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Impacts of Board Quality on Financial Performance in Conventional and Participatory Banks During and after the Covid-19 Crisis: Evidence from Emerging and Developing Countries

Achraf Haddad*

Abstract

Going back to the governance literature, we found two equates on the correlation between the bank board and financial performance (FP). Firstly, we noticed that, in previous studies, the impacts of board quality on the financial performance of conventional and participatory (Islamic) banks were mixed, unstable, and sometimes contradictory. Secondly, we noticed a total absence of comparative studies showing the importance of the impact of the board composition quality on the financial performance of conventional and Islamic banks during and after the covid-19 crisis. To clarify the ambiguity, in this study, we compared in depth the impact of the board of directors (BOD) on the FP in two cited bank types. FP measures and board quality determinants are collected from 30 countries. The data concern 112 banks of each type that have published their reports regularly. Panel regressions were used to solve the ambiguity of the board quality’s impact on the FP of conventional and participatory banks in the agency theory framework during the period (2019-2022), giving us 448 observations in each sub-sample. Empirical results showed that the BOD negatively affects the FP of conventional banks (CBs), while that of participatory banks (PBs) has an ambiguous impact on their FP.

Keywords: conventional banks (CBs), participatory banks (PBs), board of directors (BOD), financial performance (FP), corporate governance, comparative study, agency theory.

I. INTRODUCTION

According to the financial approach, the board of directors (BOD) is considered the most important mechanism of an integrated governance system to resolve conflicts of interest and opportunistic decisions between shareholders and executives. Although the internal control system includes the main governance actors, the BOD is responsible for the effectiveness of other governance mechanisms in the banking system. It coordinates three levels of interest: shareholders, leaders, and other stakeholders.

Empirical studies dealing with the relationship between the BOD and the banks’ financial performance (FP) have considered this mechanism as an internal control system that helps the leaders to solve agency conflicts between managers and shareholders (Jensen, 1993; Charreaux, 2000), to effectively monitor managers and reduce agency costs (Choe & Lee, 2003), and to protect shareholders’ interests (Fama, 1980; Fama & Jensen, 1983a). This current research represents another noticeable finding in the literature, as these researchers have interpreted the board determinants as part of agency theory.

* Doctor of financial and accounting methods and researcher at the laboratory of governance, finance, and accounting. Faculty of Economic Sciences and Management of Sfax, Tunisia. Phone: +216 54394823. E-mail: achraf.haddad2015@gmail.com.
Two factors explain the comparison between the impacts of participatory and conventional banks (CBs) on their FP. The first is the scientific factor, which is manifested by the multiplicity of board definitions in the literature and the differences in their main roles in the current and previous scientific approaches. As far as this factor is concerned, some researchers proved that the board is responsible for the periodic evaluation of the bank’s performance, the managers’ control and the follow-up of its plans, the fixation of its remuneration, as well as establishing disclosure systems for all banking information (Nam & Nam, 2004). Others concluded that the board must also ensure compliance with banking standards. None of the shareholders or officers has the right to use their authority to change the decisions made by the board’s vote in their interest (Cattrysse, 2005). Indeed, to allow the BOD to be an effective control mechanism in financial institutions, (Jensen, 1993) suggested the following conditions:

1) The free access of board members to reliable and relevant accounting information and not only to the information imposed on them by the officer;
2) A board size of seven to eight members is relatively small and sufficient to be more effective and cannot be influenced or controlled by the leader’s authority;
3) Holding a significant number of the firm’s shares by the executive creates a convergence of interests with the shareholders; and
4) The separation between the director’s and the board chairman’s duties to ensure the effectiveness of supervision exercised by the board.

Nevertheless, referring to the Participatory Banks (PBs) literature, the Islamic board concept, in its classic form, does not exist. Rather, it is used as a control mechanism to adapt the classical banking control system to that of the Islamic banking so as to facilitate its integration into highly developed financial and stock markets. Because the financial world operates according to a financial policy based on globalization and competition and because the board’s importance differs from one bank model to another, the divergence can implicitly generate different impacts, which can generate the same impact, but with a lower level, or it can automatically give the same impact in another financial model that reduces or improves the board’s quality and consequently the PBs’ efficiency. Regardless of non-valued movements or decisions taken outside the Islamic rules, the board constitution in the Islamic banking community is filled by not only the sectoral constitutional norms but also by the provisions of the Islamic norms. For this reason, previous studies considered the variation of these effects within a closed governance system whose components are complementary. In this framework, Ulussever (2018) compared the effect of the board quality on the FP of participatory and conventional banks during the period 2005-2011 in 16 countries. The results revealed that the ROA and the ROE are significantly higher in IBs than in their conventional counterparts. Specifically, the results revealed that the board size and independence of IBs are positively correlated with the ROA, confirming that the of these variables have very meaningful impacts on the IBs’ governance structure and very significant impacts on their FP. However, in their conventional counterparts, the board independence negatively affected the ROE. The results of the other variables such as the board size and the CEO duality revealed that there is no significant relationship on the ROA and the Tobin Q.

The second factor that motivated us to study this topic is the technical factor. This factor deals with the structural differences between the CBs’ board importance and quality and that of PBs. Consequently, these differences influence the type and degree of the resulting impacts from the board’s determinant of each bank model on their FP. The criticism of previous research revealed that the countries that adopted an Islamic banking
system, alongside the conventional system, did not simultaneously apply the same regulatory laws and international conventional/Islamic accounting and auditing standards. Besides, their provisions are not similarly administered and controlled in all regions as they are not addressed to the same customer categories. In some countries, PBs operate under a traditional system that is inconsistent with the Islamic principles of good governance practices of the PBs’ board, this is considered a flagrant override of the Charia principles. In the opposite form, we find that the CBs operate under a financial system based on Charia standards, which is also very common in practice. Moreover, PBs located outside the Islamic countries’ areas and the banks belonging to the non-Islamic original countries’ subsidiaries do not necessarily apply the same board control standards. Conversely, it is not evident that all CBs located in Islamic countries adopt Islamic governance standards and that all CBs located in non-Islamic areas ignore the application of Charia standards in their subsidiaries. This debate is very complicated, it depends on the banks’ individual reasoning in each sample, case by case. Therefore, this factor created typical differences between the board structures of conventional and Islamic banks, which translate into disagreements on their FPs’ impacts. Everything depends on the bank’s activity and the magnitude of its financial objectives. Whatever the bank type, the more the gap between the board’s determinants increases, the more the impacts on their FP differ.

Furthermore, based on the theoretical knowledge, since the results of previous studies separately analyzing the impact of the BOD’s effects on the FP of conventional or participatory banks are mixed, comparative studies between these impacts in the agency theory framework are non-existent. Also, all of the previous studies were carried out before, during, or after the subprime crisis. However, no study has analyzed or compared the trends in these impacts during and after the covid-19 health crisis. The first goal of this study is to determine the type of causality between the BOD and the FP of each bank type in an economically unstable period. The second objective of this study is to solve the comparison ambiguity between the impacts of the boards’ quality on the FP of conventional and participatory banks (Islamic banks) in the agency theory framework and overcome previous unclear and inconclusive results via the selection of the bank type that has the best board quality that has the best impact on their FP during and after the covid-19 crisis in emerging and developing countries. The third objective is to help stakeholders find out which bank type performs best via its board quality in a crisis situation.

The theoretical contribution that was highlighted in this work is to call for a comprehensive and exhaustive revision of the governance theory, which not only interests the banks’ board side but also concerns all the governance mechanisms within conventional and participatory banks. Our first practical contribution is the discovery of a new board system applicable in both stable and unstable financial contexts. This board has to be objective, dynamic, strategic, and able to improve the governance quality of Islamic and conventional banks. The second practical contribution is to put into perspective an original, integrated, and multidisciplinary evaluation approach involving different perspectives and knowledge of boards in conventional and participatory banks, starting from maximizing the FP goal.

The remainder of the paper is organized as follows: Section 2 reviews previous research on this topic and the study hypotheses. Section 3 describes the employed methodology, the data sources, the variables, and the models’ specifications. Empirical results are presented in section 4. Finally, section 5 contains concluding remarks.
II. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Theoretical Background and Hypotheses: Board Determinants

From previous studies, the trend in research was to study separately, either the impact of BOD on CBs’ FP or the impact of BOD on PBs’ FP. However, this study aims to compare these two impacts and specify which board type has a greater effect on FP although their conclusions are not unified. For this reason, our work aims to address an explanation of the evolution of Islamic and conventional banks’ performance proportionate to the change in the BOD structure in the specific financial context of covid-19 in emerging and developing countries. The banking governance literature has identified several determinants of BOD. Yet, to avoid econometric problems arising from the unavailability of observations from one of the samples, I have included only four determinants of board composition effectiveness: size, rooting of the board chairman, independence of the board members, and the number of meetings held.

2.1.1. Board size

In the banking governance literature, the impact of board size on banks’ FP was largely addressed by several studies (Harris & Raviv, 2008; Pathan, 2009; Elgadi, 2016; Shawtari et al., 2017; El-Maude et al., 2018; Joenoes and Rokhim, 2019; Bawaneh, 2020; Hermuningsih et al., 2020; and Bansal & Singh, 2022). Nevertheless, previous research has not yet yielded a unified result, which is why this question remains unanswered (Bawaneh, 2020). At this stage, the most pressing question concerns the optimal number of directors to better control the managers’ activities and subsequently improve the banks’ performance. However, previous studies failed to determine the ideal number of directors. Practically, we noticed that the evidence of the board size impact on CBs is inconclusive (Asare et al., 2022), while work on the board size of PBs is almost nonexistent.

In some studies, the correlation between board size and FP revealed the existence of an intermediate approach named the “neutralist approach” (Borlea et al., 2017; Bawaneh, 2020; and Asare et al., 2022).

A lot of research established a positivist vision about the fundamental role of the board size as a stimulator of FP (Dalton et al., 1999; Adams & Mehran, 2003; Lim et al., 2007; Belkhir, 2009; Yung, 2009; Adams & Mehran, 2012; Wasiuzzaman & Gunasegavan, 2013; Battaglia & Gallo, 2015; Naushad & Malik, 2015; Merendino & Melville, 2019; Choi et al., 2021; Hermuningsih et al., 2020; Khatib & Nour, 2021; and Mititean, 2022). The board’s size enhanced its ability to monitor and improve banks’ FP. As a result, as the number of directors increases, so does the ability to harmonize instruments and mobilize resources to guard against risks. The small board easily suffers from the leaders’ influence more than the large one does, because it has a variety of experiences belonging to the different administrators (Gary & Gleason, 1999). The addition of more members creates more interaction between them and provides a favorable ground for encouraging directors to pursue their interests and make mistakes. The impact of such a work environment can lead to an inappropriate climate full of agency relationships, conflicts of interest (Yoshikawa & Phan, 2003), and financial statement fraud (Beasley, 1996).

Although some researchers found that the more board members there are, the higher the bank’s FP, other studies found that a small board is more effective at improving a bank’s FP. These researchers argue that the number of directors is negatively related to abnormally high profitability because the board’s size minimizes managerial incentives to destroy the bank’s value and its FP (Jensen & Meckling, 1976; Lipton & Lorsch, 1992; Jensen, 1993; Yermack 1996; Eisenberg et al., 1998; Cornett et al., 2003;
Singh & Davidson, 2003; Mak & Kusnadi, 2005; De-Andres et al., 2005; Staikouras et al., 2007; Cheng, 2008; Beltratti & Stulz, 2012; Fanta et al., 2013; Mollah & Zaman, 2015; Elgadi, 2016; Wang et al., 2017; and Duppati et al., 2019). Moreover, large boards are less effective according to the criteria of coordination, control, and decision-making flexibility (Jensen, 1993; Cheng, 2008). Also, boards with fewer directors have more effective control than large boards with supervisory challenges because of communication difficulties (Lipton & Lorsch, 1992). Similarly, a small board provides a better control function, while boards with large sizes tend to control the general manager (Jensen, 1993). Besides, within this same stream, Rashidah and Fairuzana (2006) confirmed that there is a positive relationship between the board size and the propensity to manage the outcome.

Our proposal focuses on conventional and participatory banks, in which the board size has a greater effect on the bank’s value regardless of its type (Mersland & Strom, 2009). Given the dependent and independent contradictory results, the meaning of our basic assumptions essentially depends on the consideration of board size in an agency context as a principal proxy, which allows us to signal the effect of conflicting relationships on FP.

After a rich exposure to the literature concerned with the relationship between the FP and the board size, we propose the following suggestion:

**Hypothesis 1**: the board size.

**Hypothesis 1.1**: the board size has a negative effect on the FP of conventional and participatory banks during and after the covid-19 crisis in emerging and developing countries.

**Hypothesis 1.2**: the board size has a positive effect on the FP of conventional and participatory banks during and after the covid-19 crisis in emerging and developing countries.

**Hypothesis 1.3**: the board size has a negative effect on the CBs’ FP, but it has a positive effect on the PBs’ FP during and after the covid-19 crisis in emerging and developing countries.

**Hypothesis 1.4**: the board size has a positive effect on the CBs’ FP, but it has a negative effect on the PBs’ FP during and after the covid-19 crisis in emerging and developing countries.

### 2.1.2. Board chairman's rooting: automatic mandate renewal

Previous research has attempted to demonstrate the board’s effectiveness and its impact on the CBs’ FP (Al-Hawary, 2011; Naushad & Malik, 2015; Chang et al., 2019; and Mititean, 2022), while others have shown the opposite (Adams & Ferreira, 2007; Durgavanshi, 2014; Mollah & Zaman, 2015; Mihaela et al., 2018; Wijethilake & Ekanayake, 2020; Hsu et al., 2021; and Bansal & Singh, 2022). However, in PBs the subject of rooting is not yet widely treated. This may be due to the weakness of the board effect or because of its limited power as a governance mechanism. Theoretically, rooting means the occupation of the same post by a manager after the end of their first fixed-term contract. It is manifested in two methodical forms leading to the same results: either through the CEO duality or by the same person as the board chairman; or the same person who is designed as a board chairman will exceed his first contract or will automatically renew his mandate without verifying the conditions of his independence.

The opinions of previous studies already carried out on CBs’ samples are divergent. Moreover, the empirical results did not confirm whether the duality/rooting generates a clear impact, and if this impact is real, whether it has a positive or negative impact on the banks’ FP. Based on the trend of the previous results highlighted in this area, we predict the following hypothesis:
Hypothesis 2: the rooting of the board chairman.

Hypothesis 2.1: there is a positive relationship between the rooting of the board chairman and the FP of conventional and participatory banks during and after the covid-19 crisis in emerging and developing countries.

Hypothesis 2.2: there is a negative relationship between the rooting of the board chairman and the FP of conventional and participatory banks during and after the covid-19 crisis in emerging and developing countries.

Hypothesis 2.3: there is a positive relationship between the rooting of the board chairman and the CBs’ FP, but this relationship is negative in the PBs’ case during and after the covid-19 crisis in emerging and developing countries.

Hypothesis 2.4: there is a negative relationship between the rooting of the board chairman and the CBs’ FP, but this relationship is positive in the PBs’ case during and after the covid-19 crisis in emerging and developing countries.

2.1.3. Board independence

The literature on the relationship between board independence and FP is also inconclusive. Independent directors’ impact on banks’ FP presented several non-uniformities (Harris & Raviv, 2008; Linck et al., 2008; Nguyen & Nielsen, 2010; Chen et al., 2012; Terjesen et al., 2016; Borlea et al., 2017; Shawtari et al., 2017; Li & Roberts, 2018; and Asare et al., 2022).

The first stream found a positive effect of board independence on the FP (Fama & Jensen, 1983b; Bozec & Dia, 2005; Andres & Valledalo, 2008; Beltratti & Stulz, 2009; Fahlenbrach & Stulz, 2011; Beltratti & Stulz, 2012; Erkens et al., 2012; Liu et al., 2015; Kallamu, 2016; and Merendino & Melville, 2019), as this would lead to better monitoring, broad expertise, and better protection of the rights of minority shareholders (Zahra & Pearce, 1992). According to agency theory, outside directors reduce agency problems between shareholders and executives by protecting shareholder interests and reducing opportunistic managerial behavior (Jensen & Meckling, 1976). This prevents the executive director from making mistakes and prevents him from making false choices in the adverse selection of dependent administrators (Zahra & Pearce, 1990). Board members are directly elected by shareholders to represent their interests (Tarek & Mohamed, 2016). Besides, independent directors are appointed to the board to control executive directors, protect minority shareholders, and maximize FP (Brown et al., 2011). In other words, outside directors ensure that executives pursue policies that are consistent with shareholders’ interests as intended; because if the number of independent directors increases, the propensity to manage the result decreases (Klein, 2002). Independent members on the boards of conventional and Islamic banks are often perceived as a sign of transparency and voluntary governance quality improvement. According to this approach, the presence of independent directors on banks’ boards is an additional mechanism of governance aimed at mitigating behavioral and moral hazards among stakeholders, protecting shareholders’ interests, creating value, fostering control independence, resolving business problems, limiting their exposure to risk, and improving their institutions’ FP (Booth et al., 2002; Beltratti & Stulz, 2012). Moreover, external directors are more qualified with a high level of expertise and experience and ensure the best execution of their tasks compared to boards dominated by simple employees (Macey & O’Hara, 2003).
However, another discordant explanatory approach stipulated that external directors were not able to understand the complexity of the banks’ activities. They considered outside directors unable to carry out their stakeholder control, detect the opportunistic managers’ behavior, and monitor the overruns against the sense of increased performance. Moreover, within this argument, some researchers found that the presence of foreign directors on the board has a negative and significant effect on banks’ FP (Adams & Ferreira, 2009; Adnan et al., 2011; Mollah & Zaman, 2015; Rashid, 2018; Shan, 2019; Khatib & Nour, 2021; Bansal & Singh, 2022; and Mititean, 2022). Independent directors with conflicting interests lead to poor governance practices, as the situation favors the appearance of conflict between the board and managers (Zahra & Pearce, 1992) leading to a decline in performance (Bhagat & Black, 2000). Also, Minton et al., (2010), Adams (2012) and Beltratti and Stulz (2012) found that the financial expertise of the independent directors of commercial banks is negatively related to the variations of their values. They went through financial troubles, which led to a decrease in the banks’ FP.

In financial institutions, we recorded that many studies were done on one of two banking models, but not many supported the comparative approach. Several studies highlighted the effect of board composition and its impact on the CBs’ FP (Busta, 2007; Asare et al., 2022; and Bansal & Singh, 2022). However, the literature review showed that few studies focused on the independence degree of PBs’ boards since it is not a primary governance quality mechanism.

Theoretically, according to agency theory, board independence is both an index of transparency and a success factor in mitigating excessive risks. The independent directors, who are known to be vigilant, curb conflicts of interest and at the same time stimulate bank growth. Empirically, the results report mixed conclusions, depending on contextual factors and sampling specifications. Previous research has yielded different results, according to which the correlation between board independence and FP depends on the absence and/or presence of other contingent factors.

As shown in the literature review, it is generally accepted that the independence of the BOD is a very important factor in determining the type of correlation between the quality of the board-generating effect, the optimal number of independent directors, and the objective of maximizing the banks’ FP. They are expected to be more effective in monitoring operational, strategic, and decision-making activities in conventional or Islamic banks. Therefore, they have benefited from more freedom from any managerial influence, especially the CEO, to avoid conflict situations. Based on the previous selective studies, we formulated our third research hypothesis in the following form:

**Hypothesis 3**: the proportion of the board’s independent directors.

**Hypothesis 3.1**: there is a positive relationship between the proportion of the board’s independent directors and the FP of conventional and participatory banks during and after the covid-19 crisis in emerging and developing countries.

**Hypothesis 3.2**: there is a negative relationship between the proportion of the board’s independent directors and the FP of conventional and participatory banks during and after the covid-19 crisis in emerging and developing countries.

**Hypothesis 3.3**: there is a positive relationship between the proportion of the board’s independent directors and the CBs’ FP, but the same relationship is negative in the PBs’ case during and after the covid-19 crisis in emerging and developing countries.
Hypothesis 3.4: there is a negative relationship between the proportion of the board’s independent directors and the CBs’ FP, but the same relationship is positive in the PBs’ case during and after the covid-19 crisis in emerging and developing countries.

2.1.4. Meetings held by the board of directors

Based on the literature review, several studies have identified the importance of the frequency of board meetings as a determinant able to influence governance quality in one way or another in different contexts (Vafeas, 1999; Chen et al., 2006; Sánchez, 2010; Choi & Lai, 2014; and Thu et al., 2016) or as a performance control parameter (El-Maude et al., 2018; Eluyela et al., 2018; Bawaneh, 2020; and Bansal & Singh, 2022).

The effect added by this governance mechanism led us to distinguish two groups of previous studies. The majority of the proposals put forward by the researchers opt for a large number of meetings so that the BOD can effectively carry out its monitoring role (Lipton & Lorsch, 1992; Choi & Lai, 2014; Eluyela et al., 2018; Idris & Ousama, 2021; and Mititean, 2022). However, there are other researchers who founded a current based on their opposite results (Chen et al., 2006; Sánchez, 2010; Hanh et al., 2018; and Khatib & Nour, 2021). In contrast, an intermediate stream has established coordination among governance mechanisms to determine whether the quality of one mechanism affects or enhances the quality of the other (Choi & Lai, 2014; Thu et al., 2016; and Bawaneh, 2020). These researchers found no correlation.

Contrary to studies that considered board meetings’ number in CBs, the studies discussing the effect of board meetings’ number on FP in PBs are almost nonexistent. The results of the impact of the board meeting on the FP are mixed.

From the foregoing, it appears that the frequency of board meetings plays a very important role in the FP of both participatory and conventional banks. We draw the following hypothesis from the foregoing:

Hypothesis 4: the frequency of board meetings.

Hypothesis 4.1: there is a negative relationship between the frequency of board meetings and the FP of conventional and participatory banks during and after the covid-19 crisis in emerging and developing countries.

Hypothesis 4.2: there is a positive relationship between the frequency of board meetings and the FP of conventional and participatory banks during and after the covid-19 crisis in emerging and developing countries.

Hypothesis 4.3: there is a negative relationship between the frequency of board meetings and the CBs’ FP, but this relationship is positive in the PBs’ case during and after the covid-19 crisis in emerging and developing countries.

Hypothesis 4.4: there is a positive relationship between the frequency of board meetings and the CB’ FP, but this relationship is negative in the PBs’ case during and after the covid-19 crisis in emerging and developing countries.

III. RESEARCH METHODOLOGY

3.1. Methodological Aspects

3.1.1. Data collection

Two samples were taken from two reference populations, which are made up of 683 participating financial institutions and 2,974 conventional financial institutions. The selection of banks is made in 30 countries whose banking systems include Islamic and
conventional banks, over the period 2019-2022\(^1\). However, we have excluded all specific financial institutions subject to specific regulations\(^2\). The observations chosen are all purely conventional or participatory banks. Moreover, due to difficulties in collecting information on FP and BOD, we excluded banks marked with missing data. We also ignored the mutated banks and conventional banks that added Islamic services. These restrictions led us to eliminate 571 participatory financial institutions and 2,862 conventional financial institutions. Thereafter, we equalized the two samples on the basis of the qualitative and quantitative filtering criteria (equality of the samples, type of activity, similarity of the country of origin, and width of the bank) to finally obtain 112 banks in each sample.

### 3.1.2. Measurement of variables to be tested

#### 3.1.2.1. Endogenous variables

In this sub-section, we present the FP measures. The main variable to explain was represented by four dependent variables: profitability, efficiency, liquidity, and solvency. Table 1 shows the parameters we worked on, the symbols, and the respective reports.

**Table 1**

<table>
<thead>
<tr>
<th>FP Parameter</th>
<th>Rating for CBs</th>
<th>Rating for PBs</th>
<th>Measurement</th>
<th>Previous Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profitability</td>
<td>Pc</td>
<td>Pi</td>
<td>Marginal Profit/Total Revenues</td>
<td>Sujan et al. (2013); Atyeh et al. (2015); Ogbeide and Akanji (2018); Haddad et al. (2019b); and Asare et al. (2022)</td>
</tr>
<tr>
<td>Liquidity</td>
<td>Lc</td>
<td>Li</td>
<td>Net Loans/Total Assets</td>
<td>Olson and Zoubi (2008); Al-Hares et al. (2013); Onakoya and Onakoya (2013); and Haddad et al. (2020)</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Ec</td>
<td>Ei</td>
<td>Operating Result/Average Total Assets</td>
<td>Olson and Zoubi (2008); Onakoya and Onakoya (2013); Ola and Suzanna (2015); and Haddad et al. (2019a)</td>
</tr>
<tr>
<td>Solvency</td>
<td>Sc</td>
<td>Si</td>
<td>Total Loans/Total Deposits</td>
<td>Olson and Zoubi (2008); Onakoya and Onakoya (2013); Ola and Suzanna (2015); and Haddad et al. (2019c)</td>
</tr>
</tbody>
</table>

#### 3.1.2.2. Exogenous variables

Throughout the remaining part of this work, banks’ FP is explained by four BOD determinants. Referring to the review of the previous literature, the predominantly independent variables were described in Table 2 as follows:

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\(^1\) Algeria (3,3), Bahrain (6,6), Bangladesh (4,4), Canada (1,1), Egypt (4,4), France (2,2), India (2,2), Indonesia (4,4), Jordan (4,4), Kazakhstan (3,3), Kuwait (6,6), Lebanon (2,2), Luxembourg (2,2), Malaysia (7,7), Nigeria (2,2), Oman (3,3), Pakistan (8,8), Qatar (6,6), Saudi Arabia (9,9), Senegal (3,3), Singapore (4,4), South Africa (1,1), Sri Lanka (1,1), Sudan (5,5), Thailand (1,1), Tunisia (2,2), Turkey (5,5), United Arab Emirates (5,5), United Kingdom (5,5), and USA (2,2).

\(^2\) We excluded insurance companies, micro-credit companies, indirect finance companies, financing windows, and mixed conventional and Islamic banks and conventional banks that have Islamic windows and vice versa.
Table 2
Description of the Explanatory Variables

<table>
<thead>
<tr>
<th>Heading</th>
<th>Rating for CBs</th>
<th>Rating for PBs</th>
<th>Measurement</th>
<th>Previous Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board size of CB (BOARD-Sc)</td>
<td>Board size of PB (BOARDSi)</td>
<td>The number of executive directors in the BOD</td>
<td>Joenoes and Rokhim, 2019; Bawaneh, 2020; Hermuningsih et al., 2020; and Bansal and Singh (2022)</td>
<td></td>
</tr>
<tr>
<td>Rooting of the board chairman or accumulation of the post of CEO and the board chairman (BOARDCRc)</td>
<td>Rooting of the board chairman or accumulation of the post of CEO and the board chairman (BOARDCRi)</td>
<td>Binary variable: 1: if the CEO also holds the post of bank chairman or the board chairman exceeded the mandate 0: if not</td>
<td>Al-Hawary (2011); Mollah and Zaman (2015); Hsu et al., 2021; and Bansal and Singh (2022)</td>
<td></td>
</tr>
<tr>
<td>Board independence: presence of external directors in the BOD (BOARDIc)</td>
<td>Board independence: presence of external directors in the BOD (BOARDIi)</td>
<td>Number of external executive directors who are not related to any professional/family relationship, nor the bank nor the executives</td>
<td>Mollah and Zaman (2015); Li &amp; Roberts, 2018; Asare et al., 2022; and Bansal and Singh (2022)</td>
<td></td>
</tr>
<tr>
<td>Number of meetings held by the CB's board (BOARDMc)</td>
<td>Number of meetings held by the PB's board (BOARDMi)</td>
<td>Number of meetings held by the BOD in a year</td>
<td>El-Maude et al., 2018; Eluyela et al., 2018; Bawaneh, 2020; and Bansal and Singh (2022)</td>
<td></td>
</tr>
</tbody>
</table>

3.1.2.3. Measurements of additional explanatory variables

Table 3 displays the list of control variables supported by some previous studies that employed the same variables and their measures.

Table 3
Description of Control Variables

<table>
<thead>
<tr>
<th>Control Variable</th>
<th>Rating for CBs</th>
<th>Rating for CBs</th>
<th>Measurement</th>
<th>Previous Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank Type</td>
<td>TYc</td>
<td>TYi</td>
<td>Variable with 3 forms: 1) For commercial bank 2) For investment bank 3) For universal bank</td>
<td>Cornett et al. (2009); Kim and Rasiah (2010); and Charles et al. (2015).</td>
</tr>
<tr>
<td>Bank Age</td>
<td>AGc</td>
<td>AGi</td>
<td>Age of conventional/participatory bank for each year</td>
<td>Kraft and Tirtiroglu (1998); Jemric and Vujcic (2002); and Filip et al. (2013).</td>
</tr>
<tr>
<td>Bank Size</td>
<td>TAc</td>
<td>TAi</td>
<td>Logarithm of book value of total assets of conventional/participatory bank at the end of each year</td>
<td>Delis and Papanikolaou (2009); Al-Hawary (2011); and Rashid and Jabeen (2016).</td>
</tr>
</tbody>
</table>
To be countined Table 3

<table>
<thead>
<tr>
<th>Control Variable</th>
<th>Rating for CBs</th>
<th>Rating for CBs</th>
<th>Measurement</th>
<th>Previous Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inflation</strong></td>
<td>INFc</td>
<td>INFi</td>
<td>Annual inflation rate in the country of origin of the conventional/participatory bank.</td>
<td>Gul et al. (2011); Rashwan and Ehab (2016); and Tugba et al. (2017).</td>
</tr>
</tbody>
</table>

3.1.3. Presentation of models to estimate

In this sub-section, we aim to detail and symbolize the basic models that will allow us to answer the questions already mentioned in the theoretical part. Also, it is necessary to present the standard models to reassess the FP several times, and each time the dependent variable will be changed according to the estimates of the conventional or participatory financial institutions. In what follows, as it appears in Table 4, we have moved to the exhibition of adequate models best suited to our data while explaining the meaning of all the constitutive variables.

Table 4
Approximation of Models to be Estimated Related to Conventional and Participatory Banks

<table>
<thead>
<tr>
<th>Model Type</th>
<th>Conventional Models of Multiple Regressions</th>
<th>Participatory Models of Multiple Regressions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Association between profitability and board quality.</td>
<td>LnPtci = ( \alpha_0 + \alpha_1 \text{LnBOARDSc} + \alpha_2 \text{B} )</td>
<td>LnPtii = ( \beta_0 + \beta_1 \text{LnBOARDSi} + \beta_2 )</td>
</tr>
<tr>
<td></td>
<td>OARDRe + ( \alpha_3 \text{LnBOARDIc} + \alpha_4 \text{LnBOARDSMi} + \alpha_5 \text{Tyi} + \alpha_6 \text{LnAGc} + \alpha_7 \text{LnSIc} + \alpha_8 \text{LnINFc} + \varepsilon_i )</td>
<td>BOARDCRi + ( \beta_1 \text{LnBOARDDi} + \beta_4 \text{LnBOARDSMi} + \beta_5 \text{Tyi} + \beta_6 \text{LnAGi} + \beta_7 \text{LnTAi} + \beta_8 \text{LnINFi} + \varepsilon_i )</td>
</tr>
<tr>
<td>Association between efficiency and board quality.</td>
<td>Etci = ( \alpha_0 + \alpha_1 \text{LnBOARDSc} + \alpha_2 \text{BOA} )</td>
<td>Eti = ( \beta_0 + \beta_1 \text{LnBOARDSi} + \beta_2 )</td>
</tr>
<tr>
<td></td>
<td>RDCRe + ( \alpha_3 \text{LnBOARDIc} + \alpha_4 \text{LnBOARDSMi} + \alpha_5 \text{Tyi} + \alpha_6 \text{LnAGc} + \alpha_7 \text{LnSIc} + \alpha_8 \text{LnINFc} + \varepsilon_i )</td>
<td>OARDRCi + ( \beta_1 \text{LnBOARDDi} + \beta_4 \text{LnBOARDSMi} + \beta_5 \text{Tyi} + \beta_6 \text{LnAGi} + \beta_7 \text{LnSIi} + \beta_8 \text{LnINFi} + \varepsilon_i )</td>
</tr>
<tr>
<td>Association between liquidity and board quality.</td>
<td>Lti = ( \alpha_0 + \alpha_1 \text{LnBOARDSc} + \alpha_2 \text{BOA} )</td>
<td>Lti = ( \beta_0 + \beta_1 \text{LnBOARDSi} + \beta_2 )</td>
</tr>
<tr>
<td></td>
<td>RDCRe + ( \alpha_3 \text{LnBOARDIc} + \alpha_4 \text{LnBOARDSMi} + \alpha_5 \text{Tyi} + \alpha_6 \text{LnAGc} + \alpha_7 \text{LnSIc} + \alpha_8 \text{LnINFc} + \varepsilon_i )</td>
<td>OARDRCi + ( \beta_1 \text{LnBOARDDi} + \beta_4 \text{LnBOARDSMi} + \beta_5 \text{Tyi} + \beta_6 \text{LnAGi} + \beta_7 \text{LnSIi} + \beta_8 \text{LnINFi} + \varepsilon_i )</td>
</tr>
<tr>
<td>Association between solvency and board quality.</td>
<td>LnStci = ( \alpha_0 + \alpha_1 \text{LnBOARDSc} + \alpha_2 \text{BOA} )</td>
<td>LnStii = ( \beta_0 + \beta_1 \text{LnBOARDSi} + \beta_2 )</td>
</tr>
<tr>
<td></td>
<td>ARDCRc + ( \alpha_3 \text{LnBOARDIc} + \alpha_4 \text{LnBOARDSMi} + \alpha_5 \text{Tyi} + \alpha_6 \text{LnAGc} + \alpha_7 \text{LnSIc} + \alpha_8 \text{LnINFc} + \varepsilon_i )</td>
<td>BOARDCRi + ( \beta_1 \text{LnBOARDDi} + \beta_4 \text{LnBOARDSMi} + \beta_5 \text{Tyi} + \beta_6 \text{LnAGi} + \beta_7 \text{LnSIi} + \beta_8 \text{LnINFi} + \varepsilon_i )</td>
</tr>
</tbody>
</table>

IV. RESULTS AND DISCUSSIONS

4.1. Interpretation of the Comparative Results between the Board Quality Effects on the Financial Performance Measures of the Conventional and Participatory Banks

Before judging the impacts of board quality, we should estimate the separate impacts provided by the board determinants and the effects generated by the other control variables on the FP measures. To do this, we established multiple linear models.
4.1.1. Analogical study between the depth of the significant effects of board quality on the financial performance measures

To correctly decide the individual significance of the variables, we referred to the Student statistic. When the estimated statistic’s probability is less than one of the reference significance thresholds, we select the variable in question. Otherwise, the effect of the variable is considered insignificant. As shown in the appendix, Tables 5-12 illustrate the impacts of board quality on different FP measures. This list summarizes the coefficients of the different explanatory variables estimated by the model for each sample.

The BOD may have a positive or negative influence on the bank’s FP depending on the situations encountered. So far, we checked the significance of the variables that explain the BOD quality in each model. In the next step, we established a comparative study of the impact between similar models, which highlights the importance of the board in their existence. Finally, we drew a comparison between the pre-established signs (expected) and the signs already found.

From the foregoing, the mono-analysis already carried out shows an ambiguity in the hypotheses’ confirmation or assertion from a single FP measure. Also, not all tested variables revealed important and significant effects on performance measures. The resolution of the incompatibility of the signs led us to establish a state of reconciliation between the effects specific to the determinants that are specific to each bank type.

4.1.2. Differential analysis between the board impacts on the financial performance of conventional and participatory banks

To better appreciate the depth of the difference in board effects on the FP of each bank type, we grouped the individual impacts of each board-related variable on the FP for each bank type. Then, we proceeded to the comparative analysis between the combined impacts of the BOD on each FP measure relative to the CBs’ group and the combined effects of the BOD on each FP measure of the PBs’ group. Tables 13, 14, 15, and 16 illustrate the reconciliation results specific to CBs with their Islamic competitors.

4.1.2.1. Board size

According to Table 13, if the reasonable composition is not balanced based on the criteria of the number and quality of directors, during and after the covid-19 crisis, the board size has a negative influence on the CBs’ FP (Staikouras et al., 2007; Cheng, 2008; Beltratti & Stulz, 2012; Fanta et al., 2013; Wang et al., 2017; and Duppati et al., 2019). This is valid if the board members did not satisfy the independence and competence conditions. A large board destroys its effectiveness due to the loss of responsibility and coordination among its members, which encourages directors to pursue their own interests. Besides, boards composed of a large number of directors favor opportunistic behavior and the power of dominance among directors. These acts are transformed into conflicts of interest and coalitions (Lipton & Lorsch, 1992; Jensen, 1993). Large boards encourage members to push managers to maximize board spending as well as their remunerations. Such pressure directly affects the FP of banks because of additional expenses (Beltratti & Stulz, 2012). This type of conduct results in the exclusion of the minority shareholders’ interests.

Insert Table 13 here.

Similarly, the same Table shows that, during and after the covid-19 crisis, the combined impact of the board size in the framework of PBs negatively affected their FP (Mollah & Zaman, 2015; Elgadi, 2016). As a result, in PBs, boards made up of a large staff deteriorated their FP. This makes it difficult to supervise members and provide more human capital to advise managers. The effect of many directors negatively affected
mainly liquidity and solvency, which shows that the board extension within PBs results from decisions that provoke unfavorable financial flaws in FP. This situation may be due to several reasons. First, the lack of sufficient training among some administrators on Fikh Al Mouamalat can generate decisions far from the Charia law. Next, as the number of directors increases, so does the proportion of conflicts between board members. Moreover, consistent scientific knowledge can create ambiguity in the process of financial reporting between a large board and the Charia committee members. This type of relationship ended up developing information asymmetry, limiting transparency, and monopolizing decisions independently of the Charia committee. Indeed, within the PBs, a large board favors the guidance of the right to vote against the policies adopted by the Charia committee related to the liquidity and recovery of the PBs’ credits. Finally, given the auxiliary role of the PBs’ board as a complementary governance mechanism, there is excessive intervention of board members in the decision-making process, confirmation of investments, and distribution of loans to customers. On the one hand, the excess generates an imbalance in the control procedure, on the other hand, the intervention of the new members causes FP volatility.

Table 13
Summary of the Board Size Impacts on the FP of Conventional and Islamic Banks

<table>
<thead>
<tr>
<th>Variable</th>
<th>LnPC/LnP</th>
<th>Ec/Ei</th>
<th>Lc/Li</th>
<th>LnSC/LnSi</th>
<th>Cumulative Effect</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>LnBOARDSc</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>H11 accepted but H12, H13 rejected</td>
</tr>
<tr>
<td>LnBOARDSi</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>H14 rejected</td>
</tr>
</tbody>
</table>

Notes: + = positive impact, - = negative impact, and ֎ = significant impact.

4.1.2.2. Rooting of the board chairman

According to Table 14, during and after the covid-19 crisis, the effect on the board chairman’s reliance on the CBs’ FP was negative (Adams & Ferreira, 2007; Durgavanshi, 2014; Mollah & Zaman, 2015; Mihaela et al., 2018; Wijethilake & Ekanayake, 2020; Hsu et al., 2021; and Bansal and Singh, 2022). In the framework of agency theory, such an impact can be interpreted according to the context. All other things being equal, mandate votes are renewed by the general assembly, and if there is no cumulation between the CEO and board chairman positions, this situation is considered beneficial for the bank’s continuity, provided that it has good financial indicators justifying the legal progress of the mandate. Conversely, if the CEO also serves as the board chairman, or if he/she finds the opportunity to automatically renew his/her mandate, or if he/she exploits the shortcomings of the governance system for his/her own benefit, the extension is considered unfavorable because it is not justified. Since our CBs’ sample is heterogeneous, the intention to renew a mandate for rooting exists in some banks. This impact was confirmed by the collective effect of the duality on the CBs’ efficiency and liquidity. Moreover, the warranted prolongation of the mandate also exists in other types of CBs. This was demonstrated by the dominant effect of the variable “BOARDCREc” on the CBs’ profitability and solvency, but its impacts are not considerable.

Insert Table 14 here.

However, during and after the covid-19 crisis, Table 14 identified a positive cumulative association between the rooting of the board chairman and the PBs’ FP (Al-Hawary, 2011; Naushad & Malik, 2015; Chang et al., 2019; and Mititean, 2022). According to the results, liquidity is a central axis for evaluating PBs. Although the creation of liquidity is linked to investments, and the former directors, in the majority of
cases, held a proportion of the bank’s capital, the establishment and maximization of business relations are correlated mainly with the seniority of the board chairman. The more the world of the board chairman is renewed, the more he/she gains experience and the more he/she masters the situation and the reality of the bank. Besides, large PBs are often built by family businesses or widely-owned companies. Also, the choice of profitable investments, the extension of projects, and the opening of several economic sectors require useful experience, a good control of the economic environment, a high level of consciousness, and sufficient intelligence to help him/her predict the level of investment risk and avoid challenges and confusions of legal rules and transaction jurisprudence.

Table 14
Summary of the Impacts of the Rooting of the Board Chairman on FP of Conventional and Islamic Banks

<table>
<thead>
<tr>
<th>Variable</th>
<th>( \ln \text{Pc}/\ln \text{Pi} )</th>
<th>( \text{Ec}/\text{Ei} )</th>
<th>( \text{Lc}/\text{Li} )</th>
<th>( \ln \text{Sc}/\ln \text{Si} )</th>
<th>Cumulative Effect</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \text{BOARDCRc} )</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>( \text{H}<em>{34} ) accepted but ( \text{H}</em>{31}, \text{H}<em>{32} ) and ( \text{H}</em>{33} ) rejected</td>
</tr>
<tr>
<td>( \text{BOARDCRi} )</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>( \text{H}<em>{34} ) accepted but ( \text{H}</em>{31}, \text{H}<em>{32} ) and ( \text{H}</em>{33} ) rejected</td>
</tr>
</tbody>
</table>

Notes: + = positive impact, - = negative impact, and + = significant impact.

4.1.2.3. Board independence

Returning to the conclusions drawn from Table 15, during and after the covid-19 crisis, the cumulative effect on the various measures of FP showed that the presence of independent members on the CBs’ boards threatens the banks’ FP (Adams & Ferreira, 2009; Adnan et al., 2011; Rashid, 2018; Shan, 2019; Khatib & Nour, 2021; Bansal and Singh, 2022; and Mititean, 2022). Independent directors influenced the voting power in making important decisions related to recruitment, compensation, dividend policy, and the appointment and removal of officers. The key factor that determines the ideal board composition is the ability to provide competent individual/collective oversight of risk-taking activities and better stakeholder control. Besides, executive directors typically have valuable information about the banks’ activities. However, our CBs’ sample consists of a group of large and publicly traded banks. The selection of qualified people who meet both independence and competence criteria is very difficult. Nevertheless, governance issues related to agency relationships are directly correlated to FP or one of its determinants, such as profit, expense, or revenue. Risk-taking is an obligation of the “Control” function; it remains a questionable necessity as CBs market a very complex range of products and encompass a mosaic of incoherent governance mechanisms.

Table 15
Summary of the Board Independence Impacts on FP of Conventional and Islamic Banks

<table>
<thead>
<tr>
<th>Variable</th>
<th>( \ln \text{Pc}/\ln \text{Pi} )</th>
<th>( \text{Ec}/\text{Ei} )</th>
<th>( \text{Lc}/\text{Li} )</th>
<th>( \ln \text{Sc}/\ln \text{Si} )</th>
<th>Cumulative Effect</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \ln \text{BOARDIc} )</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>( \text{H}<em>{34} ) accepted but ( \text{H}</em>{31}, \text{H}<em>{32} ) and ( \text{H}</em>{33} ) rejected</td>
</tr>
<tr>
<td>( \ln \text{BOARDIi} )</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>( \text{H}<em>{34} ) accepted but ( \text{H}</em>{31}, \text{H}<em>{32} ) and ( \text{H}</em>{33} ) rejected</td>
</tr>
</tbody>
</table>

Notes: + = positive impact, - = negative impact, and + = significant impact.

However, in the case of PBs, during and after the covid-19 crisis, board independence had a positive combined effect on FP (Andres & Valleslado, 2008; Beltratti & Stulz, 2009; Fahlenbrach & Stulz, 2011; Beltratti & Stulz, 2012; Erkens et al., 2012; Liu et al., 2015; Kallamu, 2016; and Merendino & Melville, 2019). This effect originates from
the centralization of power. It reflects the authority to release the specific information by the BOD's executive directors. Also, in PBs, this result is due to work sharing between several committees, the decentralization of decision-making power, and the planning procedure for the FP objectives. In fact, an external director specializing in Islamic banking has a stimulating and positive impact on profitability and efficiency. This can have an insignificant impact on profitability, liquidity, and solvency because he/she has a good skill that provides him/her with the ability to understand and master the true situation of the bank. Moreover, non-executive directors are, in most cases, prohibited from holding additional positions and related activities on the boards of several PBs. As a result, they objectively follow the control process to keep their positions.

4.1.2.4. Number of board meetings

As shown in Table 16, during and after the covid-19 crisis, the analysis of the impacts corresponding to the number of board meetings on the CBs' FP revealed a fuzzy combinatorial effect (Choi & Lai, 2014; Thu et al., 2016; and Bawaneh, 2020). A high number of board meetings has a positive impact on the CBs’ liquidity and solvency as their liquidity levels improve through many board meetings. The board is legally authorized to hire, fire, and compensate officers for fraud, manipulation, or results/earnings' management. Also, the BOD is responsible for auditing financial reliability, verifying compliance with regulations, and reducing asymmetric information between shareholders and managers. Besides, the BOD oversees the operational, strategic, and financial decisions of the bank. However, all these responsibilities require an optimal number of meetings to cover all discussions, occupy all complex operations, view all detailed records, and frame all the problems and challenges of departments. To do this, the more the directors meet, the more they ensure that managers pursue strategies that follow the shareholders’ interests, and the directors ensure smooth running, evaluation, and correction. This scene is valid for all financial transactions and records of the CBs’ availability, even if the directors have decreased the annual number of meetings, due to mutual control or because of the strong pressure exerted by all stakeholders on the board members. Nevertheless, in cases of profitability, the decision parameters are reversed insofar as profitability depends on several external, partially controllable factors, such as the deposit rate, the investor credit rate, and the consumption credit rate at the end of the year. Similarly, the decision rule is reversed in the case of an assessment of bank profitability since it depends on the economic environment and the macroeconomic factors that must be well controlled. In general, the decrease in the number of board meetings generates more freedom to make arbitrary decisions and judgments and gives managers the space to plan performance diligence, manage the results, choose investments that are more or less profitable, agree to variable-rate loans, change interest rates, change monetary practices, misapply policies, etc. As a result, these practices open up the space for information asymmetry between board directors and foster conflicts of interest between other governance mechanisms and between stakeholders in general.

Table 16

<table>
<thead>
<tr>
<th>Variable</th>
<th>LnPC/LnPi</th>
<th>Ec/Ei</th>
<th>Lc/Li</th>
<th>LnSc/LnSi</th>
<th>Cumulative Effect</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>LnBOARDMc</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>Neutral effect</td>
<td>Blurred effect</td>
</tr>
<tr>
<td>LnBOARDMi</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>H4 rejected</td>
</tr>
</tbody>
</table>

Notes: += positive impact, -= negative impact, and *= significant impact.
Contrary to our prediction, according to Table 16, within the PBs, during and after the covid-19 crisis, the association of the different effects relative to the impact of board meetings on the FP generated an overall negative effect (Chen et al., 2006; Sánchez, 2010; Hanh et al. 2018; and Khatib & Nour, 2021). Depending on the case, this impact can be justified by one of three reasons. First, it is caused by the deliberate and intentional weakness at the board level for the benefit of another substitute mechanism, such as the audit committee, the Charia committee, the nominating committee, the compensation committee, and the executive committee. Second, the undesirable effect is caused by a radical failure in the PBs’ policies regarding meetings. This is due to the bad choice of meeting times, inefficient treatment of the problems of earnings management, asset appointments and dismissals, opportunistic behaviors, and personal interests. Third, the administrators made many decisions discordant with the general policy followed by the PBs and contradictory with those taken by the charia committee. They did not have the necessary competence to take decisions in conformity with the Charia norms. Whatever the official policy adopted by the bank, the number of meetings affects the PBs’ FP in two ways. In quantitative terms, the limited number of meetings reflects a lack of awareness of internal control issues, management control, financial fraud, and accounting falsification. In qualitative terms, a small meeting number does not allow members to discuss the reliability of financial information, verify the degree of compliance with Islamic audit regulations, maintain good governance, and establish necessary mechanisms to reduce the asymmetry of information between shareholders and executives to ensure the investors’ interests and the PBs’ FP.

4.2. Discussion

The board size had a combined negative and statistically significant impact on the FP of both conventional and participatory banks during and after the covid-19 crisis, thus confirming the first hypothesis. In this comparative study between FPs, the concerning impact limited the comparison extent. It can add more information to stakeholders, as it can neutralize the comparison between the FPs of two types of banks based solely on this criterion. This impact corroborates the work of (Lipton & Lorsch, 1992; Pathan et al., 2007). During and after the covid-19 crisis, a large number of directors on the board improved their expertise. However, in an agency framework, it increases potential conflicts and presents a more significant potential for disagreement and lack of coordination in management decisions (Montandrau, 2004; Haniffa & Hudaib, 2006; and Staikouras et al., 2007).

In accordance with the literature predictions, the duality has a negative and significant combined impact on the CBs’ FP during and after the covid-19 crisis, for this reason, the second hypothesis was accepted (Haniffa & Hudaib, 2006; Kaymak & Bektas 2008; and Bansal & Singh, 2022). However, in the case of PBs, the duality had a positive and statistically significant combined effect also on the PBs’ FP during and after the covid-19 crisis. For this reason, the second hypothesis was rejected (Al-Hawary, 2011; Hakimi et al., 2018). In the agency theory framework, this result joins the literature that denounces management duality by causing abuse of the leader’s power. Indeed, some authors, such as (Fama & Jensen, 1983a; Jensen, 1993) stipulate that this accumulation of functions decreases agency costs through, for example, the ambiguity of responsibilities, the impartiality of control, the imbalance of power, the conflicts of interest, the asymmetry of information, etc., and weakens the board’s effectiveness and thus reduces FP.
As for the percentage of independent directors on the board, during and after the covid-19 crisis, this variable generated a negative and significant combined impact on the CBs’ FP that led to the rejection of the third hypothesis (El-Chaarani, 2014; Terjesen et al., 2016; and Bansal & Singh, 2022). However, in the PBs’ framework, the overall impact of the same variable generated a positive and significant impact on their FP during and after the covid-19 crisis, which led us to accept the third hypothesis (Tulung & Ramdani, 2018). In the agency context, independent directors are not able to understand the complexity of the bank’s activities, resolve agency conflicts, and fulfill their main role, namely the managers’ discipline. This result was proved by several authors, such as (Bhagat & Black, 2002; Adams & Mehran, 2008). In this case, we can estimate that the control role of the manager in the CBs is attributed to the central banks that represent the regulatory and supervisory authorities, which enact several prudential rules to be observed by all CBs and ensure their application.

Regarding the differences between the combined impacts of the boards’ meetings on FPs, we found that the overall impacts of the CBs’ board meetings is ambiguous during and after the covid-19 crisis. This result is due to the unclear trend of all the impacts on their FP (Bawaneh, 2020). For this reason, I cannot draw a conclusive result either by accepting or rejecting the provided hypothesis in the case of CBs. However, in the PBs’ framework, during and after the covid-19 crisis, the compound impact of the PBs’ board meetings on their FP is negative (Johl et al., 2015; El-Maude et al., 2018). Therefore, the global result is not conclusive and does not allow users of financial information to also make a useful comparative decision.

The filtration of the obtained impacts allowed us to only take the impacts resulting from two board determinants on the banks’ FP: the CEO/Chairman duality and the boards’ independence. The comparative report of these two determinants showed that during and after the covid-19 crisis, duality and independence deteriorated the CBs’ FP, on the other hand, they increased the PBs’ FP.

V. CONCLUSION

From the results, we noticed that the combined impact of the BODs on the CBs’ FP reduced their FP during and after the covid-19 crisis. Besides, the presence of a non-significant composite impact, particularly of the CBs’ board meetings on the FP provides the failure of this determinant to stage their role in a behavioral decision attitude. Independently of the bank type, the board is responsible for planning policies and making the best decisions. Jointly, line managers are required to improve the FP and maximize banks’ profits, however, the lack of credibility and feasibility of the board’s quality affected the CBs’ FP. As a result, this finding leads to the conclusion that there are one or more substitutable determinants/mechanisms of the lost impact, or that there is a complete failure of the governance system that requires revision.

In the context of participatory financial institutions, governance theories are not fully developed. The literature lacks integration of strategic considerations into the guidelines of the BOD. Moreover, empirically, although the sum of the cumulative impacts of the different BOD determinants on the PBs’ FP is preferable to that relating to CBs, their impact on FP remains unclear during and after the covid-19 crisis. To overcome the problems related to the impact of the board’s quality on the PBs’ FP, we proposed the creation of a unified international academy of accounting, finance, and governance specialized in teaching the Islamic sciences of control, audit, and operating practices. The purpose of this body is to train scientifically, theoretically, and practically qualified executives not only to perform the traditional duties of a banker (accountant,
financier, and auditor) and to comply with Islamic standards but also to introduce a radical change that aims to improve the products and services’ quality in PBs and to continuously drive the creation and improvement of FP.

To avoid some negative impacts and the ambiguity of other impacts on FP, the BOD must first and foremost consider the processes’ complexity with uncertainties, process discussions, techniques, and decision-making in its authority position to optimally monitor resources. For this gap, we proposed an innovative auditing system that is relevant not only for governing the board but is also very useful for other governance mechanisms: Dynamic governance by objective (DGBO). This is an intelligent information system that is formed by a large and detailed informational fiber. This system adapts simultaneously to all other systems of governance for all types of banks, while the traditional technical system is limited to the analysis and nervous interpretation of data. The set of two systems forms an instant mechanism for sending alerts once there are overruns. The introduction of a momentary double-checking system pushes the controlling actors to establish systemic coordination of the interdependent tasks to ensure regulation of the accounting documents quality to avoid errors. If frauds and falsifications exist, they will be detected by the intelligent system. The new approach to governance is based on a decentralized vision and is too focused on control as its reason, which is data at a very advanced level. This model ensures the coordination of actions through the collective regulation of inter-organizational dimensions and the integration of inter-professional processes that cannot be established by summation or discrimination.

The constituent bodies of an objective regulatory system shall exchange their information, figures, documents, instruments, activities, records, and financial statements usually in two reciprocal directions. As displayed in Figure 1, the new system is composed of an exchange network for incoming data, and another network in the reverse direction. In these centers, all the data and information fibers collected by the specialists in the areas of internal control, management control, and auditing are collected and filtered to identify frauds, manipulations, misappropriations, conflicts of interest, and moral behaviors. After clustering, the center that detects the manipulation, fraud, challenge, or abnormal behavior, the fiber directs the data to the nearest referral center to make the necessary corrections and then reorients the new corrected data and related information into the correct meaning according to the objectives fixed in advance. All this program is prepared through an information system that is established according to the bank type and its particularities. Our alternative governance system is as follows:

Like all scientific research, our study is not exempt from limitations. First, the main limitation is using only four proxies to measure board quality because it ignores much of the board’s impact on banks’ FP in both bank types. The adopted board proxies in the present study could be augmented with the addition of other variables such as executive directors’ specialization, executive directors’ reputation, executive directors’ tenure, executive directors’ sex, and executive directors’ expertise. Second, using a limited number of FP measures may not capture all the impacts issued by the boards. Therefore, despite the large sample sizes, we cannot draw thorough generalizations from our comparative results. Moreover, although the sample sizes are important, expanding the sample sizes and the countries’ numbers tends to minimize the probability of errors, maximize the accuracy of the banks’ estimates, and increase the generalizability of the comparative results.
Figure 1
Simplified Organizational Structure of an Objective Governance System

Notes:
- exchange of information, data, accounting documents and decisions
- relative control relationship between management and / or department and governance mechanisms
- intersection between dynamic behavioral governance flows and opportunistic behavior flows
REFERENCES


