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Corporate Governance Effectiveness and Premature Revenue Recognition: The Moderating Role of Family Ownership

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ABSTRACT

This study analyzes the relationship between corporate governance effectiveness (CGEF) and premature revenue recognition (PRR) in a sample of 160 Jordanian industrial firms over the 2017–2021 period. We measure the effectiveness of corporate governance through three sub-variables; board size, CEO duality and audit committee. We found that CEO duality and audit committee have negative and significant relationships with PRR, while board size has an insignificant association with PRR. As for corporate governance effectiveness, the results reveal that corporate governance effectiveness contributes to reducing premature revenue recognition, in addition to the fact that family ownership plays a positive vital role as a moderating variable in enhancing the role of corporate governance in reducing premature revenue recognition. Thus, the study recommends Jordanian authorities, policy-makers and regulation setters to urge firms to preserve a high level of corporate governance effectiveness due to its role in preventing premature revenue recognition.

Keywords: Board size, CEO duality, Audit committee, Corporate governance effectiveness, Premature revenue recognition.

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فعالية حوكمة الشركات والاعتراف المبكر بالإيرادات: الدور المعدل للملكية العائلية

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ملخص

تسعى هذه الدراسة للبحث في العلاقة بين فعالية حوكمة الشركات والاعتراف المبكر بالإيرادات في عينة من 160 شركة صناعية أردنية خلال الفترة 2017–2021. نقيس فعالية حوكمة الشركات من خلال مقياس مركب من ثلاثة متغيرات فرعية؛ حجم مجلس الإدارة، وازدواجية الرئيس التنفيذي، ولجنة التدقيق. وجدنا أن ازدواجية الرئيس التنفيذي ولجنة التدقيق لهما علاقة سلبية وذات دلالة إحصائية مع الاعتراف المبكر بالإيرادات، في حين أن حجم مجلس الإدارة لم يكن له ارتباط يذكر مع الاعتراف المبكر بالإيرادات. أما بالنسبة لفعالية حوكمة الشركات، فقد كشفت النتائج أن فعالية حوكمة الشركات تساهم في الحد من الاعتراف المبكر بالإيرادات، بالإضافة إلى حقيقة أن الملكية العائلية تلعب دورًا حيويًا وإيجابيًا كمتغير معدل في تعزيز دور حوكمة الشركات في الحد من الاعتراف المبكر بالإيرادات. وبالتالي، تقدم هذه الدراسة جملة من التوصيات إلى الجهات الأردنية ذات العلاقة وواضعي السياسات واللوائح لحث الشركات على الحفاظ على مستوى عالٍ من فعالية حوكمة الشركات نظرًا لدورها في منع الاعتراف المبكر بالإيرادات، الذي يؤثر سلباً على جودة القوائم المالية.

الكلمات الدالة: حجم مجلس الإدارة، ازدواجية عمل الرئيس التنفيذي، لجنة التدقيق، فعالية حوكمة الشركات، الاعتراف المبكر بالإيرادات.

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1. Introduction

Previous studies reported that corporate managers may tend to accounting choices that maximize income to conceal weak performance (Habib et al., 2013). Moreover, the flexibility of both IFRS and GAAP in choosing among various accounting methods when computing financial measures of performance and its earnings is considered as an advantage to corporate managers that could lead to harm the financial reports' quality (Makar et al., 2000).

Timing is deemed as one of the critical issues with respect to revenue recognition; i.e., in the sales cycle, the appropriate point is when revenues should be recognized. U.S. GAAP broadly stipulates that companies should recognize their revenue when it is realized/realizable and earned. However, in practice, revenue-recognition timing is a complicated issue because of the diversity and complexity in the transactions that generate the revenue. Firms have frequently opportunities to accelerate their revenue through early recognition—for example, by recognizing revenue before product shipment or title transfer, or at a time when the customer still has the option to void, terminate, or delay the sale despite providing guidelines for the appropriate timing of revenue recognition. This issue is considered a research problem that the current study seeks to answer through data analysis and hypothesis testing.

As per Ugbede et al. (2013), "Corporate governance is the blood that fills the veins of transparent corporate disclosure and high-quality accounting practices". Good practices of corporate governance maximize the shareholders' value on an ethical, legal, and sustainable basis and assure transparency to other stakeholders. Murthy (2006) stated that poor implementation of corporate governance could negatively affect the quality of financial reporting. In addition, family ownership is a shareholder structure that is commonly found in Jordan, where more than a half of the shareholders in public firms in Jordan are family shareholders. Therefore, family shareholders can influence applicable decisions and policies, including decisions related to financial reporting (Al Daoud, 2018; Al-Sraheen & Al Daoud, 2018), who also revealed that family ownership plays a vital role in weakening the level of earnings' management.

This study seeks to examine the relationships between the size of the board, CEO duality and audit committee and premature revenue recognition, and this is what is expressed in the first research model. The study also developed another research model to investigate the moderating role of family ownership in the relationship between the effectiveness of corporate governance and premature revenue recognition. This study contributes through filling the research gap in previous literature related to the relationship between the effectiveness of corporate governance and premature revenue recognition on the one hand, in addition to adding family ownership as a moderating variable to the second research model, which is considered a significant contribution to the second research model on the other hand.

2. Literature Review

Since corporate boards' structures possibly depict public and standard images of organizations as documented by Obigbemi et al. (2016), it is expected that effective boards, with their oversights on the activities of managements may reduce the practices of earnings' management.

2.1 Board Size

The board can be classified as the highest firm's echelon of monitoring, which is saddled with the arduous responsibility of managing the firm's activities efficiently. The monitoring task of the content and quality of financial statements as well as monitoring the activities and behaviors of senior manager's rest on the hands of corporate boards, as mentioned by Okougbo and Okike (2015).

A larger board size is deemed as a provider of resources, as mentioned by Hillman and Dalziel (2003), such as advice, legitimacy, council links to other organizations, … etc. and, thus, it improves the knowledge, skills, and expertise needed to exert effective monitoring of financial reporting quality. This point of view is consistent with the resource dependence theory (Ghosh et al., 2010). On the other hand, a smaller size of the board is more dynamic in performing its monitoring role and decreasing the incremental costs of poor communication related to larger groups and is more likely to be controlled by the corporate management (Jensen, 1993; Dechow et al., 1996).

As provided by the applicable codes of corporate governance in Jordan, board sizes of companies should range from a minimum of three members to a maximum of 13 members (SDC, 2022), It’s also documented by SDC that the “the board should consider being comprised of an odd number of directors to ensure the ability to take decisions by majority or alternatively ensure that the chairman with the casting vote is an independent director”. Despite the contradictory results in terms of size and directions of effect, there is empirical evidence suggesting either the existence or the non-existence of a relationship between the board size and earnings’ management (Abdelkarim & Zuriqi, 2020). For example, studies have reported a negative association between board size and earnings’ management (Abed et al., 2012); whereas, evidence from the literature also indicates that there is a positive relationship between board size and earnings’ management (Rahman & Ali, 2006). Though with contradictory outcomes, a debate from other schools of thought is that board size and earnings’ management have no subsisting relationship (Gulzar & Wang, 2011; Ideh et al., 2021). Therefore, this study follows the Jordanian Code of Corporate Governance, which states that the board size should be small enough for efficient decision-making, and large enough for directors to contribute their broad knowledge, skills, and experiences sufficiently. Based on the above theoretical basis, this study proposes the following hypothesis:

H1: There is a relationship between board size and premature revenue recognition.

2.2 CEO Duality

The duality of CEO roles refers to the scenario where CEO and chairman of the board are the same individual. According to the Jordanian Code of Corporate Governance reports, no dual role should exist in the firm, in order to improve the effectiveness level of corporate governance and the balance of power within the firm. Separation of the two roles is vital for the effective corporate board, noting that this point of view is supported by the agency theory and its advocators (Hashim & Devi, 2008).

Inconclusive outcomes by researchers in case of earnings’ management and CEO duality have been documented. Few previous studies revealed that there is no relationship between earrings’ management and CEO duality (Chouaibi et al., 2018). However, Abdul Rahman and Haniffa (2005) pointed out a significant relationship between CEO duality and corporate performance, where they revealed that companies with CEO duality did not perform well compared to other companies. Similar outcomes are documented by Saleh et al. (2005) in respect of earnings’ management. In addition, Dokas (2022) reported that CEO-chairman duality is a feature of companies that engage in earnings’ management practices more aggressively. CEO duality provides enormous power to the CEO, which may harm effective corporate governance within the company and reduce its efficiency. Thus, this paper proposes the following hypothesis:

H2: There is a relationship between CEO duality and premature revenue recognition.

2.3 Audit Committee

The conflict of interests of corporate managers with the pressure to maximize firm value and their interests has a strong influence on earnings’ management (Jensen, 2005). Audit committee is responsible for overseeing the board of directors' performance, as well as overseeing the independent audit process, and overseeing the corporate managers' performance and behaviors (Al Daoud et al., 2015). Thus, the audit committee will be motivated to enhance the operational efficiency and investors will have greater confidence and trust in the financial statements of firms. Few studies acknowledged the audit-committee's role in ensuring the financial reporting reliability, and paid attention to the task of improving the accuracy of financial information and its quality through manager supervision (Abbott et al., 2000). In addition, audit committees are seen as a controlling mechanism to minimize information asymmetry between stakeholders and the corporate management.

Xie et al. (2003) and NGO and Le (2021) examined the relationship between audit committee and earnings' management; they documented that earnings' management is less likely to occur in firms with an audit committee with a majority of independent members. Vafeas (2005) examined the relationships between the audit committee and the board of directors with financial statements' quality, and found that the audit committee and the corporate board should be operated and structured properly to help improve the financial reporting quality (NGO & Le, 2021). So, the third hypothesis in this study is as follows:

H3: There is a relationship between audit committee and premature revenue recognition.

2.4 Corporate Governance Effectiveness

Managers' decisions and activities can directly be affected by board governance, and affected by choosing, hiring, and controlling external auditors and internal mechanisms of control through the audit committee. Despite that, the internal control system can be employed for monitoring and controlling opportunistic earnings' management (Abbadi et al., 2016; Carcello et al., 2006). In addition, in the period of a financial crisis, the likelihood increases that corporate managers employ their opportunistic behavior to achieve their personal interests, achieve the targets of firms and at the same time avoid reporting bad earning news to markets through earnings' management practices (Shana'a et al., 2023). Therefore, previous literature has pointed out the importance of effective corporate governance, and the vital role played by the board of directors' effectiveness in particular in constraining earnings' management practices (Haifawi et al., 2022; Dechow & Dichev, 2002).

Abbadi et al. (2016) documented that earnings' management is negatively affected by the overall categories of governance index represented by board of directors, board meetings, audit committee, compensation committee, and nomination committee. Furthermore, they revealed that the quality of corporate governance has increased over time. Thus, its ability to limit earnings' management practices has also increased. Shahroor and Ismail (2022) pointed out that a weak level of corporate governance mechanisms could fail to deter the practices of earnings' management. They recommended that policy makers should ensure that the mechanisms of corporate governance are strengthened, and efforts should be exerted to facilitate strict commitment to measures that will diminish the activities of earnings' management. Based on this explanation, the following hypothesis can be formulated:

H4: There is a relationship between corporate governance effectiveness and premature revenue recognition.

2.5 Family Ownership

Although some studies have reported that family-owned firms loaded with debt engage in earnings' management practices to protect their wealth, as mentioned by Avabruth and Padhi (2022). There are also results that indicate that family control decreases agency problems between shareholders and corporate managers, as documented by Richardson and Leung

(2011), but it may create a conflict between minority shareholders and controlling families in case of weak protection of minority shares. In the agency theory, in context of family business, majority shareholders can expropriate the wealth of the firm from minority shareholders. Thus, financial statements' users will encourage firms to enhance the financial reporting quality to maintain their assets. The research results obtained by Batanieh et al. (2018) pointed out that family business was better in terms of the controlling and monitoring processes due to the large sense of responsibility. Therefore, family ownership restricted the practices of earnings' management. These results are consistent with Al-Duais et al. (2019) who stated that firms with family ownership tend not to allow earnings' management practices, because generally, families invest a lot of their personal assets for their own reputation and own interests. For this reason, family members are highly motivated to concentrate on management and performance monitoring. Hence, this study proposes the following research hypothesis:

H5: Family ownership has a moderating role in the relationship between corporate governance effectiveness and premature revenue recognition.

3. Methods

3.1 Sample and Data

The current study included all the industrial companies listed in the Amman Stock Exchange (ASE). Companies under the financial sector are uniquely regulated and have different financial structures (Klein et al., 2002); thus, they are excluded from the sample. Out of 54 industrial companies, 40 companies were finally selected with a total of 160 firm-year observations during the study period from 2017 to 2021, and firms are dropped from the sample on the basis of non-availability of missing values or financial reports. The dataset regarding the research variables is directly extracted from the firms' annual reports.

3.2 Research Variables

This study analyzes the data by using a market-based measure of premature revenue recognition; i.e., DR model of Stubben (2010) in estimating PRR. Board size, CEO duality, and the existence of audit committee are included as independent variables in the current study and then, these three independent variables are converted into a single composite measurement to measure the effectiveness of corporate governance. Previous studies have shown that such composite measurement provides additional information on the overall quality of governance (Sraheen, 2019). Family ownership is a moderating variable and is calculated by the percentage of the shares held by family members in the firm. Thus, a higher level of family ownership is defined as the level of family ownership in the company when it is equal to or higher than 5% (Al-Sraheen et al., 2019). Board size is measured by the total number of directors in the board of directors. CEO duality means the simultaneous positions of CEO and chairman in the board. In order to control the family ownership, governance and premature revenue recognition relationships, the current study used firm size and leverage as control variables (Welch, 2003).

3.3 Model Equations

This study analyzes the relationship between the corporate governance effectiveness (CGEF) and premature revenue recognition (PRR), and the research model is presented as follows:

$$PRR = \beta_0 + \beta_1\, BSIZ + \beta_2\, CEO + \beta_3\, AC + \varepsilon \quad (1)$$

where the dependent variable in the current study (PRR), measured by DR^{+}, is the estimated positive value of the residuals in the following year regression:

$$\Delta AR_{it} = \alpha_0 + \beta_1 \Delta R1-3_{it} + \beta_2 \Delta R4_{it} + \beta_3 AC + \varepsilon_{it} \qquad (2)$$

where "$\Delta AR_{i,t}$ refers to the annual change in accounts receivable, $\Delta R\ 1\_3_{i,t}$ refers to the change in revenues in the first three quarters of a year, while $\Delta R\ 4_{i,t}$ refers to the change in revenues in the fourth quarter of the same year, each being scaled by lagged total assets".

As for the independent variables in Equation (1), they are as follows:

BSIZ	Board size measured by "number of directors in the board".
CEO	"Indicator variable with a value of 1 if the CEO also serves as a chair of the board and 0 otherwise."
AC	"Indicator variable with a value of 1 if the firm has an audit committee and 0 otherwise."
CGEF	It is a combination measure extracted from the three previous proxies (Size, CEO, and AC), calculated as follows: **Board size**: given the value 1 if the board members are less than six members and zero otherwise. **CEO**: "Indicator variable with a value of 1 if the CEO also serves as a chair of the board and 0 otherwise." **AC**: "Indicator variable with a value of 1 if the firm has an audit committee and 0 otherwise." Then, the scale is out of three categories based on the results of the previous three measures as follows: ● Low corporate governance quality between 0.00 and 1. ● Medium corporate governance quality from 1.01 to 2. ● High corporate governance quality from 2.1 to 3.

The second research model is developed in order to test the role of family ownership as a moderating variable in the relationship between PRR and effectiveness of corporate governance:

$$PRR = \beta_0 + \beta_1 CGE + \beta_2 CGE * FOWN + \varepsilon \qquad (3)$$

where CGE represents the corporate governance effectiveness, FOWN represents the family ownership concentration which is the amount of stock owned by family members as large-block shareholders. In this study, the concentration shareholders are those holding more than 5% of stock.

4. Findings and Analysis

Table 1 presents the descriptive statistics of the research variables used in the analysis. The mean of board size is 9 members which is close to what was reached by Ahmed, and it is considered an acceptable number for members of the board of directors.

BSIZE was between 5 and 19 directors, and the mean was 9 directors, which is in line with the findings of Alshirah et al. (2022). CEOD showed a mean value of 30%, indicating that 70% of the Jordanian industrial firms adhere to the requirements of the Jordanian Code of Corporate Governance (JCGC) guidelines regarding the CEO role separation. 78% of the Jordanian industrial firms have an audit committee in their structure, which represents an adherence to the (JCGC) requirements. The average corporate governance effectiveness in the research sample was 1.91, which represents a medium level of effectiveness. Thus, we pass our recommendation to the Jordanian authorities, policy-makers and regulation setters to urge companies to maintain a high level of effective corporate governance. 54% of the Jordanian industrial companies are family businesses. This percentage indicates that there is a high concentration of family ownership, and this also indicates that these families seek to preserve their companies, so that they can pass them on to future generations.

Table 1
Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation
BSIZE	160	5.00	19.00	9.0312	3.61413
CEOD	160	.00	1.00	.3000	.45970
AC	160	.00	1.00	.7875	.41036
CGEF	160	1.00	3.00	1.9125	.73019
FOWN	160	.19	.90	.5446	.22750
FSIZE	115	13.75	18.51	16.783	1.2001
LEVE	115	.00	.62	.0697	.12091

The results of the correlation matrix in Table 2 show that none of the research variables was found to have a high correlation (i.e., the maximum correlation value was 0.407 which was between FSIZE and LEVE). Therefore, multi-collinearity cannot be seen in the research model. Multi-collinearity is indicated by a correlation value higher than 0.9, as mentioned by Hair et al. (2010).

Table 2
Pearson correlation matrix

	PRR	BSIZE	CEOD	AC	FSIZE	LEVE
PRR	1	-.240**	-.255**	-.142	-.031	-.102
BSIZE		1	.309**	.221**	.138	.215
CEOD			1	.007	.166	.067
AC				1	-.008	.113
FSIZE					1	.407
LEVE						1

Notes: Premature revenue recognition_ PPR (dependent variable). Board Size_ BSIZE; CEO Duality_CEOD; Audit committee existence_AC; Firm Size_FSIZE; Financial Levarage_LEVE. * $p < 0.1$.

4.1 Models and Testing of Hypotheses

Table 3 reports the multiple regression results of using PRR as the dependent variable. The F-statistic value (6.072) indicates overall significance of the first research model at 0.01 significance level, in addition to the Sig. value (0.001). This result indicates that the selection of the independent variables, represented by board size, CEO duality and audit committee existence, is an appropriate combination and contributes positively to achieving the objectives of the current study. However, the adjusted R^2 is quite low, which means that about 92% of the dependent variable cannot be explained by the first model.

Table 3
ANOVA results of the first model

Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	.510	3	.170	6.072	.001[b]
	Residual	4.365	156	.028		
	Total	4.875	159			
	R= .323	R-square =.105		Adjusted R-square=.087.		

Table 4 reports the results of the first regression model. The results show that there is a negative and insignificant relationship between board size and PRR. This negative association suggests that a smaller number of directors in the corporate board would most likely limit the use of accruals to earnings' management (Alves, 2011). As a result, hypothesis 1, regarding the relationship between board size and premature revenue recognition, which is negative and insignificant, is rejected.

As for the second hypothesis, the result shows that the relationship between CEO duality and PRR is negative and significant. Our result is consistent with most corporate practice recommendations that strongly suggest separating the roles of CEO and board chairman, the result supports the view that independence of roles favors control over managers' discretionary accruals' activities and behavior (Meca & Ballesta, 2009). Thus, the second hypothesis is supported.

Table 4
Regression analysis of the first model

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	.260	.040		6.466	.000
	BSIZE	-.007	.004	-.153	-1.870	.063
	CEOD	-.079	.030	-.207	-2.590	.010
	AC	-.046	.033	-.107	-1.370	.017
	Leverage	-.059	.119	-.048	-.494	.622
	FSIZEE	-.003	.012	-.026	-.269	.788
a. Dependent variable: PRR.						

The primary role of the audit committee is to oversee and improve the financial statement quality. Thus, the audit committee will improve efficiency and ability to detect and prevent the practices of earnings' management. Studies have supported our result, stating that the existence of the audit committee prevents the practices of earning management. Soliman and Ragab (2014) and Juhmani (2017) found a significant negative relationship between the supervisory board and earnings' management. Thus, the results from Table 4 show a significant negative association (t = -1.370, p = 0.017) between audit committee and premature revenue recognition, which suggests that the existence of an audit committee may constrain earnings' management. Based on the above discussion, the third research hypothesis is supported.

The results from regression analysis also show an inverse relationship between the control variables (firm size and financial leverage) and PRR at 1% level. This shows that firm size and financial leverage tend to decrease PRR. These results are also supported by Ngo and Le (2021).

The multiple regression models in the current study are developed for investigating the fourth research hypothesis which stated that there is a relationship between corporate governance effectiveness and PRR of ASE-listed industrial firms for the years from 2017 to 2021. In addition, the second research model seeks also to examine the moderating role of family ownership concentration in the relationship between corporate governance effectiveness and premature revenue recognition.

Table 5
ANOVA results

Step		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	.510	3	.170	6.072	.001[b]
	Residual	4.365	156	.028		
	Total	4.875	159			
2	Regression	1.009	5	.202	8.037	.000[c]
	Residual	3.866	154	.025		
	Total	4.875	159			
3	Regression	1.191	6	.198	8.242	.000[d]
	Residual	3.684	153	.024		
	Total	4.875	159			
Model 1 R^2 = 0.105. Adjusted R^2 =0.087. R^2 Change=0.105.						
Model 2 R^2 = 0.244. Adjusted R^2 =0.215. R^2 Change=0.037.						

Table 5 shows that the research model is statistically significant based on the values of (F=8.242; Sig= 0.000). It shows that R^2 of corporate governance effectiveness is 0.244 and this means that 24.4 percent of the variation in premature revenue recognition is explained by corporate governance effectiveness. The remaining 75.6 percent can be explained by other factors not considered in our research model. In addition, the results reported that the R^2 change =0.037, which displayed an increment in R^2 value in model (1) as compared with model (2). This indicates that the explanatory power has increased in the second model, which is deemed as a positive indicator.

Table 6 indicates that the corporate governance effectiveness has a negative and significant role in limiting the premature revenue recognition based on the values of (t= -2.939; Sig.= 0.004). Our result is supported by Shahroor & Ismail (2022) who reported that a weak level of corporate-governance quality could fail to prevent earnings' management practices. Thus, the fifth research hypothesis is supported.

Table 6 shows the results of the second research model that tests the fifth research hypothesis, which states that there is a vital role of family ownership concentration as a moderating variable in the relationship between CGEF and PRR.

Table 6
Regression analysis results

Step		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.260	.040		6.466	.000
	BSIZE	-.007	.004	-.153	-1.870	.063
	CEOD	-.079	.030	-.207	-2.590	.010
	AC	-.046	.033	-.107	-1.370	.173
2	(Constant)	.322	.056		5.806	.000
	BSIZE	-.013	.004	-.270	-3.129	.002
	CEOD	-.121	.031	-.317	-3.850	.000
	AC	-.075	.032	-.175	-2.327	.021
	CGEF	-.066	-.022	-.274	-2.939	.004
	FOWN	-.186	.056	-.241	-3.309	.001
3	(Constant)	.312	.055		5.713	.000
	BSIZE	-.016	.004	-.321	-3.712	.000
	CEOD	-.112	.031	-.294	-3.632	.000
	AC	-.076	.031	-.179	-2.427	.016
	CGEF	-.059	-.022	-.247	-2.693	.008
	FOWN	-.248	.059	-.322	-4.173	.000
	FOWCGEF	.061	.022	.217	2.749	.007

The current study uses the sequential regression analysis (also called hierarchical regression) to test the moderating role of family ownership concentration in the relationship between CGEF and PRR. The results of the study show that family ownership concentration plays a positive moderating role in the relationship between CGEF and PRR based on the values of (F=2.749; and Sig.=0.007). This result is supported by Borralho et al. (2020), who documented that family businesses are less prone to earnings' management practices compared to non-family businesses, and that the association between family business status and earnings' management practices is moderated by the firm generation, also as documented by Borralho et al. (2020). Our study contributes to the literature on the financial information quality in both family businesses and unlisted firms, exploring a new field of research. Thus, our results may contradict the finding that says that the discretionary accruals' reduction, which seems to occur in the second and third family generations (after the founder), seems to have a key influence on the financial information quality, which may affect the notoriety of families (García-Sánchez & Martínez-Ferrero, 2016).

5. Conclusions

Based on the data analysis and discussion, it can be concluded that hypothesis testing shows the influence between independent and dependent variables. The study used three independent variables (board size, CEO duality and audit committee existence) and one dependent variable (premature revenue recognition) (PRR). The results documented that the three independent variables prevent the practices of premature revenue recognition along with the control variables. The three independent variables were transformed into one variable labeled corporate governance effectiveness (CGEF) in order to develop the second research model that examines the moderating role of family ownership concentration (FOWN) as a moderating variable in the relationship between CGEF (as the independent variable) and PRR (as the dependent variable). The results also indicate that FOWN plays a positive role along with CGEF in limiting the practices of premature revenue recognition as a tool of earnings' management. The limitations of the current study are (1) Limited variables used; (2) This study is limited to industrial firms listed in the ASE; and (3) The study period 2017-2021.

This study recommends future studies to extend the current research model through adding more related variables, such as board independence, board expertise, and board tenure. Corporate boards, governments and regulation setters also should establish clear and strict regulations regarding revenue recognition policy, particularly during crises such as the Covid-19 pandemic, which gave sufficient flexibility in the revenue recognition policy through defense orders that appeared in these circumstances, leading to increase opportunistic behaviors of managers through earnings' management practices, which is inconsistent with IFRS15.

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