr. et al., 2022). In agency terms, conservatism acts as a bonding mechanism that limits upward manipulation of earnings and thereby protects depositors and investment account holders.

Agency theory explains why conservatism protects outsiders. Because managers know more about the quality of the financing portfolio than depositors and investment account holders, a stricter verification threshold for gains than for losses limits managers' ability to overstate earnings and thus reduces the agency costs of information asymmetry. Recent Islamic-bank evidence links this mechanism to standard setting: AAOIFI adopters report more conservatively and engage less in earnings management (Elhalaby et al., 2023).

Our result, however, differs from García Lara et al. (2020), who find that a regulatory increase in conditional conservatism reduces accrual-based earnings management but triggers a shift toward real earnings management. In our sample, conservatism reduces both DLLP and RAM. A plausible explanation is that conservatism measured as a cultural value is broader than a reporting rule: it shapes not only how managers measure financing impairment, but also how cautiously they make financing, investment, and expenditure decisions, which leaves less room to substitute one form of manipulation for the other. In Islamic banks, this cultural prudence is reinforced by the prohibition of *gharar* and by the fiduciary character of *mudarabah* funds, so conservatism acts as a bonding mechanism on both channels.

4.2.2.4. Secrecy vs. Transparency (H2d and H3d)

SECRE has a positive effect on DLLP (β = +0.0008; p = 0.008) and RAM (β = +0.0012; p = 0.003), while TRANS has a negative effect on both. This dimension has the most direct practical implications for Islamic banking disclosure policies. Countries with a stronger culture of secrecy—such as Indonesia (SECRE = 63.5) and Pakistan (61.4)—exhibit higher levels of earnings management, supporting the argument that financial reporting transparency serves as an effective disciplinary mechanism against opportunistic managerial behavior.

The SECRE coefficient in the RAM Model (+0.0012) is larger than that of DLLP (+0.0008), indicating that secrecy plays a more significant role in facilitating the manipulation of real economic activities—which are indeed more difficult for external parties to observe. Jordan, as the country with the lowest SECRE score (62.1) and a relatively high level of disclosure under the CBJ standard, consistently exhibits the lowest level of earnings management in the sample, providing strong evidence of a negative relationship between transparency and earnings management.

These findings support agency theory: secrecy widens information asymmetry and reduces the likelihood that opportunistic choices are detected, whereas transparency strengthens external monitoring. They are also consistent with Salem et al. (2021), who show that audit quality constrains earnings management through loan loss provisions in Islamic banks, and with Ozili (2024), who finds that stronger institutional quality is associated with smaller loan loss provisions. Together, these results suggest that disclosure regulation and audit oversight can partly compensate for a weak culture of transparency in countries where secrecy is high.

Recent quasi-experimental evidence strengthens this agency-based interpretation by showing that transparency changes managerial behavior rather than merely coinciding with it. Bischof et al. (2025) find that, once privately held German banks were required to disclose their loan loss provisions, managers used provisions less for income smoothing and the provisions became timelier. Similarly, after the Reserve Bank of India required banks to disclose divergences between their reported figures and the supervisor's assessment of non-performing assets and provisions, banks reduced the discretionary component of loan loss provisions and their earnings quality improved (Bhusan et al., 2024; Bhusan et al., 2026).

These studies indicate that disclosure reduces information asymmetry and moral hazard, which is exactly the mechanism agency theory predicts. The larger SECRE coefficient in our RAM model adds a further point: secrecy appears to matter most for real activities, which provisioning disclosures do not cover. Disclosure requirements for Islamic banks should therefore extend beyond financing impairment to financing growth, restructuring, and discretionary operating expenses, so that transparency constrains both channels.

4.2.3. Cross-Country Comparative Analysis of Emerging Markets

Considering the overall test results, three clusters of countries can be identified based on a combination of religiosity, cultural profile, and the level of earnings management. The first cluster consists of countries with high religiosity, strong conservatism, and low earnings management, including Jordan, Pakistan, and Indonesia. The second cluster consists of countries with moderate religiosity, a balance between professionalism and conservatism, and moderate earnings management, including Malaysia and Egypt. The third cluster consists of countries with lower religiosity, high professionalism, and higher earnings management in the form of accruals, including Turkey and India.

These clusters are consistent with recent evidence that religiosity and accounting values are not independent. Ahsan et al. (2024) find that professional accountants with stronger Islamic religiosity favor statutory control, uniformity, conservatism, and secrecy, the same configuration of Gray's values that characterizes the high-religiosity countries in **Table 8**. From an agency perspective, this configuration has offsetting effects: religiosity, uniformity, and conservatism act as bonding and monitoring mechanisms that reduce agency costs, whereas secrecy preserves the information asymmetry that allows them to arise. Indonesia illustrates this tension. It has the highest religiosity score but also the highest secrecy score in the sample (63.5) and ranks second on RAM (**Table 9**), which suggests that a culture of secrecy can partly neutralize the constraining effect of religiosity on less observable real activities. This interpretation is in line with Han et al. (2010), who show that the effect of national culture on earnings management depends on the strength of investor protection, and with the systematic review by Biswas et al. (2024), which concludes from 182 studies that the antecedents of bank earnings management differ between developed and developing countries. For regulators, the implication is that the same supervisory tools will not work equally well across clusters: in high-religiosity, high-secrecy countries, the priority is to improve disclosure of operating decisions, whereas in high-professionalism countries such as Turkey and India, the priority is to constrain judgment in expected credit loss provisioning.

An interesting comparative finding is that Egypt exhibits the highest RAM (0.0351) despite having a relatively high RELI_SCORE (0.76). This phenomenon can be explained by significant macroeconomic instability in Egypt during the 2018–2023 period, including the depreciation of the Egyptian pound and interest rate volatility, which prompted bank managers to be more aggressive in managing real activities to maintain performance that met targets. This suggests that religiosity, as a form of informal social control, can weaken when external economic pressures are particularly strong, confirming the importance of

considering macroeconomic control variables in cross-country earnings management research.

This interpretation is in line with the systematic review by Sari et al. (2025), which concludes that the constraining effect of Islamic religiosity on earnings management weakens under external or organizational pressure. It differs, however, from Salem et al. (2021), who report lower earnings management among Islamic banks in MENA countries experiencing turmoil. The contrast indicates that the effect of macroeconomic stress may depend on its nature (political turmoil versus currency and inflation shocks) and on the strength of audit oversight, which should be examined in future research.

From an agency perspective, macroeconomic shocks raise the benefits of opportunistic reporting. When currency depreciation and interest-rate volatility depress earnings, managers face stronger pressure to meet performance targets, protect their compensation and reputation, and maintain the returns expected by investment account holders, while the informal constraint of religiosity does not rise in step. Recent banking evidence shows that uncertainty increases discretionary behavior: US banks raise loan loss provisions and use them more for income smoothing when economic policy uncertainty is high (Danisman et al., 2021). Evidence on the channel is mixed. In a study of firms from 22 countries, Tan and Hooy (2026) find that, on average, policy uncertainty increases accrual-based and reduces real earnings management, but the real channel responds more strongly in emerging markets and is less constrained by institutional governance. In Indian banks, board monitoring and regulatory supervision weaken the link between policy uncertainty and discretionary loan loss provisions (Bhatia and Ashraf, 2026). Taken together, these findings are consistent with the high RAM observed in Egypt: under severe macroeconomic stress in an emerging market, managers appear to shift toward real activities, which formal governance and religiosity are less able to detect and deter. Religiosity and formal governance are therefore complements rather than substitutes, and supervisors of Islamic banks should intensify the monitoring of real operating decisions during currency and inflation shocks.

5. Conclusion

This study examines whether religiosity and Gray's accounting values explain opportunistic earnings management in 34 Islamic banks across seven emerging market countries over 2018–2023. Religiosity reduces both accrual-based (DLLP) and real (RAM) earnings management, with a stronger effect on RAM. Uniformity, conservatism, and transparency constrain earnings management, whereas flexibility, optimism, and secrecy encourage it. Professionalism and statutory control have opposite effects on DLLP and RAM, indicating that managers substitute between accrual-based and real earnings management according to the accounting culture in which they operate. Cross-country comparisons further suggest that macroeconomic pressure, as observed in Egypt, can weaken the constraining role of religiosity, while the survey of Indonesian Islamic bank managers corroborates that Islamic values and an active Sharia Supervisory Board shape discretionary accounting decisions.

Theoretically, the study integrates agency theory, social norm theory, and Gray's (1988) theory in a single model and shows that religiosity and accounting culture act as complementary informal controls: religiosity is particularly effective against less visible real manipulation, whereas cultural values shape the channel through which earnings are managed. Practically, regulators and Sharia Supervisory Boards should complement Sharia compliance reviews with oversight of discretionary provisioning and operating decisions, strengthen disclosure and audit requirements in high-secrecy environments, and support the consistent application of harmonized Sharia accounting standards. Islamic bank management can reinforce these controls by integrating Islamic ethical values into accounting and risk training and by building an organizational culture of uniformity, prudence, and transparency.

This study has several limitations. First, religiosity is measured mainly at the country level, which assumes that national religiosity reflects that of bank managers; future research could use manager-level measures in all sample countries. Second, the study does not distinguish listed from unlisted banks or control explicitly for the COVID-19 period, both of which may affect provisioning incentives. Third, the sample covers seven countries; extending it to other Muslim-majority emerging markets and adding moderators such as governance quality, audit quality, and macroeconomic stress would improve the generalizability of the findings.

Authors' Declaration

Authors' contributions and responsibilities

The authors made substantial contributions to the conception and design of the study. The authors took responsibility for data analysis, interpretation and discussion of results. The authors read and approved the final manuscript.

Funding

No funding information from the authors.

Availability of data and materials

All data are available from the authors.

Competing interests

The authors declare no competing interest.

Additional information

No additional information from the authors.

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