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Analysis on the Evolution Path and Influencing Factors of Financial Governance Mechanism of Manufacturing Enterprises Under the Background of Digital Transformation

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Abstract

Amid the accelerating digital economy, financial governance in manufacturing enterprises is shifting from experience-driven to data-driven models. The traditional model has encountered structural bottlenecks in terms of collaborative efficiency and process consistency. This paper constructs a three-stage financial governance evolution framework, comprising the stages of experience, process, and intelligence and identifies three key influencing factors, including technology integration, data governance and organizational change. By introducing typical enterprise cases such as Huawei, Midea and Haier, this paper explores their practical approaches to process reconstruction, master data governance, and cognitive transformation, further discusses the systematic obstacles in the transformation process, and proposes an improvement path with process collaboration, data integration, cognitive reshaping and dynamic response as the core, aiming to provide theoretical support and practical reference for manufacturing enterprises to build a highly adaptable and intelligent financial governance system.

Keywords: digital transformation, manufacturing enterprises, financial governance, mechanism evolution, organizational adaptation

1. Introduction

As intelligent technologies such as artificial intelligence and big data are embedded in the manufacturing production and management system at an accelerated pace, corporate financial governance is undergoing a deep transformation from experience-driven to data-driven, and from static response to dynamic perception. The traditional financial governance model has gradually exhibited bottlenecks such as delayed response and fragmented mechanisms in terms of process collaboration, data consistency and risk perception capabilities, which has promoted its evolutionary reconstruction from instrumental functions to strategic guiding functions. This paper constructs a theoretical analysis framework based on dynamic capabilities, organizational evolution and contingency theory, adopts a normative research method combining theoretical deduction with typical case analysis, selects three representative manufacturing companies, Midea, Haier and Huawei, and deeply analyzes the structural evolution path and adaptive dilemma of their financial governance mechanisms in digital transformation. By identifying the three types of optimization logics of "collaborative embedding-structural adaptation-capability iteration", this paper attempts to respond to the core research question of "how mechanisms evolve and how obstacles are broken through", and provides theoretical support and practical inspiration for manufacturing companies to build a highly adaptable and highly collaborative intelligent financial governance system.

2. Theoretical Support and Research Basis

2.1 Core Concepts

“Digital transformation” refers to the systematic change in manufacturing companies driven by digital technologies such as AI, big data, and cloud computing to break through traditional management and production boundaries and reconstruct processes, organizations, and decision-making systems (Vial, 2019) [1] .

“Financial governance mechanism” refers to the institutional arrangements and technical execution system formed by an enterprise in financial decision-making, supervision, resource allocation and risk control, emphasizing the active embedding and coordination of financial functions at the strategic level (Bhimani & Willcocks, 2014) [2] . The intersection of the two is the key interface for digital technology to enable the evolution of corporate financial functions from auxiliary support to strategic leadership.

2.2 Review of Domestic and International Research

2.2.1 International Research Status

In recent years, international scholars have explored the evolution logic and governance elements of corporate financial governance mechanisms from multiple dimensions, with particular focus on the interaction between technological change and institutional coordination. Zampella et al. demonstrated that the effectiveness of governance mechanisms directly affects the relevance and decision-making value of non-financial information in response to sustainable disclosure requirements[3]. Shashikala et al., from the perspective of emerging economies, empirically validated the moderating effect of board governance mechanisms on organizational financial flexibility[4]. Clement et al. further emphasized that the synergy between internal control mechanisms and governance models can significantly improve the performance of financial institutions, highlighting the role of governance structures in shaping financial system responsiveness[5].

From the perspective of technology integration and ESG considerations, Hussain et al. introduced Sustainable Development Goals (SDGs) and earnings management variables to reveal the mediating role of governance mechanisms in preventing financial misstatements[6]. Other studies also suggest that during the process of intelligent transformation, governance mechanisms should evolve from rule-based control to algorithmic governance to meet the demands of dynamic feedback in complex decision-making environments[7].

2.2.2 Domestic Research Status

In China, scholars have gradually focused on the digital adaptation and process optimization of financial governance mechanisms. Li Yinlong and Yang Miaofan proposed that enterprises should optimize their big data governance mechanisms based on financial shared service platforms to lay the technical foundation for data-driven governance[8]. Wang Chaojun pointed out that the traditional financial supervision system suffers from a lack of flexibility and advocated for process collaboration and mechanism restructuring to enhance responsiveness[9]. Li Bingxiang et al. constructed a transmission path model of governance mechanisms under financial distress from the perspective of managerial risk preferences, thereby extending the theoretical chain of “cognition–behavior–institution”[10].

In addition, Zhang Xiuquan introduced the concept of a "safety valve mechanism" in the context of financial companies, emphasizing the importance of structural safeguards through closed-loop processes and risk isolation[11]. Luo Sanyang, focusing on the digital transformation path of manufacturing enterprises’ financial systems, highlighted institutional bottlenecks and system fragmentation as persistent obstacles during the transformation process[12].

2.2.3 Research Review

In summary, international research predominantly emphasizes the structural efficiency of governance mechanisms and their adaptive capacity in the context of data and technology integration, with a focus on intelligent feedback logic in uncertain environments. In contrast, domestic studies tend to empirically examine tool deployment, institutional adaptation, and governance path optimization, but lack systematic modeling of “mechanism variable composition,” “cognitive bias adjustment mechanisms,” and “platform-based governance structures.” Going forward, how to realize the dynamic evolution of organizational governance capabilities and the embedded synergy of mechanisms in the digital context remains a critical challenge for current research to address.

2.3 Theoretical Basis

In order to deeply analyze the evolution process of the financial governance mechanism of manufacturing enterprises in digital transformation and its influencing factors, this paper comprehensively introduces three explanatory theoretical tools: dynamic capability theory, organizational evolution theory and contingency theory, and constructs an analytical framework of the "technology-organization-institution" three-way interaction.

(1) **Dynamic capability theory** : Teece et al. (1997) pointed out that the ability of enterprises to acquire, integrate and reconstruct resources in a complex dynamic environment is the key to maintaining competitive advantage [13] . This theory provides a basis for this article to analyze **the logic of upgrading the financial governance mechanism under the embedding of intelligent technology** : enterprises need to continuously identify new data-driven risks (such as algorithmic bias and data lag), integrate heterogeneous system data resources, and dynamically reconstruct decision-making processes such as budget, cost, and risk control. Taking Midea Group as an example, it has built a "parameter dynamic tuning model" in cost concentration, which reflects the capability reconstruction of the authorization mechanism, which is in line with the three stages of "perception-learning-reconstruction" dynamic capabilities.

(2) **Organizational evolution theory** : Nelson and Winter (1982) emphasized that institutions exhibit nonlinear evolutionary characteristics under conditions of technological change and path dependence [14] . This paper takes the three stages of "experience governance-process governance-intelligent governance" as the main line of evolution, revealing the evolutionary path of corporate financial mechanisms from manual judgment, rule-based processes to algorithmic decision-making. Taking Haier as an example, its "order-driven" production mechanism accompanied by the implantation of SAP financial modules represents the gradual evolution of organizational cognition and institutional rules from "experience coding" to "system configuration". This theory helps to explain how financial governance mechanisms evolve under the constraints of organizational structure and technological capabilities.

(3) **Contingency theory** : Donaldson (2001) pointed out that the configuration of organizational mechanisms should be dynamically adjusted in response to the changing characteristics of the environment [15] . In this article, this theory is used to support the proposition that "there is no single optimal path for intelligent financial governance". The intelligent transformation of corporate financial systems needs to be flexibly designed according to differences in scale, industry regulatory intensity, and strategic positioning: for example, Huawei focuses on capital forecasting and integrated collaboration, while small and medium-sized manufacturing companies pay more attention to cost control and risk warning. Contingency logic reminds us that the optimization of governance mechanisms must achieve flexible adaptation between "local embedding-global coordination".

The above three theories correspond to the three core structural dimensions of this study: **dynamic capability-technology logic** , **organizational evolution-institutional logic** , and **contingency adaptation-organizational governance logic** . They provide solid theoretical support and explanatory framework in building obstacle identification models and designing optimization paths, ensuring the logical closure of the research from theoretical deduction to practical induction.

3. Evolutionary Path of Financial Governance Mechanism of Manufacturing Enterprises

3.1 Experience Governance Stage

Experience governance is in the primary stage of relying on manual judgment. Enterprise financial management mainly relies on managers' judgment based on experience and intuition. The decision-making system is fragmented, the efficiency of information transmission is low, and financial activities are highly dependent on manual processing. There is a lack of system support, resulting in weak synergy and a long execution chain. Taking Midea Group 2000 years ago as an example, its financial operations were mainly based on the intuition of senior management and post-accounting. Resource allocation was very obvious, and the problem of budget deviation and execution mismatch occurred repeatedly. With the expansion of enterprise scale and the increase of business complexity, experience-based governance gradually presents systemic risks such as delayed response, data fault, and unclear responsibility, becoming an important internal driving force for promoting the upgrading of financial governance mechanisms. The characteristics of this stage are low data dependence and high manual intervention. Although a flat organizational structure is adopted, the response is still delayed. Governance obstacles are mainly caused by information islands and subjective decisions. The evolutionary motivation comes from the expansion of enterprise scale and the increase of uncertainty in the external environment.

3.2 Process Governance Phase

In this stage, enterprises use information systems (such as ERP and MES) to automate and structure processes, and the logic of financial governance transitions from manual governance to system governance. Taking Haier's "order-driven production" mechanism as an example, it relies on the SAP platform to connect with the financial module, completes the real-time tracking of order costs and inventory capital occupation, and promotes the integration of business and financial processes. Enterprises use rule engines embedded in the system to automatically monitor key aspects such as budget execution, contract fulfillment, and inventory turnover, and strengthen budget control and risk warning mechanisms in the process. At the organizational level, the role of financial personnel is transformed into process monitoring and data verification, promoting the pre-positioning of financial decisions and institutional standardization. Process governance focuses on system integration and process standardization, and governance efficiency is significantly improved, but it is easily restricted by factors such as data interface consistency, system standard rigidity, and cross-departmental collaboration complexity. The driving factors of this stage are mainly the complexity of enterprise processes and the increase in cost control needs.

3.3 Smart Governance Stage

With the widespread application of intelligent technologies such as AI and big data, the financial governance of manufacturing enterprises has gradually entered the intelligent stage. Taking Huawei's iFinance platform as an

example, cash flow forecasting and budget dynamic adjustment can be carried out based on embedded algorithm models to achieve automation and forward-looking regulation of fund collection. Governance at this stage shows the characteristics of real-time perception, multi-source data fusion, and algorithm-led decision-making, which significantly enhances the sensitivity of enterprises to market fluctuations and the flexibility of authorization mechanisms. However, in practice, enterprises often face problems such as high deployment costs, poor cross-system data compatibility, poor algorithm interpretability, and strong employee cognitive inertia, which significantly reduce the effectiveness of the implementation of governance mechanisms. The intelligent governance stage is characterized by real-time responsiveness, strong data dependency, and enhanced predictive capabilities. The implementation obstacles are mostly reflected in the lag of organizational culture, data standard conflicts, and institutional mismatch. The evolutionary motivation lies in the dual needs of flexible response capabilities and strategic docking capabilities.

4. Identification of Obstacles and Analysis of Influencing Factors in the Evolution of Governance Mechanisms

In the process of manufacturing enterprises' financial governance mechanism moving from experience to process and then to intelligence, enterprises are faced with not only challenges at the technical deployment level, but also deeper obstacles from the tension and misalignment between institutional design, data logic and organizational structure. This chapter systematically reveals the structural obstacles and causal mechanisms in the evolution of governance mechanisms from the four dimensions of technical architecture, data governance, organizational inertia and cognitive culture (as shown in Table 4-1) .

Table 4-1. Tension Classification Table: Nested Analysis of Three Types of Structural Barriers

Tension Dimension	Manifestation	Corresponding obstacles	Cause classification
Technical system tension	Disconnected tools and isolated data	Tool deployment is out of touch with the system	System deployment without refactoring the underlying architecture
Institutional rule tension	Inconsistent reporting standards and conflicting process interfaces	Lack of master data management and fragmentation of data chain	Master data missing, incompatible systems
Organizational Behavior Tension	Misalignment of power and responsibility, cognitive resistance	Organizational structure inertia and decision-making feedback delay , cognitive inertia and technical misjudgment	Lengthy hierarchy and strong cognitive inertia

4.1 Tool Deployment Mechanism Mismatch and Process Fragmentation

Some manufacturing companies have a tendency to "focus on tools and neglect processes" in digital transformation, mistakenly regarding the launch of the system as a governance upgrade, resulting in the "idle operation" of the intelligent module. For example, after **Zoomlion** launched its cost control platform, it failed to connect the production scheduling system and the financial forecast interface, resulting in the inability of the system output to be embedded in the production scheduling plan, forming a "data island", and the budget forecast could not guide resource allocation. The fundamental problem is that the process logic and data interface were not reconstructed before deployment, and the tool became an "island module" attached to the process. Relatively speaking, **Midea Group** first unified the data standard and interface protocol in the construction of the "iMidea" system, embedded it in the main business process, and realized the positive drive of financial forecasts on production scheduling . Viewed through the lens of organizational evolution theory, the Zoomlion case highlights how the lag in process adaptation relative to technology deployment can undermine the effectiveness of financial governance mechanisms.

4.2 Lack of Data Governance Mechanism and Inconsistent Standards

The integrity and consistency of master data are the foundation of intelligent financial governance. However, most manufacturing companies lack top-level design in data governance, and have problems such as confusing coding and inconsistent calibers, which make data aggregation difficult and analysis weak. For example, during the rapid expansion of **Luxshare Precision's** business, the material coding standards among subsidiaries were not unified, the caliber of the financial system summary report was chaotic, and the budget execution analysis was seriously lagging behind. The root of the problem is that the company has not established a master data standard system and

a governance responsibility mechanism. Although the system is online, the data is "semantically mismatched." In contrast, **Haier** has solved the problem of multi-source heterogeneity of data by unifying the material master data platform and cross-system field mapping, and achieved unified reporting caliber and real-time response. From an institutional perspective, Luxshare Precision's problems reflect that the corporate governance structure lags behind the evolution of the data system and lacks the "data first" financial governance logic.

4.3 Problems of Delayed Organizational Response Mechanism and Coordination Failure

Despite the initial deployment of the system, many companies are still trapped in the governance dilemma of delayed approval and rigid execution, which is due to the lengthy organizational hierarchy and unclear authority settings. For example, although **Dongfeng Motor Group** has built a financial shared center, budget allocation still requires approval from the headquarters at each level, and on-site business response is seriously delayed. Although the system is integrated, the intelligent functions are difficult to play an emergency role because the rights and responsibilities have not been simultaneously transferred to the lower levels. This configuration enables real-time decision-making by significantly shortening the feedback loop between front-line operations and financial approvals.From the perspective of contingency theory, Dongfeng's problem reflects that the governance mechanism has not achieved the coordination of "structure-technology-rights and responsibilities", resulting in "inefficient mechanism" after the system is deployed.

4.4 Lack of Cognitive Adaptation Mechanism and System Conflict

The implementation of intelligent financial systems often encounters cognitive misunderstandings and cultural resistance, which manifests itself in management misunderstanding its strategic value and front-line employees resisting system output. For example, when **Luxi Chemical** promoted the intelligent reimbursement system, employees frequently modified the algorithm's recommended values, resulting in reduced data accuracy and reduced efficiency. The root cause lies in the lack of algorithm explanation mechanism and personnel cognitive guidance, and the system is regarded as an "alternative tool" rather than a "synergistic mechanism." In contrast, **Midea Group** binds "algorithm explanation power" and system utilization rate through performance incentives to build a three-layer cognitive structure of "people-system-organization." Organizational evolution theory points out that cognitive adaptation is a key condition for whether the technology governance mechanism can be truly implemented. The Luxi case reflects the deep tension of cultural transformation lagging behind system deployment.

Through the above analysis, the above four types of obstacles respectively reflect the mismatch and lag of the digital financial governance mechanism at the four structural levels of "tools-data-organization-cognition", which hinders the path transition of financial governance from process standardization to intelligent responsiveness. The next chapter will focus on the corresponding governance bottlenecks and propose four types of collaborative paths: process reengineering, data governance, organizational agility and cultural adaptation, in order to achieve systematic optimization under structural tension.

5. Optimizing Paths and Improving Mechanisms

Focusing on the four types of structural obstacles identified in the previous chapter, this article proposes four governance optimization paths centered on process collaboration, data governance, organizational agility, and cultural cognitive reshaping, aiming to build a new paradigm of digital financial governance with system integration capabilities, data-driven capabilities, and dynamic response capabilities (as shown in Figure 5-1) .

5.1 Improve Process System and Organizational Coordination Mechanism

To address the disconnect between tool deployment and core business processes, enterprises should reconstruct the financial governance process, adopt "identification–feedback–execution" as the central operational chain, and establish a collaborative closed loop between business and finance. The core of the process collaboration mechanism is to achieve "moving the data starting point forward, embedding process decisions, and executing a feedback closed loop" to improve the response speed and accuracy of budget adjustment and resource allocation. In the "iMidea" platform, **Midea Group** has configured a node-based budget management mechanism and embedded a dynamic early warning module to achieve a full process response from prediction trigger to execution intervention. When the budget deviation reaches the threshold, it triggers the system suggestion and goes straight to the approval flow, building a data-driven process chain of "abnormal identification-budget correction-resource reallocation". In contrast, many manufacturing companies deploy intelligent systems as "functional plug-ins" and fail to connect financial logic and business chains, resulting in the system remains in place but fails to deliver its intended functionality".

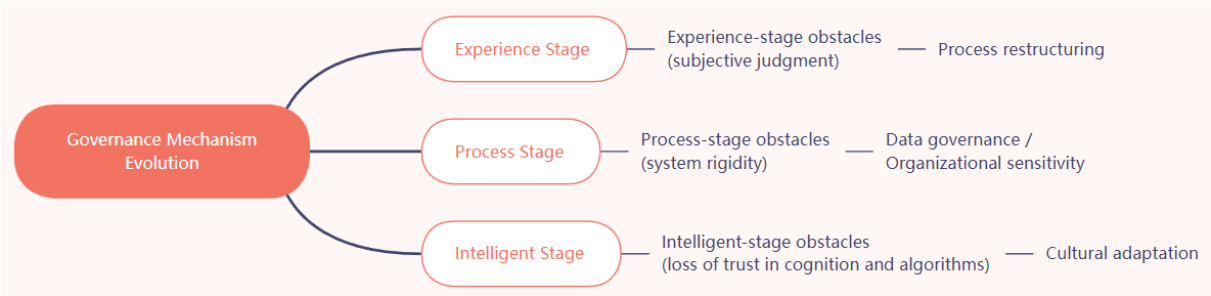

Figure 5-1. Comparison of the evolution stages of governance mechanisms and structural obstacles and optimization mechanisms

It is recommended that enterprises introduce the Process Penetration Index as an evaluation indicator to measure whether the system intervention nodes are connected to the business chain, focusing on improving the "financial node forward movement rate", "forecast intervention success rate", "process data automatic trigger rate", etc. The essence of the process coordination mechanism is to build an "intelligent + embedded" response system, and its governance effectiveness depends on the depth of financial intervention embedded in the process and the integrity of the early warning response chain.

5.2 Building a Master Data Governance and Quality Control System

Master data is the logical starting point of financial governance. Most manufacturing companies have problems such as "multiple heterogeneous systems, inconsistent calibers, and field semantic conflicts", which reflects that the master data standards are not unified and the governance mechanism is absent. Enterprises should establish a master data governance system grounded in unified standards, centralized accountability, and process oversight, in order to reduce interface discrepancies and enhance data consistency, integrity and traceability. Taking **Haier** as an example, its master data platform integrates multiple fields such as materials, suppliers, cost centers, etc., formulates semantic standards, and establishes a version control mechanism, which significantly improves the efficiency of cross-system data integration. The governance task is the responsibility of the three-level chain of "CDO-Data Specialist-System Auditor", realizing the integrated operation of "data definition-process connection-standard update".

It is recommended to introduce **the Master Data Governance Maturity Index (MDGM) to evaluate** from the following dimensions: field standard coverage, field conflict identification rate, data change response time, master data reference error rate, etc. The core of the master data governance mechanism lies in the dual embedding of system and technology, and its effectiveness depends on the uniformity of data standards, the closed loop of the responsibility chain, and the immediacy of quality monitoring.

5.3 Build Organizational Agility and Rapid Response Mechanism

The traditional organizational structure is long and the approval mechanism is rigid, which seriously restricts the rapid response capability of the intelligent financial system. To this end, enterprises should build an " organizational response mechanism" to improve the agility of budget execution and resource allocation under the framework of "model assistance-rule drive-authorization embedding". For example, **Huawei** 's CloudWeGo platform adopts the structure of "frontline authorization + rule engine + multi-node early warning", so that on-site business can be quickly executed within the authorization threshold without reporting layer by layer. The system establishes a response model based on historical data, and automatically generates budget correction suggestions and allocation plans under trigger conditions, forming a closed-loop mechanism of "strategy embedding-simulation prediction-dynamic response".

It is recommended to introduce **the Organizational Responsiveness Index (ORI)** , with measurement dimensions including approval chain shortening rate, on-site incident response time, model decision adoption rate, response accuracy rate, etc. The organizational response mechanism emphasizes the transfer of financial functions from back-end accounting to front-end decision-making, and its response efficiency can be derived from the coupling configuration capability of model-driven and authorization structure.

5.4 Strengthening Governance Concepts and Cultural Cognition System

Cognitive misalignment and lack of trust are hidden obstacles to the implementation of intelligent financial systems. Enterprises need to build cognitive adaptation mechanisms across three levels: institutional incentives, system transparency, and cognitive guidance to achieve the deep integration of "people - system - mechanism". **Midea Group** introduced quantitative indicators such as "algorithm explanation power" and "system utilization rate" in performance management, and implemented system operation and feedback training for key employees to strengthen their understanding and adoption of algorithm suggestions. By building a three-layer model of "strategic cognition - business cognition - operational cognition", the use of the system is promoted from "resistance - trial - trust".

It is recommended to introduce **the Cognitive Alignment Index (CAI)** to measure management's understanding of system strategy, employee algorithm trust, system output adoption rate, organizational collaboration satisfaction, etc. The key to the cognitive adaptation mechanism is to open up the cognitive chain of the organization, and its system effectiveness depends on the systematic shaping of cognitive transparency, trust building power and feedback correction ability .

Focusing on the four types of governance obstacles, namely, tool disconnection, data fragmentation, organizational inertia and cognitive bias, this paper proposes four optimization paths, namely, process collaboration, data governance, organizational agility and cognitive adaptation, and constructs corresponding mechanism variables and evaluation index systems (see Table 5-1) . Case studies of companies such as Midea, Haier and Huawei show that the above mechanisms have good adaptability and practical effects in terms of process embedding, master data integration, authorization optimization and cultural guidance. In general, the transition to digital financial governance depends not only on the deployment of intelligent technology, but also on the systematic linkage of institutional design, process reconstruction and organizational cognition.

Table 5-1. Optimization Path - Mechanism Variables - Indicator System Mapping Table

Optimize Path	**Core Mechanics**	**Mechanism variables**	**Examples of measurable indicators**
Process coordination mechanism	Embedded process response system	process embeddedness	Predict intervention success rate, automatic trigger rate, and budget correction time
Data governance mechanism	Master data closed-loop control system	Master Data Governance Maturity	Conflict identification rate, reference error rate, change response time
Organizational Agility Mechanism	**Flexible authorization and response mechanism**	**Organizational responsiveness**	Response time, authorization mismatch rate, model adoption rate
Cognitive Adaptation Mechanism	Cognition-driven synergy	Cognitive Fit Index	System trust, cognitive consistency score, and system suggestion adoption rate

6. Conclusion

In the process of digital transformation, the financial governance mechanism of manufacturing enterprises is rapidly evolving from empirical judgment to data-driven and intelligent response. Based on the practical cases of Midea, Haier, Huawei, etc., this paper identifies structural obstacles such as tool disconnection, data fragmentation, organizational inertia and cognitive bias, proposes four optimization paths consisting of process collaboration, data governance, organizational agility and cognitive adaptation, and defines corresponding mechanism variables and sets of measurable indicators. The study found that the upgrade of financial governance not only involves the reconstruction of technical systems, but also relies on the collaborative shaping of process linkage, institutional softening and cognitive consensus. In the future, we can further focus on the collaborative effectiveness of financial sharing platforms and the mechanism performance of intelligent algorithms in budget execution, broadening the extension of theory and the depth of empirical analysis.

References

[1] Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *The Journal of Strategic Information Systems, 28*(2), 118–144. https://doi.org/10.1016/j.jsis.2019.01.003

[2] Bhimani, A., & Willcocks, L. (2014). Digitisation, 'Big Data' and the transformation of accounting information. *Accounting and Business Research, 44*(4), 469–490. https://doi.org/10.1080/00014788.2014.910051

[3] Corporate governance mechanisms in light of the COVID-19 crisis: How financial information and regulation, managerial decision-making, and policy intervention can shape the economic recovery. (2020). *Corporate Governance: An International Review, 28*(5), 335–339. https://doi.org/10.1111/corg.12341

[4] Hussain, R. T., Akhtar, K., Ahmad, F., Salman, A., & Malik, S. (2023). Examining the intervening effect of earning management in governance mechanism and financial misstatement with lens of SDG and ESG: A study on non-financial firms of Pakistan. *Environmental Science and Pollution Research, 31*(34), 46325–46341. https://doi.org/10.1007/s11356-023-30128-0

[5] Zampella, A., Campanella, F., Serino, L., & Spignese, A. (2024). Do effective and sustainable corporate governance mechanisms affect the relevance of non-financial information? *Corporate Social Responsibility and Environmental Management, 32*(1), 741–756. https://doi.org/10.1002/csr.2989

[6] Shashikala, W. H., Niluka, A., & Roshan, A. (2024). Do selected board governance mechanisms strengthen the link between institutional and macroeconomic variables and the financial flexibility of corporations? *Journal of Asia Business Studies, 18*(2), 412–429. https://doi.org/10.1108/JABS-06-2023-0219

[7] Li, Y. L., & Yang, M. F. (2023). Research on enterprise big data governance mechanism based on financial sharing. *Price Theory and Practice*, (04), 104–108.

[8] Li, J. H. (2023). Exploring effective paths for optimizing enterprise financial governance structure. *Finance & Economy*, (29), 105–107.

[9] Luo, S. Y. (2023). Research on the path of enterprise financial digital transformation. *China Management Informatization, 26*(04), 95–97.

[10] Zhang, X. Q. (2024). Tightening the "safety valve" of enterprise group finance companies. *China Accounting News*, 2024-05-17(001).

[11] Wang, C. J. (2024). Research on the optimization of corporate governance mechanism under financial supervision management. *Finance News*, (23), 33–35.

[12] Li, B. X., Lin, B. H., & Zhang, T. (2025). The influence of managerial risk preference on corporate financial distress: Mediating path and governance mechanism. *Journal of Systems Management, 34*(01), 241–256.

[13] Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal, 18*(7), 509–533. https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z

[14] Nelson, R. R., & Winter, S. G. (1982). *An evolutionary theory of economic change*. Cambridge, MA: Harvard University Press.

[15] Donaldson, L. (2001). *The contingency theory of organizations*. Thousand Oaks, CA: Sage Publications. https://doi.org/10.4135/9781452229249