



How External Institutional Forces Shape Digital Transformation: Uncovering the Mediated Pathways toward Performance Improvement

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Received: 31 January 2026

Accepted: 26 April 2026

DOI: <https://doi.org/10.32479/irmm.23885>

ABSTRACT

Against the backdrop of rapid digital economic development and profound institutional environment changes, enterprise digital transformation has emerged as a critical strategic issue for enhancing competitiveness. Based on institutional theory, this study systematically examines the impacts of coercive, normative, and mimetic pressures on digital transformation and tests the mediating role of digital transformation between institutional pressures and firm performance. Utilizing survey data from 286 Chinese enterprises and employing PLS-SEM for empirical analysis, the research reveals that institutional pressures significantly promote digital transformation, with mimetic pressure exerting the strongest influence, followed by normative and coercive pressures. Digital transformation significantly enhances firm performance and plays a pivotal mediating role in the relationship between institutional pressures and performance, indicating that external institutional environments indirectly improve performance levels by driving firms to restructure processes and adopt technologies. This study extends the explanatory power of institutional theory against the backdrop of digital transformation and elucidates the differential effects of institutional pressures. The findings provide crucial insights for enterprises in responding to institutional changes, formulating digital strategies, and building sustainable competitive advantages. The results provide practical guidance for achieving the SDG9 - process Innovation, Digital Access and Innovation Capability.

Keywords: Digital Transformation, Coercive Pressure, Normative Pressure, Mimetic Pressure, SDG9, process Innovation, Digital Access and Innovation Capability

JEL Classifications: M15; L25; D22

1. INTRODUCTION

Owing to strong uncertainty and rapidly surrounding the competitive landscape, digital transformation has become one of the significant strategic moves that will boost the effectiveness and competitiveness of business (Vial, 2021). However, the digitalization of a firm is also shaped by its external environment, which can be called institutional context. This environment can limit a firm the significant strategic moves that will boost the effectiveness and competitiveness of business (on instituer pressures (DiMaggio and Powell, 1983).

Over the past few years, growing attention has been paid to the impact of institutional pressure on the performance of the

organization, thereby influencing the strategic behavior of the enterprise. According to Huang (2025), the extent of the digital transformation is not only concerned with the resource base of the enterprise, but also subject to the pressure of external regulation and industry norms. Institutional factors such as normative, mimetic, and coercive pressures have become the important driving forces for the development of enterprise digital capabilities (Pattanaik et al., 2025). According to Zhou et al. (2025), the supportive of green policies and the greater awareness of social sustainability, will play an important role in improving the investment behaviors in technology, along with the digital transformation process, hence indirectly influencing sustainable performance of the enterprise.

Although existing studies have validated the importance of the institution pressure on the strategy of the enterprise, how the three different types of the institution pressure influence the digital transformation of the enterprise remain unclear. Also, how this transformation promotes the enterprise's performance, is yet to be explored, let alone if there are any interactions between different sources of pressure from the institution. The core questions that the study will cover are:

- Does institutional pressure have a significant impact on enterprise digitalization? What are the differences in the direction and extent of this impact?
- Does enterprise digital transformation function as a mediator in the relationship between institutional pressure and firm performance?

This paper constructs and validates a structural model encompassing institutional pressure, digital transformation, and corporate performance, aiming to reveal how the external institutional environment indirectly influences corporate performance through digital pathways. It links institutional theory to digital transformation. And it shows that institutional pressure can push companies to adopt new business technology. It also points out that institutional pressure isn't just one thing. Its different sides such as normative, mimetic, and cohesive pressures shape firm decisions in different ways.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. Institutional Theory

Institutional theory presupposes that, apart from internal resources and efficiency, organizational behavior is also influenced by the various formal and informal rules of its institutional environment (Scott, 2008). DiMaggio and Powell (1983) suggests that in order to gain legitimacy, organizations tend toward institutional isomorphism, which mainly comprises three types: Coercive, normative, and mimetic pressure. Coercive pressure comes from government regulation, laws, and policy guidance (Sari et al., 2021). Normative pressure originates from industry norms, professional ethics, and educational background (Lewis, 2013). Mimetic pressure, happening mainly when organizations are facing high uncertainty, involves imitating industry leaders in order to avoid risk (Yang and Kang, 2020). Institutional pressure may affect an organization's strategic behavioral choices, especially within emerging markets and highly volatile environments, thus becoming a significant impetus for corporate change and innovation (Hinings et al., 2018; Gao et al., 2025a).

Institutional theory has emerged as the most relevant perspective for explaining why and how companies promote digital transformation. As digital technologies continue to advance, corporate transformation has emerged not only due to internal motives that come from efficiency and innovation improvements but also from external forces within an institutional environment (Vial, 2021). Institutional pressure encouraged the deployment of digital technologies, including cloud computing and blockchain (Mishra et al., 2025; Arshad et al., 2019; Adjei et al., 2021). Also,

institutional pressure influenced the depth and direction of corporate transformation. In this process, corporate transformation is regarded as a link between institutional pressures and corporate performance. That is, the external environment indirectly enhances a company's operational capability and market performance by encouraging the adoption of new technologies and management models (Gurbaxani and Dunkle, 2018). Simply, institutional pressure shapes a firm from the adoption of new technologies and management models (process, corporate transformation is important to understand how each type of pressure affects digital transformation and how these changes boost performance in the digital age.

2.2. Hypothesis Development

Coercive pressure arises from formal institutional demands which include government policy, laws and regulations, regulatory bodies, or parent companies (DiMaggio and Powell, 1983). It is a reflection of the institutional arrangements that organizations have to follow in their quest to gain legitimacy. Shahi and Chaudhary (2025) showed that the influence of government policy requirements for digital systems in schools increased IT system adoption rates. Meanwhile, Kirivan and Leelasantitham (2025) indicated that coercive pressure from regulations is considered a driver in the adoption of digital supply chain finance. Mohaidin et al. (2025) pointed out that government regulatory requests act coercively-the company has not actively sought technological upgrades but was compelled to change to avoid punishment and damage to its reputation. Such coercive power has appeared in the banking industry (Siddik et al., 2025) and healthcare system (Lu et al., 2025), which shows that this institutional driving path of digital transformation cannot be ignored. Based on the above analysis, this paper puts forward the following hypothesis:

- H_1 : Coercive pressure positively impacts enterprise digital transformation.

Normative pressure refers primarily to the social expectations from industry practices, professional norms, educational backgrounds, and professional standards which shape the beliefs of the organization (Scott, 2008). Professional organizations like industry associations, technology alliances, and consulting firms commonly act as knowledge intermediaries, spreading information on digital best practices and technical standards that enhance corporate consensus (Hinings et al., 2018). When corporate customers begin to adopt widely digital systems, such as online procurement and data integration platforms, suppliers are often influenced by norms and adjust systems and processes to maintain collaboration (Gurbaxani and Dunkle, 2018). Besides, the new generation of employees with a technical background also expects more from the technological foundation and innovation capability of the company, driving indirectly the incorporation of new technology into operations (Fazi et al., 2025). Although innovation is frequently facilitated by technology, its ultimate success depends on human agency, particularly the voluntary actions of employees who extend their efforts beyond routine responsibilities to achieve innovative results (Ding et al., 2025). Adjei et al. (2021) found that corporate decisions to adopt cloud computing are influenced by the practices of industry peers about technical standards. From the above analysis, this study proposes the following hypothesis:

- H_2 : Normative pressure has a positive impact on enterprise digital transformation.

In an environment with a significant degree of external uncertainty, organizations have an increased propensity to mimic as a risk reduction and simplification strategy for decision making; this is referred to as mimetic pressure (DiMaggio and Powell, 1983). Mimetic pressures force businesses to borrow practices from leading companies in the same industry that help guide behavior in the high pace of technological change, in times of market uncertainty, and in cases of strategic ambiguity - a situation that enables firms to maintain competitive position and attain institutional legitimacy (Scott, 2008). When more leading companies, competitors, or benchmark companies successfully apply digital technologies, other companies tend to imitate their road to transformation for fear of falling behind with technology updates (Molinillo and Japutra, 2017). For companies with limited resources or a lack of evident strategies, imitation might represent a low-risk and low-trial-and-error strategic shortcut (Zampone et al., 2023). Hartley et al. (2022) pointed out that mimetic pressures act as a major impetus for the deployment of blockchain technologies, where the focus of a firm's attention is observing what competitors do rather than proactively pursuing technological upgrade based on strategic planning. Similarly, Özbek et al. (2024) found that mimetic isometric behavior significantly enhanced the willingness to adopt. In addition, Yang and Kang (2020) pointed out that the imitation of competitors is often ahead of a firm's own planning and becomes a reference for transformation. Imitation not only accelerates the speed of technology diffusion but also has gradually become an indispensable institutional logic in organizational change (Liu et al., 2023). Based on the above, this study formulates the following hypothesis:

- H_3 : Mimetic pressure positively influences the digital transformation of enterprises.

Simultaneously, digital technologies represent a new strategic resource of the firms that can create, when integrated into core organizational processes, an inimitable source of competitive advantage that enhances corporate performance (Bharadwaj, 2000). Digital tools enhance operational efficiency, resource utilization, and process automation, reducing costs in the process (Björkdahl, 2020; Gao et al., 2025b). Digital platforms enhance the responsiveness of enterprises to market changes and improve customer connectivity, hence contributing to product innovation and enhancing customer satisfaction (Jia et al., 2023). Enterprises that are digital-capable are more likely to be strategically adaptable and resilient in cases of complex and highly dynamic external environments, hence financially resilient (Chen and Tian, 2022). Thus, digitalization improves operational efficiency, promotes service innovation, integrates resources, enhances corporate competitive advantage and financial performance, and has therefore become one of the main drivers of value creation and sustainable growth (Martín-Peña et al., 2019). According to Yang and Yee (2022), by introducing intelligent and networked technologies into the production process, such as cloud computing, IoT, additive manufacturing, digitalization has the ability to improve the operational efficiency of enterprises, reduce costs, and promote product customization and innovation. Hence, it is likely to greatly enhance firm performance. Thus, the following hypothesis can be stated:

- H_4 : The digital transformation of enterprises bears positively on enterprise performance.

According to Yin et al. (2024), institutional pressures urge firms to accelerate their digital transformation under the impetus of external norms and competitive environments, optimize resource allocations, and production processes, thus subtly improving circular economy performance. According to Kuo et al. (2022), institutional pressure significantly advances the corporate digital transformation which then improves operational efficiency, customer relationships, and environmental performance, hence serving as a significant mediator between the institutional environment and corporate performance. Lu and Wang (2023) believe that institutional pressure does not have a direct impact on organizational performance but forms a significant mediating effect between organizational readiness, adoption willingness, and transformation performance by triggering the digital transformation process of educational institutions. Tuyen et al. (2023) indicated that digital transformation can narrow the information gap between internal and external environments, promote knowledge sharing and resource allocation efficiency (Yuan et al., 2025), and strengthen the link between corporate social responsibility and innovation by means of digital transformation. Chen et al. (2024) found that fintech indirectly promotes corporate digital transformation through improving the financing environment and resource allocation conditions and further promoting green technology innovation and sustainable development performance. Based on this, this study proposes the following hypotheses:

- H_{3a} : Digital transformation mediates the relationship between coercive pressure and firm performance.
- H_{3b} : Digital transformation mediates the relationship between normative pressure and firm performance.
- H_{3c} : Digital transformation mediates the relationship between mimetic pressure and firm performance.

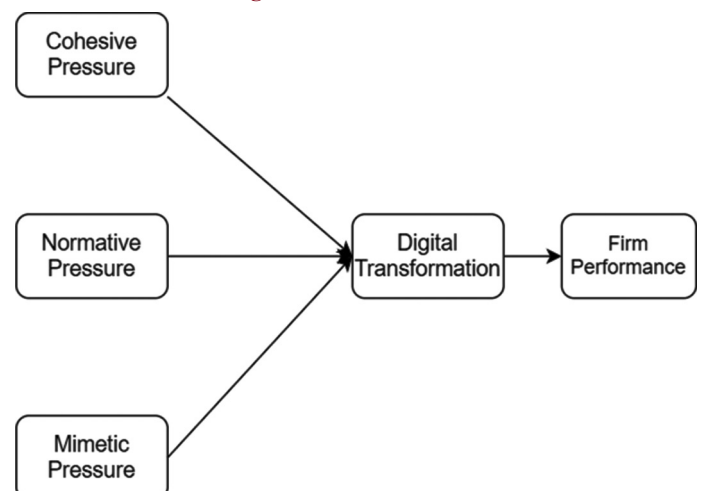
The research model as shown in Figure 1.

3. RESEARCH METHODOLOGY

3.1. Data Collection and Procedures

This paper explores the leading role of coercive, normative, and imitative pressure in the process of enterprise digitalization driven by institutional factors. Moreover, the study further examines the

Figure 1: Research model



mediating mechanism between institutional pressure and enterprise performance. The subjects of this survey are representative medium-to-large enterprises in China. These include industries with high levels of digital transformation, such as manufacturing, services, retail, and logistics. A purposive sampling method was carried out to ensure that the samples were relevant and representative. The enterprises with high sensitivity to the external institutional environment and the ones that have carried out or are promoting digital transformation were given priority as the survey subjects.

To improve the scientific rigor and reliability of the measurement, all variables in this study were measured using mature scales that are widely used in existing literature and have good reliability and validity (Appendix A). The questionnaires were appropriately adapted from the background context of the study to suit the context of the digital age of Chinese firms. The variables are all measured on the five-point likert scale ranging from 1 to 5, on the three core aspects, which are the institution pressure, the digital transformation, enterprise performance, respectively.

The approach used in the study to gather data was the application of the survey method, which was conducted both offline and online. The target population was the management of the corporations, particularly the mid to senior-level managers involved in the planning, information technology, or operation aspects of the corporations, who would be able to clearly comprehend the responses made by the firms against the external pressure from institutions due to the application of the technology, their respective efficiency outcomes, and so on. To improve the rate and quality of response, the researchers made the academic intent of the survey clearly from the start, maintained the confidentiality of the information, and assured the firms that the completion of the survey would result in the firms receiving the findings of the study, which would improve the motivation of the firms to participate in the survey.

A total of 320 questionnaires were distributed, but only 305 questionnaires were received, with a response rate of 95.3%. After screening the questionnaires, 19 questionnaires with serious discrepancies or contradictions were eliminated, and the number of questionnaires available for empirical analysis was 286. This sample size not only meets the basic requirements for sample size in the PLS-SEM (Kline, 2016), but also provides a solid data foundation for testing the hypotheses of this study.

3.2. Demographic Profile

As shown in Table 1, among the 286 valid questionnaires, respondents were primarily mid-to-senior level corporate executives, with 57.7% being mid-level managers such as department managers, 18.2% senior executives including deputy general managers, directors, and 24.1% junior supervisors, all demonstrating strong strategic and operational judgment capabilities. In terms of gender distribution, male respondents accounted for 62.9%, while females made up 37.1%. The age distribution showed that 14.0% were under 30, 45.8% were aged 31–40, 31.1% were aged 41–50, and 9.1% were aged above 50. In terms of education level, 17.2% had a diploma, 54.5% had a bachelor's degree, and 28.3% had a master's degree and above. In terms of firm size, 10.8% were small (<100 employees), 37.1% were medium (100–500 employees), and 52.1% were large (>500 employees).

department managers, 18.2% size, large enterprises (with over 500 employees) accounted for 52.1%, medium-sized enterprises (100–500 employees) for 37.1%, and small enterprises for 10.8%. Overall, the sample exhibits good representativeness and structural diversity, with balanced distributions across gender, age, education, industry, and enterprise size, providing a solid data foundation for the empirical analysis in this study.

4. EVALUATION OF MEASUREMENT MODEL

In the assessment of reliability and convergent validity of the measurement model, this paper applied coefficient of Cronbach and composite reliability to test the internal consistency. The outcomes revealed that for all latent variables. As shown in Table 2, Cronbach value was >0.8, and the composite reliability was greater than 0.88, which far exceeded the 0.7 threshold, reflecting good internal consistency of the scale (Hair et al., 2019). For the convergent validity test, all the standardized outer loadings of each

Table 1: Demographic profile

Category	Items	Frequency (n=286)	Percentage
Gender	Male	180	62.9
	Female	106	37.1
Position level	Middle management	165	57.7
	Senior management	52	18.2
	Junior supervisors	69	24.1
Age	Below 30	40	14.0
	31–40	131	45.8
	41–50	89	31.1
	Above 50	26	9.1
Education level	Diploma	49	17.2
	Bachelor's degree	156	54.5
	Master's degree and above	81	28.3
Firm size (employees)	Small (<100)	31	10.8
	Medium (100–500)	106	37.1
	Large (>500)	149	52.1

Table 2: Reliability and validity

Constructs	Items	Outer loadings	Cronbach's alpha	CR (rho_a)	CR (rho_c)	AVE
CP	CP1	0.773	0.878	0.896	0.91	0.67
	CP2	0.84				
	CP3	0.825				
	CP4	0.811				
	CP5	0.842				
DT	DT1	0.835	0.8	0.807	0.882	0.715
	DT2	0.88				
	DT3	0.82				
FP	FP1	0.771	0.837	0.845	0.884	0.605
	FP2	0.757				
	FP3	0.782				
	FP4	0.751				
	FP5	0.826				
MP	MP1	0.791	0.854	0.869	0.901	0.695
	MP2	0.869				
	MP3	0.862				
	MP4	0.81				
NP	NP1	0.841	0.834	0.841	0.9	0.751
	NP2	0.887				
	NP3	0.871				

item that measured their constructs were >0.75, indicating a strong explanatory power of each item within its respective construct. Likewise, the AVE for every latent variable was also higher than 0.60, thus far away from the critical value of 0.50 proposed by Fornell and Larcker (1981), which suggested good convergent validity of the model. Hence, the measurement model in this study reached an optimal level on the perspectives of reliability and convergent validity and provided a sound basis for the subsequent empirical testing of structural paths and mediating effects.

This paper uses both the HTMT ratio and the Fornell-Larcker method for dual validation to examine the discriminant validity among constructs. Discriminant validity reflects the degree to which one construct can differentiate from another (Aman-Ullah et al., 2023). As shown in Table 3, the square root AVE of each latent variable in Table 4 is greater than its correlation coefficient with other constructs, also meeting the discriminant validity criteria proposed by Fornell and Larcker (1981). Furthermore, the HTMT values among all latent variables are below 0.85 (Table 4), with the highest value being 0.621 between mimetic pressure and digital transformation, significantly lower than the critical level (Henseler et al., 2015), indicating no serious discriminant validity issues among the latent variables. In summary, the results of both methods support the good discriminant validity of the measurement model.

5. FINDINGS OF RESULTS

As shown in Table 5, all paths in the model achieve statistical significance. Institutional pressure not only directly drives corporate digital transformation but also indirectly enhances corporate performance through digital transformation.

Table 3: Fornell-Lacker

	CP	DT	FP	MP	NP
CP	0.818				
DT	0.357	0.845			
FP	0.558	0.38	0.778		
MP	0.419	0.521	0.428	0.834	
NP	0.333	0.427	0.366	0.515	0.867

Table 4: HTMT

	CP	DT	FP	MP	NP
CP					
DT	0.407				
FP	0.644	0.458			
MP	0.472	0.621	0.499		
NP	0.378	0.517	0.435	0.609	

Table 5: Hypothesis test results

Hypothesis	Coefficient	Mean	Standard deviation	T	P
H ₁ : CP → DT	0.142	0.147	0.057	2.504	0.012
H ₂ : NP → DT	0.193	0.196	0.064	3.011	0.003
H ₃ : MP → DT	0.362	0.363	0.073	4.941	0
H ₄ : DT → FP	0.38	0.388	0.054	6.995	0
H _{5a} : CP → DT → FP	0.054	0.058	0.026	2.1	0.036
H _{5b} : NP → DT → FP	0.073	0.077	0.028	2.591	0.01
H _{5c} : MP → DT → FP	0.138	0.141	0.035	3.949	0

First, coercive pressure has a significant positive impact on enterprise digital transformation ($\beta = 0.142, t = 2.504, P = 0.012$), supporting hypothesis H₁. This result indicates that external coercive institutional environments (such as policy regulations and regulatory requirements) can effectively promote the digitalization of enterprises. This result confirms Kuo et al. (2022) view that coercive pressure promotes the digitalization of shipping companies. The policies, rules, and compliance obligations that have been introduced by authoritative bodies, including the United Nations, and the European Union, compel shipping firms to promote digital transformation within the legal and institutional framework, achieving the goals of digital and green transformation of international logistics. According to Chen and Tian (2022), in the context of digital reforms, due to pressure from government rules and forces, corporations have the potential to realize the strategic transformation of resources through the support of information system, intelligent platforms, or other digital technologies.

Normative pressure also significantly influenced the digital transformation of enterprises, thus supporting hypothesis H₂. These results imply that the norms and values brought about by industry standards, vocational education systems, and professional communities are very influential in enterprises digital transformation. This would corroborate the view of Scott (2008) on the normative pillar, in the pursuit of legitimacy, enterprises would make structural adjustments according to certain professional standards and social expectations. When faced with the normative pressure of industry norms, professional standards, and social expectations, the willingness of an enterprise to take digital transformation-or innovation into a digital business is greatly improved (Bennich, 2024).

Mimetic pressure also showed a significantly positive effect on digital transformation, thus confirming hypothesis H₃. This result is in line with the logic of mimetic isomorphism in institutional isomorphism theory (DiMaggio and Powell, 1983), wherein, due to the uncertainty of the environment, organizations imitate the practices of those peers that are considered successful or legitimate or do so to gain legitimacy or lower risk. Hinings et al. (2018) extended this logic to the area of digital innovation and digitalization and indicated that imitation behavior is especially strong in digital change, especially within those high-transparency and competitive market environments, wherein organizations are more likely to learn from and imitate those successful practices of their peers to maintain a competitive position.

The value of variable between digital transformation and enterprise performance is positive, which supports hypothesis H4. This indicates that the process of strategic digital transformation is able to optimize the internal operation process, increasing efficiency, effectiveness, and the rate of response to the dynamic environment, thereby achieving the target of enterprise performance enhancement. This conclusion also supports the classic statement of Bharadwaj (2000) that information technology resources can be a source of core enterprise competence and that is to say digital capability can create lasting performance

differences for enterprises. Buer et al. (2021) indicated that when integrated into digitalization, management practices such as lean manufacturing enhance the capability of improving operational performance and process transparency, with flexible production capability. This study identified digitalization as an integral part of daily operations, thus fostering long-term performance improvement.

Furthermore, the indirect relationship between coercive pressure and firm performance was also strong, confirming hypothesis H_{5a} . This indicates that while policy and regulatory impetus does not directly improve performance, it ultimately leads to performance improvement by increasing corporate investment in digital infrastructure and process reengineering. Liang et al. (2007) pointed out that institutional pressure promotes organizational capability improvement through technology adoption, thus verifying the applicability of this theory in the context of digital transformation. Compared with Liang et al. (2007) emphasis on the mediating role of management in institutional pressure, this study underlines the mediating mechanism of digital capabilities, showing that companies often respond to the mandatory institutional constraints by building digital platforms and reengineering business processes to indirectly improve the level of performance.

For the mediation test, normative pressure boosted firm performance indirectly by pushing digital transformation, thus supporting H_{5b} . This shows that normative forces never have a direct effect on performance outcomes but rather an indirect effect of improving performance levels by increasing digital transformation in management, operations, and technology. Again, the same was observed in the study conducted by Siddik et al. (2025) in the financial service industry, where industry norms and professional expectations not only drive firms to adopt AI-driven digital platforms but also translate into sustainable performance outcomes through business model innovation.

The impact of mimetic pressure on performance was also significantly achieved through the mediating mechanism of digital transformation, supporting hypothesis H_{5c} . Further, this shows that in the competitive market environment, imitating advanced enterprises in digital practice brings not only faster transformation for themselves but also a performance benefit. Jiao et al. (2022) emphasized that under institutional pressure, enterprises often promote capability accumulation and technological change by imitating innovative practices of other organizations. That is, through imitative learning and experience absorption, enterprises enhance their resilience in dealing with external environmental fluctuations and strategic adaptability oriented toward performance improvement. Zibarzani et al. (2024) argued that mimetic pressure significantly enhances enterprises' willingness to follow industry trends, especially when other enterprises have significantly improved their competitive position. Through imitative digital adoption, enterprises can obtain technological advantages, improve the efficiency of resource allocation, and generate indirect performance benefits in a short time.

6. THEORETICAL AND MANAGERIAL CONTRIBUTION

6.1. Theoretical Contribution

Previous studies have regarded institutional pressure mainly as a holistic concept, ignoring the differences in various types of pressure. This study distinguishes between coercive, normative, and imitative pressure and finds significant differences in their impact on digital transformation. The imitative pressure has the most significant effect, followed by normative and mandatory pressures. It shows that in uncertain environments, companies are more likely to imitate industrial benchmarks for legitimacy with a view to reducing risks. This finding uncovers more meanings of the theory of institutional isomorphism.

The evidence points to the fact that digital transformation played a mediating role in the influence of institutional pressure on corporate performance. The performance improvement induced by institutional pressure is indirect but achieved through the promotion of digital transformation, process and resource optimization in enterprises. This conclusion indicates that the forces of external institutions are both constraints and driving forces of innovation and capacity reconstruction, expanding the explanatory boundaries of institutional theory.

This study regards institutional pressure as the external driving force in the formation of the digital capability of enterprises. It shows how external institutional logic can enable performance improvement by triggering the restructuring of internal resources and capability evolution. The integrated view fills the theoretical gap between legitimacy and adaptability, creating a novel theoretical paradigm for analyzing the response strategies of businesses in the context of the digital economy.

6.2. Managerial Implications

Enterprises must address the institutional forces effectively, turning them into digital opportunities. The crucial outer forces propelling the process of digital transformation are the coercive, normative, and mimetic pressure. The responsibility of the managers is to immediately address the policy directives, norms, and competitive dynamics, converting the institutional forces into innovation drivers instead of constraints. Based on the compliance-driven digital strategy, the enterprise must attempt to enhance its legitimacy advantages.

However, it is important to adopt the digital transformation approach in order to improve firm performance. Research has shown that digital transformation mediates institutional pressure to affect firm performance. The enterprise should strengthen data management, intelligent manufacturing, and digital platform construction, integrate digitalization into operation processes and decision-making systems, and ensure that digital technology is integrated to improve resource allocation efficiency, accelerate market response, enhance customer value creation ability, and achieve performance enhancement.

Firms need to implement coordination between the mechanism of institutional adaptation and capacity reconstruction in enterprises. The endeavor of internal capacity building within an enterprise should be under continuous concern when responding to outside institutional changes. Management needs to promote dynamic matching between organizational structure, talent system, and technological capability, and shape a good interactive relationship between institutional drive and capability evolution. Only by this kind of dual mechanism can be an enterprise ensure strategic flexibility and constant competitiveness in variable policies and markets.

7. CONCLUSION, LIMITATIONS AND FUTURE DIRECTIONS

7.1. Conclusion

This paper is based on institutional theory, discusses the influence of coercive, normative, and mimetic pressures on the digital transformation of enterprises. By conducting empirical research on 286 Chinese enterprises, it is found that institutional pressures have significantly facilitated the digital transformation of enterprises, among which the effect of imitative pressure is the most obvious. The driving mechanism of the external institutional environment on the digital transformation of enterprises is revealed, proving that institutional pressure not only acts as a constraining force but also serves as an important driving force in promoting enterprise innovation and capacity reconstruction. Meanwhile, this study verifies that the relationship between institution and performance takes its mediating path through digital transformation, hence providing new empirical evidence for understanding how institutional factors achieve improvement of performance through technological and organizational change. The research result enhances the explanatory power of institutional theory within digitalized business settings and offers conceptual guidance for firms to build competitive advantages in complex policy and market environments.

7.2. Limitations of the Study

This study is innovative in both theoretical and empirical aspects; there are still some limitations. Although this study has achieved relatively systematic results both in the theoretical and empirical aspects, there are some limitations that provide direction for future research. First, the sample of this paper mainly comes from some enterprises in China, with relatively limited sample scope. The research conclusions may be affected by the industry characteristics and regional institutional environment differences. In addition, this study is based on cross-sectional data analysis and cannot fully reflect the dynamic relationship between institutional pressure and digital transformation. The causal direction still needs to be further verified in longitudinal or longitudinal studies.

7.3. Future Research

Future research can expand on this basis by expanding sample sources and comparing the differentiated effects of institutional pressures across different countries, industries, and organizational types. The second is to use longitudinal data or mixed research

methods (such as case studies, in-depth interviews, or fsQCA analysis) to reveal the long-term mechanisms between institutional environment, digital transformation, and performance. Thirdly, incorporating elements such as organizational culture, managerial cognition, and digital leadership into the analytical framework to further explain the differences in digital behavior under institutional environments; The fourth is to deepen cross theoretical integration, combining institutional theory with dynamic capability theory, and constructing a multi-level explanatory framework to reveal how digital transformation can achieve sustained innovation and performance improvement of enterprises in different institutional contexts.

REFERENCES

- Adjei, J.K., Adams, S., Mamattah, L. (2021), Cloud computing adoption in Ghana; accounting for institutional factors. *Technology in Society*, 65, 101583.
- Aman-Ullah, A., Ali, A., Mehmood, W., Fareed, M., Aman-Ullah, A. (2023), Corporate social responsibility and patient's intention to revisit: A serial mediation study witnessing the healthcare sector. *Environmental Science and Pollution Research*, 30, 22078-22088.
- Arshad, M., Farooq, M., Afzal, S., Farooq, O. (2019), Adoption of information systems in organizations. *Journal of Enterprise Information Management*, 33(2), 265-284.
- Basco, R., Hernández-Perlines, F., Rodríguez-García, M. (2020), The effect of entrepreneurial orientation on firm performance: A multigroup analysis comparing China, Mexico, and Spain. *Journal of Business Research*, 113, 409-421.
- Bennich, A. (2024), The digital imperative: Institutional pressures to digitalise. *Technology in Society*, 76, 102436.
- Bharadwaj, A.S. (2000), A resource-based perspective on information technology capability and firm performance: An empirical investigation. *MIS Quarterly*, 24(1), 169-196.
- Björkdahl, J. (2020), Strategies for digitalization in manufacturing firms. *California Management Review*, 62(4), 17-36.
- Buer, S.V., Semini, M., Strandhagen, J.O., Sgarbossa, F. (2021), The complementary effect of lean manufacturing and digitalisation on operational performance. *International Journal of Production Research*, 59(7), 1976-1992.
- Chen, H., Hu, S., Cai, Y. (2024), Driving effect of fintech on firm green innovation in China: A fuzzy-set QCA approach. *Journal of Business Research*, 139, 184-193.
- Chen, H., Tian, Z. (2022), Environmental uncertainty, resource orchestration and digital transformation: A fuzzy-set QCA approach. *Journal of Business Research*, 139, 184-193.
- DiMaggio, P.J., Powell, W.W. (1983), The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147-160.
- Ding, W., Xiaoqin, W., Prestianawati, S.A., Dezhi, C., Fareed, M. (2025), Information quality and empowering leadership: A communication based model of innovation in hierarchical work settings. *African Journal of Library, Archives and Information Science*, 35(2), 37-58.
- Fazi, L., Zaniboni, S., Wang, M. (2025), Age differences in the adoption of technology at work: A review and recommendations for managerial practice. *Journal of Organizational Change Management*, 38(8), 138-175.
- Fornell, C., Larcker, D.F. (1981), Evaluating structural equation models with unobservable variables and measurement error. *Journal of*

Marketing Research, 18(1), 39-50.

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- Gao, C., Hashim, S.F., Siek, H.L., Luo, Y., Xie, C., Yan, G., Zhang, Z. (2025), The impact of institutional pressure on supply chain open innovation in SMEs: The mediating role of absorptive capacity. *Journal of Information and Knowledge Management*, 24(04), 1-29.
- Gao, C., Keoy, K.H., Lim, A.F. (2025), Adoption and impact of generative artificial intelligence on blockchain-enabled supply chain efficiency. *Journal of Systems and Information Technology*, 27, 173-196.
- Gurbaxani, V., Dunkle, D. (2018), *Gearing up for Successful Digital Transformation Center for Digital Transformation*. New Jersey: SIM Advanced Practices Council.
- Hair, J.F., Hult, G.T.M., Ringle, C.M., Sarstedt, M. (2019), *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. 2nd ed. Thousand Oaks, CA: Sage.
- Hartley, J.L., Sawaya, W., Dobrzykowski, D. (2022), Exploring blockchain adoption intentions in the supply chain: Perspectives from innovation diffusion and institutional theory. *International Journal of Physical Distribution and Logistics Management*, 52(2), 190-211.
- Henseler, J., Ringle, C.M., Sarstedt, M. (2015), A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135.
- Hinings, B., Gegenhuber, T., Greenwood, R. (2018), Digital innovation and transformation: An institutional perspective. *Information and Organization*, 28(1), 52-61.
- Huang, T.L. (2025), Digital transformation and business performance in China. *Asia Pacific Management Review*, 30, 100400.
- Jia, Y., Su, J., Cui, L., Wu, L., Hua Tan, K. (2023), Platform business model innovation in the digitalization era: A Pacific Management Review, 28(1), 52 of the Academy of Marketing Science
- Jiao, H., Yang, J., Cui, Y. (2022), Institutional pressure and open innovation: The moderating effect of digital knowledge and experience-based knowledge. *Journal of Knowledge Management*, 26(10), 2499-2527.
- Kirivan, V., Leelasantitham, A. (2025), An integrated TOE-institutional-sustainability conceptual model for digital supply chain finance adoption in emerging economies. *Journal of Mobile Multimedia*, 21, 881-938.
- Kline, R.B. (2016), *Principles and Practice of Structural Equation Modeling*. 4th ed. New York: The Guilford Press.
- Kuo, H.M., Chen, T.L., Yang, C.S. (2022), The effects of institutional pressures on shipping digital transformation in Taiwan. *Maritime Business Review*, 7(2), 175-191.
- Lewis, N. (2013), The effects of perceived normative pressure and observability of behavior on intention to perform sun protection and nutrition behaviors on behalf of young children among parents. *Journal of Applied Social Psychology*, 43(Suppl 1), E97-E108.
- Liang, H., Saraf, N., Hu, Q., Xue, Y. (2007), Assimilation of enterprise systems: The effect of institutional pressures and the mediating role of top management. *MIS Quarterly*, 31(1), 59-87.
- Liu, D., Lu, W., Niu, Y. (2023), Isomorphic pressures to catalyze innovation diffusion in construction project-based organizations: Identification of source factors. *Journal of Construction Engineering and Management*, 149(2), 12475.
- Lu, H.P., Wang, J.C. (2023), Exploring the effects of sudden institutional coercive pressure on digital transformation in colleges from teachersts. *Journal of eting Science*, 43(1), 115, 409ion Research, al cultur-16015.
- Lu, H.P., Zhu, Y.Q., Wang, J.C. (2025), Unpredictable public transformation in the wake of black swan events: COVID-19 and teleconsultation. *International Journal of Human-Computer Interaction*, 1-18. <https://doi.org/10.1080/10447318.2025.2493410>
- Martín-Peña, M.L., Sánchez-López, J.M., Díaz-Garrido, E. (2019), Servitization and digitalization in manufacturing: The influence on firm performance. *Journal of Business and Industrial Marketing*, 35(3), 564-574.
- Mishra, N.K., Sahoo, S., Agarwal, S., Sharma, P.P., Ilahi, F. (2025), Impact of institutional pressures and security on blockchain technology adoption and organization performance: An empirical study. *The Journal of Technology Transfer*, 50(1), 245-270.
- Mohaidin, N.J., Aman, A., Ilias, A. (2025), Digital transformation in financial reporting: Institutional pressures shaping eXtensible business reporting language implementation in Malaysia. *Journal of Information Technology Management*, 17(3), 217-235.
- Molinillo, S., Japutra, A. (2017), Organizational adoption of digital information and technology: A theoretical review. *The Bottom Line*, 30(1), 33-46.
- Özbek, N., Melén Hånell, S., Tolstoy, D., Rovira Nordman, E. (2024), Exploring different responses to mimetic pressures: An institutional theory perspective on e-commerce adoption of an internationalizing retail SME. *The International Review of Retail, Distribution and Consumer Research*, 34(1), 14-32.
- Pattanaik, P.K., Gupta, S., Pani, A.K., Himanshu, U., Pappas, I.O. (2025), Impact of inter and intra organizational factors in healthcare digitalization: A conditional mediation analysis. *Information Systems Frontiers*, 27(3), 1275-1302.
- Sari, T.K., Cahaya, F.R., Joseph, C. (2021), Coercive pressures and anti-corruption reporting: The case of ASEAN countries. *Journal of Business Ethics*, 171, 495-511.
- Scott, W.R. (2008), *Institutions and Organizations: Ideas and Interests*. United States: Sage Publications.
- Shahi, R., Chaudhary, B.P. (2025), Digital transformation: Adoption of information technology systems in higher education institutions of Nepal. *Cogent Business and Management*, 12(1), 2524601.
- Siddik, A.B., Yong, L., Du, A.M., Goodell, J.W. (2025), Exploring AI-driven digital banking platforms: Implications for business model innovation and sustainability in the financial sector. *IEEE Transactions on Engineering Management*, 72, 3318-3334.
- Singh, S., Sharma, M., Dhir, S. (2021), Modeling the effects of digital transformation in Indian manufacturing industry. *Technology in Society*, 67, 101763.
- Siyal, A.W., Chen, H., Shahzad, F., Bano, S. (2023), Investigating the role of institutional pressures, technology compatibility, and green transformation in driving manufacturing industries toward green development. *Journal of Cleaner Production*, 428, 139416.
- Tuyen, B.Q., Phuong Anh, D.V., Mai, N.P., Long, T.Q. (2023), Does corporate engagement in social responsibility affect firm innovation? The mediating role of digital transformation. *International Review of Economics and Finance*, 84, 292-303.
- Vial, G. (2021), Understanding digital transformation: A review and a research agenda. *Managing Digital Transformation*, 28(2), 118-144.
- Yang, M.G. (Mark), Kang, M. (2020), An integrated framework of mimetic pressures, quality and environmental management, and firm performances. *Production Planning and Control*, 31(9), 709-722.
- Yang, Y., Yee, R.W.Y. (2022), The effect of process digitalization initiative on firm performance: A dynamic capability development perspective. *International Journal of Production Economics*, 254, 108654.
- Yin, S., Jiang, M., Chen, L., Jia, F. (2024), Digital transformation and the circular economy: An institutional theory perspective. *Industrial Management and Data Systems*, 124(4), 1627-1655.
- Yuan, D., Kim, J.K., Gao, C. (2025), Adoption of artificial intelligence and its impact on competitive advantage: Mediated by knowledge management. *Journal of Information and Knowledge Management*, 24(2), 2550003.

Zampone, G., Sannino, G., García-Sánchez, I. (2023), Exploring the moderating effects of corporate social responsibility performance under mimetic pressures. An international analysis. *Corporate Social Responsibility and Environmental Management*, 30(1), 53-65.

Zhou, X., Gao, Z., Xiong, J., Sou, K. (2025), Integration of digitalization and green finance for sustainable and resilient manufacturing and

service operations in China: An empirical analysis. *Frontiers in Environmental Science*, 13, 1604316.

Zibarzani, M., Abumalloh, R.A., Nilashi, M. (2024), The impact of big data adoption on competitive advantage in achieving sustainable development goals: The moderating role of mimetic pressure. *Environment, Development and Sustainability*. <https://doi.org/10.1007/s10668-024-05768-y>

APPENDIX A

Appendix A: Variables and Items

Variables	Code	Instruments
Coercive Pressure (Siyal et al., 2023)	CP1	Our key customers believe that we should implement digital transformation to improve operations.
	CP2	We may not retain our important customers without adopting digital transformation.
	CP3	Our main suppliers expect us to adopt digital technologies to maintain collaboration efficiency.
	CP4	Our critical suppliers strongly encourage us to engage in digital transformation.
	CP5	Government policies and regulations promote or require the implementation of digital transformation.
Normative Pressure (Siyal et al., 2023)	NP1	Digital transformation practices have been widely adopted by our suppliers.
	NP2	Digital transformation has been widely implemented by our major customers.
	NP3	Digital transformation initiatives have been extensively adopted by our competitors
Mimetic Pressure (Siyal et al., 2023)	MP1	Our main competitors that have adopted digital transformation initiatives have benefited greatly.
	MP2	Our main competitors that have adopted digital technologies are perceived favorably by customers.
	MP3	Our main competitors that have adopted digital practices are more competitive in the market.
	MP4	There is a strong need to imitate the digital transformation strategies of key competitors that serve similar clients.
Digital Transformation (Singh et al., 2021)	DT1	The new business processes are built on technologies.
	DT2	The digital technologies are integrated to drive change
	DT3	Business operations are shifting toward making use of digital technologies.
Firm Performance (Singh et al., 2021; Basco et al., 2020)	FP1	The average annual sales is more as compared to competitors
	FP2	The profitability is more as compared to competitors
	FP3	The productivity is higher as compared to competitors
	FP4	The growth of market share is more as compared to competitors
	FP5	The growth in the return on capital is more as compared to competitors