



University of Dundee

Assessing the impact of external determinants on the social performance of Islamic banks

Meskovic, Admir; Avdukic, Alija; Kozarevic, Emira

DOI:
[10.1108/IMEFM-08-2022-0335](https://doi.org/10.1108/IMEFM-08-2022-0335)

Publication date:
2024

Licence:
CC BY-NC

Document Version
Peer reviewed version

[Link to publication in Discovery Research Portal](#)

Citation for published version (APA):
Meskovic, A., Avdukic, A., & Kozarevic, E. (2024). Assessing the impact of external determinants on the social performance of Islamic banks. *International Journal of Islamic and Middle Eastern Finance and Management*, 17(1), 124-145. <https://doi.org/10.1108/IMEFM-08-2022-0335>

General rights

Copyright and moral rights for the publications made accessible in Discovery Research Portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Assessing the Impact of External Determinants on the Social Performance of Islamic Banks

Abstract

Purpose – Explaining the sources of the differences in social performance among IBs is the motivation for this research. Consequently, the purpose and objective of this paper are to investigate the relationship between the development of Islamic finance regulation, the development of an Islamic financial system, proportions of affected Muslim populations, and the level of competition, on the one hand, and the social performance of Islamic banks, on the other. To the best of our knowledge, this is the first article that investigates the impact of the development of regulation and the Islamic financial system on the social performance of Islamic banks.

Design/methodology/approach – A balanced panel of annual data for 40 banks from 13 countries is applied, spanning 2012 to 2018. A social performance index (SPI) with 8 dimensions is constructed and measures the social performance of Islamic banks. The index based on qualitative and quantitative data derives from Islamic banks’ annual reports and financial statements. The linear scaling transformation (LST) method articulates the quantitative dimensions of the index. In hypotheses testing, we use OLS, LSDV, FEM and REM to estimate model (1) and Panel Corrected Standard Errors with Prais-Winsten transformation to estimate model (2).

Findings – This unique research confirms the positive impact of the development of Islamic finance regulation on the social performance of Islamic banks. The results show that the development of Islamic finance regulation is consistently significant on all standard significance levels. Islamic banks’ age and the presence of Muslim populations in the country are also significant in most estimators.

Implications – The results of this research highlight a significant value for regulators, shareholders, and the management of Islamic banks. Without proper regulation, these banks can hardly operate under the principles and expectations of the Islamic moral economy.

Originality/value – This is pioneering research that explores the development of Islamic finance regulation and market concentration as a determinant of social performance of Islamic banks. Development of Islamic finance regulation has proved significant in all estimated models, which confirms that a new variable has been discovered among determinants of the social performance of Islamic banks.

Keywords Islamic moral economy, Islamic banks, social performance, *maqasid al-Shariah*, Islamic finance regulation, Muslim population

Paper type Research paper

1. Introduction

The theoretical foundation of Islamic banking and finance is based on Islamic moral economy (IME) which promotes human-centric development and ‘social welfare’ (Chapra, 1985). As an operational form of IME, Islamic banks (IBs) should exhibit dual objectives – financial and social (Haniffa and Hudaib, 2007). Several authors (Maali *et al.*, 2006; Kamla *et al.*, 2006; Haniffa and Hudaib, 2007; Dusuki, 2008; Farook *et al.*, 2011; Aribi and Arun, 2015) claim that IBs are expected to be more socially responsible than conventional banks due to their religious roots. The two objectives are not diametrically opposed – several studies, including Saad and Belkacem (2021), El Khoury, *et al.* (2021), conclude that disclosure of social responsibility or ESG data yields positive effects on financial performance. Saad and Belkacem (2021) found out that companies experience increased profitability as a result of the CSR mandate. Alternatively, Daszyńska-Żygadło, *et al.* (2021) achieved different results from a global sample of banks which reveals the complexity of such relationships. Chentoufi, *et al.* (2022) achieved contradictory results when investigating the existence of a mixed relationship between SRI and the financial performance of companies.

Antonio *et al.* (2012), Asutay and Harningtyas (2015), and Rusydiana and Firmansyah, (2018) studies highlight the unimpressive social, ethical, and environmental performance of Islamic banks, emphasising a lack of social responsibility and the frequent absence of expected positive effects on society. Hence, this paper explores the reasons behind the superior or inferior social performance of Islamic banks (IBs) and provides essential insights for Islamic bankers and regulators to support IBs in achieving higher levels.

Islamic banking (IBs) faces challenges in social performance due to conventional regulatory environments and rules. Early development, legal and regulatory frameworks, political and economic climate, and lack of human capital contribute to differences in social performance among IBs (Hasan, 2004). Hanic and Smolo (2022) proposed an Islamic CSR model for IBs, emphasising internationalisation and application in countries not predominantly Muslim or lacking special laws for financial institutions. Further research is needed to investigate external determinants affecting IBs' social performance. Further empirical investigation is needed to understand the impact of these factors on IBs' social performance.

Currently, there are a very small number of studies investigating the determinants of social performance in IBs. Mergaliyev *et al.* (2021), Iryani *et al.* (2019), Mukhibad (2019), Sencal and Asutay (2020), as well as Rahman and Haron (2019), confirmed that the characteristics or quality of an internal *Shariah* governance system has a significant effect on the social performance of IBs. The only study investigating external determinants of IBs' social performance is produced by Mergaliyev *et al.* (2021). Our study introduces new variables, including the development of Islamic finance regulations and the development of an Islamic financial system (IFS).

Regulatory frameworks tailored to Islamic financial institutions (IBs) are crucial for their effective operation and market competitiveness. Hoque and Liu (2021) emphasise the need for uniform regulations to optimise IBs' performance. Diversification beyond traditional lending is key to IBs' competitive advantage (Elfeituri and Alotaibi, 2021). Many countries adapt their

banking regulations to accommodate Islamic banking (Song and Oosthuizen, 2014), addressing challenges like licencing, liquidity, capital adequacy, and transparency (Mejia *et al.*, 2014). This study assesses the presence of Islamic financial regulations and their impact on IBs' social performance, using the Islamic Finance Development Indicator (IFDI) to measure the influence of financial development stages.

With regard to the Muslim population (MP), the aim is to investigate whether IBs attempt to build their social legitimacy through socially beneficial operations and activities and the attendant public disclosure of such activity.

Other new variables are investigated along with their impact on the social performance of IBs. Market concentration can affect socially responsible strategies in conventional organisations (Acabado *et al.*, 2020). Leong and Yang (2020) discover that market competition can positively impact the social performance of companies. To test the hypothesis of 'competitive isomorphism' on IBs, we expect to determine whether increased competition enhances focus on the social responsibility aspects of their business.

The rest of the paper is structured as follows: Section 2 details the theoretical framework, Section 3 discusses relevant literature and the development of hypotheses, Section 4 outlines the study sample and methodology, Section 5 reports and discusses the results, while Section 6 draws conclusions and offers recommendations.

2. Theoretical framework

IME was developed after 1960 to respond to the failure of economic development in the Muslim world to deliver human-centric development (Asutay, 2007). It aims to establish a new economic system to address the issue of underdevelopment of Muslim states following independence from colonial powers (Asutay, 2012). The proposed system is based on the ontology and epistemology of Islam, *i.e.*, the *Qur'an* and the *Sunnah*, which essentialises value-oriented financing characterised by embeddedness, *i.e.*, dependence on the environment and the system within which different social activities take place and on which they depend.

The goal of Islamic banking is not only to maximise profits but also to maximise social effects of business as determined by the axioms and fundamental principles of IME (Naqvi, 2013). Therefore, social responsibility is embedded in the core business of Islamic banking (Asutay, 2007). Thus, we approach this issue by using a *maqasid al-Shariah* index to measure IBs' social and ethical behaviour based on the expectations from foundational axioms of IME. In doing this, this research extends beyond IBs' classic social responsibility measures to assess their social and ethical responsibility. The field of Islamic banking shows an advantage here since the theory of IME offers a solid background for social impact measurement, covering all elements of the process as presented by Perrini *et al.* (2020), including objectives, stakeholders, metrics, measurement, and reporting. This is important as existing literature reveals a range of different approaches to measuring social performance.

In constructing a framework for evaluating the social performance of IBs, this study implements Najjar's approach to *maqasid*, which considers four goals and eight dimensions, as firstly introduced by Mohammed *et al.* (2008), which Bedoui and Mansour (2014), Asutay and

Herningtyas (2015), and Mergaliyev *et al.* (2021) further refined. The index conforms to the recommendations of Alamer *et al.* (2015), who analysed literature published up to 2015, which revealed the necessity to include several dimensions in the index that measure social performance. In order to construct the IBs' social performance index with all its sub-indices, the dichotomous approach of Haniffa and Hudaib (2007) is mainly applied. This means that the item received a rating of "1" where it is found in the annual report, or "0" if omitted. However, some sub-indices are extracted from the banks' financial statements, hence providing quantitative rather than qualitative data.

[Insert Figure 1]

This paper employs institutional theory, stakeholder theory, and legitimacy theory as foundational frameworks to elucidate the concept of social performance in IB. Institutional theory explains the impact of the institutional environment on corporate social responsibility (CSR) activities and the social performance of market participants (Campbell, 2006, 2007). It posits that economic factors, such as financial performance and competition, are not enough to fully explain the socially responsible behaviour of organisations (Doh and Guay, 2006; Marquis *et al.*, 2007). The institutional environment considers the culture, regulations, and social norms of the country, using financial regulation as a proxy for IBs' social performance. Stakeholder theory, as outlined by Deegan and Unerman (2011), categorises society into specific stakeholder groups, while legitimacy theory, per Deegan (2002), considers the organisation's overall societal relationship. Fernando and Lawrence (2014) describe two stakeholder theory perspectives: the ethical view treats all stakeholders impartially, whereas the managerial view prioritises stakeholders with greater economic influence. Engaging in CSR and disclosing such activities can yield diverse benefits for an organisation under both theories.

Legitimacy theory posits that an organisation's survival hinges on societal alignment with its value system (Deegan, 2002), and CSR activities can enhance or restore its legitimacy and social performance. IBs must fulfil their social contract to preserve legitimacy and improve social performance (Asutay, 2007), necessitating a balanced ethical and managerial approach to stakeholders and transparency in annual reports (Deegan and Unerman, 2011).

3. Literature review and hypotheses development

Different terms have been used for the ethicality of IBs, such as social performance, ethical performance, environmental, social, and governance (ESG) performance, *maqasid* performance, *etc.* However, there is almost a consensus that Islamic banks' social performance is suboptimal and far removed from theoretical expectations. Pioneering work by Mohammed *et al.* (2008) introduced a new methodology for evaluating IBs' social performance using the *maqasid* concept. This study analysed the social performance of six prominent international banks globally and assigned rankings based on the results. Indonesian Islamic banks showed superior *maqasid* performance compared to Jordanian banks. Ngalim and Ismail (2014) examined the annual reports of 20 IBs in Malaysia, Indonesia, and the Gulf Cooperation Council countries, finding Indonesian banks had the highest level of social performance. Yet,

the overall alignment of IBs with the Islamic Moral Economy's (IME) societal goals remains largely unfulfilled.

Asutay and Harningtyas (2015) developed a comprehensive index for measuring *maqasid* performance, focusing on four objectives, eight corollaries, elements, and associated indicators. A study of 13 IBs across six countries from 2008–2012 found them lacking in achieving social objectives. Alhammadi *et al.* (2020) indicated that traditional performance metrics fail to capture IBs' ethical intentions, adversely impacting their social performance. Asutay (2012) and Belal *et al.* (2015) suggest a trade-off where IBs favour financial gains over ethical and social responsibilities. Khan (2010) critiqued this by suggesting that while IBs aim for profitability, they struggle to offer genuinely Shariah-compliant products.

The study by Mergaliyev *et al.* (2021) used IME goals to analyse the ethical, social, environmental, and financial performance of IBs. The political climate, ownership patterns, company governance, and *Shariah* law were important variables. According to the study, the social performance of IBs is positively impacted by the proportion of MPs, CEO duality, and *Shariah* governance; on the other hand, it is negatively impacted by GDP, financial development index, political rights, institutional ownership, and independent directors.

Government regulation is essential for businesses to participate in society and lessen the negative consequences of their operations. This comprises laws, penalties, and guidelines that formalise socially acceptable business conduct. Compared to what the public perception of socially conscious businesses implies, regulation is more important to social responsibility, and this legal obligation will only grow in the future (McBarnet *et al.*, 2007). Islamic banking, which is now limited to Malaysia, needs the right rules to enhance its overall social performance (Ahmad and Hassan, 2007). The significance of the regulatory framework for Islamic business models is emphasised by Alam *et al.* (2019). According to Franzoni and Allali (2018), Islamic banking and conventional banking's social responsibility ideals could intersect, but doing so would need the right laws.

Islamic finance regulatory development encompasses the establishment of regulations for Islamic banking, accounting, takaful, Islamic funds, sukuk, and IFDI, with a regulatory development indicator ranging from 0 (no regulations) to 100 (comprehensive regulations). This measure assesses the extent, not the quality, of a country's regulatory framework. In Turkey, for example, enhanced Islamic banking regulations have elevated bank prestige and improved customer engagement and sector transparency (Asutay, 2007). Gazdar and Grassa (2015) argue that a regulatory framework is pivotal for the growth of Islamic banking and its social performance. While Aslam and Haron (2020) did not explore regulatory impacts on performance, they advocated for better regulation to strengthen Islamic banking governance. Effective regulatory frameworks are thus considered essential for Islamic banks to fully realise the social objectives of the Islamic Moral Economy (IME). Therefore, we hypothesise:

Hypothesis 1: The level of development of national regulations in the field of Islamic finance has a positive effect on the level of social performance of IBs.

The suboptimal social performance exhibited by IBs can be attributed to the underdeveloped nature of the IFS within the markets where they operate. High-developed IFS in a country leads

to higher capital availability, reducing competition for limited resources and allowing for long-term projects like CSR. Flamini *et al.* (2009) found that regulatory frameworks impact banks' performance and are related to the country's economic development. Alam *et al.* (2019) concluded that competition and the development of the banking sector are critical determinants of IBs' performance. They found a negative correlation between the development of banking markets and bank performance, suggesting that the financial system should be developed, not just banks. A composite measure of IFS development, including other financial system segments, is hypothesised to positively impact IBs' social performance. The level of development of IFS, according to IFDI, ranges from 0 to 200. It shows an average development of Islamic banking, takaful, Islamic investment funds, and other Islamic financial institutions. The value also considers the size of individual countries so that country-specific variables can be adequately compared. Paltrinieri *et al.* (2020) examined whether and to what extent the development of Islamic financial markets impacts the CSR of 224 Islamic and conventional banks over 2014–2017 using the generalised method of moments (GMM). Being one of the first papers using IFDI, Paltrinieri *et al.* confirmed a positive relationship between IFDI and ESG scores of the banks and concluded that Islamic finance contributes positively to sustainable development goals (SDGs). The authors decomposed both IFDI and the ESG scores, concluding that the link is strongest in the social dimension. An interesting conclusion was that a positive relationship is more robust for smaller banks. Therefore, we hypothesise:

Hypothesis 2: The level of development of IFS in a country has a positive effect on the level of the social performance of IBs.

The percentage of MP in the society in which IBs operate can significantly affect the social performance of these banks (Mergaliyev *et al.*, 2021). Studies of client perceptions, such as Abduh and Omar (2010) and Ullah and Lee (2016), revealed that followers of Islamic faith who care about conforming to *Shariah* lifestyles opt for IBs if they are available in the market. The relative size of MP in the society could be a driver of the social performance of IBs due to gaining social legitimacy (Lozano, 2013), customer satisfaction (Busse, 2004), meeting market expectations (Porter and Van der Linde, 1995), and satisfying stakeholder expectations (Busse, 2004). In these cases, the motives of IBs for social care can be moral and strategic. Therefore, our third hypothesis is:

Hypothesis 3: The relative size of the MP in society positively affects the level of social performance of IBs.

This hypothesis indirectly answers whether Islamic banking is solely suitable for countries with a majority MP or offers reasonable prospects for development and social impact in countries with a relatively smaller proportion of Muslim citizens. This variable is measured by the percentage of the MP as part of the total population of the state.

Competition in an industry can drive companies to engage more socially to meet stakeholder demands (Lozano, 2013). Organisational adoption of regulations and best practices may vary due to competition, institutional environments, and the intensity of these environments. Dupire and M'Zali (2018) found that firms respond to competition growth by focusing on strategic CSR for target stakeholders, neglecting essential dimensions like the environment and society.

Studies of Nguyen and Nghiem (2016) and Leong and Yang (2020) explored the link between market concentration and banks' social performance. Their results confirmed the 'peaceful life' hypothesis, which believes that banks with greater market power peacefully make higher profits. Accordingly, we hypothesise that greater intensity of competition in a country's market motivates banks to dedicate more efforts to achieving social goals to differentiate themselves from competitors, resulting in improved social performance. Therefore, our fourth hypothesis is formulated:

Hypothesis 4: The level of competition in a national banking sector positively impacts IBs' social performance.

4. Data and methodology

A balanced panel of annual data for 40 banks from 13 countries, covering 2012–2018 is applied. The criterion for sample banks was the availability of the annual reports on the IBs website, with a preference for large and well-established IBs. The selected countries include two from Europe (Bosnia and Herzegovina and the United Kingdom), five from Asia (Bangladesh, Indonesia, Malaysia, Pakistan, and Sri Lanka), and six from the Middle East (Bahrain, Jordan, Saudi Arabia, Kuwait, Qatar, and the UAE). These countries cover a wide range of countries with IBs presence along with the aim of capturing the impact of different socio-political institutional settings.

[Insert Table 1]

The study analyses 40 Islamic banks (IBs) established before 2013. From 'The Banker' magazine's 2013 survey of 185 Islamic financial institutions, 115 stand-alone Islamic commercial banks were identified after excluding Islamic windows. Out of these, 45 banks with accessible annual reports were considered for the social performance index calculation. After excluding 5 banks from Sudan and Iran due to data unavailability, the final sample comprises 40 banks. The Table 1 presents 40 banks which represent around 35% of the population in terms of both the number of banks (34.7%) and assets (35.8%). The number of banks by country can be seen in the Table 2.

[Insert Table 2]

This research investigates the relationship between Islamic finance regulation, IFS development, MP proportion, and competition level in IBs and their social performance. The aim is to identify solutions for low social performance and explore potential determinants. Social performance is measured using the *maqasid* index, based on the foundational axioms of IME, developed by Asutay and Harningtyas (2015) and further enhanced by Mergaliyev *et al.* (2021).

The national regulation development in Islamic finance (REG) is quantified using the IFDI methodology, co-developed with the Islamic Corporation for Development (ICD) and Refinitiv. This encompasses regulations across six domains: Islamic banking, Islamic financial institutions' accounting/auditing, Shariah governance, takaful, sukuk, and Islamic investment funds. The development scale ranges from 0 to 100, with each regulated area contributing 16.6

to the score. A country with all six areas regulated scores 100. The IFDI also measures the development of Islamic Financial Services (IFS), considering the scope of Islamic banking, takaful, funds, other institutions, and sukuk, factoring in the number of institutions, assets, performance indicators like ROA, and stock exchange listings. Market participation (MP) data is sourced from the CIA World Factbook, and market concentration (MC) from the World Bank. These variables are detailed in Table 3.

[Insert Table 3]

Regarding the expected sign of the variables in the model, it is expected that variables REG, IFS, MP, SIZE, AGE, and LEV positively affect social performance and therefore have a positive sign, based on theory. Regarding SIZE, larger banks, due to their scale and visibility, might be more motivated or better equipped to engage in socially responsible activities, or even be required to disclose such information more often (Chih et., 2008). Older banks might have deeper ties with the communities they operate in, leading to a higher level of community engagement and responsibility, a positive sign for the AGE variable (Deephouse & Carter, 2005). Engaging in socially responsible activities can be a way for highly leveraged banks to signal their quality and commitment to stakeholders, differentiating themselves from potentially riskier peers. The variables MC and GDP are expected to have a negative sign. For the MC, if the market tends to be monopolistic, a high level of social performance is not expected. In competitive markets, firms often seek differentiation strategies to stand out. Engaging in socially responsible activities can be a way to achieve this differentiation (Porter & Kramer, 2006). Also, the higher the GDP, the lower the social performance, according to previous research such as Mergaliyev et al. (2021).

The following regression model is used to analyse and test the hypotheses under the stated objectives:

$$SPI_{i,t} = \alpha + \beta_1 REG_{i,t} + \beta_2 IFS_{i,t} + \beta_3 MP_{i,t} + \beta_4 MC_{i,t} + \beta_5 SIZE_{i,t} + \beta_6 LEV_{i,t} + \beta_7 AGE_{i,t} + \beta_8 GDP_{i,t} + \varepsilon_{i,t} \dots\dots\dots(1)$$

where bank “I” operates at time “t”:

- $SPI_{i,t}$ – the value of the social performance index;
- $REG_{i,t}$ – the level of regulatory development in the field of Islamic finance in the country;
- $IFS_{i,t}$ – the level of development of the Islamic financial system in the country;
- $MP_{i,t}$ – the relative size of the Muslim population in the country;
- $MC_{i,t}$ – the level of market concentration in the market;
- $SIZE_{i,t}$ – the size of the bank measured by assets;
- $LEV_{i,t}$ – the level of the bank's financial leverage;
- $AGE_{i,t}$ – the age of the bank (in years) in the observed year;
- $GDP_{i,t}$ – the country’s GDP in the given year;
- $\varepsilon_{i,t}$ – standard error.

The Social Performance Index (SPI) gauges the social performance of Islamic banks (IBs), incorporating a framework outlined in Figure 1. This index, drawing on methodologies from Mohammed *et al.* (2008), Haniffa and Hudaib (2007), and Hameed *et al.* (2004), is composed of qualitative and quantitative elements derived from IBs' annual reports. Qualitative indicators are scored 1 for complete information and 0 for incomplete information, while quantitative indicators, such as Return on Assets (ROA), are averaged. To reduce bias, a weighted scoring method is adopted, following Antonio *et al.* (2012), contrasting with the unweighted method used by Belal *et al.* (2015) and Haniffa and Hudaib (2007). Quantitative data, particularly for categories I3, I5, and I7, are normalised using the Linear Scaling Transformation (LST) method as per Singh *et al.* (2009), ensuring all values fall between 0 and 1, with the highest and lowest indicator values within a year set to 1 and 0, respectively.

5. Results and discussion

Table 4 presents the descriptive statistics for the variables in model (1), highlighting an average Social Performance Index (SPI) for Islamic Banks (IBs) of 0.3580, or 35.80%, for the years 2012–2018. This figure is notably low compared to the theoretical ideal and the maximum index value of 1 (or 100%). The Degree of Development of Islamic Financial Regulations (REG) ranges from 0 (no regulation) to 100 (full regulation), with the average country score in the sample exceeding 64%, indicating substantial regulatory development. This factor is seen as a key influencer on IBs' social performance. The Degree of Development of Islamic Financial Services (IFS), as per IFDI, averages at 46%, which is modest relative to its maximum of 129.2. Market Concentration (MC) in the banking sector, indicating the market share of the top five IBs, averages at 76%, suggesting a highly concentrated market. Lastly, the Muslim Population (MP) variable shows an average of 78% for the Muslim demographic in the sampled countries.

[Insert Table 4]

Regarding internal and control variables, SIZE, which measures a bank's asset size, shows variations among IBs as the minimum value is almost two and the maximum value is 11, while LEV (leverage) represents the ratio of debt and capital. AGE shows how old the bank is in a corresponding year, while GDP is the GDP (logarithm) of the country in an observed year. The correlation matrix of the variables in the model is presented in Table 5.

[Insert Table 5]

Gujarati and Hair (2003) and Becker (2015) have both established that a multicollinearity problem can occur when the correlation between independent variables exceeds ± 0.8 . However, the model does not suffer from this problem, as confirmed by the variance inflation factor (VIF) test. Hair *et al.* (1995) also found that values below 10 are acceptable, and the model also meets the strict criterion set by Becker *et al.* (2015) as presented in the Table 6.

[Insert Table 6]

The study uses statistical techniques like Pooled OLS, LSDV, FEM, and REM to estimate a model. The Breusch-Pagan / Cook-Weisberg test detects heteroskedasticity, indicating that the standard Hausman test cannot be used to choose between FEM and REM. The Sargan-Hansen test with robust FEM and REM (p-value = 0.0259) suggests FEM is preferred. FEM is theoretically preferred when omitted variables affect the observed phenomenon (Allison, 2009). The study focuses on external variables specific to Islamic finance, regulations, and the market, not all macro and internal variables.

The results of estimating model (1) are reported in Table 7. Pooled OLS, LSDV, FE, and RE, as well as FE Robust show that variables REG (development of Islamic finance regulation) and AGE (Islamic bank's age) are consistently significant at all standard significance levels, while MP is significant in LSDV, FE, and RE estimators at 5%. Leverage (LEV) is also significant (at different significance levels) in all estimated specifications.

[Insert Table 7]

Since the relevant statistical tests indicate the existence of heteroskedasticity (Breusch-Pagan / Cook-Weisberg test, and Modified Wald test with $p=0.0000$), autocorrelation (Wooldridge test with $p=0.0012$), and cross-sectional dependence (Pesaran's test with $p=0.0002$), it is necessary to control for these phenomena in the final model. Standard panel data estimators cannot simultaneously handle both serial correlation and cross-sectional dependence (Hoechle, 2007; Reed and Ye, 2011; Sarafidis and Wansbeek, 2012); therefore, Park's feasible GLS estimator is used. However, as Beck and Katz (1995) noted, Park's FGLS estimator underestimates standard errors in the final samples. Due to this, a procedure and estimation method called panel corrected standard errors (PCSE) is applied (Beck and Katz, 1995; Blackwell, 2005; Hoechle, 2007; Reed and Ye, 2011; and Plümper *et al.*, 2005).¹ Beck and Katz (1995) highlighted that PCSE calculates the standard errors and estimates the variance and covariance that account for heteroskedasticity and cross-sectional correlation between panels, while in the case of autocorrelation (which is confirmed in this study), it is necessary to add an appropriate option for Prais-Winsten transformation, AR(1). Therefore, PCSE with the Prais-Winsten transformation is used to estimate model (1) and the results are reported in Table 8.

[Insert Table 8]

Table 8 shows that the development of Islamic finance regulation and the proportion of the MP in the country both have a significant positive impact on the social performance of the IBs. In contrast, the development of an IFS and the market concentration do not significantly affect the

¹ Khalil and Slimene (2021) experienced the same issues when examining the impact of BoD characteristics on the financial strength and viability of IBs, whereby they also applied the PCSE method.

social performance of the IBs. Leverage is also among the significant variables, implying that the banks that use available resources more efficiently are also more efficient when implementing IME principles. Leverage can have different effects on social performance and profitability. For example, Ghardallou (2023) concluded that leverage has adverse effects on the profitability of non-financial firms.

To check the robustness of the findings concerning REG and IFS, additional covariates (Lua and White, 2009) have been added, as Table 9 presents. The new covariates (Civil law, Common law and Shari'ah law) capture the impact of the different regulatory frameworks on social performance of IBs, which may be a driving force behind the difference in social performance among IBs. The results are presented in the form of a 'Pooled Regression Model' (Robust), 'LSDV Robust', 'FEM with Robust Standard Errors', and 'Random Effect Model (REM)', as well as PCSE. According to the results of FEM, LSDV, PCSE, and Common Law (Bangladesh, Malaysia, Pakistan, and the UK), they have a positive and significant impact on the social performance of IBs. This is also confirmed in Mergaliyev *et al.* (2021).

[Insert Table 9]

The results confirm the first and third hypotheses, *i.e.*, that the level of development of national regulations in the field of Islamic finance and the relative size of the MP in society both have a positive effect on the level of social performance of IBs. This implies that institutional theory and legitimacy theory play the most crucial roles in explaining the social performance of IBs.

As already elaborated, institutional theory looks at institutions such as regulations, while legitimacy theory is tested with the MP variable. IBs tend to 'strengthen' their legitimacy through socially responsible activities in countries with a Muslim majority.

The validation of the first hypothesis aligns with Asutay (2007), who found that regulations in Turkish Islamic banking foster a dynamic customer approach, clearer financial roles, and improved social performance in IBs. The significance of CSR reporting regulations is also underscored, resonating with Haigh and Jones (2006). However, the regulatory impact on social performance is nuanced and varies with the regulation's nature, as Ioannou and Serafeim (2012) have noted. Collectively, these findings affirm the role of institutional theory in analysing IBs' social performance, highlighting how institutions – culture, regulations, and social norms – shape the conduct of economic entities.

When it comes to the development of an IFS, the findings do not provide enough evidence to support the second hypothesis regarding the impact of the development of the IFS on SPI. However, different results were obtained by Paltrinieri *et al.* (2020), using IFDI data for the development of the IFS from 2014 to 2017, when utilising the conventional measure of ESG.

As stated above, the third hypothesis, which considers the impact of the proportion of MP on the social performance of IBs, is confirmed. This is in line with the results of Farook *et al.* (2011) and Mergaliyev *et al.* (2021), who used standard panel models (fixed and random) with the remark that our research is conducted on a larger sample. According to legitimacy theory,

organisations constantly strive to ensure that they are perceived to function within the norms of the society in which they operate. This is important from the perspective of the hypothesis that the size of the MP in the country affects the social performance of IBs. The results of this research confirm that IBs seek to demonstrate their social legitimacy (Lozano, 2013) and thus probably expect to attract more clients and have higher client satisfaction (Busse, 2004), to fulfil market expectations (Porter and Van der Linde, 1995), or the expectations of Muslims as interest groups (Busse, 2004). Thus, the confirmation of the significant impact of the relative size of the MP on social performance means that for IBs, it does matter whether they operate in societies/countries with a majority MP, and we can conclude that IBs have higher social performance in countries with a higher percentage of Muslims.

The results indicate that market concentration, or the level of competition, does not significantly influence the social performance of IBs, leading to the dismissal of the fourth hypothesis. This finding contrasts with Greening and Turban (2000), who posited that social performance could be leveraged as a competitive advantage to attract quality employees—a concept that IBs may not have sufficiently embraced, despite its potential benefits in talent acquisition. The relationship between market concentration and IB performance is complex, as Mirzaei (2011) found it challenging to establish a clear link, especially since financial performance is also a component of the Social Performance Index (SPI). Furthermore, Schleifer (2004) suggested that heightened competition might even undermine ethical behaviour in the market, adding layers to this complexity. Our research suggests that in economies focused on profit maximisation, increased competition does not inherently drive IBs to prioritise the broader objectives of the Islamic Moral Economy (IME), which emphasizes not just profit but also equity and social justice.

Stakeholder theory posits that a company's social performance stems from its strategy to address diverse stakeholder needs, with stakeholder influence being directly linked to social performance. In competitive banking markets, banks may enhance their social contributions to differentiate themselves. The normative stakeholder approach, aligned with the ethical imperatives of the Islamic Moral Economy (IME), contrasts with the managerial, or positivist, approach. Regulatory influence on social performance suggests enforced isomorphism, while the expected competitive isomorphism—industry pressure to conform—lacks empirical support.

6. Implications of the study

IME is the guiding theory for Islamic banking, which focuses on improving the social performance of IBs, with the development of Islamic finance regulation playing a significant role in enhancing their social impact. This research suggests that regulators should focus on developing Islamic financial regulation, including laws regulating and facilitating the operations of Islamic financial institutions like takaful and investment funds. MP and leverage are also significant determinants of this social impact. Hassan *et al.*'s (2022) research demonstrates the value of fostering a positive social impact in Islamic banking and how stronger Islamic finance contributes to long-term economic growth.

The results of this research represent significant value for regulators, shareholders, and management of IBs because it significantly facilitates their path to improving the social performance of Islamic banks, thus increasing their positive impact on society. At the same time, it partially ‘amnesties’ these institutions for their relatively low level of social performance because it points to the fact that external factors have a significant impact on how much IBs can align their operations with the goals of IME. Without proper Islamic finance regulation, IBs can hardly operate in accordance with the principles and expectations of IME. Where policymakers want society to considerably benefit from the existence of IBs in a particular market, they should ensure the provision of appropriate regulatory conditions.

7. Concluding remarks, limitations and recommendations

The purpose of IBs is to serve society, make profits for shareholders, and ensure justice. While they may provide similar services to conventional banks, their models for mobilising and placing funds differ. However, if IBs use Islamic banking without considering *maqasid* as their driving principle, they do not impact society and do not serve their purpose, according to IME. The main issue is that IBs neglect the original Islamic models based on risk and profit division.

The level of social performance is measured by an index based on the theory of IME. The values of its indicators are taken from IBs’ annual reports and are based on both qualitative and quantitative data. This index follows the goals of IME - *Maqasid al-Shariah* - following the work of classical authors in Islamic law.

The most significant limitation of this research lies in using SPI based on information retrieved from annual reports, as the index is based solely on information published in the reports. Although most large banks publish annual reports, some do not. This does not mean, however, that their social contribution is non-existent. Furthermore, sometimes there are significant differences in the quality of published reports.

Finally, the focus of this research is on external factors that may affect the social performance of IBs. Significant space for further research lies in internal determinants related to bank characteristics such as ownership, corporate culture, management style and beliefs, and corporate governance. It would certainly be interesting to explore the relationship between internal determinants and the social performance of IBs as part of future research development in this field. In future research, it would be interesting to examine the impact of gender on social performance, *i.e.*, the impact of the presence of women on the management boards of IBs, since Arzu and Mantovani (2020) found that gender differences can explain similar governance phenomena.

References

- Abduh, M. and Omar, M.A. (2010), “Who Patronises IBs in Indonesia”, *Australian Journal of Islamic Law, Management and Finance*, 1(1), 40-53.
- Ahmad, A.U.F. and Hassan, M.K. (2007), “Regulation and performance of Islamic banking in Bangladesh”, *Thunderbird International Business Review*, 49(2), 251-277.

- Alam, N.; Zainuddin, S.S.B. and Rizvi, S.A.R. (2019), “Ramifications of varying banking regulations on performance of Islamic Banks”, *Borsa Istanbul Review*, 19(1), 49-64.
- Alhammadi, S.; Alotaibi, K.O. and Hakam, D.F. (2020), “Analysing Islamic banking ethical performance from *Maqāṣid al-Sharī’ah* perspective: evidence from Indonesia”, *Journal of Sustainable Finance and Investment*, 12(4), 1171-1193.
- Allison, P.D. (2009), *Fixed effects regression models*. Los Angeles: Sage Publications.
- Antonio, M.S., Sanrego, Y.D., and Taufiq, M. (2012), “An Analysis of Islamic Banking Performance: *Maqashid* Index Implementation in Indonesia and Jordania”, *Journal of Islamic Finance*, 1(1), 12-29.
- Aribi, Z.A. and Arun, T. (2015), “Corporate Social Responsibility and Islamic Financial Institutions (IFIs): Management Perceptions from IFIs in Bahrain”, *Journal of Business Ethics*, 129(4), 785-794.
- Arzu, D. and Mantovani, G. M. (2020). “The Gender Contribution to the Corporate Governance and the Corporate Performance (Lessons from the EU)”, *Quarterly Journal of Finance and Accounting*, 58(4), 35-105.
- Aslam, E. and Haron, R. (2020), “Does corporate governance affect the performance of Islamic banks? New insight into Islamic countries”, *Corporate Governance: International Journal of Business in Society*, 20(6), 1073-1090.
- Asutay, M. (2007), “Conceptualisation of the Second-Best Solution in Overcoming the Social Failure of Islamic Banking and Finance: Examining the Overpowering of Homoislamicus by Homoeconomicus”, *IJUM Journal of Economics and Management*, 15(2), 167-195.
- Asutay, M. and Harningtyas, A.F. (2015), “Developing Maqasid al-Shari’ah Index to Evaluate Social Performance of Islamic Banks: A Conceptual and Empirical Attempt”, *International Journal of Islamic Economics and Finance Studies*, 1(1), 5-64.
- Beck, N. and Katz, J.N. (1995), “What to do (and not to do) with time-series cross-section data”, *American Political Science Review*, 89(3), 634-647.
- Becker, J.-M.; Ringle, C.M.; Sarstedt, M. and Völkner, F. (2015), “How collinearity affects mixture regression results”, *Marketing Letters*, 26(4), 643-659.
- Bedoui, H.E. and Mansour, W. (2014), “Performance and Maqasid al-Shari’ah’s Pentagon-Shaped Ethical Measurement”, *Science and Engineering Ethics*, 21(3), 555-576.
- Belal, A.R.; Abdelsalam, O. and Nizamee, S.S. (2015), “Ethical reporting in Islami Bank Bangladesh Limited (1983-2010)”, *Journal of Business Ethics*, 129(4), 769-784.
- Blackwell, J.L. (2005), “Estimation and testing of fixed-effect panel-data systems”, *Stata Journal*, 5(2), 202-207.
- Busse, M. (2004), “Transnational Corporations and Repression of Political Rights and Civil Liberties: An Empirical Analysis”, *Kyklos*, 57(1), 45-65.
- Campbell, J.L. (2006), “Institutional Analysis and the Paradox of Corporate Social Responsibility”, *American Behavioral Scientist*, 49(7), 925-938.
- Campbell, J.L. (2007), “Why Would Corporations Behave in Socially Responsible Ways? An Institutional Theory of Corporate Social Responsibility”, *Academy of Management Review*, 32(3), 946-967.
- Chapra, M.U. (1985), *Towards A Just Monetary System*. Leicester: The Islamic Foundation.
- Chentoufi, M.A.; Zari, T. and Tikouk, J. (2022). “The performance of socially responsible investments in the eyes of stakeholders”, *Journal of Economic Cooperation & Development*, 43(2), 29-56.
- Chih, H.L.; Shen, C.H. and Kang, F.C. (2008), “Corporate social responsibility, investor protection, and earnings management: Some international evidence”, *Journal of Business Ethics*, 79, 179-198.

- Daszyńska-Żygadło, K.; Słoński, T. and Dziadkowiec, A. (2021), “Corporate social performance and financial performance relationship in banks: sub-industry and cross-cultural perspective”, *Journal of Business Economics and Management*, 22(2), 424-444.
- Deegan, C. (2002), “Introduction: The legitimising effect of social and environmental disclosures—a theoretical foundation”, *Accounting, Auditing & Accountability Journal*, 15(3), 282-311.
- Deegan, C. and Unerman, J. (2011). *Financial Accounting Theory: European Edition*, Berkshire: McGraw-Hill.
- Deephouse, D.L. and Carter, S.M. (2005), “An examination of differences between organizational legitimacy and organizational reputation”, *Journal of Management Studies*, 42(2), 329-360.
- Doh, J.P. and Guay, T.R. (2006), “Corporate Social Responsibility, Public Policy, and NGO Activism in Europe and the United States: An Institutional-Stakeholder Perspective”, *Journal of Management Studies*, 43(1), 47-73.
- Dupire, M. and M’Zali, B. (2018), “CSR Strategies in Response to Competitive Pressures”, *Journal of Business Ethics*, 148(3), 603-623.
- Dusuki, A.W. (2008), “What Does Islam Say about Corporate Social Responsibility (CSR)?”, *Review of Islamic Economics*, 12(1), 5-28.
- El Khoury, R.; Nasrallah, N. and Alareeni, B. (2021), “ESG and financial performance of banks in the MENAT region: concavity–convexity patterns”, *Journal of Sustainable Finance & Investment*, 13(1), 406-430.
- Elfeituri, H. and Alotaibi, K. O. (2021). “Is profitability of IBs shaped by bank-specific variables, global financial crisis and macroeconomic variables?”, *Journal of Economic Cooperation & Development*, 42(2), 103-150.
- Farook, S.; Hassan, M.K. and Lanis, R. (2011), “Determinants of corporate social responsibility disclosure: the case of Islamic banks”, *Journal of Islamic Accounting and Business Research*, 2(2), 114-141.
- Fernando, S. and Lawrence, S. (2014), “A theoretical framework for CSR practices: Integrating legitimacy theory, stakeholder theory and institutional theory”, *Journal of Theoretical Accounting Research*, 10(1), 149-178.
- Flamini, V.; McDonald, C.A. and Schumacher, L.B. (2009), “The Determinants of Commercial Bank Profitability in Sub-Saharan Africa”, *IMF Working Paper*, No. 09/15.
- Franzoni, S. and Ait Allali, A. (2018), “Principles of Islamic Finance and Principles of Corporate Social Responsibility: What Convergence?” *Sustainability*, 10(3), 1-11.
- Freeman, R.E. and Dmytriiev, S. (2017), “Corporate Social Responsibility and Stakeholder Theory: Learning From Each Other”, *Symphony Emerging Issues in Management*, 1, 7-15.
- Gazdar, K. and Grassa, R. (2015), “What Determines Islamic Financial Development? Empirical Evidence from GCC Countries”, in Asutay, M. and Turkistani, A.Q. (Eds.). *Islamic Finance: Risk, Stability and Growth*. Berlin: Gerlach Press.
- Ghardallou, W. (2023), “The heterogeneous effect of leverage on firm performance: a quantile regression analysis”, *International Journal of Islamic and Middle Eastern Finance and Management*, 16(1), 210-225.
- Gray, R.; Kouhy, R. and Lavers, S. (1995), “Corporate social and environmental reporting: a review of the literature and a longitudinal study of UK disclosure”, *Accounting, Auditing & Accountability Journal*, 8(2), 47-77.
- Greening, D.W. and Turban, D.B. (2000), “Corporate Social Performance as a Competitive Advantage in Attracting a Quality Workforce”, *Business and Society*, 39(3), 254-280.
- Gujarati, D.N. (2003), *Basic Econometrics*. New York: McGraw-Hill/Irwin.

- Haigh, M. and Jones, M.T. (2006), “The drivers of corporate social responsibility: A critical review”, *Business Review*, 5(2), 245-251.
- Hair, J.F. Jr.; Anderson, R.E.; Tatham, R.L. and Black, W.C. (1995), “*Multivariate Data Analysis*”. New York: Macmillan.
- Hanic, A. and Smolo, E. (2022). “Islamic approach to corporate social responsibility: an international model for Islamic banks”, *International Journal of Islamic and Middle Eastern Finance and Management*, 16(1), 175-191.
- Haniffa, R. and Hudaib, M. (2007), “Exploring the Ethical Identity of IBs via Communication in Annual Reports”, *Journal of Business Ethics*, 76, 97-116.
- Hasan, Z. (2004), “Measuring efficiency of Islamic banks: criteria, methods, and social priorities”, *Islamic Economic Review*, 8(2), 1-30.
- Hassan, M.K.; Hossain, S. and Ahmed, H. (2022), “Impact of Islamic Finance on Economic Growth”, *Journal of Economic Cooperation & Development*, 43(2), 101-128.
- Hausman, J.A. (1978), “Specification Tests in Econometrics”, *Econometrica*, 46(6), 1251-1271.
- Hoechle, D. (2007), “Robust Standard Errors for Panel Regressions with Cross-Sectional Dependence”, *Stata Journal*, 7(3), 281-312.
- Hoque, H. and Liu, H. (2021), “Impact of bank regulation on risk of Islamic and conventional banks”, *International Journal of Finance & Economics*, 28(1), 1-38.
- Ioannou, I. and Serafeim, G. (2012), “What drives corporate social performance? The role of nation-level institutions”, *Journal of International Business Studies*, 43(9), 834-864.
- Iryani, L.D.; Yadiati, W.; Supardi, E.M. and Triyuwono, I. (2019), “The Moderating Effect of Shariah Governance on Financial and Maqasid Shariah Performance: Evidence from IBsin Indonesia”, *Journal of Social Sciences Research*, 5(2), 264-274.
- Kamla, R.; Gallhofer, S. and Haslam, J. (2006), “Islam, nature and accounting: Islamic principles and the notion of accounting for the environment”, *Accounting Forum*, 30(3), 245-265.
- Khalil, A. and Slimene, I. B. (2021), “Financial soundness of Islamic banks: does the structure of the board of directors matter?”, *Corporate Governance: International Journal of Business in Society*, 21(7), 1393-1415.
- Khan, F. (2010), “How ‘Islamic’ is Islamic banking?”, *Journal of Economic Behavior & Organization*, 76(3), 805-820.
- Leong, C.K. and Yang, Y.C. (2020), “Market competition and firms’ social performance”, *Economic Modelling*, 91, 601-612.
- Lozano, R. (2013), “A Holistic Perspective on Corporate Sustainability Drivers”, *Corporate Social Responsibility and Environmental Management*, 22(1), 32-44.
- Lu, X. and White, H. (2014), “Robustness Checks and Robustness Tests in Applied Economics”, *Journal of Econometrics*, 178, 194-206.
- Maali, B.; Casson, P. and Napier, C. (2006), “Social Reporting by Islamic Banks”, *Abacus*, 42(2), 266-289.
- Marquis, C.; Glynn, M.A. and Davis, G.F. (2007), “Community Isomorphism and Corporate Social Action”, *Academy of Management Review*, 32(3), 925-945.
- McBarnet, D.; Voiculescu, A. and Campbell, T. (2007), *The New Corporate Accountability: Corporate Social Responsibility and the Law*, New York: Cambridge University Press.
- Mejia, A.L.; Aljabrin, S.; Awad, R.; Norat, M.M. and Song, M.I. (2014), “Regulation and Supervision of Islamic Banks”, *IMF Working Paper No. 14/219*.

- Mirzaei, A. (2011), "The Effect of Market Power on Stability and Performance of Islamic and Conventional Banks", *Islamic Economic Studies*, 18(1), 51-89.
- Mohammed, M.O.; Razak, D. A. and Md Taib, F. (2008), "The Performance Measures of Islamic Banking Based on the Maqasid Framework", Presented at: IIUM International Accounting Conference (INTAC IV), Putrajaya, Malaysia.
- Mukhibad, H. (2019), "The Role of Sharia Supervisory Boards in Meeting Maqasid Syariah – Study on IBsin Indonesia", *European Journal of Islamic Finance*, 13, 1-9.
- Naqvi, S.N.H. (2013), *Islam, Economics, and Society*. Abingdon: Routledge.
- Ngalim, S.M. and Ismail, A.G. (2014), "An Islamic Vision Development Based Indicators in Analysing the IBs Performance: Evidence from Malaysia, Indonesia and selected GCC countries", *IRTI Working Paper No. 1436-02*.
- Nguyen, T.P.T. and Nghiem, S.H. (2016), "Market concentration, diversification and bank performance in China and India: An application of the two-stage approach with double bootstrap", *Managerial Finance*, 42(10), 980-998.
- Paltrinieri, A.; Dreassi, A.; Migliavacca, M. and Piserà, S. (2020), "Islamic finance development and banking ESG scores: Evidence from a cross-country analysis", *Research in International Business and Finance*, 51(C), 101100.
- Perrini, F.; Costanzo, L.A. and Karatas-Ozkan, M. (2020), "Measuring impact and creating change: a comparison of the main methods for social enterprises", *Corporate Governance: International Journal of Business in Society*, 21(2), 237-251.
- Plümper, T.; Troeger, V.E. and Manow, P. (2005), "Panel data analysis in comparative politics: Linking method to theory", *European Journal of Political Research*, 44(2), 327-354.
- Porter, M.E. and Kramer, M.R. (2006), "The link between competitive advantage and corporate social responsibility", *Harvard Business Review*, 84(12), 78-92.
- Porter, M.E. and Van der Linde, C. (1995), "Green and Competitive: Ending the Stalemate", *Harvard Business Review*, 73(5), 120-134.
- Rahman, A.S. and Haron, R. (2019), "The Effect of Corporate Governance on Islamic Banking Performance: A Maqasid Shari'ah Index Approach on Indonesian Islamic Banks", *Journal of Islamic Finance*, 8, 1-18.
- Reed, W.R. and Ye, H. (2011), "Which panel data estimator should I use?", *Applied Economics*, 43(8), 985-1000.
- Rusyadiana, A.S. and Firmansyah, I. (2018), "Efficiency versus Maqashid Sharia Index: An Application on Indonesian Islamic Bank", *Shirkah: Journal of Economics and Business*, 2(2), 139-165.
- Saad, S.B. and Belkacem, L. (2021). "How does corporate social responsibility influence firm financial performance?", *Corporate Governance: International Journal of Business in Society*, 22(1), 1-22.
- Sarafidis, V. and Wansbeek, T. (2012), "Cross-sectional dependence in panel data analysis", *Econometric Reviews*, 31(5), 483-531.
- Sencal, H. and Asutay, M. (2020), "Ethical disclosure in the Shari'ah annual reports of Islamic banks: discourse on Shari'ah governance, quantitative empirics and qualitative analysis", *Corporate Governance: International Journal of Business in Society*, 21(1), 175-211.
- Singh, R.K.; Murty, H.R.; Gupta, S.K. and Dikshit, A.K. (2009), "An overview of sustainability assessment methodologies", *Ecological Indicators*, 9(2), 189-212.
- Song, M.I. and Oosthuizen, C. (2014), "Islamic Banking Regulation and Supervision: Survey Results and Challenges", *IMF Working Paper*, No. 14/220.
- Ullah, S. and Lee, K.H. (2016), "Do customers patronize IBs for Shari'a compliance?", in Harrison, T. and Ibrahim, E. (Eds). *Islamic Finance*. Cham: Palgrave Macmillan.