



Developing a Financial Performance Evaluation Model for Companies with a Focus on Audit Committee Structure

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ABSTRACT

The audit committee represents a specialized and independent arm of the board of directors, established to reinforce oversight functions within the organization. Its responsibilities span the evaluation of financial reporting quality, the verification of auditor independence and effectiveness, the inspection of internal controls, and the supervision of corporate risk-handling frameworks. This research sets out to construct a model for evaluating firms' financial performance, centering on the configuration of the audit committee and integrating the intermediary effects of intellectual capital, financialization, and moral hazard. The proposed conceptual framework is tested through Partial Least Squares Structural Equation Modeling (PLS-SEM). Financial performance is gauged using metrics such as Return on Assets, Risk-Adjusted Rate of Return and Economic Value Added. Meanwhile, moral hazard is represented by indicators like insufficient investment and inadequate managerial effort. Findings reveal that audit committee attributes specifically its size, degree of independence, and members' financial expertise play a significant role in enhancing firm financial outcomes. These improvements occur via the expansion of intellectual capital, the rise in financialization activities, and the reduction of moral hazard risks.

Keywords: Audit Committee Structure, Financial Performance, Intellectual Capital, Moral Hazards, Financialization



1. Introduction

Corporate Governance (CG) points out the framework by which companies are directed and controlled, ensuring the creation of firm value while minimizing the externalization of costs to society. When effectively implemented, CG provides a Control and accountability mechanism among three Core components—the executives, the board of directors, and the shareholders—thereby fostering transparency, accountability, and the pursuit of clearly defined goals. The Board of Directors (BOD) serves as the cornerstone of the CG, entrusted with setting strategic direction and exercising control. To enhance its efficiency, particularly in areas requiring specialized expertise, the board establishes various committees that known as sub-committees of the board, conduct in-depth analyses and initiatives to support the board's oversight function. An effective CG system also plays a vital role in strengthening managerial oversight and performance monitoring. Within this system, a well-functioning Audit Committee (AC) is essential to ensure the production of relevant, reliable, and sufficient information for stakeholders. The effectiveness of the AC largely depends on its composition, authority, available resources, and the level of diligence it applies in fulfilling its responsibilities. While the role of the AC is explicitly outlined in various regulatory frameworks, its responsibilities transcend mere compliance and extend into broader ethical and strategic domains.

Since the emergence of the Information Age in the 1980s, markets have increasingly shifted from relying on physical assets to valuing knowledge-based resources. However, traditional accounting practices have remained largely static. Consequently, the true corporate value is often underrepresented in financial statements due to their limited ability to capture intangible assets. Experimental studies estimate that nearly 80% of a firm's market value may not be disclosed in its financial reports (Lev, 2000). This disparity intensifies information asymmetry and impairs efficient capital allocation in the markets (Kristandl & Bontis, 2007). To bridge this gap, there is a growing imperative to integrate non-financial disclosures, particularly those related to Intellectual Capital (IC). IC is now widely acknowledged as a crucial organizational asset that contributes to sustained competitive advantage and enhanced financial outcomes (Bayraktaroglu, Calisir & Baskal,

2019; Xu & Li, 2022). A number of prior investigations examined intellectual capital (IC) efficiency and its relevancy between with firm performance (Chen et al., 2005; Kamath, 2015). While these studies highlight that firms often struggle with the inefficient utilization of IC, they fall short of empirically investigating which internal actors or roles contribute to enhancing IC efficiency within organizations.

The concept of managerial moral hazard is fundamentally rooted in agency theory, which emphasizes the divergence of control from ownership in corporate governance. According to this theory, the outcomes of organizational projects often carry inherent risks due to conflicts of interest and the delegation of authority. When shareholders are able to observe and monitor managerial actions, they can formulate contracts that effectively govern managerial behavior under various conditions. However, in the absence of such transparency, the potential for moral hazard significantly increases. Managerial discretion plays a critical role in the emergence of moral hazard. Executives often possess significant decision-making authority, which can be misused if not properly monitored. When managers are granted wide-ranging powers, the risk of them acting in self-interest—rather than in the best interest of the company—tends to rise. This issue becomes particularly pronounced in strategic decision-making, where managerial choices may deviate from organizational goals in favor of personal benefit. To safeguard their interests, shareholders employ various mechanisms aimed at minimizing and controlling the negative consequences of managerial moral hazard. This is crucial because such behavior can severely undermine corporate value and long-term organizational performance (Jensen & Meckling, 1976).

In recent years, financialization has become increasingly prevalent among enterprises. Companies holding financial assets often experience both “pooling” and “crowding-out” effects. The pooling effect is primarily observed in short-term financial assets, such as tradable securities, which possess high liquidity and can be quickly converted into cash. These assets help firms manage financing constraints by serving as a buffer against capital shortages, thereby enabling companies to maintain a precautionary reserve of funds (Chen et al., 2021). Firms typically accumulate short-term financial assets when they have surplus capital and liquidate them when in need of

funds. The capital initially diverted into financial markets eventually returns to the core business operations. Consequently, rather than hampering core investments, short-term financial asset holdings can help smooth out cash flows and stabilize business operations (Zhao et al., 2021). Moreover, due to the cyclical nature of many industries, during economic downturns when returns on real investments decline and overall performance weakens, income generated from financial investments can mitigate these negative effects. Financial gains may enhance profitability and strengthen balance sheets, which in turn attracts further investment and supports business growth (Zhou, 2022). Thus, prudent management of short-term financial assets can reduce financial risks and enhance overall firm performance. Conversely, the crowding-out effect is more commonly associated with long-term financial assets, such as investment properties, which are less liquid and involve longer holding periods. Allocating resources to these types of assets often comes at the expense of investments in the real economy. Studies have shown that such behavior is often driven by market arbitrage motives. However, excessive focus on financial investments may stifle innovation and constrain the development of the firm's main operations, ultimately diminishing performance. Moreover, the inherent uncertainty and volatility of long-term financial investments pose significant risks. In cases of sharp devaluation, these assets can trigger adverse chain reactions that heighten operational instability (Zhu et al., 2021). Although financial assets may offer high returns, firms that become overly reliant on these gains may develop a "financialization inertia," reducing their motivation to invest in physical capital. This shift in strategic focus can undermine operational efficiency and long-term competitiveness, hampering sustainable growth and performance improvements (Yang et al., 2021). Thus, heavy investment in long-term financial assets can divert attention and resources away from the firm's core activities, potentially exerting a negative influence on overall corporate performance.

This study identifies the composition and specific characteristics of AC as a main determinant influencing the likelihood of engaging in such practices. Although numerous studies have explored how audit committee characteristics relate to financial performance, their findings have been mixed—some reporting significant associations, while others found

no meaningful link. To reconcile these conflicting results, the current research delves into the nuanced relevancy between the distinct elements of AC structure and financial performance. What sets this study apart is its investigation into the mechanisms through which audit committee features impact financial outcomes, focusing particularly on the roles of intellectual capital, ethical risk, and financialization. Following this introduction, Section 2 reviews the body of literature related to the topic concerning audit committee composition, financial performance, intellectual capital, moral hazard, and financialization. Section 3 outlines the research methodology, including the conceptual framework and variable definitions. Section 4 presents the results of the structural equation modeling analysis. Finally, Section 5 concludes the study by summarizing the key findings, discussing their practical implications, and outlining directions for future research.

2. Literature Review

2.1. Audit Committee Structure

2.1.1. Audit Committee Size

The size of AC reflects the extent of its available resources and authority to fulfill its responsibilities related to oversight and financial reporting effectively (Li et al., 2012). Larger AC possess greater power and a broader range of expertise and viewpoints, which can enhance their monitoring effectiveness (Bedard et al., 2004). Nonetheless, research has indicated that overly large audit committees may lead to inefficiencies, such as difficulties in communication, collaboration, coordination, and control, ultimately increasing organizational costs. Therefore, the benefits of expanding the AC are realized only up to a certain point. Organizations must weigh the potential advantages against the associated costs, considering factors like firm size and operational complexity when determining the optimal audit committee size (Appuhami, 2018). In the view of signaling theory, a larger audit committee conveys a positive signal to the market regarding the reliability of internal processes. This perception can reduce both investment risk and capital costs for investors and creditors. Since external stakeholders do not have direct access to a company's internal operations, they often interpret the size of AC as a proxy for transparency and reliability, which influences their expected returns (Chen et al., 2008).

2.2.2. Audit Committee Independence

The independence of AC is typically assessed based on the proportion of its members who are non-executive directors. The literature consistently points to the central role of independent members in enhancing the AC effectiveness and ensuring the integrity of financial reporting processes (Li et al., 2012). Independent members are more likely to critically assess the actions of the board and top management, make unbiased decisions, and contribute to strengthening internal controls. This, in turn, helps reduce the information asymmetry between corporate insiders and external stakeholders (Munro & Buckley, 2008). Empirical findings also support the notion that the presence of independent AC members enhances monitoring functions and bolsters the credibility and accuracy of financial disclosures. When AC include a higher number of independent directors, investors tend to view the associated investment risks as lower, leading them to require reduced rates of return (Sultana et al., 2015).

2.2.3. Audit Committee Members' Financial Expertise

AC that includes members with financial expertise are generally more capable of performing effective oversight and detecting issues within the financial reporting process. According to Mangena and Pike (2005), such members are better equipped to understand the nature of disputes between management and external auditors. They also contribute significantly to the enhancement of internal control systems and the mitigation of risks related to financial reporting (Mangena & Pike, 2005). Conversely, audit committees lacking financially literate members tend to exhibit weaker oversight functions from both management and external auditors (Li et al., 2012). Prior studies have demonstrated that financial expertise among AC members enhances the committee's performance by lowering the risk of financial statement fraud (Abbott et al., 2000), curbing earnings manipulation (Klein, 2002), and promoting greater transparency through increased disclosure (Mangena & Pike, 2005). The AC is a crucial factor in establishing an effective oversight framework within organizations. In the context of corporate governance, AC are primarily tasked with monitoring the financial reporting process and serve as key signaling agents to stakeholders in the capital market. In situations where

the credibility of financial information is questioned, investors tend to focus more on the composition and attributes of the AC, viewing it as a vital indicator of the reliability of the firm's internal monitoring systems. A lack of trustworthy financial data can diminish a firm's market value and raise both its capital and borrowing costs. Therefore, an audit committee that sends strong positive signals regarding oversight quality helps ease investor concerns and ultimately lowers the firm's cost of capital and debt (Appuhami, 2018).

2.2. Audit Committee (AC) and financial performance (FP)

Exploring the link between AC and FP can be theoretically grounded in agency theory. This theory highlights the inherent conflicts of interest between shareholders who are the principals and corporate managers who act as agents. These conflicts typically arise due to information asymmetry and divergent objectives between the two parties. In this context, a well-structured AC performs a pivotal role in minimizing agency conflicts by providing effective oversight and governance, thereby promoting transparency and accountability in financial reporting (Jensen & Meckling, 1976; Bhagat & Bolton, 2008). By facilitating rigorous monitoring, the AC helps in detecting fraudulent activities and preventing managerial misconduct. This oversight ensures that managerial decisions are aligned with shareholders' interests, leading to accurate financial reporting and robust internal controls. As a result, agency costs are reduced, investor confidence is bolstered, and firm performance is enhanced. Thus, a competent and independent audit committee is essential for strengthening firm performance by ensuring corporate actions are directed toward maximizing shareholder value. An effective AC contributes to FP by ensuring decision-making transparency, accuracy in financial disclosures, reliable internal control systems, and improved corporate credibility. Empirical evidence supports this claim, with various reviews confirming a positive relationship between AC effectiveness and FP (Klein, 2002; Krishnan, 2005). The composition and characteristics of the AC significantly influence its functionality. For instance, the size of the AC matters: a larger AC is likely to benefit from a broader range of expertise and knowledge, thereby enhancing its

monitoring capacity (Bedard et al., 2004). Empirical studies often report a positive correlation between AC size and firm performance (Abbott, Parker, & Peters, 2004). Independence of AC members is another critical factor. Independent directors, due to their objectivity and lack of direct ties to management, help improve the quality and transparency of financial reporting. Their impartial stance enables them to uncover information that management may withhold for personal gain, thereby improving investor perception and overall firm performance (Li et al., 2012). Expertise in accounting and finance further strengthens the AC's effectiveness. Members with such qualifications are better equipped to evaluate the quality of financial statements and reduce the likelihood of misstatements. Enhanced financial reporting quality, in turn, improves transparency and firm performance. While several studies (Mangena & Pike, 2005) support a positive link between AC expertise and FP, other findings (Farber, 2005) suggest an insignificant relationship, indicating a need for further investigation. The role of non-executive directors (NEDs) in the AC is particularly noteworthy. These directors provide an independent perspective and serve as a check on executive management. However, the inclusion of executive directors in the AC may undermine its overseeing function due to their dominance and influence over operational matters. Therefore, ACs composed solely of NEDs are more likely to be effective in governance and thereby contribute positively to firm performance. Altin et al. (2024) have shown that the results show that independence, expertise, and size of the audit committee have a significant and positive effect on company performance. Gupta et al. (2021) have also shown that non-executive directors, AC charter, AC size, multiple directorships, and meeting attendance positively affect ROA and market capitalization. Gender diversity influences ROA and expertise affects market capitalization. Nonetheless, the empirical literature remains relatively silent on the direct impact of executive versus non-executive composition in ACs. The preceding analysis leads to the formulation of the following hypotheses:

H1: The size of the AC significantly influences the FP.

H2: The independence of the AC significantly influences the FP.

H3: The financial expertise of the AC members significantly influences the FP.

2.2. Intellectual capital and Financial performance (FP)

Intellectual capital (IC) constitutes a fundamental intangible asset within modern organizations, capturing the embedded knowledge, expertise, innovation, and relational capabilities that contribute to sustainable value creation. Rather than existing in physical form, IC is embodied in the collective intellectual resources possessed by individuals and the organization as a whole. Intellectual capital represents a fusion of elements such as know-how, innovation, experience, market positioning, and social networks, all of which influence organizational success. From a financial perspective, intellectual capital is frequently described as the discrepancy between a firm's market value and the replacement cost of its tangible assets. In this view, IC supplements book value, forming the intangible foundation that elevates a company's overall valuation. IC is typically divided into three interrelated categories: human capital, structural capital, and relational (or customer) capital. Human capital encapsulates the knowledge, creativity, problem-solving skills, and innovative potential of employees. It is especially critical in knowledge-based industries where intellectual input outweighs physical production. Structural capital refers to the supportive infrastructure within an organization—including systems, databases, patents, and procedures—that facilitates knowledge retention and enhances organizational efficiency. This category includes innovation capital, which fosters the development of new offerings, and process capital, which relates to operational workflows and technologies (Sveiby, 1997). Relational capital, also known as customer capital, describes the firm's external relationships and its capacity to build long-term, trust-based interactions with stakeholders such as clients, suppliers, regulators, and partners. This dimension is vital for securing loyalty, reputation, and strategic alliances.

In an effort to quantify intellectual capital, Pulic (1998) introduced the Value Added Intellectual Coefficient (VAIC) model. This metric assesses the efficiency with which a firm utilizes its intellectual resources by examining three core indicators: VACA (Value Added Capital Employed), reflecting the productivity of physical and financial capital; VAHU (Value Added Human Capital), which measures employee contribution to value creation; and STVA

(Structural Capital Value Added), representing the effectiveness of organizational systems and structures. Empirical studies by Pulic (2000) and Bontis (1998) supported VAIC as a reliable composite indicator of a firm's intellectual performance. Nonetheless, IC does not function in isolation. It must be integrated with tangible assets and financial resources to generate real and measurable organizational value. Intellectual capital is recognized as a critical driver influencing the financial outcomes of firms. Specifically, human capital—comprising skilled, competent, and highly motivated employees—plays a fundamental role in enhancing productivity and operational efficiency, both at the individual and organizational levels. Such improvements directly contribute to the firm's capacity to generate higher profits. Alongside human capital, structural capital—which includes the firm's systems, organizational frameworks, strategic approaches, and corporate culture—serves as the backbone that supports market responsiveness and the achievement of business objectives.

Research efforts in this area have persistently demonstrated the positive correlation between IC and financial performance indicators such as ROA, ROE, and earnings per share (Roos et al., 1997). For instance, an empirical study by Poraghajan (2013), focusing on Iranian listed companies, confirmed that all dimensions of intellectual capital exhibit a positive association with ROA. Similarly, findings by Deep (2014) suggest that among various components of intellectual capital, value-added capital employed (VACA) stands out as having a statistically significant effect on firm profitability. The results demonstrate that effective management and investment in intellectual capital are essential for sustaining and improving financial outcomes.

2.3. Moral hazard and financial performance (FP)

Moral hazard denotes a condition where an individual or entity is more likely to take risks because the adverse effects of those risks will be experienced by others. This phenomenon often emerges in financial or contractual relationships where there is a disconnect between the party making the decisions and the one absorbing the potential losses. As Arnott and Stiglitz (1991) explain, such risk misalignments are common in contractual arrangements. Jensen and Meckling

(1976) explore this issue through the lens of agency theory, emphasizing how agents—who hold more information and control—might engage in behaviors that expose principals to undue risk. Krugman (2009) encapsulates the idea succinctly: moral hazard occurs whenever one party determines the level of risk, while another suffers the consequences. Moral hazard emerges within organizations when managers pursue high-risk strategies to advance their personal interests, all while being insulated from the full consequences of potential failures. This detachment from risk is often exacerbated by contextual factors that reinforce such behavior (Shapiro, 2005). Moral hazard describes scenarios in which one entity undertakes risk-related actions, but the resulting negative outcomes are borne by another party. In aligning managerial goals with those of shareholders, executives may opt for riskier investments or adopt aggressive business strategies—a dilemma first recognized by Jensen and Meckling (1976) as the asset substitution issue. Additionally, Myers (1977) highlighted that under debt obligations, managers might curtail investment by issuing equity or scaling down operations, a phenomenon known as the debt overhang or spillover effect. These challenges lead to inefficient capital allocation and increased agency costs. Moral hazard and managerial discretion be a driving force behind in influencing debt spillover and in shaping a firm's ideal capital structure (Rivera, 2020). Bergman and Hege (1998), through a dynamic agency model, demonstrated how managerial moral hazard significantly impacts corporate venture financing decisions. Similarly, Quadri (2004) noted that as firms expand, the effects of moral hazard become more pronounced, making investment choices increasingly reliant on organizational productivity. Rivera (2020) further emphasized the importance of both moral hazard and managerial discretion in driving corporate debt spillover and determining optimal capital structure. The manifestations of moral hazard generally fall into three categories: tunneling behaviors (e.g., transactions involving related parties), insufficient managerial effort, and excessive personal consumption. Managers may prioritize operational expenditures in a way that misallocates resources between real and financial investments. These moral hazard issues often lead to inefficiencies such as resource overutilization, underinvestment in tangible assets, and disproportionate emphasis on financial investments. When executives consume organizational

resources indiscriminately to fulfill personal preferences, it reduces the capital available for productive investments. Moreover, a lack of managerial diligence or ineffective operational practices can distort the balance between financial and real investment allocations (Shleifer & Vishny, 1997).

2.4. Financialization and Financial performance (FP)

The concept of financialization refers to the growing reliance of non-financial firms on financial channels for profit generation, rather than on traditional production and trade activities (Krippner, 2005). Expanding on this notion, Demir (2009) offers a more precise definition, characterizing corporate financialization as the strategic deployment of substantial investments by real-sector firms into financial markets, where returns on these financial assets frequently surpass those from fixed capital investments in core business operations. Scholars have identified various motivations behind this shift. One view posits that firms allocate idle funds into liquid financial assets as a precautionary measure—to enhance cash availability and mitigate the risk of capital chain disruptions caused by insufficient cash flows (Acharya et al., 2013). Alternatively, financialization is also seen as a rational arbitrage-driven behavior, where the pursuit of higher returns incentivizes firms to actively participate in financial markets. This strategic reallocation of resources often favors short-term, high-yield financial assets due to their liquidity and profitability, thereby crowding out investments in core operational activities (Liu et al., 2019). Moreover, this trend is not solely driven by the lure of financial returns. It is also exacerbated by declining margins in the real economy, increasing costs of external financing (Liu et al., 2019; Demir, 2011), heightened macroeconomic volatility (Borio et al., 2014), and the shortening of managerial planning horizons (Gabaix & Landier, 2008)—all of which encourage firms to prioritize financial asset accumulation over long-term productive investment. The academic discourse on corporate financialization and its implications for real-sector enterprises reveals three major opinions of thought. The first opinion maintains that corporate financialization negatively affects the core business (Orhangazi, 2008). The accumulation of financial assets by firms tends to

divert resources away from research and development (Froud et al., 2006), lower productivity levels (Stockhammer, 2004), and ultimately constrain the long-term growth of core business operations (Lazonick & O'Sullivan, 2000). Financialization also intensifies the crowding-out effect, whereby the focus on financial returns reduces investment in productive assets, disrupts regular production activities, diminishes operational profits (Epstein, 2005), and increases the firm's exposure to financial vulnerabilities (Palley, 2007). The second perspective takes a more favorable view, proposing that financialization—if appropriately managed—can enhance a firm's core business. Advocates argue that moderate financial investments provide supplementary income, improve cash flow management, and contribute to operational efficiency and profitability (Campbell et al., 2011). Profits derived from financial activities can improve liquidity, encourage innovation and R&D efforts (Tori & Shimizu, 2018), streamline corporate structure, reduce debt levels, boost earnings (Gambacorta et al., 2015), and enhance firm value (Kwak et al., 2019). In this view, financialization acts as a supportive mechanism that may ultimately benefit the real economy (Lazonick, 2014). The third perspective introduces a more nuanced understanding, suggesting that the impact of financialization on firms' core operations follows a non-linear trajectory. Due to heterogeneity in firms' growth opportunities and industry conditions, the relevance often manifests as a "U-shaped" or inverted "U-shaped" curve (Chen et al., 2018). For example, Chen et al. (2023) demonstrate that both the current-year and previous-year proportions of financial assets exhibit an inverted "U-shaped" relevance with business performance and returns on real asset investments. Non-linear models further reveal a "U-shaped" association between financialization and financial risk (Li et al., 2020), an inverted "U-shaped" relevance with innovation capacity (Wang & Liu, 2019), and a similar inverted "U-shaped" link with the performance of the companies (Zhang et al., 2021). Building upon established academic literature, this research delineates the reasons behind corporate financial asset holdings into two principal categories: precautionary motives and investment-driven motives. Nonetheless, when companies encounter constraints in accessing capital—such as limitations in credit availability—maintaining financial assets can serve as a liquidity safeguard. This

financial buffer ensures business continuity and supports long-term organizational growth (Myers & Majluf, 1984). Enterprises seeking expansion and diversification frequently accumulate financial resources to increase the availability of capital, thereby facilitating ongoing mergers and acquisitions (Harford et al., 2012). On the other hand, some organizations allocate funds into financial assets with the aim of optimizing returns (Fama & French, 1993). Elevated corporate profitability is often linked to significant cash surpluses. However, due to institutional or regulatory barriers, firms may find it challenging to distribute this excess cash in the form of dividends. For example, state-owned or publicly listed companies may face legal or policy restrictions on dividend payouts, while private firms may refrain due to high taxation on dividends or shareholder preferences for reinvestment aimed at long-term capital appreciation and share value growth. As a result, these firms may redirect surplus liquidity into financial instruments that, although not central to their operational focus, serve to preserve capital and yield returns. Certain firms, motivated by caution, opt for conservative investment strategies, directing funds into low-risk instruments like government securities or money market vehicles. While the returns on these assets are generally modest, they provide high liquidity and safeguard capital from substantial risk (Chen & Zhang, 2018). For businesses operating in uncertain environments, such prudent financial management is seen as an effective risk mitigation strategy. A case in point is Huawei, a prominent global telecommunications firm. Despite having robust cash reserves, Huawei maintains a cautious approach to investing, largely due to geopolitical tensions and volatility in international markets. The company allocates a significant share of its capital to secure investments—such as treasury securities and bank deposits—ensuring both capital protection and steady income generation. Conversely, other corporations adopt more aggressive strategies in pursuit of higher yields, reallocating funds into more volatile assets like stocks or corporate bonds. While these investments offer the possibility of substantial returns, they also carry elevated risks, potentially jeopardizing the firm's primary operations (Johnson, 2015). Given these dual objectives, the process of corporate financialization can have both favorable and unfavorable implications for operational efficiency. On the positive side,

financialization may serve as a liquidity reservoir, easing financing limitations. Balanced investment in financial assets can diversify revenue streams, bolster operational resilience, and enhance profitability. It may also serve as a safeguard against revenue downturns in the core business sector, thereby improving overall organizational performance (Demir, 2011). Furthermore, financialization enables access to supplementary capital, supporting firms in realizing their long-term strategic ambitions. Chen et al. (2025) also showed that there is a dynamic threshold effect between corporate financialization and core business performance, such that when the degree of financialization is less than a threshold, corporate financialization has a positive effect on core business performance, and when the degree of financialization is greater than a threshold, there is a negative effect.

2.5. The mediating role of intellectual capital, moral hazard, and financialization in the relevance between audit committee structure and financial performance

2.5.1. The mediating role of intellectual capital in the relevance between audit committee structure and financial performance

Extensive research underscores that the functionality of audit committees is primarily shaped by their organizational design and operational dynamics. The presence of diverse skills, deep expertise, and relevant professional experience is vital for audit committees to perform their monitoring roles effectively. As noted by Baxter and Cotter (2009) the attribute of independence stands out as a critical determinant of how well these committees can oversee financial reporting. In fact, greater independence within audit committees is often correlated with improved earnings quality, as such committees are better positioned to uphold integrity in financial disclosures, ensure robust audit processes, and strengthen overall corporate governance (Baxter & Cotter, 2009). Independent directors often contribute to improving board processes by leveraging their expertise, promoting continuity, and facilitating strategic decisions such as mergers and acquisitions. They also support the development of an ethical organizational culture (Forbes & Milliken, 1999). Umaret al. (2024) examined the mediating role of

intellectual capital (IC) between board characteristics and firm performance, and showed that a well-performing board, with characteristics such as independence, size, and diversity, can have a positive impact on a firm's intellectual capital, which in turn affects its financial performance. Financial expertise among AC members constitutes a pivotal element in enhancing the committee's overall effectiveness. Lisic et al. (2011) emphasize that the presence of a financial expert alone is not sufficient to ensure stronger monitoring; the extent to which this expertise improves oversight largely depends on the power and influence of senior management. Bédard and Gendron (2010) contend that comprehensive financial expertise enables AC members to identify and challenge issues more effectively, thereby increasing the overall quality and transparency of financial reporting. This, in turn, reduces information asymmetry and enhances the reliability of corporate disclosures. Supporting this view, Kent et al. (2010) found a positive association between financial expertise within audit committees and the quality of financial reporting outcomes. In addition to expertise and independence, the structure and size of AC also play a vital role. Baxter and Cotter (2009) highlighted that the scope of activities and responsibilities undertaken by audit committees significantly influences earnings quality. Larger AC are generally more effective due to the broader range of knowledge and skills available for overseeing complex financial matters (Bedard et al., 2004). Allegrini and Greco (2013) drew on resource dependency theory to argue that larger AC are better positioned to allocate resources and exercise authority in fulfilling their duties. Similarly, Bédard and Gendron (2010) posited that greater diversity and expertise among committee members enhance the quality of oversight. Li et al. (2012) further suggested that larger AC are more capable of identifying and resolving issues related to corporate reporting. Accordingly, committee size emerges as a critical determinant in ensuring the effectiveness of corporate disclosure practices. Supporting this, Persons (2009) found that AC with more members tend to enhance the extent of voluntary disclosures made by firms. The relevance of AC independence is primarily rooted in the theoretical assumption that directors who are not part of the company's management are more inclined to carry out impartial supervision (Fama & Jensen, 1983). Prior investigations suggest that AC composed

predominantly of independent members are less susceptible to managerial pressure, thereby strengthening the objectivity of their oversight role. This independence can enhance the transparency and trustworthiness of financial reporting, narrowing the information gap between the firm and external stakeholders. Since intellectual capital performs a substantial role in influencing stock market perceptions and valuations (Lev, 2001), it is anticipated that a more autonomous audit committee will foster more comprehensive intellectual capital reporting that supports investor awareness. However, empirical findings on this matter remain inconsistent. While some empirical studies confirm a positive relevancy between independence of AC and improved reporting quality (Carcello et al., 2002), other studies fail to establish a statistically meaningful link (Chan & Li, 2008). Despite this lack of consensus, we posit that independence of audit committees is more likely to encourage detailed disclosure of intellectual capital-related information. This argument is particularly relevant given that intellectual capital reporting is not governed by strict regulatory standards, leaving considerable room for managerial discretion. As a result, such disclosures are prone to problems like information concealment, opportunistic behavior, and miscommunication (Brennan & Connell, 2000). Hence, audit committees with a greater degree of independence may act as a corrective mechanism, promoting more informative disclosure practices. Moreover, the necessity of appointing financially literate individuals to audit committees was strongly highlighted in the Smith Report (2003), which emphasized their role in comprehending audit evaluations and mediating differences between auditors and corporate executives. Financial expertise allows AC members to engage critically with audit findings and ask probing questions that challenge managerial assumptions, thereby deepening the quality of financial scrutiny. Committees lacking financial competence are at risk of being marginalized by auditors and executives, ultimately weakening their oversight capabilities. It is thus argued that AC with financial proficiency are better equipped to grasp how intellectual capital information influences capital market behavior and investor assessments. This awareness is likely to motivate such committees to support more detailed and value-relevant intellectual capital disclosures, seeing disclosure of intellectual

capital not only as a governance mechanism but also as a tool for enhancing firm visibility and supporting market valuation activities. The preceding analysis leads to the formulation of the following hypotheses:

H4: The size of the AC influences FP through the mediating effect of intellectual capital

H5: The Independence of the AC influences FP through the mediating effect of intellectual capital

H6: The Financial Expertise of AC influences FP through the mediating effect of intellectual capital

2.5.2. The mediating role of moral hazard, in the relevance between audit committee structure and financial performance

There are three primary distortions stemming from agency conflicts and moral hazard issues, each contributing to specific inefficiencies: overconsumption of private benefits, underinvestment in real internal projects, overinvestment in financial assets, and tunneling activities. When managers pursue personal utility maximization, it often results in excessive consumption that depletes funds otherwise available for productive investment. Additionally, inadequate managerial effort or the absence of effective production strategies leads to misallocation of capital, favoring financial over real investments. Tunneling refers to actions where managers expropriate value from shareholders for personal gain, which directly inflates the proportion of financial investments relative to real investments beyond the optimal level.

Numerous studies have reviewed the influence of independence and financial expertise of AC on their supervisory roles. These attributes are regarded as fundamental to the AC's effectiveness and are closely monitored by participants in capital markets (Klein, 2002). Theoretical perspectives suggest that increased competence and autonomy among audit committee members can significantly affect corporate decision-making. From an agency theory standpoint, a well-structured audit committee enhances internal governance by effectively assisting the board of directors in monitoring management behavior. This function helps mitigate information asymmetry between corporate executives and board members (Fama & Jensen, 1983). Additionally, the resource dependence theory (Pfeffer & Salancik, 1978) posits that audit committees are more effective when their members possess strong financial backgrounds,

enabling them to properly evaluate firms' accounting practices and financial disclosures. Upper echelon theory (Hambrick & Mason, 1984) also supports this view, emphasizing that executives interpret financial data through the lens of their professional experiences. Financially literate audit committee members are more capable of challenging managerial decisions and addressing complex business issues. Similarly, Dalziel et al. (2011) argue that such directors can better understand the long-term value of R&D spending. Minton et al. (2014) also found that independent directors with financial knowledge may contribute to a firm's willingness to take on more risk.

Given that audit committees act on behalf of the board, it is reasonable to assume that their financial expertise positively influences corporate costs and the efficiency of investment decisions. Research has also examined how audit committee independence contributes to more effective managerial oversight, as independent members are less likely to align with management's interests, thereby reducing agency conflicts. Findings show a positive relevancy between independence of audit committees and quality of corporate governance and financial reporting oversight (Abbott et al., 2004). For instance, Abbott et al. (2004) demonstrated that audit committees composed entirely of independent directors are less likely to be associated with financial restatements. Bédard and Gendron (2010) similarly showed that independence in audit committees discourages aggressive earnings management. Garcia Osma (2008) concluded that independent members are more inclined to recognize and curb opportunistic cost-cutting behaviors and inappropriate R&D expenditures. However, some scholars note that increased independence may also raise compliance demands and transparency costs, which may deter managers from allocating funds to innovation-related activities.

Ultimately, audit committees serve a critical governance function by reinforcing transparency, safeguarding the credibility of financial disclosures, and enhancing investor trust. Their responsibilities encompass overseeing financial reporting, internal controls, risk management, and both internal and external audit activities. A well-functioning audit committee sends a positive signal to the market and investors regarding the trustworthiness of financial disclosures and the presence of robust internal oversight mechanisms. This, in turn, influences how

investors assess the firm's value and impacts both the cost of equity and debt financing. The presence of an effective AC enhances the accuracy and reliability of financial reporting thereby improving investment efficiency. Firms with strong audit committees tend to produce more reliable financial statements, limit earnings manipulation, and support better overall organizational performance. Consequently, such companies are better positioned to secure capital, channel it into profitable ventures, and steer clear of unproductive or low-return investments and their associated costs. The preceding analysis leads to the formulation of the following hypotheses:

H7: The size of the AC influences FP through the mediating effect of Moral hazards

H8: The Independence of the AC influences FP through the mediating effect of Moral hazards

H9: The Financial Expertise of the AC influences FP through the mediating effect of Moral hazards

2.5.3. The mediating role of financialization in the relevance between audit committee structure and financial performance

While financialization in businesses can reduce debt, ease funding constraints, and enhance short-term performance, excessive financialization may hinder genuine and innovative investments. Nevertheless, as rational economic agents, firms are expected to base decisions on anticipated future costs and benefits. Corporate financialization is commonly defined from two main perspectives. Some scholars view it as the increasing allocation of corporate resources to financial assets, while others adopt an outcome-oriented approach, defining it as the rising share of profits derived from financial activities. Wang et al. (2019) succinctly categorize these perspectives into investment behavior and earnings, suggesting that financialization manifests either through greater investment in financial assets or through increased income from financial channels. Existing literature explores the determinants of corporate financialization from both macroeconomic and microeconomic viewpoints. For instance, Deng et al. (2024) identify a U-shaped relevance between the level of financialization and the profitability of core business operations. Zhang et al. (2024), focusing on executive heterogeneity, find that CEOs with financial experience tend to promote higher levels of financialization. They also highlight the mediating

roles of financing constraints and executive overconfidence in the relevance between financialization and core business returns.

In academic discussions surrounding finance, audit committees are frequently portrayed as integral components of corporate governance, instrumental in minimizing agency conflicts and enhancing oversight functions. According to Sun et al. (2014), not only does the presence of an AC strengthen governance mechanisms, but it also contributes to more accurate and reliable financial reporting. A capable and well-structured audit committee can influence the firm's use of cash reserves by promoting cautious and less aggressive financial strategies. Consequently, one might anticipate a meaningful association between AC attributes and the firm's level of cash holdings. Put differently, heightened oversight from the AC may lead to improved cash management practices, restricting management's inclination to allocate funds toward risky ventures that may serve their own interests. Therefore, an effective AC is likely to be associated with more prudent financial behavior and maintaining optimal liquidity levels.

AC effectiveness largely depends on the independence of its members, which directly enhances the credibility of financial statements. Persons (2009) further suggests that fraud is less likely in environments where audit committees operate independently. Similarly, Klein (2002) found a negative correlation between independence of AC and earnings manipulation, a finding echoed by Bédard et al. (2004), who concluded that independent AC monitor earnings practices more rigorously. In terms of member expertise, the General Oversight Board (1994) noted that AC are more effective when their members have specialized knowledge in areas such as auditing, financial reporting, and internal controls. Supporting this view, Persons (2009) argues that the inclusion of financial experts on the committee increases the ability to detect errors in financial disclosures, thereby enhancing oversight quality. Furthermore, the size of the AC has been shown to impact its functionality. Research by Dalton et al. (1999) indicates a positive link between audit committee size and its monitoring capacity, implying that larger committees—comprising members with varied expertise enhance corporate performance through improved supervision. Yang and Krishnan (2005) also found that expanding the AC contributes to

better financial and cash asset management via stronger oversight mechanisms. The preceding analysis leads to the formulation of the following hypotheses:

H10: The size of the AC influences FP through the mediating effect of Financialization

H11: The Independence of the AC influences FP through the mediating effect of Financialization

H12: The Financial Expertise of AC influences FP through the mediating effect of Financialization

3. Methodology

The present research is categorized as applied in nature due to its practical objectives, and methodologically, it follows a correlational framework. The research population includes all firms listed on the Tehran Stock Exchange, provided they meet specific criteria: (1) their financial year ends on March 29, and (2) they are not categorized as investment firms or financial intermediaries. After applying these filters, 112 manufacturing companies that remained active on the exchange between 2017 and 2023 were selected for analysis. For hypothesis testing, structural equation modeling (SEM) was conducted using Smart PLS3 software, with 2018 data serving as the analytical base. The rationale behind using SEM lies in its ability to model latent variables concepts like financial performance and moral hazard that are not directly observable but can be inferred through other measurable indicators. Unlike traditional techniques, which only deal with directly measured variables, SEM accommodates both latent and observed constructs. Observed variables consist of quantifiable data, while latent constructs are theoretical entities estimated through the relationships with their respective indicators. PLS-SEM was particularly appropriate for this study given the characteristics of the data and model. The presence of non-normal distributions, the inclusion of a mediating variable, and the use of single-item constructs all supported the decision to utilize PLS-SEM (Hair et al., 2016). Several earlier studies have implemented a similar modeling strategy. For example, Janggu et al. (2014) reviewed the influence of CG on sustainability reporting using PLS-SEM. Similarly, Bachiller and Garcia-Lacalle (2018) examined how governance structures in Spanish banks correlate with both

financial and social performance. Azim (2012) also employed SEM to explore how various governance mechanisms impact firm-level outcomes.

3.1. Conceptual Model of Research

Figure 1 illustrates the conceptual framework that forms the foundation of this research.

3.2 Research Variables

Dependent variable: The dependent variable is financial performance. Their indicators are evaluated using the following criteria:

ROA: It represents the proportion of a firm's net earning relative to its total assets.

$$ROA_{it} = \frac{NP_{it}}{TotalAssets_{it}} \quad (1)$$

Risk-adjusted rate of return: According to Gaganis et al. (2015), the risk-adjusted rate of return is defined as the ratio of return on equity to the standard deviation of return on equity .

EVA :Economic Value Added (EVA) is calculated using the following formula:

$$EVA = \text{capital} \times (r - c^*) \quad (2)$$

In the above equation:

r : is Investment rate of return

c* : is Weighted average cost of capital

capital : is Capital has been used.

In this equation, the investment rate of return It is determined by applying the following equation:

$$r = \frac{NOPAT}{Capital} \quad (3)$$

Where net operating profit after tax (NOPAT) is e determined using the following method:

Net operating profit after tax= Net profit after tax+
Cost of financing

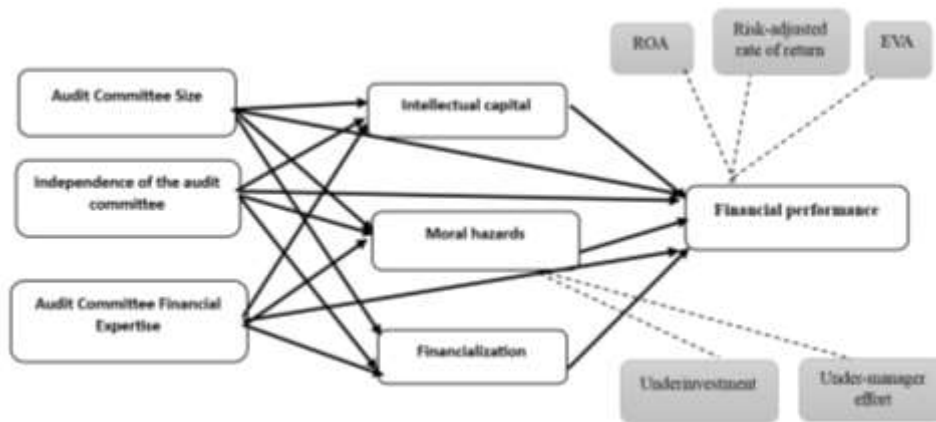


Fig 1: Conceptual Model

Capital used It is equal to the book value of total assets minus current liabilities other than facilities received. And the weighted average cost of capital based on the Gordon method is obtained from the following formula:

$$C^* = W_d \cdot K_d(1-t) + (W_e \cdot K_e) \tag{4}$$

Where W_d is the debt weight, K_d is the debt cost rate, W_e is the equity cost weight, K_e is the equity cost rate, t is the effective tax rate based on the approved direct tax law and Considering Article 143 of the Direct Taxes Law regarding the 10% tax exemption for companies listed on the Tehran Stock Exchange, 22.5%, and for listed companies with more than 20% free float shares, this exemption is doubled and their tax rate is 20% and c^* is the weighted average cost of capital.

W_d = Interest-bearing debt divided by total interest-bearing resources

W_e = Book value of equity divided by total beneficial resources

interest-bearing resources = Retained earnings and other reserves + book value of common stock + interest-bearing debt

(Cost of debt) K_d = Financing cost during the period / Interest-bearing debt

(Cost of equity) K_e = (Dividend paid per share(DPS) / Market value per share) + g

G = (Earnings per share / Market value per share) * Retained earnings percentage

Retained earnings percentage = $1 - (\text{Dividend paid per share} / \text{Earnings per share})$

In this study, in order to homogenize economic added value, the ratio of economic added value to total assets was used.

Independent variables:

- AC-Size = The number of members of a company's AC, which according to the guidelines of the Audit Committee of the Tehran Securities Exchange, is generally between 3 and 5 people.
- AC-Ind= Calculated by the ratio of the number of non-executive members of the AC to the total number of members of the AC.
- AC- FinExp= The number of members with accounting and auditing degrees (who have sufficient ability and experience to analyze and interpret financial information and are proficient in the financial reporting process) is calculated in proportion to the total number of AC members.

Mediating variables: In this study, the mediating variables are intellectual capital, moral hazard, and financialization. The method of calculating them is as follows.

- **Intellectual capital:** This study utilized the Value Added Intellectual Coefficient (VAIC) method to assess intellectual capital. The VAIC measures the efficiency of value creation derived from the utilization of all organizational resources (Pulic, 1998). The VAIC index is calculated using the following formula.

$$VAI = SCE + HCE + CEE \quad (5)$$

VAIC: Value Added Coefficient of Intellectual Capital
 SCE: Efficiency of Structural Capital
 HCE: Efficiency of Human Capital
 CEE: Efficiency of Physical Capital
 SCE (Structural Capital Efficiency) will be calculated as follows:

The first step in the calculation to determine SCE is to calculate the structural capital SC, which is computed in the following way:

$$SC = VA - HC \quad (6)$$

where:

SC: Structural Capital
 VA: Total Value Added
 HC: Total Salary Cost

The second step in calculating the structural capital efficiency of Company i in Year t is as follows:

$$SCE = \frac{SC}{VA} \quad (7)$$

where:

SCE: Efficiency of Structural Capital
 VA: Total Value Added
 HCE (Human Capital Efficiency) Calculation proceeds as shown below:

$$HCE = \frac{AC}{HC} \quad (7)$$

Where:

HCE: Human Capital Efficiency
 VA: Total Value Added
 HC: Total Salary Cost

The calculation of CEE (Physical Capital Efficiency) will be calculated as follows:

$$CCE = \frac{VA}{CE} \quad (8)$$

Where:

CEE: Physical Capital Efficiency Coefficient
 CE: Book value of tangible assets
 VA: Value Added

The calculation of Value Added t is as follows:

$$VA = OP + EC + A \quad (9)$$

Where:

OP: Operating Profit
 EC: Cost of Employment of Labor (Company Salary Cost)
 A: Depreciation of Company's Tangible and Intangible Assets

Moral hazard: whose latent variables are calculated using the study of Castillo et al. (2018) using financial ratios based on low investment and low effort of managers, is as follows:

Underinvestment is calculated as the ratio of non-operating expenses to total assets. Higher levels of non-operating expenses indicate reduced investment (Castillo et al. 2018). Therefore, if a company has a ratio of non-operating expenses to total assets higher than the median of the sample companies under study, the company is considered underinvested and is assigned a number of one, otherwise it is assigned a number of zero.

Under-manager effort: Under-manager effort is calculated as the ratio of operating expenses to total assets. The higher this ratio, the greater the firm's effort with credit in the presence of collateral (Castillo et al. 2018). Therefore, if a company has a ratio of operating expenses to total assets higher than the median of the sample companies under study, it is considered a company in which management effort is low and is assigned a number of one, otherwise it is assigned a number of zero.

Financialization: The financialization of the company will be assessed according to the study of Chen et al. (2024) as the total financial assets held by the company to the total assets. Financial assets include commercial financial assets, derivative financial assets, net loans and advances, net available-for-sale financial assets, net held-to-maturity investments, and net real estate investments (Chen et al., 2024)

Table 1: Summary of Variable Calculations

Variable	Calculation Description
<p>Dependent variable :The dependent variable is financial performance. Their indicators are evaluated using the following criteria: Risk-adjusted rate of return ROA EVA</p>	<p>ROA : It represents the proportion of a firm's net earning relative to its total assets.</p> $ROA_{it} = \frac{NP_{it}}{TotalAssets_{it}}$ <p>Risk-adjusted rate of return: According to Gaganis et al. (2015), the risk-adjusted rate of return is defined as the ratio of return on equity to the standard deviation of return on equity. EVA :Economic Value Added (EVA) is calculated using the following formula: EVA=capital×(r-c*) In the above equation: r :is Investment rate of return c* : is Weighted average cost of capital capital : is Capital has been used.</p>
<p>Independent variables: AC-Size AC-Ind AC-FinExp</p>	<p>AC-Size = The number of members of a company's AC, which according to the guidelines of the Audit Committee of the Tehran Securities Exchange, is generally between 3 and 5 people. AC-Ind= Calculated by the ratio of the number of non-executive members of the AC to the total number of members of the AC. AC- FinExp= The number of members with accounting and auditing degrees (who have sufficient ability and experience to analyze and interpret financial information and are proficient in the financial reporting process) is calculated in proportion to the total number of AC members.</p>
<p>Mediating variables: Intellectual capital</p>	<p>This study utilized the Value Added Intellectual Coefficient (VAIC) method to assess intellectual capital. The VAIC measures the efficiency of value creation derived from the utilization of all organizational resources (Pulic, 1998). The VAIC index is calculated using the following formula.</p> $VAI=SCE+HCE+CEE$ <p>VAIC: Value Added Coefficient of Intellectual Capital SCE: Efficiency of Structural Capital HCE: Efficiency of Human Capital CEE: Efficiency of Physical Capital</p>
<p>Mediating variable: Moral hazard whose latent variables are calculated using the study of Castillo et al. (2018) using financial ratios based on : low investment low effort of managers.</p>	<p>Underinvestment is calculated as the ratio of non-operating expenses to total assets. Higher levels of non-operating expenses indicate reduced investment (Castillo et al. 2018) Therefore, if a company has a ratio of non-operating expenses to total assets higher than the median of the sample companies under study, the company is considered underinvested and is assigned a number of one, otherwise it is assigned a number of zero. Under-manager effort: Under-manager effort is calculated as the ratio of operating expenses to total assets. The higher this ratio, the greater the firm's effort with credit in the presence of collateral (Castillo et al. 2018). Therefore, if a company has a ratio of operating expenses to total assets higher than the median of the sample companies under study, it is considered a company in which management effort is low and is assigned a number of one, otherwise it is assigned a number of zero.</p>
<p>Mediating variable: Financialization:</p>	<p>The financialization of the company will be assessed according to the study of Chen et al. (2024) as the total financial assets held by the company to the total assets. Financial assets include commercial financial assets, derivative financial assets, net loans and advances, net available-for-sale financial assets, net held-to-maturity investments, and net real estate investments (Chen et al., 2024)</p>

4. Results

4.1 Descriptive Statistics

Table 1 has provided the statistical characteristics of the variables under study.

4.2 Fitness of the Research Model

4.2.1 Fitness of the Measurement Model

Table 3 presents the results for convergent validity and reliability, while Table 3 displays the findings related to discriminant validity of the research measurement models.

Composite reliability (CR) assesses the internal consistency of a construct's indicators. A CR value ranging between 0.6 and 0.7 is generally deemed satisfactory (Bazhair, 2022). Based on this criterion, both constructs demonstrate acceptable internal consistency. To assess indicator reliability within the measurement model, factor loadings are examined. Loadings of 0.4 or above are considered adequate. As indicated in the corresponding table, all indicators meet this threshold, confirming their reliability.

Convergent validity is measured through the Average Variance Extracted (AVE). An AVE value of 0.5 or higher suggests that a construct accounts for more than half of the variance observed in its indicators, whereas values below 0.5 imply a greater degree of measurement error than explained variance. Given that the AVE values for both constructs exceed the 0.5 threshold, it can be concluded that they exhibit strong convergent validity. It is also important to highlight that the variables representing intellectual capital and financialization are modeled as single-item constructs; hence, their associated values in the table are uniformly set to one. Discriminant validity was evaluated using the Fornell-Larcker criterion, which requires that the square root of each construct's AVE surpasses its highest correlation with any other construct in the model. As shown in Table 3, diagonal elements reflect the square root of AVE, while the lower triangle presents the inter-construct correlations. The findings confirm adequate discriminant validity for all constructs

Table 2: Descriptive Statistics

Variable	Max	Min	Mean	Std. Deviation
AC Size	5.000	3.000	3.141	0.510
AC Independence	1.000	0.000	0.368	0.184
AC Financial Expertise	1.000	0.000	0.623	0.291
Intellectual capital	15.360	2.206	3.994	2.614
Underinvestment	1.000	0.000	0.473	0.502
Under-manager effort	1.000	0.000	0.564	0.431
Financialization	0.423	0.008	0.049	0.070
ROA	1.707	-0.297	0.129	0.168
Risk-adjusted rate of return	1.959	-0.840	1.339	0.450
EVA(The ratio of economic value added to assets)	0.663	-0.747	0.042	0.124

Table 3. The Fitness Results of Measurement Models

Constructs	Composite reliability	AVE	Factor loading	
Moral hazards	0.689	0.571	Underinvestment	0.803
			Under-manager effort	0.771
Financial performance	0.644	0.563	ROA	0.664
			Risk-adjusted rate of return	0.680
			EVA	0.729

Table 4. Discriminant Validity Results

Variables	AC Size	AC Independence	AC Financial Expertise	Intellectual capital	Moral hazards	Financialization	Financial performance
AC Size	1.000						
ACIndepen	0.859	1.000					
AC Financial Expertise	0.903	0.779	1.000				
Intellectual capital	0.726	0.592	0.844	1.000			
Moral hazards	0.451	0.738	0.604	0.493	0.733		
Financialization	0.626	0.393	0.581	0.679	0.428	1.000	
Financial performance	0.730	0.592	0.717	0.806	0.540	0.816	0.741

Table 5: Coefficients and significance of the path between variables in the relevance model of audit structure with financial performance

Path	Path coefficient	t Statistics	P-value
AC Independence -> Intellectual Capital	0.526	3.623	0.022
AC Independence -> Financial Performance	0.113	3.770	0.010
AC Independence -> Financialization	0.122	3.281	0.027
AC Independence ->Moral hazards	-0.208	3.975	0.006
AC Financial Expertise -> Intellectual Capital	0.128	3.676	0.014
AC Financial Expertise -> Financial Performance	0.114	2.742	0.041
AC Financial Expertise -> Financialization	0.177	3.889	0.008
AC Financial Expertise -> Moral Hazard	-0.258	4.523	0.000
AC Size -> Intellectual Capital	0.294	2.863	0.040
AC Size -> Financial Performance	0.099	2.592	0.043
AC Size -> Financialization	0.174	2.890	0.037
AC Size -> Moral Hazard	-0.215	3.365	0.024
Intellectual Capital -> Financial Performance	0.659	4.866	0.000
Intellectual Capital -> Moral Hazard	-0.621	4.701	0.000
Financialization -> Financial Performance	0.207	3.202	0.030
Moral Hazard -> Financial Performance	-0.147	3.034	0.034

4.2.2 Fitness of the Structural Model

When analyzing the structural model outcomes, the focus is on assessing the model's predictive strength and the interconnections among the constructs. Based on the path coefficients and their statistical significance, we determine whether each hypothesis is supported or not, as well as the nature of the relevances involved. A concise overview of these findings is presented in Table 4. "According to the path coefficient results presented in Table 4, the audit committee's size, independence, and financial expertise exert a significant and positive influence on financial performance."

"The impact of the mediating variable was examined using the Sobel test (1982), with the calculation based on the following formula:

$$\begin{aligned}
 & \text{Sobel test: } z - \text{value} \\
 & = \frac{a \times b}{\sqrt{(b^2 \times S_a^2) + (a^2 \times S_b^2) + (S_a^2 \times S_b^2)}} \quad (10)
 \end{aligned}$$

If the Z-test statistic obtained from the Sobel test exceeds 1.96, the effect of the mediating variable is considered statistically significant at the 95% confidence level. Additionally, the Variance Accounted For (VAF) statistic is used to assess the strength of the mediating effect. VAF values range from 0 to 1, with values closer to 1 indicating a stronger mediating effect. A VAF greater than 0.2 suggests the presence of mediation. Specifically, if the VAF value lies between 0.2 and 0.8, it indicates partial mediation, whereas a value above 0.8 signifies full mediation. VAF is calculated as the ratio of the indirect effect to the total effect, using the following

formula:

$$VAF = \frac{a \times b}{(a \times b) + c} \quad (11)$$

In these two relevances, 'a' denotes the path coefficient between the independent variable and the mediator, while 'b' refers to the path coefficient between the mediator and the dependent variable. The coefficient 'c' represents the direct effect of the independent variable on the dependent variable. Furthermore, Sa corresponds to the standard error associated with the path from the independent variable to the mediator, and Sb denotes the standard error related to the path from the mediator to the dependent variable. The

results of the Sobel test and VAF are reported in Table 5.

The VAF test results reveal that 66% of the impact of AC size on corporate financial performance is mediated by intellectual capital, 23.8% by moral hazard, and 26.6% by financialization. Similarly, 76% of the influence of AC independence on financial performance is channeled through intellectual capital, 20.9% through moral hazard, and 28.1% through financialization. Furthermore, the results indicate that 42.4% of the effect AC financial expertise on firms' financial performance is mediated by intellectual capital, 31.3% by moral hazard, and 24% by financialization.

Table 6. Testing the mediating role of intellectual capital, moral hazard, and financialization

Mediator path	Sobel test z-value	VAF
Audit Committee Size -> Intellectual Capital-> Financial Performance	3.426	0.660
Audit Committee Independence -> Intellectual Capital-> Financial Performance	2.796	0.760
Audit Committee Financial Expertise -> Intellectual Capital-> Financial Performance	4.320	0.424
Audit Committee Size -> Moral hazards -> Financial Performance	3.986	0.238
Audit Committee Independence -> Moral hazards -> Financial Performance	4.008	0.209
Audit Committee Financial Expertise -> Moral hazards -> Financial Performance	2.036	0.313
Audit Committee Size -> Financialization-> Financial Performance	3.063	0.226
Audit Committee Independence -> Financialization-> Financial Performance	2.089	0.281
Audit Committee Financial Expertise -> Financialization-> Financial Performance	3.609	0.240

4.3 R² and Q²

The R² value reflects the squared correlation between the observed and predicted values of a dependent construct, indicating the overall influence of the independent constructs on it (Bazhair, 2022). On the other hand, Q² assesses the model's predictive relevance. A Q² value greater than zero signifies that the model possesses predictive capability for the targeted dependent construct, whereas values of zero or less suggest no predictive relevance. Specifically, Q² values of 0.02, 0.15, and 0.35 are interpreted as representing small, medium, and large levels of predictive relevance, respectively. According to Q² values has provided in Table 5, the model demonstrates an above-average level of predictive relevance for both the dependent construct of financial performance and the mediating construct of moral hazard.

Table 7. R² and Q² standard Results

construct	R ²	R ² Adjusted	Q ²
Moral hazards	0.428	0.389	0.316
Financial performance	0.512	0.471	0.331

5. Discussion and Conclusions

This research explores how the structure of auditing influences financial performance, with particular attention to the mediating roles of intellectual capital, moral hazard, and financialization. The analysis is conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM), a method that accommodates both latent and observed variables. SEM is particularly effective in uncovering causal relationships among variables. The outcomes of this study offer valuable contributions to the academic discourse and carry several implications for policy-making, outlined as follows:

- 1) Our findings indicate that the size of the AC, its level of independence, and the financial expertise of its members all have a significant and positive influence on the FP. As the size of the AC increases, its effectiveness tends to improve due to the availability of more resources, a broader skill set, and a wider range of knowledge that supports stronger oversight of internal financial operations and reporting. Larger AC are also more likely to benefit from diverse perspectives, enhancing decision-making and oversight capabilities. The number of members serves as a proxy for the committee's ability to effectively carry out its financial reporting responsibilities and supervisory role. A larger committee often possesses greater authority, a wider range of expertise, and diverse viewpoints, all of which contribute to better financial outcomes. In terms of independence, having audit committee members who are not part of management strengthens the committee's ability to function objectively. Independent members can question executive decisions, make impartial judgments, and contribute to improving internal control systems. This, in turn, reduces information asymmetry between corporate insiders and external stakeholders, enhances profitability, and limits managerial opportunism. Moreover, the presence of financially knowledgeable members enhances the audit committee's ability to interpret complex financial data and contribute meaningfully to discussions around risk management and performance evaluation. Their expertise ensures greater accuracy and transparency in financial reporting, which ultimately leads to improved overall company performance. The results observed in these domains are in accordance with the findings of Gupta and Mahakud (2021), Singhania and Panda (2025), Hassan Bazhair (2022), Altin (2024) and Umar et al. (2024).
- 2) This study reveals that intellectual capital serves as a mediating factor linking AC attributes—namely size, independence, and financial expertise—with a firm's financial performance. These attributes contribute to better financial outcomes by enhancing the firm's intellectual capital. A larger audit committee, as part of effective CG, is typically associated with stronger internal controls and lower agency costs. The committee's size reflects the breadth of its resources and authority, which supports its ability to fulfill oversight responsibilities and promote intellectual capital development. In terms of independence, audit committees composed of more independent members tend to offer more objective oversight. Their reduced susceptibility to managerial influence enables them to safeguard the interests of stakeholders more effectively, thus fostering an environment conducive to intellectual growth and value creation. Moreover, audit committees with members who possess financial expertise—such as backgrounds in auditing, financial reporting, or internal controls—are better equipped to monitor executive performance and ensure transparency. This expertise not only strengthens the quality of disclosures but also promotes the efficient use of intellectual capital, leading to improved FP. Given that no domestic research has been conducted in this field, it is not possible to compare and match the results. However, the results of this study, in line with Umar et al.'s (2024) study, support the intellectual capital mediation framework used in this article.
- 3) This study reveals that moral hazards serve as a mediating factor in the relationship between AC characteristics—such as size, independence, and financial expertise—and a company's financial performance. A well-structured audit committee contributes to improved performance by minimizing moral hazards. Through various monitoring mechanisms, the audit committee evaluates managerial performance. For instance, by assessing accounting policies and aligning with senior management, the committee can encourage the disclosure of financial statements that comply with established standards. Moreover, the AC plays a supervisory role over senior management, acting as a safeguard against breaches of internal controls and management fraud. According to the resource-based view theory, larger audit committees often comprise individuals with diverse expertise, educational backgrounds, and skill sets, enhancing the committee's effectiveness in limiting ethical deviations and risk. Additionally, committees that include a significant proportion of independent and financially knowledgeable members are better equipped to exercise robust oversight and resist managerial

pressures, thereby reducing ethical risks. Given that no domestic or foreign research has been conducted in this field, it is not possible to compare and match the results.

- 4) We found that Financialization performs a mediating role in the relevance between AC size, AC independence, and AC financial expertise with FP and they increase the FP by increasing Financialization. The AC requires a variety of skills, such as accounting, banking, and law, to oversee and participate in decision-making, so that it can be effective in increasing the efficiency and value of the company. Therefore, the larger the number of AC members and the larger the number of independent members in AC; due to the diversity of opinions, experiences, and expertise; they manage the methods of maintaining conditions in an uncertain economic environment better from a financial perspective. Therefore, if the potential for increased risk is observed, companies with larger and more independent of AC often choose a more cautious business approach and may even forgo riskier investments to reduce their risk appetite. This incentive drives these companies to invest in financial assets to maintain their liquidity and not be exposed to risk, thus increasing their financialization. Given that no domestic research has been conducted in this field, it is not possible to compare and match the results. However, the results of this study reinforce the findings of Chen et al. (2025) regarding the relationship between financialization and FP.

Future research could build upon the current model by incorporating a wider range of CG components, such as specific board characteristics, to enhance the internal governance framework. Scholars might also explore the inclusion of more diverse indicators within each governance dimension. Given that the present study focuses on non-financial firms, subsequent investigations could apply the model to financial institutions listed on the Tehran Stock Exchange, enabling a comparative analysis between financial and non-financial sectors

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