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Family Ownership and the Business Financial and Nonfinancial Performance In the Midst of COVID-19 Pandemic Implications: Evidence from MENA Region

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Family Ownership and the Business Financial and Nonfinancial Performance In the Midst of COVID-19 Pandemic Implications: Evidence from MENA Region

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Abstract

This research aims to study and test how family ownership influences businesses' financial and nonfinancial performance indicators. Moreover, following the recent worldwide hit of the COVID-19 pandemic, the study investigates the various responses of businesses owned by families and nonfamilies to the pandemic implications, which may have impacted business performance. With a sample of 1,211 quarters observations from nonfinancial listed firms on the Egyptian stock market from 2017 to 2022, the study focuses on employing a statistical regression analysis to comprehensively understand the empirical impact of family involvement in businesses and assess their adaptability to the post-COVID-19 '*new normal'*. The paper concludes that, over a six-year research period, family ownership has significantly and positively impacted the firm's financial performance. However, other nonfinancial indicators are seen to be nonuniformly affected by family ownership in Egypt. Furthermore, the analysis suggests that the implications of the COVID-19 pandemic have an insignificant moderating effect on the influence of family ownership on both types of business performance. The research adds to the body of accounting literature by delving into the significance of the long-term nonfinancial performance perspectives for family-owned businesses, which played a defining role in global stock markets. Furthermore, this paper adds to the understanding of different business structures' responses to the challenges posed by COVID-19 by examining the adaptability of these unique businesses to the global crisis.

Keywords

Family ownership; Financial performance; Nonfinancial performance; Balance scorecard; COVID-19 pandemic; Egypt

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الملخص

يهدف هذا البحث إلى دراسة و اختبار أثر الملكية العائلية للشركات على مؤشرات أدائها المالي و غير المالي. علاوة على ذلك، في أعقاب الضربة العالمية الأخيرة لجائحة كورونا، تبحث الورقة في ردود الأفعال المختلفة للشركات المملوكة للعائلات و غيرها من الشركات المملوكة لغير العائلات، لتداعيات الجائحة و التي قد تؤثر بدورها على أداء الشركة. باستخدام عينة من 1،211 مشاهدة ربع سنوية للشركات غير المالية المقيدة في البورصة المصرية في الفترة بين 2017 حتى 2022، تركز الدراسة على استخدام نموذج تحليل الانحدار لفهم التأثير التطبيقي لتدخل العائلات في الشركات و تقييم قدرتهم على التكيف مع *"الواقع الجديد"* بعد جائحة كورونا. تشير النتائج إلى أن، خلال فترة الدراسة،

الملكية العائلية لها تأثير معنوي و إيجابي على أداء الشركة المالي. و لكن، بالنسبة للمؤشرات غير المالية، فظهر تأثير غير موحد للملكية العائلية في مصر. و فضلاً على ذلك، تشير التحليلات إلى وجود تأثير مُعدل غير معنوي لتداعيات جائحة كورونا على تأثير الملكية العائلية على أداء الشركة، بنوعيه. يضيف البحث إلى مجموعة الدراسات المحاسبية من خلال التركيز على أهمية المنظور غير المالي طويل الأمد للشركات المملوكة للعائلة، و التي لعبت دوراً هاماً في الأسواق العالمية على مدار العقد الماضي. إضافةً إلى ذلك، تساهم هذه الدراسة في فهم ردود الأفعال المختلفة لهياكل الشركات على التحديات التي فرضتها جائحة كورونا من خلال فحص قدرة تلك الشركات المميزة على التكيف مع الأزمة العالمية.

الكلمات المفتاحية

الملكية العائلية; الأداء المالي; الأداء غير المالي; بطاقة الأداء المتوازن; جائحة كورونا; مصر.

1. Introduction

Family businesses (FBs) have been a longstanding organizational structure that has crucially contributed to the global and national economies. They hold a remarkable dominance as they account for 50 percent of worldwide firms, 90 percent of the capital market in the USA, and 60 percent of European Union firms (Family Business European Union Report, 2009). This underscores their significant contribution to the economic landscape. Typically, FBs are characterized by substantial ownership and governance held by the family across multiple generations (Vlasic, 2023). As a result of the exceptional trust and cooperation relationships between family members, their unique perspectives and distinctive values lead to dynamic competencies and capabilities, which shape unprecedented business behavior and offer invaluable opportunities to achieve significant competitive advantages (Williams et al., 2019).

FBs often demonstrate remarkable resilience with a higher likelihood of long-term survival than nonfamily businesses (NFBs), as families tend to have longer time horizons, considering not only current generations but one or more succeeding ones. Nevertheless, the statistics paint a different reality. Unfortunately, most FBs do not make it past the second generation, with only around 30 percent surviving the transition process from the founder to the following generation. This survival rate further decreases to 15 percent for the third generation and 11 percent for the fourth generation (Poza & Daugherty, 2014). This is because FBs suffer from executive entrenchment, inter-generational arguments, capital restrictions, and nepotism (Perez-Gonzalez, 2006).

Recent research has sparked debate and interest in the realm of FBs over the past decade. A wide range of factors relating to FBs have been thoroughly examined throughout this period. These include the *family*'s influence on the business (Baù et al., 2020), knowledge management (Zaim et al., 2022), innovation (Leppaaho & Ritala, 2022; Zybura et al., 2021; Ingram et al., 2020), leadership (Fries et al., 2021), entrepreneurship (Aldrich et al., 2021), family women entrepreneurship (Bağış et al., 2023), emotions and values (Kammerlander, 2022). The effect of these factors on the FBs performance has been a critical focus of prior research, resulting in a wide variety of findings and perspectives (Muttakin et al., 2014).

While most research has concentrated on analyzing the financial performance (FinPerf) of FBs in various settings, including developed or developing countries (e.g., Stryckova, 2023 in Europe, Elgiziry & Moussa, 2022 in Egypt, Muttakin et al., 2014 in Bangladesh, Gonzalez et al., 2012 and Perez-Gonzalez, 2006 in the USA, etc.), using different financial indicators, for example, return on equity (ROE), return on assets (ROA) or Tobin's Q, there has been limited research focusing on examining the family involvement in business on nonfinancial performance (NFPerf). Knowing that families are typically assumed to have stronger motivations for longer-term nonfinancial goals, as they prioritize maintaining the business within the family. Therefore, traditional FinPerf measures may not fully capture the overall business performance. In return, NFPerf measures, including the satisfaction of customers and employees and IntBus efficiency (Kaplan & Norton, 2005, 2001), focus on long-term success factors that are often overlooked by financial measures. Therefore, this paper aims to broaden the FBs accounting literature through the empirical analysis of the differences in NFPerf between FBs and NFBs, in addition to the FinPerf discussed in prior research.

Throughout history, families have often been regarded as resilient businesses during global crises, in contrast to their nonfamily counterparts. However, the recent unprecedented complexity, challenges, and implications of the Coronavirus pandemic (COVID-19) that began in early 2020 have reshaped this perception. Since the 1970s, global crises have generally been a prevalent part of business life (Wenzel et al., 2020a). However, the world is witnessing transformative changes resulting from the COVID-19 pandemic and its extensive implications (Sayed et al., 2024). Numerous countries were compelled to implement stringent measures, including partial or general lockdowns, shutdowns, events prohibition, social distancing, and travel restrictions, to slow down the global spread of the pandemic and save people's lives (Wenzel et al., 2020b). These restrictions and their implications have caused a global economic downturn and have significantly affected the performance of businesses across the globe. Given these disruptive impacts, a growing number of studies have questioned the pandemic influence on the performance of various structures of organizations and industries (Katsaros, 2024; Mirzaei et al., 2024; Nuta et al., 2024; Makni, 2023). Consequently, this creates a pressing need to comprehensively investigate the pandemic's impact within the unique context of FBs. In light of this research objective, this paper seeks to delve into the moderation of COVID-19 on the relationship between FBs and their financial, in addition to, their NFPerf perspectives.

Therefore, this study adds to the existing literature on FBs in multiple ways. Firstly, by offering a detailed understanding of the influence of family-owned businesses on financial and nonfinancial performance, which has not been extensively explored. Secondly, it is one of the pioneer studies that investigate the effects of the recent COVID-19 pandemic on FBs, investigating the moderating effect of COVID-19 on the relationship between FBs, on one side and the firm performance, on the other side, especially in one of the limited emerging contexts in the Middle East and North Africa (MENA) region that has experienced spurred growth during the pandemic, Egypt.

The remainder of the research is organized as follows: Section 2 provides an overview of the Egyptian context, and Section 3 reviews the related literature and develops eight research hypotheses. Section 4 outlines the research methodology employed, Section 5 presents the data analysis and discusses the empirical results, and Section 6 refers to the paper's conclusions and limitations.

2. Family Businesses (FBs): The Egyptian Context

Over the last decade, FBs in Egypt have encountered significant challenges and pivotal turning points. Beginning in the 1950s and continuing into the 1960s, FBs experienced a sharp decline as a result of the state's nationalization policies. However, the 1970s brought about a revival in Egyptian FBs following the adoption of free market policies (Abouelseoud, 2019). Based on the Egyptian Center for Economic Studies, FBs have evolved into a substantial and indispensable segment of the Egyptian economy, with almost half of the country's companies being family-owned (PwC, 2021). These businesses play a critical role in employment, engaging almost 70 percent of the labor force, and contribute significantly to the national income, representing about 75 percent of the private sector's activity (Abouelseoud, 2019).

Despite their vital contributions to the economy, navigating through recent political and economic changes has posed significant challenges for Egyptian FBs. Events such as the 2011 and 2013 Egyptian revolutions, ongoing amendments to the Egyptian constitution and regulatory policies, repeated currency devaluations, and the effect of the COVID-19 have substantially influenced the Egyptian business market. Notably, Egypt demonstrated considerable economic resilience amid the COVID-19 pandemic, standing out as one of the few countries that succeeded in attaining growth indications despite the blowback of the global crisis (Sayed et al., 2024). Even so, a survey by PricewaterhouseCoopers (PwC) highlighted the need for Egyptian FBs to adapt to the new normal of the post-COVID-19 economic landscape by embracing a more open mindset. The survey clearly emphasized the necessity for these businesses to work harder, acknowledging that their traditional cultures and norms may not fully align with the new economic conditions if they look forward to sustained success (PwC, 2021).

3. Literature Review and Hypothesis Development

3.1 Family Businesses (FBs)

The literature on FBs has produced a wide range of definitions over the years, resulting in ambiguity and challenges in establishing a consensus on a definition of family ownership (FamOwn). For instance, McConaghy et al. (1998) defined FBs as a business run by a founder or a member of their family, while Chua et al. (1999) focused on the ownership and governance of the same family members sustaining the business across multiple generations. Similarly, Bennedsen et al. (2007) and Perez-Gonzalez (2006) focused on later generations of the family who work as the chief executive of the firm when defining FBs. Moreover, Gomez-Mejia et al. (2007) emphasized the involvement of several family members in owning and managing a business to be considered a FB.

Many researchers count FBs as any business whose founding families serve in a managerial position or own a fraction of the business, leading to a significant variation in the definition among several research studies (Muttakin et al., 2014; Anderson & Reeb, 2003). Despite the extensive variation of FB definition embraced, nearly all researchers agree that the typical portrayal of this type of business is built on the foundation of the substantial ownership and governance of the founding family (Vlasic, 2023). This research specifically adopts the definition of Muttakin et al. (2014), regarding FBs as those firms whose 20 percent or more of their shares or voting rights are held by family block holders provided that at least one of them is in a managerial position, as a Chairman, Chief Executive Officer (CEO), or a board member.

3.2 Financial and Nonfinancial Performance of FBs

The culture, values, and goals shared within FBs are closely intertwined. Therefore, families are considered to have more substantial incentives to effectively govern and control the business and maximize its performance (Muttakin et al., 2014). FBs are known for having longer investment horizons compared to their counterparts NFBs. The unique long-term nature of families makes them less susceptible to short-sightedness and provides them with patient capital, which shields them from prioritizing current earnings over good investment opportunities (Bertrand & Schoar, 2006). This, in turn, supports the argument of Demsetz & Lehn (1985) regarding the strong, substantial economic incentives of family members to diminish agency conflicts and maximize business performance.

Additionally, cohesion and trust among family members serve as a key alternative for weak formal investment protection, governance, and contractual enforcement (Bertrand & Schoar, 2006), which highlights the outperformance of FBs, as evidenced by a wide stream of research (Muttakin et al., 2014; Kowalewski et al., 2010; Piesse et al., 2007; Anderson & Reeb, 2003). However, some studies argue that FamOwn negatively affects FinPerf, contrary to NFBs that outperform FBs (Oreland, 2007). The predetermined cultural values and norms of the family may impose some efficiency distortions if not optimally adapted to the surrounding economic environment. Cultural theories find it difficult to detach families from their business, putting the family founder in a difficult position to choose between financial returns and respecting the family's values and obligations (Bertrand & Schoar, 2006).

Furthermore, nepotism and the preference for family members in executive managerial positions may pose significant challenges for FBs (Anderson & Reeb, 2003). The "*familism*" and focus on building a legacy with strong kinship notions, while well-intentioned, rather than focusing on better long-term strategies such as profitable expansions or mergers, may hinder the growth potential of these firms (Bertrand & Schoar, 2006). Since founders compromise hiring more experienced professional managers in favor of family involvement. Collectively, the conclusions of these studies indicate that the combination of management and control in the hands of family members may create suboptimal decisions without considering the interests of minority shareholders, causing type two agency problems and resulting in poor firm performance (Muttakin et al., 2014).

The performance of FBs has been extensively studied in this term. However, solely relying on the traditional financial perspective to evaluate the businesses' performance is no longer sufficient (Kaplan & Norton, 2001). FinPerf indicators are regarded as narrow in focus, as they overlook other critical long-term dimensions necessary for business success (Sayed et al., 2024). Furthermore, they tend to lag behind, emphasizing outcomes rather than measuring the driving forces behind those outcomes (Nuhu et al., 2022). Therefore, there is a growing need to pay attention to NFPerf indicators, which are deemed more crucial than FinPerf measures, particularly in the context of FBs (Kotler et al., 2018), where goals are diverse, complex, and varied. Thereby, FBs cannot be seen from a single financial perspective.

Recent research has associated FBs with the '*socioemotional wealth (SEW)*' concept. The nonfinancial or affective aspects featured in FBs are reflected in the SEW concept, which is regarded as the unique motive distinguishing family founders from other nonfamily founders (Kammerlander, 2022). Studies have shown that SEW embraced in families may drive them to make irrational strategic decisions driven by noneconomic reference points or risk-aversion logic (Zellweger et al., 2012). For example, families may diversify less by reducing the appointment of nonfamily members for fear of losing family influence or decreasing the centralization of decision-making, even though this constitutes higher business risks (Gomez-Mejia et al., 2010). Accordingly, ignoring nonfinancial measures when investigating the influence of family-owned businesses on their performance is inconsequential.

To address the limitations of traditional FinPerf measures, Kaplan & Norton (2005) introduced a comprehensive and balanced performance measurement system called '*The Balanced Scorecard (BSC)*', which combines financial, as well as, NFPerf measures. The conceptualized system of BSC encompasses different perspectives, including financial and nonfinancial performance indicators, which serve as a strategic management system framework (Sayed et al., 2024) and align conflicting business and family perspectives through strategic planning and strategy formulation. The integrated BSC covers the firm's entire activity by grouping a comprehensive set of four perspectives: financial, customer, internal business, and learning and growth perspectives. These perspectives collectively evaluate the profitability of the business, the ability to identify a target market and gauge customer satisfaction, the efficiency and effectiveness of the internal operations, and the capability and resources excelled by the firm to capture a superior business process.

In turn, this text emphasizes the importance of examining NFPerf measures along with FinPerf. These nonfinancial measures are seen as lead indicators that are easily understandable, more relatable, and cover a wider range of factors that furnish long-term success factors (Sayed et al., 2024; Langfield-Smith et al., 2018). Given the previous research findings and the identified research gap, these research hypotheses are developed:

H1. Family ownership significantly affects the firm's financial performance.
H2. Family ownership significantly affects the firm's customer satisfaction.
H3. Family ownership significantly affects the firm's internal business processes.
H4. Family ownership significantly affects the firm's learning and innovation.

3.3 COVID-19 Pandemic

The global business markets have not been spared from the severe impacts of the recent pandemic (Sayed et al., 2024), with FBs facing particularly daunting challenges and responding with diverse strategies (Kraus et al., 2020). COVID-19 has been likened to one of the most significant global catastrophes since the 1930s Great Depression (Sayed et al., 2024), prompting countries worldwide to implement stringent measures such as lockdowns, social distancing, and travel restrictions to curb the virus spread (Gong et al., 2022). This has prompted research studies to explore the influence of the implications of the pandemic on businesses' performance and values across various contexts (Achim et al., 2022; Bose et al., 2021; Hu & Zhang, 2021; De Massis & Rondi, 2020; Shen et al., 2020).

Generally, FBs are observed to exhibit distinct behaviors during crises, often adopting more risky behavior (Munoz-Bullon et al., 2020). Families usually strive to enhance their business competitiveness during such challenging circumstances by combining traditional, innovative, and persevering approaches (Rondi et al., 2022; Eddleston et al., 2019). There is a growing research body comparing the responses of FBs and NFBs reactions to the pandemic implications (Leppaaho & Ritala, 2022; Zainal, 2022; Marjanski & Sułkowski, 2021; Soluk et al., 2021; Kraus et al., 2020), with findings suggesting the outperformance of FBs in certain developed countries (Sahut et al., 2023). Amore et al. (2022) revealed that FBs showed higher market performance and operating profitability in comparison to NFBs in the Italian context during the pandemic. Similarly, Eckey & Memmel (2023), based on German listed companies, indicated that the higher stock market returns of FBs in comparison to NFBs are even more noticeable during the first month of the pandemic over the last five years.

However, some accounting studies present conflicting perspectives on the outperformance of FBs during times of crises, similar to COVID-19. It has been noted that COVID-19 implications pose serious threats and opportunities to families' welfare (Prime et al., 2020). Where on the other end, COVID-19 tends to increase harmful behavior, such as enmity, discontinuation, and lower responsive support (Pietromonaco & Overall, 2021), in contrast to the long-lasting norms and values embedded within founding family members before COVID-19 (De Massis & Rondi, 2020). However, knowing that most results are concluded in the firms listed in developed countries, there is an evident lack of research on FBs' responses during COVID-19 in emerging and developing economies, highlighting the need for more focused investigations in these regions. Egypt, as a leading emerging economy in the MENA region, presents an ideal research area to study the moderating impact of the COVID-19 pandemic on the FBs' performance, which is hypothesized as follows:

H5. COVID-19 pandemic moderates the relationship between family ownership and the firm's financial performance.

H6. COVID-19 pandemic moderates the relationship between family ownership and the firm's customer satisfaction.

H7. COVID-19 pandemic moderates the relationship between family ownership and the firm's internal business processes.

H8. COVID-19 pandemic moderates the relationship between family ownership and the firm's learning and innovation.

4. Research Methodology

4.1 Research Sample and Data Collection

The research paper focuses on a specific subset of firms listed on the Egyptian Stock Exchange (EGX) from 2017 to 2022. Knowing the effect of the Egyptian currency devaluation in November 2016, this year has been excluded from the research period. The study includes a final population of 165 nonfinancial firms after excluding banks and financial institutions, as they are characterized by having unique ownership structures. The research applied a purposive sampling technique to select a total sample of 1,211 firm quarter-year observations, excluding missing and extreme observations.

The study defines FBs as firms with 20 percent or more of their shares being family-owned and having at least one of this family in a management role. According to this definition, the study identifies 27 family-owned firms, which account for around 43 percent of the total firm-quarter observations. Additionally, the research includes 43 matching nonfamily-owned listed nonfinancial firms, corresponding to 691 firm-quarter observations, as shown in Table 1. Matching firms were selected based on various factors, including the regulatory structure, business models, and corporate governance mechanisms. Furthermore, Figure 1 illustrates the details of the selected sample in different industry sectors.

Table 1: Research sample selection process in quarter observations

	Total no. of quarter observations
Total population	4800
Less: financial institutions	(1320)
Total nonfinancial listed firms	3480
Listed nonfinancial family firms	648
Less: missing observations and extreme observations	(128)
Total family firms' observations	520
Listed nonfinancial nonfamily firms	2832
Less: Irrelevant or nonmatching nonfamily firms	(1671)
Less: missing observations and extreme observations	(470)
Total selected nonfamily firms' observations	691
Total number of observations	1211

The research used secondary data collected from multiple sources. Financial data was obtained from the annual financial reports of the sample firms publicly available on their official websites, the EGX database, the Mubasher database, and Refinitiv Datastream databases (previously known as the Thomson Reuters Datastream database). The author hand-collected nonfinancial data such as FamOwn, relationships, shareholding patterns, board characteristics, and corporate governance data from shareholding information, corporate governance disclosures, and board of directors' reports, which were included in the firms' published reports.

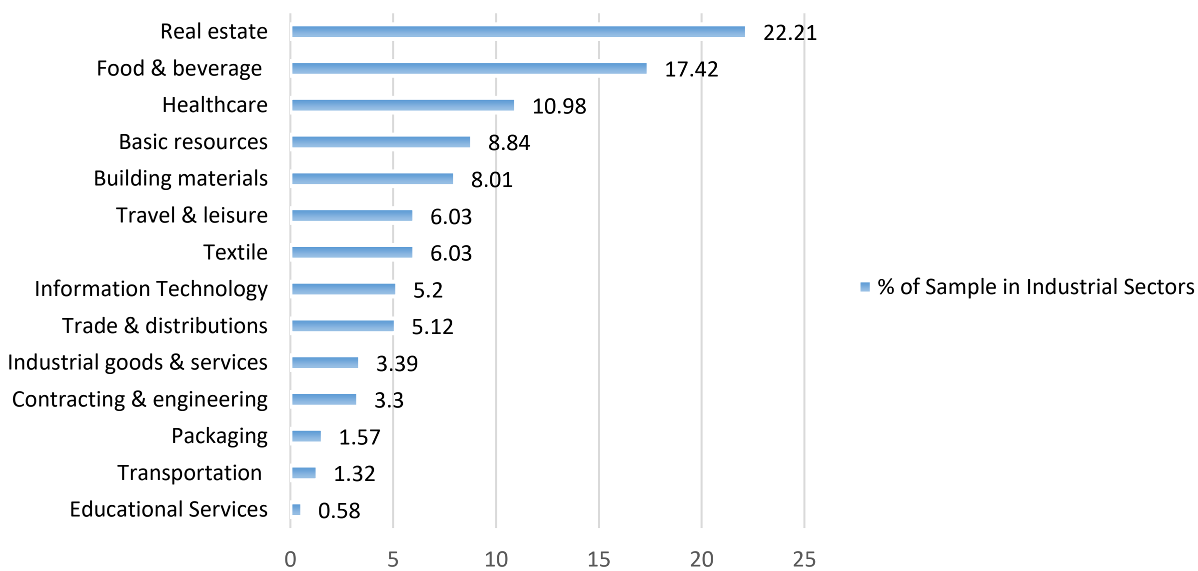

Figure 1: Sample firms in industry sectors.

Source: Author's own creation

4.2 Research Models

To test the effect of FamOwn on firms' financial and nonfinancial performance, the following research models have been developed:

$$FinPerf_{it} = \beta_0 + \beta_1 FamOwn_{it} + \beta_2 COV19_{it} + \beta_3 FSize_{it} + \beta_4 Age_{it} + \beta_5 Lev_{it} + \beta_6 Found_{it} + \beta_7 Block_{it} + \beta_8 BSize_{it} + \beta_9 BGendDiv_{it} + \beta_{10} BOwn_{it} + \beta_{11} BIndep_{it} + \beta_{12} Istit_{it} + \beta_{13} AudQual_{it} + \beta_{14} Industry_{it} + \beta_{15} QYear_{it} + \mathcal{E}_{it} \quad (1)$$

$$CustSat_{it} (IntBus_{it})(LearnInn_{it}) = \beta_0 + \beta_1 FamOwn_{it} + \beta_2 COV19_{it} + \beta_3 FSize_{it} + \beta_4 Age_{it} + \beta_5 Lev_{it} + \beta_6 Found_{it} + \beta_7 Block_{it} + \beta_8 BSize_{it} + \beta_9 BGendDiv_{it} + \beta_{10} BOwn_{it} + \beta_{11} BIndep_{it} + \beta_{12} Istit_{it} + \beta_{13} AudQual_{it} + \beta_{14} Industry_{it} + \beta_{15} QYear_{it} + \mathcal{E}_{it} \quad (2)$$

$$FinPerf_{it} = \beta_0 + \beta_1 FamOwn_{it} + \beta_2 COV19_{it} + \beta_3 COV19{*}FamOwn_{it} + \beta_4 FSize_{it} + \beta_5 Age_{it} + \beta_6 Lev_{it} + \beta_7 Found_{it} + \beta_8 Block_{it} + \beta_9 BSize_{it} + \beta_{10} BGendDiv_{it} + \beta_{11} BOwn_{it} + \beta_{12} BIndep_{it} + \beta_{13} Istit_{it} + \beta_{14} AudQual_{it} + \beta_{15} Industry_{it} + \beta_{16} QYear_{it} + \mathcal{E}_{it} \quad (3)$$

$$CustSat_{it} (IntBus_{it})(LearnInn_{it}) = \beta_0 + \beta_1 FamOwn_{it} + \beta_2 COV19_{it} + \beta_3 COV19{*}FamOwn_{it} + \beta_4 FSize_{it} + \beta_5 Age_{it} + \beta_6 Lev_{it} + \beta_7 Found_{it} + \beta_8 Block_{it} + \beta_9 BSize_{it} + \beta_{10} BGendDiv_{it} + \beta_{11} BOwn_{it} + \beta_{12} BIndep_{it} + \beta_{13} Istit_{it} + \beta_{14} AudQual_{it} + \beta_{15} Industry_{it} + \beta_{16} QYear_{it} + \mathcal{E}_{it} \quad (4)$$

4.3 Measuring Variables

4.3.1 Measuring Family Ownership (FamOwn)

In the current research body focused on FBs, FBs are specifically characterized as firms whose family block holders hold no less than 20 percent of their shares or voting rights and where at least one of the founding family serves in a managerial position, such as a Chairman, CEO, or a board member (Muttakin et al., 2014). A binary variable is employed to measure FamOwn, assigning a value of 1 to firms categorized as FBs and 0 to others. Notably, approximately 43 percent of the total sample falls under the category of FBs. Figure 2 depicts the prevalence of FBs across diverse sectors, including trade and distributions (2), industrial goods and services (2), contracting and engineering (1), healthcare (3), building materials (3), textile (3), travel and leisure (4), real estate (3), food and beverage (2), basic resources (2), information technology (1), and transportation (1).

4.3.2 Measuring Financial (FinPerf) and Nonfinancial Performance (NFPerf)

To measure a firm's FinPerf, the return on assets (ROA) has been used, which indicates the management's efficiency in utilizing the assets of the business to generate profits. ROA is the ratio of earnings before interest and taxes (EBIT) on the book value of total assets. Along with the FinPerf, NFPerf is assessed in this paper using the BSC's nonfinancial perspectives, including customer satisfaction (CustSat), internal business processes (IntBus), and learning and innovation (LearnInn). CustSat is evaluated through customers' loyalty and retention, which are reflected in sales growth. Sales growth is calculated by subtracting firms' total sales in the current year and total sales in the last year scaled by total sales in the last year (Sayed et al., 2024; Ofurum et al., 2019; Okoye et al., 2017).

Moreover, IntBus are generally measured by factors such as product quality, innovation, and efficiency. With operating efficiency as a key indicator, as suggested by Sayed et al. (2024), the IntBus is proxied by the division of operating revenues into operating expenses. Finally, the LearnInn perspective reflects the firms' interest in future investments (such as researching and developing new products) and is gauged by employee satisfaction, retention, capability, and training costs (Tuan, 2020). The ratio of total human costs to total sales measures the LearnInn perspective, following Ofurum et al. (2019) and Okoye et al. (2017).

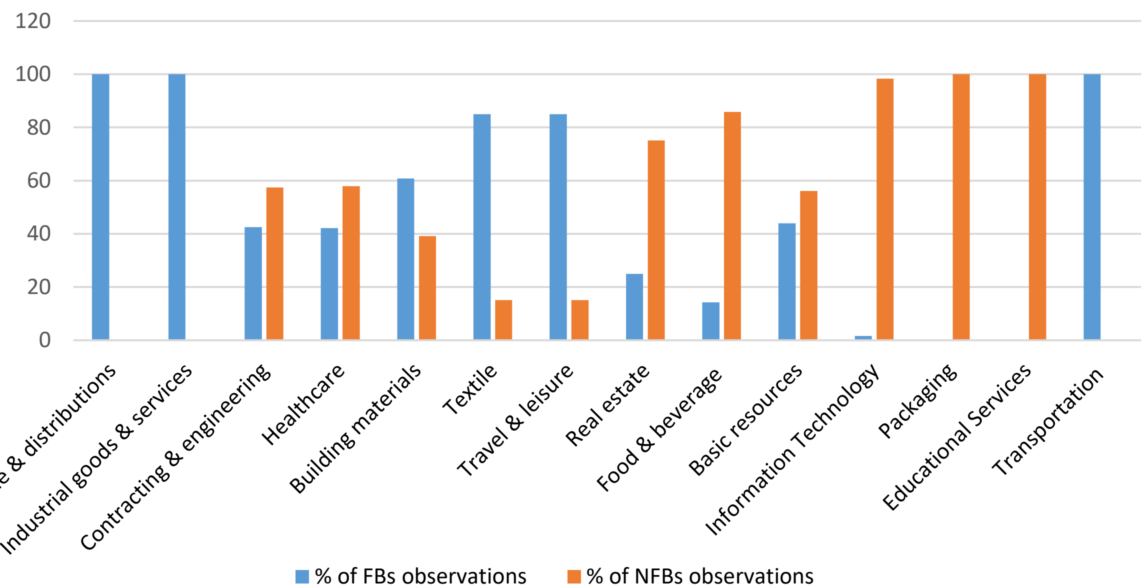

Figure 2: Comparison between FBs' and NFBs' observations in industry sectors.
Source: Author's own creation

4.3.3 Measuring Moderating and Control Variables

To examine the impact of COVID-19 (*COV19*), a binary dichotomous variable that equals the value 1 during and after the pandemic announcement by the World Health Organization (covering the quarters of 2020, 2021, and 2022) and 0 at any other time. To control for various factors that may affect the firm's performance, several standard variables have been considered, including firm size, firm age, leverage, nonfamily block ownership, characteristics of the board of directors (BOD), and audit quality.

Firm size (*FSize*) might have a dual influence on the performance of the firm. Larger firms may face limited growth opportunities and complex coordination issues, while others argue that larger firms often receive preferential treatment and have greater access to substantial investment opportunities. Firm size is measured by calculating the natural logarithm of the total assets of the firm. Firm age (*Age*) and complexity are closely related; thus, firm age may influence performance. The age of a firm is determined by taking the natural logarithm of the number of years since the firm was first established.(Anderson & Reeb, 2003).

Leverage (*Lev*) can result in higher external corporate control, which may consequently impact a firm's performance since debt holders have a significant control on the firm's capital structure to safeguard their own interests. Leverage is determined by the ratio of total liabilities' book value to total assets' book value (Anderson & Reeb, 2003). The involvement of the Founder (*Found*) in a managerial position, whether CEO or Chairman, brings unparalleled innovation and entrepreneurial skills, which can affect a firm's performance. The founder is measured using a binary variable, with a value of 1 if the founder holds a managerial position and 0 if otherwise. The control exerted by nonfamily members, as indicated by block ownership (*Block*), has the potential to significantly impact the overall performance of the firm. Block ownership is specifically defined as a binary variable with a value of 1 assigned when a substantial shareholder, excluding the founding family members in the context of family businesses, possesses at least 10 percent of the firm's shares. Conversely, a value of 0 is assigned when this condition is not met (Sayed et al., 2024).

The firm's BOD plays a vital role in enhancing the firm's performance (Potharla & Amirishetty, 2021), as they are one of the essential corporate governance mechanisms. Therefore, this research includes certain board characteristics as control variables. These include board size (*BSize*), which has been linked to the firm performance in previous literature and is measured by the total number of directors on board. Board gender diversity (*BGenDiv*) is also significant, reflecting the firm's well-positioning to understand and adapt to diverse business environments. The gender diversity representation on a firm's board is measured by calculating the proportion of female directors on the board in comparison to the total number of board directors. Board ownership (*BOwn*) is a measure of the percentage of total shares held by the members of the board of directors, excluding shares held by family directors following the approach of Muttakin et al. (2014) and Anderson & Reeb (2003).

Board independence (*BIndep*) is measured by the percentage of independent directors who do not have any significant financial or nonfinancial interests in the firm. Research has demonstrated that board independence has a substantial impact on the performance of a firm (Liu et al., 2015). Institutional ownership *(Instit)*, indicated by the percentage of institutional investors' shareholdings, may enable active monitoring of a firm's business and performance as they apply their advanced managerial skills and professional knowledge, which mainly explains the reason behind being controlled.

Lastly, Audit quality (*AudQual*) is significant as it affects the client firm's performance. It is proxied by audit firm size in line with Defond & Zhang (2014). Big audit firms positively affect the audit service quality. Thereby, audit quality is measured as a dummy variable with a value of 1 if the audit service engagement is assigned to a Big 4 audit firm and equals 0 if otherwise. The regression models include quarter years and industry dummies. Moreover, a clustering technique is applied to account for multiple observations collected from the same firm for different quarters.

5. Results and Discussions

5.1 Descriptive Statistics

Table 2 shows the descriptive statistical analysis and differences in means between firms owned by Egyptian families and nonfamily-owned. This research, with its unique focus on Egyptian nonfinancial listed firms, holds substantial implications for the business. It examines the effect of FamOwn on financial and nonfinancial performance. Where Panel A shows that the average FinPerf of the sample firms is 0.0646, while the average NFPerf reflected in CustSat, IntBus, and LearnInn of selected FBs and NFBs are 0.05631, 5.8831, and 0.0985, respectively. The mean size and age for these firms are 21.1301 and 9.0842, respectively. Regarding capital structure, the descriptive analysis indicates that over 53 percent of the selected Egyptian firms' capital comprises loans and borrowings, reflecting a high dependence on financing rather than equity. Moreover, 25 percent of founders still hold managerial positions, with an average of 90 percent block holders.

Turning to the BOD characteristics, the analysis show that the average board size in the sample firms is 8.42. These findings carry significant implications for the governance structure of Egyptian firms. The average board gender diversity is approximately 19%, indicating a dearth of female representation on the board in Egyptian firms. Additionally, the mean nonfamily BOD's shareholdings are 34.72%, while only 22.54% on average of BOD are independent. The results suggest that institutional investors hold about 46.89% of the firms on average. Finally, 49 percent of the firms' published financial reports are audited by Big 4 audit firms

Table 2: Descriptive Statistics

Panel A: *descriptive statistics for the sample*

Variable Symbol	*Obs.*	*Mean*	*Min*	*Max*	*Std. dev.*
FinPerf	1211	0.0646	-0.1235	1.2743	0.10035
CustSat	1211	0.0563	-1.5515	2.2132	0.4168
IntBus	1211	5.8831	-8.6157	59.7191	10.3132
LearnInn	1211	0.0985	-2.1557	3.1073	0.2192
FamOwn	1211	0.43	0	1	0.495
COV19	1211	0.56	0	1	0.497
Size	1211	21.1301	14.6290	26.3507	2.1413
Age	1211	9.0842	4.1744	10.5300	0.6815
Lev	1211	0.5387	-1.3266	1.6177	0.2534
Founder	1211	0.25	0	1	0.432
Block	1211	0.90	0	1	0.297
BSize	1211	8.42	4	17	2.770
BGenDiv	1211	0.1862	0	0.5	0.1149
BOwn	1211	0.3472	0	0.9897	0.3274
BIndep	1211	0.2254	0	0.6667	0.1534
Instit	1211	0.4689	0	1	0.5
AudQual	1211	0.49	0	1	6.614

Panel B: *difference of means test*

Variable Symbol	*FB*	*NFB*	*Sig.*
FinPerf	0.0573	0.0701	0.028
CustSat	0.0695	0.0464	0.341
IntBus	6.8812	5.1320	0.003
LearnInn	0.0752	0.1161	0.001
COV19	0.57	0.55	0.308
Size	21.3748	20.9460	<0.001
Age	8.9802	9.1625	<0.001
Lev	0.5376	0.5395	0.894
Found	0.53	0.03	<0.001
Block	0.86	0.94	<0.001
BSize	8.69	8.22	0.004
BGenDiv	1.1994	1.1764	<0.001
BOwn	0.2009	0.4573	<0.001
BIndep	0.2290	0.2228	0.483
Instit	0.3309	0.5744	<0.001
AudQual	0.48	0.50	0.503
n	520	691	

Panel B presents the difference in means for the research variables among FBs and NFBs. FBs represent 42.94% of the sample observations. FBs show significant differences in FinPerf, IntBus, and LearnInn compared to their counterparts NFBs (with values of FinPerf: 0.0573, IntBus: 6.8812 and LearnInn: 0.0752 versus FinPerf: 0.0701, IntBus: 5.1320 and LearnInn: 0.1161). Furthermore, FBs are significantly larger than NFBs in the Egyptian market, with respective values of 21.3748 and 20.9460. On the other hand, NFBs have significantly higher ages than FBs, with values of 9.1625 and 8.9802, respectively. However, there is no significant difference in reliance on debt finance between FBs and NFBs.

Moreover, there is a notable difference between founders who hold a managerial position and block holders in each type of firm. Additionally, the univariate analysis reveals a significant difference between FBs and NFBs across all BOD characteristics considered, including board size, board gender diversity, and board ownership, except for board independence, with both FBs and NFBs having nearly 23% of their BOD being independent. Institutional investing is significantly higher in NFBs at 57.44% compared to FBs at 33.09%. Lastly, the difference in the means test indicates that both FBs and NFBs have insignificant differences in audit quality proxied by Big4 audit firm size, with values of 0.48 and 0.50 for NFBs, respectively.

5.2 Correlation Analysis

Figure 3 plots the Pearson correlation analysis results for the key variables in the models, where the positive correlations are indicated in blue, while the negative correlations are in orange. The analysis revealed significant correlations between FamOwn and firms' FinPerf, as well as with IntBus and LearnInn NFPerf indicators. However, FBs in Egypt showed no significant correlation with CustSat. Additionally, FamOwn appeared to have an insignificant correlation with COVID-19. The analysis also found a positive correlation between firms' size and FamOwn. In line with the findings of Muttakin et al. (2014) and Anderson & Reeb (2003), firms' age was found to have a negative and significant correlation with FamOwn. Furthermore, the analysis indicated significant correlations between FamOwn and the founder, block holders, board size, board gender diversity, board ownership, and institutional investment. Overall, the analysis did not reveal any indications of multicollinearity problems.

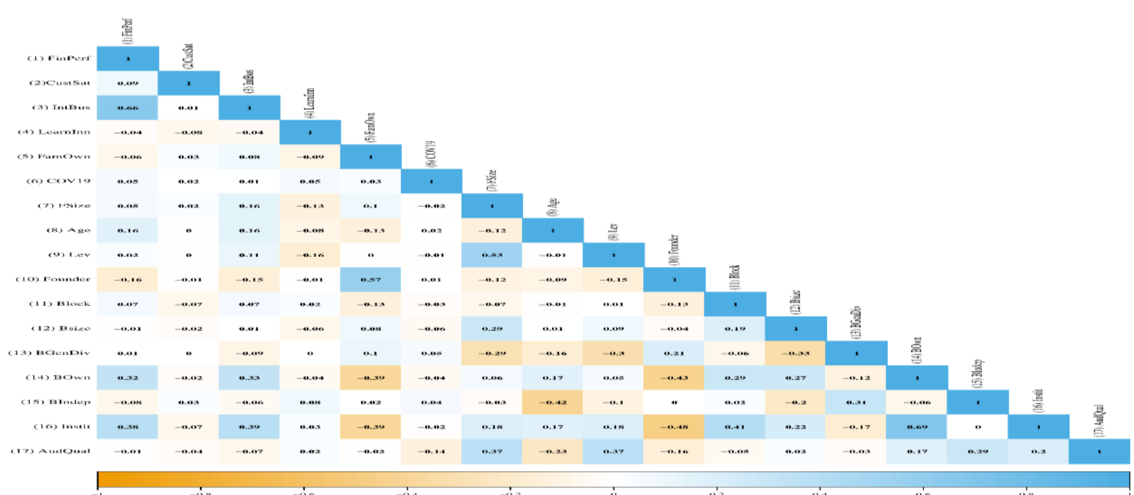

Figure 3. Pearson correlation analysis
Source: Author's own creation

5.3 Regression Results

5.3.1 Effect of family ownership on financial and nonfinancial performance

This research paper, conducted with an OLS regression model, examines the influence of FamOwn in Egyptian nonfinancial listed firms on their performance. Table 3 displays the findings of the regression models, providing a comprehensive understanding of the effect of FamOwn on firms' performance. Model (1) presents the results of the influence of FamOwn on FinPerf. Meanwhile, Models (2-4) demonstrate FamOwn's influence on NFPerf indicators, including CustSat, IntBus, and LearnInn.

Based on data reported in Model (1), the analysis reveals that the FamOwn significantly and positively ($\beta = 0.030$, $p<0.05$) influences the firm's FinPerf, **thereby providing support for *H1***. This finding aligns with previous research conducted in developing countries, for instance, Elgiziry & Moussa's (2022) study in Egypt, and Muttakin et al.'s (2014) research in Bangladesh. However, these results contradict those of other studies, such as Oreland (2007), which found a negative impact. The findings imply that in Egypt, families are more incentivized to actively manage and supervise businesses as it reflects the family's reputation, ultimately contributing to improved FinPerf. Based on the findings, COVID-19 appears to have a minimal effect on FinPerf. Some control variables related to BOD characteristics and ownership structure, such as board gender diversity, ownership, and institutional ownership, show a significant and positive effect on FinPerf. However, blockholders, board size, and independence have demonstrated a negative and significant effect on FinPerf, indicating that large shareholders who are independent of family members tend to increase agency problem costs, leading to poorer firm performance as these block holders may take advantage of minority shareholders.

Three separate OLS regression analyses using NFPerf BSC indicators have been conducted to explore the influence of family-owned firms on their NFPerf. The results are presented in Models (2-4) in Table 3. Model (2) indicated that the coefficient of FamOwn has a positive yet insignificant effect on CustSat, proxied by sales growth ($\beta = 0.021$, $p>0.05$), **leading to the rejection of *H2***. This suggests that Egyptian NFBs are equally likely as FBs to prioritize customer relationships and retention, indicating no significant disparity in CustSat perspectives between the two types of businesses. The findings contradict the conclusions drawn by Orth & Green (2009), who suggested that FBs exhibit higher levels of CustSat than other NFBs. Regarding the impact of COVID-19, research findings suggest a negative insignificant moderation of the pandemic on the selected sample firms' ability to satisfy customers. Additionally, the regression analysis demonstrated that board ownership (excluding family members) and institutional investment significantly influenced Egyptian firms' ability to satisfy customers. Conversely, the study found that other control variables: firm size, age, founder, board composition (including block holders, board size, gender diversity, and independence), and audit quality have an insignificant effect on CustSat nonfinancial perspective.

Model (3) in Table 3 demonstrates the findings on the influence of FamOwn on the IntBus in Egypt, as measured by operating efficiency. The results indicate that FamOwn have a significant positive effect on the business's operating efficiency ($\beta = 8.823$, $p<0.05$), **thereby supporting research hypothesis *H3***. This positive impact can be attributed to the emphasis on professionalization in the internal operations of firms owned by families, driven by the family's dominant influence to ensure the longevity of the business and achieve long-term objectives spanning multiple generations, in accordance with the findings of Vlasic (2023). Furthermore, this study concludes that COVID-19 insignificantly affects the IntBus in Egypt. However, when considering the control variables, factors such as firm size, age, board of directors' ownership, institutional investment, and audit quality significantly impact the business's operating efficiency, reflecting the IntBus perspective. Meanwhile, other control variables such as founder, block holder, and board size appear to negatively affect operating efficiency. The analysis also shows that leverage ratio, board gender diversity, and independence have insignificant effects on the efficiency of operations in the Egyptian market.

Lastly, in Table 3, Model (4) presents the OLS regression results indicating the impact of FamOwn on the nonfinancial perspective of LearnInn, which is proxied by employee costs in the business. The coefficient of FamOwn demonstrates a significant negative influence on the LearnInn perspective (β= *-0.045, p*<0.05), **supporting *H4***. As for the impact of COVID-19, the pandemic has not significantly affected the nonfinancial perspective of LearnInn in Egypt. However, factors such as firm size, age, leverage, gender diversity in the BOD, BOD ownership, institutional investment, and audit quality control variables are found to significantly impact employee costs, reflecting the business's LearnInn. The results are consistent with Zhang & Ma's (2009) findings, which view that FamOwn and management hinder nonfamily employees from feeling attached to the business. The reason behind this negative coefficient can be attributed to the notion of nepotism entrenched in FBs' context. It suggests that families often prioritize unqualified family members over skilled nonfamily employees, leading to a biased and unfair work environment that results in a decreased commitment and loyalty from the employees toward the business (Anderson & Reeb, 2003).

Table 3: Regression results: The influence of FamOwn on firm's performance

Variables	Model (1) FinPerf		Model (2) CustSat		Model (3) IntBus		Model (4) LearnInn	
	Coeff.	Sig.	Coeff.	Sig.	Coeff.	Sig.	Coeff.	Sig.
Intercept	0.010	0.891	-0.077	0.781	-20.512	<0.001	0.647	<0.001
FamOwn	0.030	<0.001	0.021	0.511	8.832	<0.001	-0.045	0.006
COV19	-0.023	0.056	-0.087	0.064	-1.017	0.283	0.020	0.400
FSize	0.000	0.926	0.010	0.190	0.701	<0.001	-0.011	0.006
Age	-0.001	0.840	0.005	0.801	0.933	0.025	-0.029	0.006
Lev	-0.011	0.497	0.015	0.804	1.661	0.171	-0.166	<0.001
Found	-0.007	0.440	-0.066	0.073	-2.195	0.003	0.030	0.113
Block	-0.025	0.036	-0.058	0.210	-3.658	<0.001	-0.006	0.804
BSize	-0.005	<0.001	-0.003	0.534	-0.803	<0.001	-0.002	0.447
BGenDiv	0.101	0.002	-0.066	0.595	-2.690	0.283	-0.178	0.005
BOwn	0.031	0.036	0.121	0.037	7.154	<0.001	-0.126	<0.001
BIndep	-0.075	0.002	0.141	0.143	2.816	0.146	0.012	0.814
Instit	0.148	<0.001	-0.162	0.016	14.345	<0.001	0.121	<0.001
AudQual	-0.011	0.135	-0.057	0.059	5.614	<0.001	0.049	0.001
Industry dummies	Yes		Yes		Yes		Yes	
Quarter year dummies	Yes		Yes		Yes		Yes	
R-squared	0.182		0.024		0.353		0.085	
Model sig.	<0.001		0.016		<0.001		<0.001	

5.3.2 Moderating effect of COVID-19 on the influence of family ownership on financial and nonfinancial performance

This research paper aimed to test the moderating role of the COVID-19 pandemic on the influence of FamOwn on financial and nonfinancial performance indicators of BSC. The result presented in Table 4 Model (5) indicates that the moderation of the pandemic on the relationship between FamOwn and FinPerf, measured by ROA, is statistically insignificant (β = *-0.010*, p>0.05). **Therefore, *H5* is rejected**. The finding contradicts the previous conclusions of Eckey & Memmel (2023) and Amore et al. (2022), who suggest that FBs outperformed during COVID-19 shock. Additionally, the analysis of the moderating effect on NFPerf, including CustSat, IntBus, and LearnInn perspectives of the BSC, also reveals an insignificant moderating effect, as shown in Models (6-8) in Table 4, respectively (β = *-0.0.11*, p>0.05; β = *-0.602*, p>0.05 and β = *-0.046*, p>0.05), as suggested when investigating FinPerf. **Hence, *H6*, *H7*, and *H8* are similarly rejected.**

Table 4: Regression results: The moderating effect of COVID-19 on the influence of FamOwn on financial and nonfinancial performance

Variables	Model (5) FinPerf		Model (6) CustSat		Model (7) IntBus		Model (8) LearnInn	
	Coeff.	Sig.	Coeff.	Sig.	Coeff.	Sig.	Coeff.	Sig.
Intercept	-0.127	0.033	-0.079	0.778	-20.576	<0.001	0.642	<0.001
FamOwn	0.045	<0.001	0.027	0.522	9.174	<0.001	-0.019	0.384
COV19	-0.013	0.244	-0.083	0.110	-0.759	0.466	0.040	0.130
*COVID-19*FamOwn*	-0.010	0.357	-0.011	0.824	-0.602	0.545	-0.046	0.069
FSize	0.002	0.147	0.010	0.192	0.699	<0.001	-0.011	0.005
Age	0.009	0.045	0.005	0.807	0.924	0.027	-0.030	0.005
Lev	-0.013	0.308	0.016	0.795	1.704	0.161	-0.163	<0.001
Found	-0.006	0.422	-0.066	0.073	-2.195	0.003	0.030	0.113
Block	-0.029	0.004	-0.057	0.217	-3.623	<0.001	-0.003	0.892
BSize	-0.005	<0.001	-0.003	0.529	-0.805	<0.001	-0.002	0.405
BGenDiv	0.071	0.007	-0.065	0.601	-2.635	0.293	-0.173	0.006
BOwn	0.040	0.001	0.121	0.037	7.161	<0.001	-0.125	<0.001
BIndep	-0.045	0.028	0.141	0.144	2.800	0.149	0.010	0.832
Instit	0.132	<0.001	-0.163	0.016	14.323	<0.001	0.120	<0.001
AudQual	-0.016	0.012	-0.057	0.060	-5.605	<0.001	0.050	0.001
Industry dummies	Yes		Yes		Yes		Yes	
Quarter year dummies	Yes		Yes		Yes		Yes	
R-squared	0.232		0.024		0.353		0.087	
Model sig.	<0.001		0.024		<0.001		<0.001	

The insignificant moderating effect of the pandemic aligns with the findings of the PwC (2021) survey of Egyptian FBs, indicating that Egyptian family-owned businesses have managed to navigate the crisis without significant damage. This contrasts with firms in other economies, such as the USA, the Mid-Atlantic region, and Italy, which experienced substantial negative impacts according to the conclusions of Bloom et al. (2021), Batrik et al. (2020), Carletti et al. (2020). However, the paper also suggests that Egyptian FBs did not fully capitalize on the global implications of COVID-19, unlike other firms within the economy that innovated and adapted efficiently in response to the pandemic, resulting in increased returns, stock prices, and expanded market shares. According to the findings, this study concludes that Egyptian family-owned businesses focused primarily on safeguarding their operations during the crisis without experiencing significant positive or negative effects.

6 Conclusions, Recommendations, and Implications for Future Research

Research on family-owned businesses has made significant progress in the last decade in many countries worldwide. FBs are the dominant form of organization in most developed or developing economies. Prior research focused on investigating the impact of specific norms related to family founders on businesses' FinPerf, particularly in the USA, such as their culture, emotions and values, shared norms, and strong kinship connecting their members. However, this research aims to address research gaps within FB context. Firstly, it emphasizes the NFPerf measures alongside FinPerf. Secondly, it investigates these relationships in an emerging and developing context suffering from a lack of such research, as in the Middle East and North Africa, especially Egypt.

The paper tested the effect of FamOwn in Egyptian firms on financial and nonfinancial performance, with a sample of nonfinancial listed firms on the Egyptian stock market with 1,211 observations from 2017 to 2022. The results revealed that FamOwn has a positive and significant effect on the FinPerf in Egypt, as the sampled families' involvement in management shapes higher governance and control over the business's performance, leading to better financial outperformance of FBs over NFBs. However, the NFPerf of FBs showed mixed results. While CustSat showed an insignificant difference between FBs and NFBs, IntBus appeared to be positively and significantly affected by FamOwn. On the other hand, the LearnInn perspective appeared to be negatively and significantly affected in FBs compared to NFBs, possibly as a result of nepotism concerns within FBs.

Moreover, the study also considers examining the reaction of these opposite types of firms during the most recent COVID-19 pandemic. By investigating the moderating effect of the pandemic implications on the relationship between FBs and their performance, the research indicated that COVID-19 had no significant moderating effect. This is probably resulting from the effective policies and regulations undertaken by the Egyptian government since the beginning of the COVID-19 global spread, which left Egypt among the very few countries that witnessed spurred economic growth amid COVID-19. The research offers important perspectives for those involved in setting accounting standards, making policy decisions, enforcing regulations, and other relevant parties. It emphasizes the importance of implementing mandatory regulations to include nonfinancial disclosures, in addition to financial disclosures, in the financial statements of listed firms. In addition, the research offers valuable insights for accounting researchers and academics to delve into the effect of various accounting practices within the realm of FBs on not only their FinPerf but also their NFPerf. This is particularly essential in tumultuous scenarios such as the COVID-19 crisis, where understanding the influence of accounting practices becomes crucial for navigating risky environments and ensuring the resilience of family businesses.

Despite adding valuable contributions, it is crucial to recognize its **limitations**. One of the challenges lies in the precise definition of FBs, as previous studies have used various research approaches, making it difficult to compare findings effectively. Additionally, the study faced constraints in accessing larger financial and nonfinancial information databases, similar to other studies in emerging and developing economies, which in turn resulted in a limited sample size. Therefore, **future research** should seize the opportunity to analyze a larger sample size. Furthermore, the study failed to consider the effect of generational succession on business performance, presenting another opportunity for future research to explore this relationship and emphasize the intergenerational effect on Egyptian family businesses.

Additionally, the existing body of research extensively compares FBs to NFBs, especially regarding FinPerf indicators. However, NFPerf indicators, particularly environmental, social, and governance (ESG) practices that emphasize sustainable and ethical long-term business performance, still require further investigation in both types of business. Thus, it would be valuable for **future studies** to study the impact of the family-owned business on these multiple NFPerf indicators. **Future research** could also explore how FBs and NFBs respond differently to various micro and macro-economic events, such as the Russian and Ukrainian wars and the repeated devaluations of the Egyptian currency.

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