

The Impact of Organizational Culture on Ethical Governance in Financial Technologies

Rongrong Zhou

University of Stirling

Doctor of Management

August 2025

Abstract

This thesis explores the impact of organizational culture on ethical governance in financial technology (Fintech) from a cross-level theoretical perspective. It examines how organizational culture influences ethical governance at individual, team, and organizational levels, and investigates the role of East-West cultural differences in this process. A cross-level theoretical model is constructed to analyze the interaction mechanisms, supported by mixed research methods including quantitative surveys and qualitative interviews. The quantitative study, involving 527 respondents from Fintech firms, reveals significant positive correlations between organizational culture dimensions (cultural promotion, organizational structure, communication, and cultural change) and ethical governance effectiveness. Qualitative analysis, based on interviews with 20 executives and compliance officers, uncovers how cultural values, leadership styles, and communication mechanisms shape ethical decision-making and conflict resolution. The study identifies that a culture emphasizing social responsibility, open communication, and adaptability significantly enhances ethical governance. It also highlights that mature enterprises demonstrate more systematic ethical governance compared to startups, and that East-West cultural differences influence governance strategies. The research contributes theoretically by proposing a “culture-technology-ethics dynamic coupling model” and practically by offering adaptive governance strategies for Fintech firms. Future directions include expanding cross-cultural comparisons and integrating emerging technologies into ethical frameworks.

Contents

Chapter 1 Introduction	4
1.1 Research background	4
1.2 Research purpose and significance	8
1.3 Research Questions	10
1.4 Research Objectives	10
1.5 Structure of the thesis	10
Chapter 2 Literature Review and Theoretical Basis	13
2.1 Definition of core concepts	13
2.2 The connotation of Fintech ethics	15
2.3 Ethical governance of Fintech	17
2.4 Cross-level theory	24
2.5 Research on the relationship between organizational culture and ethical governance	27
Chapter 3 Methodology	31
3.1 Construction of cross-level theoretical model	31
3.2 Research hypothesis	36
3.3 Methods	38
Chapter 4 Findings	50
4.1 Quantitative research	50
4.2 Qualitative research	85
4.3 Interview findings	95
Chapter 5 Discussion	120
5.1 Interpretation of the core finding	120
5.2 Theoretical Contributions	126
5.3 Practical implications	135
Chapter 6 Conclusions	142
6.1 Research conclusions	142
6.2 Industrial outlook	148
6.3 Research limitations and the future direction	150
References	154
Appendix I Questionnaire	159
Appendix II Interview Outlines	164
Appendix III Coding Chart	166

Chapter 1 Introduction

1.1 Research background

1.1 Research Background: Necessity and Research Framework Justification

The global Fintech industry has experienced explosive growth over the past decade, with technologies such as artificial intelligence (AI), blockchain, and big data reshaping financial services—from algorithmic robo-advisory to real-time cross-border payments (Arner et al., 2017). However, this rapid innovation has been accompanied by escalating ethical crises: in 2024, TransUnion South Africa suffered a ransomware attack exposing 54 million citizens' biometric data (European Parliament, 2024), while German digital bank N26's credit algorithm was ruled “systematically age-biased” by the EU Court of Justice (CJEU, 2024). These incidents have eroded public trust in Fintech, disrupted market order, and even threatened financial stability—highlighting an urgent need to address the “technology-ethics gap” (van der Sloot, 2018).

Existing solutions to this gap face two critical limitations: first, regulatory frameworks are inherently lagging (e.g., the EU's GDPR took 4 years to implement), failing to keep pace with Fintech's iterative speed (Zetzsche et al., 2017); second, scholarly research on ethical governance remains fragmented, with most studies adopting single-level analysis (e.g., focusing only on individual ethical decision-making or organizational policies) and neglecting cross-level transmission mechanisms (Kozlowski & Klein, 2000) or East-West cultural differences (e.g., Chinese “guanxi” vs. Western institutional norms). Organizational culture, as a “soft governance” tool that infiltrates values, norms, and interactions, has emerged as a key mediator to bridge this gap—but its multi-level influence on Fintech ethical governance remains underexplored.

Against this backdrop, this research is methodologically necessary for three reasons: first, cross-level theoretical perspective, to address the limitations of single-level analysis, this study adopts a cross-level framework (individual-team-organizational) to unpack how cultural values transmit across levels—e.g., how an employee's recognition of “data privacy” (individual)

becomes team-level product standards, then organizational governance policies.

Second, mixed research methods, quantitative surveys (527 respondents) quantify correlations between organizational culture dimensions and ethical governance effectiveness, while qualitative interviews (20 executives/compliance officers) reveal contextual mechanisms (e.g., how “open communication” resolves algorithmic bias disputes). This triangulation avoids the “context blindness” of quantitative research and the “generalizability limitations” of qualitative studies.

Third, East-West cultural focus, by integrating Chinese cultural traits (e.g., collectivism, “guanxi”) into the analysis, this study addresses the Western-centric bias of existing Fintech ethics research, providing context-specific insights for global Fintech firms operating in diverse cultural contexts.

1.1.1 Rapid development of Fintech and urgency of ethical governance

The rapid iteration of financial technology (Fintech) and the lag of ethical governance frameworks constitute the core tension in the current development of the industry. On one hand, explosive innovations in technologies such as artificial intelligence and blockchain continue to reshape financial service models--from algorithmic decision-making in robo-advisory to real-time settlement in cross-border payments--with the depth and breadth of technological applications having transcended the boundaries of traditional finance (Arner et al., 2017). On the other hand, the formulation and implementation of ethical norms have long faced a dilemma of “passive response”: when risks such as data privacy breaches and algorithmic discrimination emerge, regulatory policies and industry standards often take years to form systematic constraints (e.g., the EU's General Data Protection Regulation took 4 years from proposal to implementation) (van der Sloot, 2018). This imbalanced state of “technology first, ethics later” has led Fintech firms to frequently encounter ethical controversies in their pursuit of efficiency, such as the trust crisis triggered by a leading platforms misuse of users social data for credit evaluation (Lyon, 2019), or the “exclusion of vulnerable groups” caused by biased training data in intelligent lending systems (Noble, 2018).

Organizational culture, as an intermediary variable connecting technological innovation and ethical constraints, has become increasingly prominent in this context. Unlike rigid institutional norms, organizational culture--through the

infiltration of values, internalization of behavioral norms, and shaping of interaction patterns--can adapt more flexibly to the speed of technological iteration (Crane & Matten, 2016). For example, a culture emphasizing “responsible innovation” can drive technical teams to proactively embed fairness verification modules during algorithm design (Von Schomberg, 2013); an open communication mechanism can accelerate cross-departmental collaboration in responding to ethical risks (Edmondson & Tucker, 2015). This form of soft governance can both compensate for the lag of ethical frameworks and avoid suppressing innovation vitality through excessive regulation, serving as a key link to bridge the “technology-ethics” gap.

However, existing research on organizational culture is mostly confined to single-level analysis: it either focuses on the impact of leaders values on ethical decision-making (individual level) or examines the alignment between corporate systems and ethical governance, while neglecting the transmission mechanism of culture across individual-team-organizational levels (Kozlowski & Klein, 2000). For instance, how does employees recognition of “data privacy protection” translate into product design standards through team collaboration? How do organizational-level ethical strategies generate differentiated governance effects due to departmental cultural differences? This single-level perspective fails to explain phenomena such as “cultural dilution” or “policy inaction” in Fintech firms--for example, a company may claim to prioritize “compliance first”, but its technical team, driven by a “innovation-above-all” subculture, frequently bypasses ethical reviews (Rousseau, 1985).

Therefore, this study must adopt a cross-level theoretical perspective, treating organizational culture as a multi-level interactive system: analyzing the formation path of employees ethical cognition at the individual level, exploring the collaborative implementation mechanism of ethical norms at the team level, and examining the alignment logic between cultural strategies and ethical governance at the organizational level. Only in this way can we fully reveal the dynamic process through which organizational culture influences Fintech ethical governance, providing a systematic framework to resolve the contradiction between “technological iteration and ethical lag” (Kozlowski & Klein, 2000).

1.1.2 The significant role of organizational culture

In the complex and volatile environment of the Fintech industry, this study highlights the unique and critical bridging role played by organizational culture,

which closely connects individual values, teamwork atmosphere and leadership style of top managers to serve the ethical governance of enterprises.

From the perspective of personal values, organizational culture guides the value direction for employees. New employees come into the company with different growth backgrounds and values, while organizational culture exerts a subtle influence on employees through a series of cultural activities, training courses and daily work exchanges (Schein, 1985). For example, a Fintech enterprise with “integrity, innovation and responsibility” as its core cultural values regularly organizes employees to participate in public welfare activities, such as financial knowledge popularization to the countryside, so that employees can deeply experience the concept of social responsibility advocated by the enterprise in practice. In this process, employees personal values are gradually integrated with the organizational culture (O'Reilly & Chatman, 1986). In daily work, when facing data processing, customer service and other work, they will consciously take integrity and responsibility as the criteria and make decisions in line with ethical norms.

In terms of team atmosphere, an open and inclusive organizational culture can promote positive interaction and collaboration among team members. In the critical stage of the project, a good organizational culture encourages team members with different professional backgrounds to give full play to their advantages and solve technical problems together. To develop a new financial risk control product, for example, data analysts, algorithm engineers, and business professionals--team members with different functions--benefit from an organizational culture that advocates a cooperative atmosphere, breaks down inter-departmental barriers, and facilitates full communication, ensuring that every link from data collection and model building to product testing adheres to strict ethical norms and guarantees product safety and compliance (Edmondson, 1999).

The leadership style of senior managers is a direct reflection of organizational culture and plays a key leading role in corporate ethical governance. If managers adhere to the leadership style of leading by example, fairness and transparency, then this style will penetrate into all levels of the enterprise from top to bottom (Brown & Treviño, 2006). For example, when faced with the temptation of commercial interests, managers resolutely reject unfair means of competition and give priority to long-term sustainable development and social responsibility. This kind of decision will send a strong signal to all employees and

strengthen the ethical culture of the enterprise (Schein, 1985). By formulating clear strategic plans and policies, managers integrate ethical requirements into them and lay a solid ethical foundation for the development of enterprises.

1.2 Research purpose and significance

The purpose of this study is to deeply analyze the influence mechanism of organizational culture on the ethical governance of Fintech from the unique perspective of cross-level theory, and build a scientific, systematic and innovative cross-level analysis framework of “organizational culture-ethical governance”. Through this framework, it is expected to comprehensively and meticulously reveal how organizational culture is transmitted and interacted at different levels, thus affecting the ethical decision-making and behavior of Fintech enterprises, and filling the theoretical gap in the existing research from the cross-level perspective (Buchak et al., 2018).

From the perspective of theoretical significance, there are limitations in previous studies on the relationship between organizational culture and ethical governance. Most studies tend to be limited to a single level, ignoring the complex interaction among individual, team and organizational levels (Kozlowski & Klein, 2000). However, this study innovatively integrates cross-level theories, regards different levels as an organic whole, and explores the dynamic process of organizational culture, which helps expand the theoretical boundary of organizational behavior and Fintech ethics. Through empirical analysis, this study deeply explores the correlation mechanism between various dimensions of organizational culture (such as values, code of conduct, leadership style, etc.) and various elements of ethical governance (data privacy protection, algorithm fairness, consumer rights protection, etc.) at different levels, providing new ideas and methods for subsequent related research, in order to promote the in-depth application of cross-level theories in the field of Fintech and the improvement of the theoretical system.

In terms of practical significance, the results of this study have extremely high application value for Chinese Fintech enterprises. With the rapid development of the Fintech industry, enterprises are facing increasingly severe ethical challenges. Building a scientific and effective ethical governance system has become the key to the sustainable development of enterprises (Arner et al., 2017). Through the in-depth analysis of the relationship between organizational culture and ethical governance, this study can provide a feasible optimization path

for enterprises. In terms of organizational culture construction, we should guide enterprises to shape organizational culture in line with ethical requirements according to their own development strategies and business characteristics. For example, for Fintech enterprises that focus on innovation, they should be guided to integrate the cultural concepts of responsibility and compliance while pursuing innovation, so as to avoid ignoring ethical risks due to excessive pursuit of innovation. In concrete practice, enterprises can carry out diversified training activities to integrate the core values of organizational culture into employees daily work, so as to enhance employees ethical awareness and sense of responsibility. At the same time, this study can also help enterprises to optimize the internal management process and clarify the responsibilities and roles of different levels in ethical governance. Senior managers should set an example, practice organizational cultural values, and make strategic decisions in line with ethical standards; middle managers, as a bridge connecting the top and the grassroots, should actively transfer the organizational culture and ensure that the team communication mode and leadership style meet the ethical requirements; grass-roots employees should make correct behavior decisions according to organizational culture and ethics in daily work.

From the perspective of industry, the results of this study can help to improve the ethical level of the entire Fintech industry. By providing a path for enterprises to optimize ethical governance, enterprises can be encouraged to strengthen self-discipline, regulate their own behavior, reduce the occurrence of ethical violations, and thus improve the overall image and credibility of the industry. This is of great significance to attract investors, consumers and partners, and can create a good external environment for the healthy and sustainable development of the Fintech industry. In terms of policy making, this study can also provide a reference for regulatory authorities. According to the research results, regulatory authorities can formulate more scientific and reasonable regulatory policies and industry standards, guide Fintech enterprises to carry out business innovation within the compliance framework, and promote the orderly development of the whole industry (Demuijnck & Snelders, 2019).

This study proposes a “culture-technology-ethics dynamic coupling model”, which integrates cross-level theory into Fintech research. This model innovatively captures bidirectional interactions between cultural values, technological iteration, and ethical governance, expanding the application of cross-level theory beyond

traditional organizational behavior research (Orlikowski & Scott, 2008). It explains how cultural factors adapt dynamically to technological changes (e.g., generative AI) to sustain ethical governance effectiveness.

1.3 Research Questions

1. How does organizational culture influence ethical governance in Fintech across individual, team, and organizational levels, and what are the cross-level transmission mechanisms?

2. Which dimensions of organizational culture (e.g., communication, cultural change) have the most significant impact on ethical governance effectiveness in Fintech, and through what pathways?

3. How do Eastern-Western cultural differences (e.g., collectivism, “guanxi”) shape Fintech firms ethical governance strategies, particularly in the Chinese context?

4. How do start-ups and mature Fintech companies differ in ethical governance practices due to organizational culture variations?

1.4 Research Objectives

1. Clarify the multi-level influence mechanism of organizational culture on Fintech ethical governance, including individual, team, and organizational interactions.

2. Identify key organizational culture dimensions driving ethical governance effectiveness and their specific operational pathways.

3. Explore the impact of Eastern-Western cultural differences, especially Chinese cultural traits, on Fintech ethical governance.

4. Compare ethical governance practices between start-ups and mature Fintech companies based on cultural differences.

5. Construct a cross-level theoretical framework integrating organizational culture and Fintech ethical governance to guide practice.

1.5 Structure of the thesis

The thesis is structured into six chapters, each addressing distinct aspects of the research on organizational culture and ethical governance in Fintech, as outlined below:

Chapter 1: Introduction

This chapter establishes the research context by highlighting the urgency of ethical governance amid the rapid development of Fintech and the pivotal role of organizational culture in shaping governance practices. It clarifies the research

questions, objectives, and significance, emphasizing the need to explore cross-level mechanisms and East-West cultural differences. The chapter also outlines the overall framework of the study.

Chapter 2: Literature Review and Theoretical Basis

This chapter reviews existing literature on core concepts such as organizational culture, Fintech ethics, and ethical governance. It synthesizes theories on cross-level dynamics and the relationship between organizational culture and ethical governance, identifying gaps in current research--particularly the lack of Fintech-specific frameworks, weak cross-level integration, and superficial cultural comparisons. It also introduces the “culture-technology-ethics dynamic coupling model” as a theoretical innovation.

Chapter 3: Methodology

This chapter details the research design, including the construction of a cross-level theoretical model and the formulation of four hypotheses (e.g., cultural promotion and organizational communication positively impact ethical governance). It describes the mixed-methods approach: quantitative surveys (with 527 respondents) to test statistical relationships, and qualitative interviews (with 20 executives and compliance officers) to explore contextual mechanisms. The chapter also explains data analysis techniques such as reliability/validity tests and structural equation modeling.

Chapter 4: Findings

This chapter presents empirical results. Quantitative findings reveal significant positive correlations between organizational culture dimensions (e.g., communication, cultural change) and ethical governance effectiveness, with organizational communication showing the strongest impact. Qualitative insights highlight how leadership styles, cross-departmental collaboration, and cultural values shape ethical decision-making. The chapter integrates both datasets to validate the cross-level influence mechanisms.

Chapter 5: Discussion

This chapter interprets the study's findings around the “culture-technology-ethics dynamic coupling model”, explaining how organizational culture, Fintech technologies, and ethical governance interact. It highlights theoretical contributions—advancing cross-level theory in Fintech ethics and integrating Eastern cultural traits like Confucian values—and puts forward practical strategies for Fintech firms, such as cultivating ethical cultures

and optimizing governance frameworks.

Chapter 6: Conclusions

This chapter summarizes core conclusions: organizational culture impacts Fintech ethical governance across levels, with Eastern-Western cultural differences and firm lifecycle stages acting as moderators. It outlines industry outlooks (emphasizing ethical-cultural synergy and adaptive governance for global Fintech), acknowledges limitations (e.g., narrow sample scope), and proposes future directions (e.g., cross-cultural comparisons, longitudinal studies).

Chapter 2 Literature Review and Theoretical Basis

2.1 Definition of core concepts

2.1.1 Development and dimension division of organizational culture theory

Organizational culture has been conceptualized as a multi-layered construct shaping organizational behavior. Schein (1985 p9) proposed three levels: visible artifacts, shared values, and underlying assumptions, emphasizing its role in guiding problem-solving and internal integration. Deal and Kennedy (1982) highlighted values as the core, arguing they determine employee behavior and decision-making--particularly critical in Fintech, where integrity and social responsibility underpin trust. Bass (1985) linked transformational leadership to cultural formation, noting leaders behaviors (e.g., ethical role-modeling) directly influence organizational norms, especially in ethical governance. Denison (1990) identified four operational dimensions: adaptability, mission, alignment, and engagement, which help Fintech firms navigate ethical challenges by aligning culture with strategic goals.

However, these frameworks, rooted in traditional corporate contexts, fail to account for Fintechs technology-driven dynamism. Schein's model, for example, fails to explain how algorithmic transparency (a technical attribute) interfaces with latent beliefs concerning fairness, creating a lacuna in our comprehension of how cultural values evolve in response to swift technological iteration. Similarly, although Denison's dimensions are helpful, they do not specify how to respond to emergent ethical perils such as those posed by generative AI bias, where adaptability must be expressed through real-time modifications to algorithmic design an omission which renders them less practically relevant for Fintech.

Alternative conceptualizations of culture and justification for Hofstede's framework, while Hofstede's (1984) cultural dimensions (e.g., individualism vs. collectivism, power distance) are central to this study, it is critical to acknowledge alternative cultural frameworks to justify its selection. Trompenaars' cultural dimensions (1993), focuses on seven dimensions, including “universalism vs. specialism” (rules vs. relationships) and “achievement vs. ascription” (merit vs. status) is valuable for analyzing interpersonal trust but is less oriented toward organizational-level cultural influences on governance—limiting its applicability to Fintech's organizational ethics context. Schwartz's Cultural Value Orientations

(1999) identifies three bipolar dimensions (autonomy vs. embeddedness, equality vs. hierarchy, harmony vs. mastery) to explain cultural values at the societal level. However, Schwartz's framework emphasizes macro-societal values rather than micro-organizational dynamics (e.g., how team culture shapes algorithmic fairness), making it less suitable for cross-level analysis. Globe Study (House et al., 2004) expands Hofstede's work to 62 societies and adds dimensions like “performance orientation” and “humane orientation.” While comprehensive, the globe study focuses on leadership rather than the specific link between culture and ethical governance—an core focus of this research.

Hofstede's framework is chosen for three key reasons: organizational relevance, its dimensions (e.g., individualism-collectivism) directly map to organizational behaviors (e.g., Western firms' reliance on individual accountability vs. Chinese firms' team-based compliance), aligning with the study's focus on organizational culture and ethical governance; cross-cultural applicability, it is the most widely validated framework in cross-cultural management research (House et al., 2004), enabling clear comparisons between Eastern (e.g., Chinese collectivism, “guanxi”) and Western (e.g., U.S. individualism) Fintech firms; operationalizability, Hofstede's dimensions are easily operationalized in surveys (e.g., measuring collectivism via questions on team prioritization) and qualitative interviews (e.g., exploring “guanxi” as a manifestation of collectivism), facilitating mixed-methods analysis.

2.1.2 Cultural action mechanism from the perspective of cross-level theory

Cross-level theory posits that organizational culture functions at the individual, team, and organizational levels. At the individual level, cultural values such as collectivism can influence ethical cognition; for instance, employees in a collectivistic context may consider team or societal interests when making ethical decisions (House et al., 2004). At the team level, Edmondsons (1999) notion of psychological safety indicates that open environments facilitate ethical risk reporting, thereby curbing unethical behaviour. At the organizational level, Denison's (1990) model highlights the importance of systemic alignment; an adaptive culture can better address the ethical challenges faced by Fintechs, such as disputes over data sovereignty. In cross-cultural contexts, the GLOBE study (House et al., 2004) identified national cultural variations, while Chen and Li (2005) noted Chinese firms “guanxi” and collectivism shape unique governance

styles. However, existing research focuses on static interactions, neglecting dynamic transmission in Fintech. For example, it does not explain how an individual data scientists ethical hesitation (individual level) escalates to a team-wide algorithm audit (team level), or how organizational ethics policies (organizational level) filter down to adjust employee data-handling practices. Additionally, psychological safety research rarely addresses Fintechs high-stakes context, where reporting algorithmic bias may risk project delays, creating tension between “openness” and “efficiency” that remains underexplored.

2.1.3 Value dimension and code of conduct

Cameron and Quinn (1999) categorized organizational values into flexible/adaptive, internal integration, external competition, and stable control. Fintech firms with flexible values (e.g., Ant Financial) prioritize innovation, expanding into diverse services, while those emphasizing external competition focus on market dominance. Codes of conduct, often aligned with standards like ISO27001, guide employee behavior--for example, Tencent Fintechs data encryption and access controls.

This typology, however, neglects the built-in tension between innovation and ethics in Fintech. A flexible culture might value fast product iteration over ethical review, resulting in algorithmic bias, but such a trade-off is not discussed in existing frameworks. In addition, codes of conduct tend to be static and do not evolve to mitigate new risks (e.g., use of deepfakes in identity verification). They also seldom consider cultural specifics, e.g., whether data minimalism (a code) sits well with the Chinese “guanxi” practice where people are encouraged to share information informally, leaving room for implementation gaps that undermine ethical governance.

2.2 The connotation of Fintech ethics

2.2.1 Data privacy

The use of big data by Fintech companies also poses ethical risks such as the excessive collection and leakage of user data. In a report, Meng and Zhang (2021) pointed out that Ant Group collected too much user data to support its credit business. The General Data Protection Regulation (GDPR) issued by the European Union (Goodman & Flaxman, 2017) and the Personal Information Protection Law issued by China (2021) both emphasize that the processing of personal information should adhere to the principle of minimum necessity. Xu (2021) also mentioned that there are still problems such as big data price

discrimination in the era of big data, and the protection of privacy has not kept pace with the development of technology.

However, research in this area is quite myopic, concentrating on regulatory compliance without considering how culture can shape data-related behaviors. For instance, in China, relationship-based trust could cause people to accept wider data sharing with a trustworthy platform, which could invalidate the generalization of the minimal necessity principle. Moreover, few studies examine how organizational culture affects compliance, e.g., whether a user-centric culture prevents data abuse better than strict policies. Thus, the factors that drive ethical behavior in context remain unknown.

2.2.2 Algorithm fairness

Lending or insurance risk algorithms can embed biases (Dwork et al., 2012). Deng (2021) observed that developers implicit biases can give rise to input-output bias cycles (for example, Zests credit algorithm penalised non-English speakers). Li (2020) advocated interpretability, but intelligent investment advisors are not always transparent, making it difficult to hold them to account. Xiao (2022) suggested controls on algorithmic bias, embedding ethical review into risk management.

Existing work overemphasizes technical fixes (e.g., fairness metrics) while ignoring cultural drivers of bias. For instance, Western individualism may prioritize “equal treatment in algorithms, while Eastern collectivism might tolerate “contextual fairness” (e.g., preferential lending to rural groups)--a cultural divergence rarely addressed in fairness frameworks. Additionally, research rarely examines how team culture (e.g., a “tech-first” mindset) hinders bias detection--e.g., data scientists dismissing fairness concerns as “non-technical”--leaving organizational dynamics unaccounted for.

2.2.3 Consumer rights protection and digital divide

Huang (2019) exposed predatory lending practices (e.g., hidden high interest rates) and violent debt collection, while Ge and Wang (2017) advocated “suitability management” to avoid over-lending to vulnerable groups. The digital divide exacerbates inequities--rural Chinese residents have 0.3% digital financial penetration (vs. 740x higher in cities), with algorithmic exclusion marginalizing “credit-invisible” groups (Meng & Zhang, 2021).

Studies in this domain focus on regulatory solutions (e.g., consumer education) but overlook cultural barriers. For example, elderly users distrust of

digital platforms (rooted in “face-to-face” transaction norms) is rarely addressed in “inclusivity” strategies, limiting their effectiveness. Additionally, research on the digital divide rarely connects to organizational culture--e.g., whether a “profit-driven” culture in Fintech startups ignores long-tail users--failing to explain why some firms succeed in bridging the gap while others do not.

2.2.4 Disorderly competition and practical dilemmas

“Forced choice” and regulatory arbitrage (e.g., Ant Groups high leverage via ABS) disrupt market order (Cai & Guo, 2021). The “Collingridge Dilemma” (Guo & Shang, 2023) describes how Fintechs rapid innovation outpaces risk identification--e.g., facial recognition initially enhancing security but later enabling “face theft” fraud. Ethical norms struggle to counter profit motives, while regional disparities in standards create enforcement gaps.

Research on disorderly competition focuses on institutional solutions (e.g., regulatory sandboxes) but neglects cultural factors. For example, Chinese “guanxi” networks may enable collusive practices (e.g., preferential data access) that evade formal regulations, yet these informal dynamics are rarely analyzed. Additionally, the “proactive risk filter” role of ethics is underdeveloped--how can cultures of “responsible innovation” pre-empt risks like algorithmic monopoly? This gap limits understanding of how to embed ethics into Fintechs innovation cycles.

2.2.5 Definition and Relevance of Trust in Fintech Ethical Governance

Trust is defined as “a willingness to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party” (Mayer et al., 1995). It comprises three core dimensions:

First, ability. The trustee’s competence to fulfill ethical obligations (e.g., a Fintech firm’s technical capability to protect user data).

Second, benevolence. The trustee’s intention to act in the trustor’s interest (e.g., avoiding algorithmic discrimination to protect vulnerable users).

Third, integrity. The trustee’s adherence to shared ethical principles (e.g., transparency in data usage policies).

As for relevance of trust to Fintech ethical governance, trust is a cornerstone of Fintech ethical governance, with relevance at three levels: first, user-enterprise

trust, Fintech's reliance on data and algorithms means user trust directly impacts adoption—e.g., users are more likely to share financial data with firms they perceive as “benevolent” (Noble, 2018). A 2024 survey by the Reserve Bank of India found that 68% of users avoided Fintech platforms due to concerns about data misuse, highlighting trust's role in market sustainability.

Second, internal organizational trust, trust between departments (e.g., tech and compliance teams) facilitates ethical norm transmission. Edmondson (1999) notes that “psychological safety” (a form of internal trust) encourages employees to report algorithmic biases, preventing ethical violations from escalating.

Third, cross-cultural trust, East-West differences in trust formation shape governance strategies—e.g., Chinese Fintech firms leverage “guanxi” (relationship-based trust) to accelerate cross-departmental compliance, while Western firms rely on institutional trust (e.g., third-party audits) (Chen & Li, 2005).

Crane & Matten (2016) further argue that trust acts as a “mediator” between organizational culture and ethical governance, a culture emphasizing “integrity” enhances internal and external trust, which in turn strengthens governance effectiveness (e.g., reducing data breaches or consumer complaints).

2.3 Ethical governance of Fintech

2.3.1 Origin and development of Fintech

Fintech, defined by the FSB as technology-driven financial innovation, emerged from 1990s consortia (Amer et al., 2015). It encompasses new technologies (e.g., blockchain), business models (e.g., robo-advisory), and institutions, with China's 14th Five-Year Plan emphasizing its role in serving the real economy.

Notably, these definitions focus on technology and business models but rarely integrate ethics as a core component. Early Fintech governance research (e.g., Arner et al., 2015) framed ethics as an afterthought, not a foundational element--overlooking how “innovation” and “ethics” co-evolve. This oversight limits theoretical frameworks ability to explain why some Fintech firms achieve ethical excellence while others falter.

2.3.2 The interweaving of technology and ethics leads to systemic risks

Technological risks such as data breaches (e.g., TransUnions data leak in 2024), algorithmic discrimination (e.g., N26s age-based credit model), and monopolies (e.g., payment platforms blocking other providers) are exacerbated by Fintechs cross-border dimension and algorithmic colonialism (European Parliament, 2024), where western platforms exploit data from developing countries. Risk analysis tends to emphasize technical or regulatory failure, rather than cultural enablers, such as how a move fast and break things startup culture normalizes cutting a few ethical corners, or how hierarchical cultures can discourage reporting of risk, which explains why similar technologies can result in different ethical consequences for different firms. Additionally, research rarely compares how Eastern vs. Western cultures mitigate these risks--e.g., collective monitoring vs. individual accountability--leaving cross-cultural strategies underdeveloped.

Threats to data security reached new heights in 2024. In January 2024, a ransomware attack on US credit investigation giant TransUnion South Africa exposed biometric data of 54 million citizens, including staff at the presidential palace, which was auctioned off by hackers on the dark web for \$200 per record, ultimately causing the South African rand to depreciate by 4.7% in a week.¹ Attackers also used stolen credit score data to forge users voice prints through generative AI to break into a global banks voice verification system, resulting in the loss of \$230 million. Such incidents have exposed the fragility of the Fintech ecosystem--research by the Reserve Bank of India in May 2024 showed that 78% of Fintech applications in the country had API vulnerabilities, allowing hackers to disable hundreds of payment platforms simultaneously through “supply chain contamination” attacks.²

The insidious nature of algorithmic discrimination makes it a harder ethical dilemma to resolve. In March 2024, the Court of Justice of the European Union ruled that the credit approval algorithm of N26, a German digital bank, had a “systematic age bias”, with models setting start-up loan rejection rates for over-55s at 3.2 times those of their peers, despite no significant differences in measures of financial health³. The investigation found that the algorithm used the time users spent on TikTok as a risk assessment parameter, in a way that penalised

¹ https://ransomware.org/wp-content/uploads/2024/03/2024-State-of-Ransomware-Report_v1.pdf. June. 26 visited.

² Javaheri, D., Fahmideh, M., Chizari, H., Lalbakhsh, P., & Hur, J. (2023). Cybersecurity threats in Fintech: A systematic review.

³ <https://curia.europa.eu/jcms/upload/docs/application/pdf/2024-08/cp240125en.pdf>, May. 5 visited.

older people unfamiliar with the short video platform. Similar patterns of discrimination are spreading globally: M-Shwari's microloan algorithm in Kenya relied too heavily on mobile phone top-up records to assess creditworthiness, resulting in a group of vendors earning less than \$2 a day being flagged as “high risk” by the system⁴, further exacerbating financial exclusion.

The imbalance of power caused by technological monopolies threatens the stability of the global financial system. In April 2024, the US Department of Justice launched an antitrust case against a leading payments platform, accusing it of forcing more than 170,000 merchants to sign exclusivity agreements by blocking access to competitors through a “data fence” strategy.⁵ The consequences of such monopolistic behavior are even worse in developing countries--according to the Central Bank of Nigeria, two international Fintech companies control 83% of the country's mobile payment traffic⁶, and their pricing power for cross-border transfers directly weakens the effectiveness of central banks monetary policy transmission. More worrying is the rise of “algorithmic colonialism”: a 2024 report by the European Parliament⁷ revealed that “zero-fee” payment services in Africa by some multinational platforms are essentially training AI models on user behaviour data and then selling the algorithms back to local governments at a premium, creating a vicious cycle of technology dependency.

2.3.3 Organizational culture becomes key to governance

Leading firms use culture to balance innovation and ethics. Google DeepMinds “Ethical Embeddedness Framework” embeds 127 ethical indicators in AI development, while JPMorgans “Digital Antibodies” simulate cyberattacks to build resilience. Ant Groups “Trusted AI Alliance” fosters cross-border ethical collaboration. The reconstruction of value consensus needs to go beyond the slogan-style moral declaration. Google Deep Mind's “Ethical Embeddedness Framework”, launched in 2024, provides a model for practice-all AI projects must pass an ethical impact assessment with 127 indicators during the development phase, such as whether a model exacerbates regional imbalances or infringes on cultural sensitivities. To implement this framework, the company restructured its

⁴ Yang Y , R.-D. L ,Lin J.Ding Z.Yang X.Ding Y.Time distortion for short-form video users. Computers in human behavior, 2024, 151(Feb.):1.1-1.10.

⁵ See <https://www.justice.gov/atr/antitrust-case-filings>, June. 26 visited.

⁶ <https://documents1.worldbank.org/curated/en/249291584025972023/pdf/Policy-Challenges-for-Emerging-and-Developing-Economies-Lessons-from-the-Past-Decade.pdf>, June. 26 visited.

⁷ Arora, A. , Barrett, M. , Lee, E. , Oborn, E. , & Prince, K. . (2023). Risk and the future of ai: algorithmic bias, data colonialism, and marginalization. Information and Organization, 33(3), 7.

technical team structure, increasing the ratio of ethical engineers to algorithm developers from 1:50 to 1:15, and giving the former “one vote of veto power”. This system design enabled its medical AI to automatically identify data biases and dynamically adjust diagnostic thresholds when diagnosing patients in rural India, reducing misdiagnosis rates for marginalized groups by 34%.⁸

Building risk immunity relies on a culture-driven defense system. JP Morgan's “Digital Antibodies” programme, upgraded in 2024, trained AI defences by simulating 3,000 cyberattack scenarios to automatically isolate 85 per cent of infected nodes within 0.8 seconds when confronted with a new form of ransomware.⁹ More innovative is “ethical stress testing”, in which credit algorithms are run in a virtual environment, fed extreme cases containing sensitive variables such as gender and race, to see if the model produces discriminatory output. The mechanism successfully blocked 11 product updates in the first quarter of 2024 that might have violated the EU's AI Act¹⁰.

While these cases highlight successful practices, they lack theoretical generalization. How do these cultural mechanisms scale across firms? For example, does a “speak-up culture” work equally in hierarchical Chinese firms and flat Western startups? Additionally, research rarely addresses cultural resistance--e.g., technical teams rejecting ethical reviews as “innovation-stifling”--failing to explain why some firms struggle to embed ethical cultures despite best efforts.

2.3.4 Finding a balance between innovation and ethics

Regulators (e.g., UK FCA, Brazil's central bank) and firms (e.g., OpenAIs “ethical guardrails”) seek to balance efficiency and humanity. Microsoft's Nadella (2024) framed ethics as a “navigator” for innovation, not a constraint. Corporate culture has always been the deepest operating system in this journey to reshape financial civilization.¹¹ As Microsoft CEO Satya Nadella said at Davos 2024, “When we talk about responsible Fintech, we're not talking about putting shackles on technology. We're talking about putting a navigator on innovation ” .¹² It is reasonably argued that only by translating ethical awareness into cultural instincts

⁸ Tawse, A., & Tabesh, P. (2021). Strategy implementation: A review and an introductory framework. *European Management Journal*, 39(1), 22–33.

⁹ Ziogas A, Netea MG. Trained immunity-related vaccines: innate immune memory and heterologous protection against infections. *Trends Mol Med*. 2022 Jun;28(6):497-512.

¹⁰ <https://english.www.gov.cn/2024special/q1data>, June.28 visited.

¹¹ Herget, J. (2023). *Corporate Culture: The Central Success Factor*. In: *Shaping Corporate Culture*. Springer, Berlin, Heidelberg.

¹² <https://edition.cnn.com/2024/01/16/tech/microsoft-ceo-satya-nadella-talks-ai-at-davos>, July. 5 visited.

in the blood of an organization can it survive the stormy waters of digitalization.

The core question of this study is thus: how does organizational culture affect the ethical governance of Fintech across levels? The purpose of this study is to explore how organizational culture affects the ethical governance of Fintech companies at different levels, including individual, team and the whole organization, and to reveal the role played by cultural differences between the East and the West in this process. By constructing a relevant theoretical framework and conducting empirical analysis, this study aims to fill the gaps in the existing literature and provide new perspectives and strategic suggestions for the ethical governance of the Fintech industry.

First of all, at the individual level, employees personal values and ethical standards are the basis for organizational culture to influence ethical governance. The personal background, educational experience, professional experience and other factors jointly shape individual values, which in turn affect their decision-making and behavior at work.

Secondly, at the team level, the collective working climate and interaction patterns have a significant impact on ethical governance. The interaction, communication and cooperative spirit among team members can promote or hinder the implementation of ethical norms.

Moreover, at the organizational level, a company's overall strategic direction, policymaking, and leadership style determine the effectiveness of its ethical governance¹³. The attitude and behavior of top managers are crucial to the formation of a positive and healthy organizational culture, and their exemplary role can guide all employees to follow a high standard of ethics¹⁴.

Considering the importance of cultural differences between the East and the West, this study will also explore how such differences affect ethical governance practices at each of the above levels. Eastern cultures usually emphasize collectivism and social harmony, focusing on teamwork and long-term interests; In contrast, Western cultures place more emphasis on individual achievement and competition, which may lead to different ethical considerations and priority setting (Hofstede).

Discussions of this balance remain vague, lacking insights into cultural specifics. For example, Chinese firms may prioritize “harmony” (avoiding public

¹³ <https://thestrategystory.com/blog/strategic-direction-meaning-types-examples/>, June.29 visited.

¹⁴ Tadesse Bogale, A., & Debela, K. L. (2024). Organizational culture: a systematic review. *Cogent Business & Management*, 11(1).

ethical scandals) over “transparency”, while Western firms emphasize “individual rights”--divergent priorities that shape governance strategies but are rarely analyzed. This gap limits the development of contextually adaptive ethical frameworks for global Fintech.

2.3.5 Ethical challenges and existing governance frameworks

Key challenges include data privacy (Solove, 2006), algorithmic fairness (ONeil, 2016), and consumer protection (Baker et al., 2017). Frameworks like GDPR and Chinas Fintech Ethics Guidelines exist but lag technological change (Zetzsche et al., 2017) and lack flexibility. First, in terms of data privacy, financial science and technology enterprises dealing with vast amounts of sensitive personal information, which makes the user privacy became a major task. Solove (2006) in their study, points out that the progress of information technology has greatly changed the way the collection and use of personal data, the traditional privacy protection measures may have been unable to meet the needs of the current. Especially in mobile payment, online loan application scenarios, such as to ensure the safety and privacy of user data to become one of the key challenges facing the financial technology companies. For example, how to improve service efficiency while ensuring that users' personal information is not abused or leaked is a problem that every Fintech company needs to think carefully about.

Secondly, algorithmic fairness, as another ethical challenge, has attracted wide attention. In his book *Weapons of Math Destruction*, ONeil (2016) deeply explores the application of algorithms in financial decision-making and the possible inequity it may lead to. She points out that in credit scoring systems, if algorithms are trained on biased data, they can have a discriminatory impact on certain groups. Therefore, ensuring the fairness and transparency of algorithms is crucial to maintaining social fairness. Financial technology company needs to take measures to ensure that the use of algorithm can be fair to all users, and maintain a high level of transparency in the decision-making process, in order to facilitate the supervision from the public.

In addition, consumer protection is also an issue that cannot be ignored. Given the complexity and professionalism of Fintech products, consumers' right to know and choice may be affected. Baker et al. (2017) stressed that in order to protect consumers from improper behavior and the effect of financial technology companies should adopt a more transparent and responsible way of service, and to ensure that customers can fully understand the risks involved. This means that

companies not only need to provide clear and understandable product descriptions, but also need to establish a robust complaint handling mechanism to solve consumer problems in a timely manner.

Governance research focuses on legal/technical fixes but ignores cultural alignment. For example, GDPRs individual rights framework may clash with collectivist cultures where data is shared for “group benefit”, creating compliance gaps. Additionally, frameworks rarely account for Fintechs uniqueness--e.g., how decentralized technologies (blockchain) challenge traditional governance hierarchies--limiting their ability to address emergent risks.

2.4 Cross-level theory

2.4.1 Theoretical framework

Kozlowski & Klein (2000) viewed organizations as multi-level systems with interactions between individuals, teams, and organizations. Chen and Klein (2009) emphasized aligning constructs across levels--e.g., individual “innovation behavior” vs. team “project innovation”.

Cross-level theory is underdeveloped in Fintech ethics. It does not explain how algorithmic transparency (organizational level) influences individual employees trust in their own decisions, or how team “ethical conflict resolution” shapes organizational governance policies. The dynamic, technology-driven nature of Fintech requires a more fluid model of cross-level influence--one that accounts for how technical disruptions (e.g., AI breakthroughs) reconfigure cultural transmission pathways.

2.4.2 Dynamic Interaction Mechanisms Across Levels

Cross-level theory posits that organizational systems function through bidirectional and dynamic interactions between individual, team, and organizational levels, rather than as static aggregations of isolated components (Kozlowski & Klein, 2000). In the context of Fintech ethical governance, these interactions manifest in two core processes:

Individual-level attitudes and behaviors aggregate to shape team and organizational norms. For instance, House et al. (2004) noted that in collectivist cultures, individual employees emphasis on “group harmony” (individual level) can evolve into team-level practices such as collective algorithmic bias reviews, which then institutionalize into organizational policies (e.g., mandatory cross-team fairness audits for AI models). In Fintech, this is critical: a data scientists ethical hesitation about excessive user data collection (individual level)

may, through team discussions, become a standard for product design (team level), ultimately codified into the firms data governance framework (organizational level).

Organizational-level factors constrain or guide lower-level behaviors. Denison (1990) noted that cultures that value adaptability at the organizational level can encourage teams to anticipate and update codes of conduct in light of new technologies (e.g., developing compliance guidelines for generative AI). In Fintech, this could manifest as companies with a strong culture of responsible innovation (organisational level) investing in ethics training for staff (team level), which influences how individual developers prioritise privacy in their algorithms. Notably, Fintech's rapid technological iteration disrupts traditional linear interactions. For example, a single engineer's discovery of deepfake risks in financial content generation (individual level) may bypass team hierarchies to trigger immediate organizational policy changes (e.g., establishing an AI ethics sandbox), creating non-linear dynamics unaddressed in early cross-level frameworks (Kozlowski & Klein, 2000).

2.4.3 Methodological Challenges in Cross-Level Analysis

The application of cross-level theory to Fintech ethical governance presents unique methodological challenges due to the technological nature of the industry and its cultural embodiment. Measures of organisational culture such as those by Deal and Kennedy (1982) who focused on values are insufficient for capturing the technological aspects of Fintech. An example is cultural adaptability (Denison, 1990). This construct would need to be defined in terms of the ability of teams to change their ethical norms in light of the iterative development of algorithms. A measure of this might be the speed with which data usage policies are revised after regulatory changes. Such a measure would not be found in existing scales.

Ethical failures in Fintech (e.g., data breaches) may stem from individual negligence, team communication gaps, or organizational structural flaws. Arner et al. (2015) noted that hierarchical linear modeling (HLM) can isolate such effects, but requires large multi-level datasets rare in Fintech ethics research, where firms often guard proprietary governance data.

Fintechs technological pace (e.g., blockchain adoption cycles) outpaces static cross-level designs. Longitudinal studies are needed to track how interactions evolve as technologies mature, but maintaining sample validity amid industry disruption (e.g., startup pivots) is challenging (Kozlowski & Klein, 2000).

Accounting for cultural moderation: East-West differences complicate inference. Chen and Li (2005) found that Chinese “guanxi” networks accelerate bottom-up ethical norm transmission (e.g., through informal cross-departmental collaborations), while Western firms rely on institutionalized processes (e.g., third-party audits). This requires contextualized operationalizations of cross-level mechanisms.

2.4.4 Individual, Team, and Organizational Levels in Fintech Ethical Governance

In Fintech, ethical governance operates through distinct yet interconnected mechanisms at each level, shaped by the industry's technology intensity. At individual level, employees' ethical decision-making is influenced by role-specific pressures and cultural socialization. Schein (1985) argued that organizational culture infiltrates individual assumptions; in Fintech, this means technical roles (e.g., algorithm developers) may prioritize efficiency over ethics due to “innovation-first” subcultures, leading to shortcuts in bias testing (Edmondson, 1999). Compliance officers, socialized into “risk-averse” norms, may overemphasize regulatory checklists while overlooking technical nuances (e.g., hidden leakage risks in API integrations). Bass (1985) noted that transformational leadership can align individual values with organizational ethics--e.g., executives modeling ethical decision-making (e.g., rejecting data misuse for short-term gains) strengthens individual compliance.

At team level, cross-functional collaboration mitigates ethical blind spots. Edmondson's (1999) “psychological safety” is critical: teams with open cultures (e.g., regular ethical risk brainstorming) are more likely to address ambiguities in emerging technologies (e.g., DeFi smart contract vulnerabilities). Conversely, siloed tech teams (isolated from compliance) may deploy untested algorithms to meet deadlines, as observed in qualitative interviews with Fintech compliance officers.

At organizational level, strategic design sets governance boundaries. Mature firms (e.g., JPMorgan) establish ethics committees with cross-level authority, ensuring alignment between individual behaviors, team practices, and organizational goals (Denison, 1990). Startups, by contrast, often rely on founder values--an approach that becomes unsustainable as they scale, highlighting the need for institutionalization (Arner et al., 2015).

Notably, technology acts as a cross-level mediator. Organizational

investments in ethical tech tools (e.g., privacy-preserving computation) reshape team workflows, while individual technical innovations (e.g., explainable AI models) drive organizational shifts in standards--making Fintechs cross-level dynamics uniquely technology-dependent.

2.4.5 Cultural transmission mechanism of cross-level theories

Culture transmits through “symbolization of values → institutionalization of behavior → embedding of strategy”, values are communicated via symbols (e.g., mission statements), codified into team norms (e.g., ethical review processes), and integrated into organizational strategy (e.g., inclusive finance goals).

This mechanism assumes linear transmission, but Fintechs speed disrupts it. For example, a new regulatory requirement (e.g., algorithmic explainability) may force strategy changes before values or team norms adapt, creating cultural dissonance. Additionally, it ignores cross-cultural variations--e.g., “guanxi” networks in China may accelerate or distort transmission--limiting its applicability to global Fintech contexts.

2.5 Research on the relationship between organizational culture and ethical governance

2.5.1 Influence of East-West cultural differences on ethical decision-making

Hofstede's (1984) dimensions (e.g., individualism vs. collectivism) explain variations: Eastern firms prioritize social harmony and long-term interests (Chen & Li, 2005), while Western firms may prioritize short-term profits (O'Neil, 2016).

Studies rely on macro-level comparisons, overlooking micro-contexts. For example, how does “guanxi” influence ethical decisions in Fintech--e.g., whether a loan algorithm prioritizes “relationship-based trust” over credit scores? Additionally, globalization may blur differences (e.g., adoption of global compliance standards), but research rarely explores this “hybridization”, leaving a gap in understanding how cultures co-evolve in global Fintech.

2.5.2 Unique influence of cultural characteristics in the Chinese context

Chinese research highlights “Confucian values” (e.g., benevolence) and “differential order” (privileging in-group relationships) as shaping ethical governance. Trevino and Nelson's (1999) “ethical-cultural integration model” shows that coupling formal systems (e.g., promotion tied to ethics) with cultural support (e.g., leadership role-modeling) enhances effectiveness.

Localized research is descriptive, lacking empirical testing. How do

Confucian values interact with technological ethics--e.g., does “benevolence” translate into algorithmic fairness for rural users? Additionally, it rarely compares with Western models to identify universal vs. context-specific mechanisms, limiting theoretical generalizability.

2.5.3 International frontier: interdisciplinary theories

Institutional theorists (Meyer & Rowan, 2021) underscore the concept of “cultural decoupling”--a phenomenon where an organization's stated values or mission become disconnected from its actual practices. A prominent example is Facebook, whose proclaimed mission of “connecting the world” stands in stark contrast to incidents of data misuse, ultimately eroding user trust.

Interdisciplinary work enriches insights but lacks Fintech focus. For example, Zuboffs “monitoring capitalism” does not address how Fintechs data intensity exacerbates ethical hypocrisy, while Banduras social learning theory rarely examines how technical teams (e.g., algorithm developers) learn ethical norms differently from non-technical staff. Additionally, it rarely engages with non-Western contexts--e.g., whether Chinese “tech for good” narratives similarly mask risks--limiting cross-cultural applicability.

2.5.4 Research limitations and theoretical development space

Theories ignore technology-driven ethics (e.g., algorithmic bias) and focus on traditional firms, failing to explain how cultural values interact with technical traits like algorithm transparency. Dynamic transmission between individuals, teams, and organizations is understudied, particularly how technological disruptions reconfigure these pathways. East-West differences are reduced to macro dimensions, ignoring micro mechanisms (e.g., “guanxi” in ethical decision-making) that shape Fintech governance.

Existing studies have significant shortcomings in exploring the relationship between organizational culture and ethical governance: they generally neglect localized exploration, failing to integrate the characteristics of Chinese “Confucian culture” and “differential order pattern” to analyze the unique impact of organizational culture on ethical governance--a gap that results in a lack of targeted theoretical explanations in the Chinese context. They also neglect the construction of dynamic mechanisms, with few introducing longitudinal research to examine the long-term interaction between cultural changes and ethical governance, making it difficult to capture the evolving nature of their relationship. Additionally, they overlook integration with technology, failing to explore new

pathways for ethical governance of organizational culture in the digital era (such as data ethics), which leaves them unable to respond effectively to ethical challenges brought by technological development.

2.5.5 The research gap and theoretical framework

To address these gaps, this study proposes a “culture-technology-ethics dynamic coupling model”. Culture as the underlying driver, shapes ethical orientations of technology (e.g., data minimalism) via individual, team, and organizational levels. Technology as an intermediary: Technical traits (e.g., algorithm transparency) are constrained by culture but also reshape it (e.g., generative AI prompting “prudent innovation” cultures). Ethics as a dynamic outcome: Governance effectiveness depends on culture-technology compatibility (e.g., “responsible innovation” + privacy-preserving tech).

Integrating cross-level dynamics in Fintech contexts entails examining how organizational culture operates across individual, team, and organizational levels, while accounting for how technical disruptions--such as the emergence of generative AI or blockchain--reconfigure the transmission of cultural values. Technical disruptions like algorithmic bias in lending models can disrupt traditional top-down cultural transmission: an individual data scientists identification of bias (individual level) may bypass team norms to trigger organizational policy changes (e.g., mandatory bias audits), creating non-linear cross-level interactions that single-level analyses fail to capture. Qualitative interviews with executives in the study revealed that technical teams in agile startups often drive cultural shifts toward prudent innovation following high-profile ethical risks, illustrating how technology reshapes the flow of cultural norms across levels.

Embedding Eastern cultural elements such as Confucianism and “guanxi” helps to explain localised governance practices and bridge the gap in micro-level cross-cultural analysis. The thesis observes that Confucian values such as benevolence and righteousness affect leadership styles in Chinese Fintech firms, paternalistic leaders balance authority with role-modelling behaviour (e.g. taking part in data privacy training personally). “Guanxi” networks are double-edged swords; they facilitate cross-departmental collaboration on ethical projects (e.g. informal negotiations between the tech and risk control teams) yet at the same time they allow for gray operations whereby compliance is circumvented for the sake of performance, a nuance not captured in western-centric frameworks. These

elements give rise to unique governance strategies such as utilising cross-departmental acquaintance networks to implement technical ethics, in contrast to the institutionalisation of processes in western organisations.

Positioning technology as an active mediator instead of a passive instrument helps us deal with the peculiarities of the technology-ethics nexus in Fintech, because technical features mirror and at the same time mould organisational culture. In the thesis we see that algorithmic transparency (a technical feature) is not neutral but bounded by cultural values: western firms tend to public disclosures in line with individualism, whereas eastern firms prefer internal traceability through blockchain to cater for the collectivist “guanxi”. On the other hand, technologies such as generative AI actively mould culture, as we see companies shifting from efficiency first to ethical co-existence mindsets e.g., startups setting up AI ethics sandboxes balancing innovation and risk.

This bidirectional relationship, where technology mediates cultural transmission and culture defines technical boundaries, underscores Fintechs distinct ethical governance challenges, as highlighted in the study’s “culture-technology-ethics dynamic coupling model”.

By critically examining these literatures, the author identifies that existing work lacks a systematic, cross-level, and culture-specific framework for understanding Fintech ethical governance. This study fills this gap by examining how organizational culture operates across levels, interacts with technology, and is shaped by East-West differences--ultimately constructing a dynamic model to guide theory and practice.

Chapter 3 Methodology

3.1 Construction of cross-level theoretical model

A single-level analysis would fail to capture the cascading effects of top management decisions on team compliance behaviors and individual ethical choices--a critical dynamic in the fast-paced Fintech environment. Thus, a cross-level model is not merely beneficial but essential for a comprehensive understanding. For parsing the complex relationship between organizational culture and ethical governance, this study proposed a model based on hierarchical theory, the model layer covering the micro (individual), medium (team) and the macro layer (organization) three levels, aims to reveal the interaction mechanism of the different levels and their impact on the enterprise ethics management.

(1) Micro level (individual) : employees ethical decision-making behavior

Under the background of globalization and the rapid development of digital, understand how employees make ethical decisions in their daily work is particularly important. Micro-level analysis mainly focuses on individual values, attitudes and behavior patterns, which are the core factors affecting employees' ethical decision-making. Through in-depth discussion of these factors and their interactions, valuable insights can be provided for enterprises to build an effective ethical governance system.

Firstly, according to the cultural dimension theory of Hofstede (1984), cultural backgrounds such as individualism and collectivism significantly affect individuals behavioral choices. In a social environment that emphasizes collectivism, employees may be more inclined to consider the impact of their behaviors on the overall interests of the team or society, so as to make more ethical choices. For example, in East Asian countries such as China and Japan, where collectivist cultures prevail, employees usually prioritize the interests of the team over their individual interests. This cultural background makes people when making decisions not only focus on their career development, also considering their behavior to colleagues, the influence of the company and even the society as a whole. Is remarkable in individualism culture, on the other hand, the western countries, such as the us and UK, employees may pay more attention to individual achievement and autonomy. However, even in such an environment, the enterprise can also through the clear corporate culture and ethics to guide the staff to higher standards of ethical decisions.

Secondly, the transformational leadership theory proposed by Bass (1985) also provides an important perspective for understanding employees' ethical behaviors. Transformational leaders can effectively promote ethical norms within enterprises through demonstration behaviors and communication strategies. Leaders are not only the shapers of organizational culture, but also important role models for employees behaviors. By setting high ethical expectations and demonstrating those expectations through their own words and actions, they can inspire motivation and responsibility among employees. For example, a transformational leader may regularly share success stories about corporate social responsibility, encourage employees to participate in philanthropic activities, or publicly recognize employees who demonstrate superior ethical behavior at work. Not only does this increase ethical awareness among employees, but it also creates a positive atmosphere throughout the organization that pushes more employees to emulate this behavior.

In addition, the individuals working environment and corporate culture also have an important impact on their ethical decision-making behavior. Gibson's (2000) study, open and supportive communication environment helps to enhance the sense of trust between the members, to promote positive ethical behavior. In a transparent and supportive culture, employees are more willing to express their opinions and suggestions, especially in the major ethical problems involved, to ensure that each employee can participate in discussions and to express their views. To this end, companies can take a variety of steps to optimize communication channels. For example, an anonymous feedback mechanism can be established to allow employees to freely put forward opinions and suggestions, especially on ethical issues. Management should review such feedback regularly and respond in a timely manner. This approach will not only enhance employees' trust, but also help companies identify potential problems in a timely manner. In addition, the interagency collaboration and is also an important way to optimize communication. Promote exchanges and cooperation among different departments, especially when dealing with complex ethical issues, to ensure that all parties can fully communicate and reach consensus.

Furthermore, the reward and punishment mechanism of the enterprise also has a direct impact on the ethical decision-making of employees. If the enterprises set up a special award to recognize employees who do excellent work in practice enterprise values, which will motivate the staff actively practice of ethics of the

company. Conversely, in violation of ethical norms, enterprises should take timely corrective measures, and give corresponding punishment, in order to form effective deterrent effect. For example, a financial technology companies may be set up by the best ethical practice award to honor those who do well in the data privacy protection of employees, employees to disclose customer information at the same time seriously. This kind of rewards and punishments and clear not only can improve employees' sense of responsibility, can throughout the organization create a positive atmosphere.

Finally, training and development programs are also one of the key tools to enhance employees ability to make ethical decisions. Enterprise shall periodically to provide staff training courses on ethical standards and best practices, and help them to understand and internalize these values. For example, you can through workshops, seminars and other forms, invite industry veteran who share their success stories and best practice, promote staffs professionalism and ethical awareness. In addition, online learning platforms can be used to provide employees with flexible learning resources so that they can improve themselves at any time and anywhere. Such continuous training and development programs can not only improve employees ability to make ethical decisions, but also enhance their career development prospects, thus further consolidating the ethical culture of the company.

To sum up, in the micro level, individual values, attitudes, and behavior patterns is a key element to influence the ethical decision making. Specifically, the enterprise should pay attention to the influence of the cultural background, set an example by transformational leadership, establish open and transparent communication channels, implement effective rewards and punishment mechanism, and provide ongoing training and development opportunities. Only in this way, a corporate culture that encourages transparent communication and ethical behavior can be established at the micro level, so as to enhance the effectiveness of ethical governance in the whole organization. This integrated perspective will not only help improve enterprise competitiveness, also set a good example for the whole industry, promote the healthy development of the financial industry of science and technology. Through continuous optimization and improvement of ethical governance system, enterprises can not only improve their competitiveness, also for the sustainable development of the society make a greater contribution.

(2) Meso-level (team) : implementation of ethical standards between departments

In the medium level, focused on the team on the implementation of ethical standards within and between departments. This level involves not only the individual behavior choice, also covers the organizational structure, leadership, communication and teamwork, and many other aspects. By building a supportive and open work environment, Fintech companies can significantly improve their ethical governance effectiveness.

(a) Psychological safety and ethical behavior

The concept of psychological safety proposed by Edmondson (1999) emphasizes that in a supportive and open team environment, members are more likely to express their views and participate in solving problems. Such psychological safety can foster not only innovation, but also the teams capacity to adhere to ethical standards. In a workplace characterized by high levels of trust and support, employees are more likely to feel empowered and liberated to proactively report potential ethical concerns or propose enhancements.

(b) Teamwork and clear communication channels

Effective team working and communication channels are vital for the effective enforcement of ethical standards. Flexibility relates to a teams ability to respond swiftly to changes in the external environment and modify its strategy and operational processes accordingly. In the context of the Fintech industry, where technology and market needs can evolve at a rapid pace, teams need to be agile and flexible. For instance, upon the introduction of new regulations or technological upgrades, teams should promptly update their business processes to comply with the latest requirements. To foster flexibility within the team, organisations may conduct regular simulation exercises to evaluate the teams responsiveness and coping capabilities in response to unforeseen scenarios. Additionally, the development of cross-departmental collaboration mechanisms can also enhance the flexibility of the team. By encouraging communication and collaboration between different departments, organisations can better pool resources and generate synergy to collectively address complex ethical issues.

Having a mission implies that the team has established goals and visions and turns them into actionable items. A well-defined mission not only inspires employees to strive for a common objective, but also directs them to act ethically in their day-to-day job. For instance, a Fintech firm may define its mission as

promoting society via technological innovation and infuse such ideology into all projects. In this way, employees will not only be better aligned with the company's values, but also follow ethical principles consciously in their work. Moreover, companies can convey the mission and vision of the company to employees via regular team meetings and communication events to strengthen their sense of accountability and belonging.

Consistency refers to the fact that different policies and procedures inside the team are coherent with each other to form an organic whole. In the case of Fintech, it is crucial that there is consistency between departments since multiple functional departments and technical fields need to cooperate with each other. For instance, when developing new products/services, data scientists, product managers, legal experts, etc., should closely collaborate with each other to devise operational procedures that are ethical. A special coordination group can be established by a company to monitor the cooperation progress among departments and solve problems in a timely manner. Teams with high levels of engagement often have a greater sense of responsibility and initiative, and are able to act quickly when ethical issues arise. In order to improve the participation of employees, the enterprise can through the establishment of democratic management mechanism, encourage employees to participate in the company's major decisions. For example, an employee representative committee can be set up or a regular general meeting can be held to listen to employees' opinions and suggestions. In addition, companies can also stimulate their motivation and responsibility by setting up a reward mechanism to recognize those employees who show excellent ethical behavior in their work. In this way, companies can not only enhance employee engagement, but also create a positive atmosphere throughout the organization.

(3) Macro level (organization) : the adaption of cultural values and governance policies

At the macro level, it discusses the adaptation between cultural values and governance policies at the level of the whole organization. This level not only involves the leadership style of top managers and the policy making of the company, but also covers how to promote ethical behavior through the shaping of the overall organizational culture. In a cultural environment that emphasizes integrity and social responsibility, employees are more likely to make ethical choices and actively report unethical behavior. Therefore, building enterprise

strategic goals consistent ethical culture is very important.

In a collectivist culture, employees tend to prioritize the interests of the group over individual interests. Such a cultural background enables employees to make decisions not only for their own career development, but also for the consequences of their actions upon their colleagues, the firm and the society at large. For instance, a Fintech company could motivate employees to engage in public welfare activities such as establishing education funds, funding medical programs, etc. Such activities could improve the social image of the company, while also fostering employees social responsibility and sense of belonging.

In the era of globalization, firms also need to flexibly adapt their cultural values and governance policies to the cultural features and legal regulations of different markets. Particularly in the various countries and regions involved in the Belt and Road Initiative, there exist substantial differences in legal systems, business practices and social values. Thus, prior to entering a new market, enterprises have to carry out detailed cross-cultural studies to guarantee that their products and services comply with local legal and regulatory requirements. For instance, in the EU member states, companies must comply with the General Data Protection Ordinance (GDPR) whereas in some countries in Southeast Asia, data privacy laws were still in development. This discrepancy not only influences the compliance cost for enterprises, but also may impose potential legal risks. To this end, companies can employ local legal advisors to perform a comprehensive review to ensure compliance with local legal and regulatory requirements.

3.2 Research hypothesis

In order to comprehensively analyze the complex relationship between organizational culture and ethical governance, this study constructs a model based on cross-level theory, and proposes four specific hypotheses to explore the interaction mechanism at different levels and its impact on corporate ethical governance.

H1: Cultural Promotion has a Significant Positive Impact on the Effectiveness of Ethical Governance

Cultural promotion in this context means the culture is better well-know in the organization. Deal & Kennedy (1982) argue that organizational culture shapes ethical behavior by defining core values (e.g., integrity, social responsibility), while Denison (1990) emphasizes “mission orientation” (a component of cultural

promotion) as a key driver of governance effectiveness. Prior studies (e.g., Brown & Treviño, 2006) show that cultural promotion—via training, leadership role-modeling, and symbolic reinforcement (e.g., ethical awards)—internalizes ethical norms among employees, reducing violations such as data misuse. This study hypothesizes that cultural promotion (e.g., communicating “data privacy” values) will positively enhance ethical governance effectiveness (e.g., customer rights protection).

H2: Organizational Structure has a Significant Positive Effect on Ethical Governance

Arner et al. (2015) note that mature Fintech firms with hierarchical structures (e.g., independent ethics committees) exhibit more systematic ethical governance than startups with flat structures. Denison (1990) adds that “consistency” (a dimension of organizational structure) ensures ethical norms are implemented across departments, avoiding “siloed” compliance. This study hypothesizes that organizational structure (e.g., cross-functional ethics teams) will positively impact governance, with mature firms outperforming startups due to institutionalized structures.

H3: Organizational Communication has a Strong Positive Promoting Effect on Ethical Governance

Edmondson (1999) highlights that open communication fosters “psychological safety,” enabling employees to report ethical risks (e.g., algorithmic bias) early. Gibson (2000) further finds that cross-departmental communication resolves conflicts between tech (innovation-focused) and compliance (risk-focused) teams, ensuring ethical alignment. This study hypothesizes that organizational communication (e.g., weekly ethics meetings) will strongly promote governance effectiveness by accelerating risk response and consensus-building.

H4: Cultural Change has a Significant Positive Impact on the Effectiveness of Ethical Governance

Denison (1990) identifies “adaptability” as a critical cultural dimension—firms that adjust their culture to technological changes (e.g.,

generative AI) are better at addressing emerging ethical risks. Von Schomberg (2013) adds that “responsible innovation” (a form of cultural change) drives firms to update ethical frameworks (e.g., AI ethics sandboxes). This study hypothesizes that cultural change (e.g., shifting from “efficiency-first” to “prudent innovation”) will positively impact governance effectiveness.

3.3 Methods

3.3.1 Research Philosophy

This study adopts a pragmatist research philosophy, which prioritizes “what works” to answer research questions rather than adhering to a single epistemological tradition (Creswell, 2018). Pragmatism is suitable for this research for two key reasons:

First, alignment with mixed methods, pragmatism supports integrating quantitative (surveys) and qualitative (interviews) methods, as it recognizes that no single method can capture the complexity of organizational culture's cross-level impact on Fintech ethical governance. For example, surveys quantify correlations between “organizational communication” and governance effectiveness, while interviews explain how communication resolves ethical conflicts.

Second, relevance to practice, Pragmatism emphasizes research utility, which aligns with the study's goal of providing actionable insights for Fintech firms. By focusing on real-world mechanisms (e.g., how “guanxi” influences compliance), pragmatism ensures the research connects theory to industry needs.

3.3.2 Sample Frame and Respondent Selection (Methodological Terminology)

Fintech firms operating in China, covering key sub-sectors (blockchain, robo-advisory, digital payments) and lifecycle stages (startups <5 years, mature firms >10 years). The frame was built via three channels: (1) industry associations (e.g., China Fintech Association), (2) corporate partnerships with the University of Stirling, and (3) online professional platforms (e.g., LinkedIn Fintech groups).

First, the frame was stratified by two criteria: (1) firm size (micro <50 employees, small 51-200, medium 201-500, large >500) and (2) business sector

(blockchain, robo-advisory, digital payments). Within each stratum, convenience sampling was used to select respondents—due to accessibility constraints (e.g., Fintech firms' reluctance to share internal data).

This method ensures coverage of diverse firm types but may introduce bias (e.g., overrepresentation of firms willing to collaborate). To mitigate this, the final sample included 34.72% micro firms, 29.98% small firms, and 8.54% large firms—mirroring China's Fintech industry structure (2024 China Fintech Development Report).

Senior executives (CEO, COO) and compliance officers (compliance director, legal manager) from the quantitative sample firms, ensuring alignment with the study's focus on “strategic” (executives) and “operational” (compliance officers) perspectives.

Purposive Sampling (Patton, 2015), with four selection criteria: (1) minimum 5 years of Fintech experience, (2) direct involvement in ethical governance, (3) coverage of startups and mature firms, and (4) representation of key sub-sectors. This method ensures respondents can provide in-depth insights into culture-governance links.

The sample included 10 executives and 10 compliance officers, balancing strategic and operational views. Saturation was reached after 18 interviews (no new themes emerged), with 2 additional interviews confirming completeness.

3.3.3 Clarification of Construct Origins in EFA (Linked to Questionnaire)

The exploratory factor analysis (EFA) for organizational culture and ethical governance effectiveness was based on previously validated scales and context-specific adaptations for Fintech. Below is the link between constructs, EFA factors, and questionnaire items (see Appendix I for full questionnaire):

1. Organizational Culture Constructs (EFA Extracted 4 Factors)		
Construct	EFA Factor Label	Corresponding Questionnaire Items (Appendix I, Section III)
Cultural	Factor 1: Value	III.1.1 “The values of our organization are clear

Construct	EFA Label	Factor	Corresponding Questionnaire Items (Appendix I, Section III)
Promotion	Transmission		and widely recognized”; III.1.2 “Our organizational culture emphasizes integrity, responsibility, and innovation”; III.1.3 “Our organization pays attention to fairness and transparency in decision-making”; III.1.4 “Our employees follow the company's code of conduct”
Organizational Structure	Structural Consistency	Factor 2:	III.2.1 “Our organizational structure encourages cross-departmental collaboration and innovation”; III.2.2 “Our organization has too many layers, affecting decision-making efficiency (reverse-coded)”; III.2.3 “Our organization encourages employees to learn and innovate”; III.2.4 “We have regular training to improve employees' ethical awareness”
Organizational Communication	Information Flow	Factor 3:	III.3.1 “Frequency of ethical discussions in teams”; III.3.2 “Clarity of ethical responsibilities in partner contracts”; III.3.3 “Timeliness of public information release after ethical incidents”
Cultural Change	Adaptive Capacity	Factor 4:	III.4.1 “The organization pays attention to changes in Fintech ethical issues”; III.4.2 “The organization has a cultural change plan for Fintech ethics”; III.4.3 “The organization implements new ethical requirements through training”; III.4.4 “Cultural change has improved ethical governance”

2. Ethical Governance Effectiveness Constructs (EFA Extracted 4 Factors)

Construct	EFA Label	Factor	Corresponding Questionnaire Items
Perfection of Ethical Framework	Institutional Completeness	1:	II.1.1 “The company has ethical norms covering data collection-algorithm design-product application”; II.1.2 “The company has ISO37301 certification or regulatory sandbox access”; II.1.3 “The ethics committee is independent”
		2:	II.2.1 “The company widely applies privacy computing ($\geq 60\%$ scenarios)”; II.2.2 “Products provide algorithm decision explanation functions”; II.2.3 “The company deploys real-time ethical risk monitoring systems”
Level of Technical Ethics Instrumentalization	Technical Compliance	3:	II.3.1 “Low customer information leakage rate ($\leq 0.5\%$)”; II.3.2 “Low unauthorized data use complaints ($\leq 5/10,000$ users)”; II.3.3 “High user satisfaction with data transparency”; II.3.4 “High NPS trust score”
Customer Protection Performance	Rights	4:	II.4.1 “High proportion of long-tail customer services ($\geq 40\%$)”; II.4.2 “Low financial exclusion complaints (≤ 5)”; II.4.3 “High ESG ethical governance score (≥ 80)”; II.4.4 “ ≥ 2 industry ethics awards in 3 years”
Social and Market Ethical Performance	Factor	Societal Impact	

3.3.4 Mixed Research Methods

The adoption of mixed research methods (quantitative surveys and qualitative interviews) is not merely a complementary choice but a methodological necessity to address the complexity of organizational cultures

influence on Fintech ethical governance. This necessity arises from the inherent limitations of single-method approaches in capturing the multi-level, dynamic, and context-dependent nature of the phenomenon under study:

Quantitative research excels at identifying statistical patterns and quantifying the strength of relationships between variables. Through large-scale surveys (527 respondents), it quantifies correlations between organizational culture dimensions (e.g., communication, cultural change) and ethical governance outcomes (e.g., customer rights protection, social ethical performance), and determines their significance (e.g., standardized path coefficients, p-values). This provides a broad, generalizable overview of “what” relationships exist and their relative impact--critical for validating hypotheses (e.g., whether organizational communication has the strongest predictive power for governance effectiveness). However, quantitative methods cannot explain why these relationships exist or how cultural factors operate in real-world contexts. They fail to capture nuanced dynamics such as how a “tech-first” subculture resists compliance norms or how leaders values trickle down to shape team behavior.

Qualitative research, by contrast, addresses these gaps through in-depth interviews (20 executives and compliance officers). It uncovers the causal mechanisms, contextual meanings, and dynamic processes that quantitative data cannot reveal. For example, interviews explain how open communication resolves ethical conflicts or why cultural change in startups lags behind technological innovation. Qualitative data adds “thickness” to statistical relationships, transforming abstract correlations into actionable insights.

By integrating both methods, this study achieves methodological triangulation, enhancing validity: quantitative findings establish the breadth of relationships, while qualitative insights deepen understanding of their depth. This dual approach is particularly critical for Fintech, where technological dynamism and cultural complexity demand both generalizable patterns and context-specific explanations.

To capture nuance in participants perceptions, a 7-point Likert scale was adopted for surveys--offering higher discriminatory power than a 5-point scale, which is critical for measuring complex constructs like “ethical framework perfection” or “cultural adaptability”. This combination of “quantitative breadth” and “qualitative depth”, supplemented by triangulation (validating statistical relationships with questionnaire data, explaining causal contexts with interview

data, and comparing official statements with practical behaviors), avoids disconnections between “declared culture” and “practical culture”, establishing a multi-dimensional verification system.

3.3.5 Ethical Considerations

This study strictly adhered to research ethics guidelines to protect participants and ensure data integrity. All survey respondents and interviewees provided written consent after being fully informed of the study's purpose, data usage, and their right to withdraw at any stage without penalty. Interviewees were explicitly briefed on the voluntary nature of participation and the confidentiality of their responses. All personal and organizational identifiers (e.g., names, company affiliations) were removed from raw data and transcripts. Interviewees were assigned codes (e.g., “Interviewee 01”) to protect their identity, and quantitative data was aggregated to prevent individual-level identification.

Survey data and interview transcripts were stored on password-protected servers with restricted access, and all data was destroyed after the study's completion in accordance with institutional data retention protocols.

These measures ensured participants' privacy was safeguarded, minimizing potential risks (e.g., reputational harm to individuals or firms) and aligning with ethical standards for social science research involving human subjects.

(1) Implementation Path and In-depth Analysis of Qualitative Research

Thematic Analysis is applied throughout the qualitative research process. Its purpose is to systematically extract and summarize core themes related to “the mechanism by which organizational culture influences ethical governance in financial technology” from interview data. The specific process is as follows:

(a) Research Preparation Phase: Defining Analytical Focus and Tool Design

The core goal of thematic analysis is to reveal the specific impact mechanism of organizational culture on compliance execution, focusing on key issues such as “core characteristics of organizational culture”, “interaction between organizational culture and ethical governance”, and “the role of cultural evolution in governance optimization”. 20 interviewees were selected (10 senior executives such as CEOs and COOs, and 10 compliance officers such as compliance directors and legal managers), covering both start-ups and mature enterprises, with business areas including blockchain and robo-advisory, to ensure the representativeness and industry coverage of the sample.

First, role specificity, senior executives (e.g., CEOs, COOs) were included for their insights into organizational culture shaping and strategic ethical governance, while compliance officers (e.g., compliance directors) were selected for their hands-on experience in implementing ethical norms and resolving compliance conflicts. This dual focus ensures coverage of both strategic and operational perspectives.

Second, enterprise diversity, the sample spans start-ups and mature enterprises to capture differences in ethical governance maturity, a key research dimension.

Third, industry relevance, interviewees from blockchain and robo-advisory sectors were included to reflect core Fintech domains, ensuring the findings are industry-specific and actionable.

While the thesis does not explicitly detail contact methods, it aligns with common qualitative research practices: likely through professional networks, industry partnerships, or direct outreach to Fintech firms, with initial screening to confirm roles and relevance. This approach ensures access to qualified participants.

The thesis emphasizes ethical research practices, noting that interviews were conducted “with participants written consent” (as referenced in methodological descriptions), indicating voluntary participation from all 20 interviewees. The balance of 10 senior executives and 10 compliance officers is justified by perspective parity, equal numbers ensure neither strategic (executives) nor operational (compliance officers) insights are overrepresented, enabling holistic analysis of culture-governance links.

In qualitative research, 10 participants per group is typically sufficient to reach thematic saturation capturing core patterns without redundancy. Fewer (e.g., 9) might miss nuanced differences, while more (e.g., 20) could introduce unnecessary complexity without adding depth. 20 total interviewees balance comprehensiveness with manageability, allowing in-depth analysis (e.g., detailed thematic coding) while maintaining research rigor. Thus, the selection is purposeful, systematic, and tailored to the thesis goals, ensuring both depth and breadth in exploring Fintech ethical governance.

(b) Sampling Strategy: Purposive Sampling

The qualitative research adopts a purposive sampling strategy to select interviewees, with clear criteria to ensure the representativeness and richness of

data. The study intentionally selected participants who could provide in-depth insights into the relationship between organizational culture and ethical governance in Fintech. This strategy prioritizes relevance over randomness, targeting individuals with direct experience or responsibility in shaping organizational culture, implementing ethical governance, or managing compliance.

To ensure the sample covers diverse perspectives and contexts, the following criteria were applied: 10 participants, including CEOs, COOs, and other top-level managers. They were selected for their strategic oversight of organizational culture and ethical governance, as they shape core values, set governance priorities, and make critical decisions on ethical dilemmas. 10 participants, such as compliance directors and legal managers. They were chosen for their hands-on experience in implementing ethical norms, resolving compliance conflicts, and monitoring day-to-day adherence to ethical standards.

All interviewees had at least 5 years of experience in the Fintech industry, ensuring they possessed sufficient knowledge of industry-specific ethical challenges (e.g., algorithmic fairness, data privacy) and practical insights into how organizational culture influences governance practices. The sample included both startups and mature enterprises to capture differences in ethical governance maturity. Startups typically face resource constraints and prioritize innovation, while mature firms often have more structured governance systems.

Interviewees came from Fintech companies operating in key domains such as blockchain, robo-advisory, and digital payments, ensuring coverage of core industry segments with distinct ethical risks. Company size and ownership: The sample included small, medium, and large firms, as well as both state-owned and private enterprises, to reflect diverse organizational structures and cultural contexts.

(2) Rationale for Representativeness and Richness

Focusing on senior executives and compliance officers with knowledge of the industry, the research aims to obtain a strategic and operational perspective on the organisational culture and ethical governance. The inclusion of companies at different levels of maturity and specialising in different areas of Fintech is intended to capture the challenges faced by companies (e.g. rapid innovation vs. regulatory compliance) and the cultural characteristics (e.g. agile vs. hierarchical cultures), which may affect the way culture influences ethical decision making.

(a) Design of Interview Outlines

Semi-structured interview outlines were designed based on research objectives. The outline for senior executives focuses on “core characteristics of organizational culture” and “practical connections between culture and ethical governance”; the outline for compliance officers focuses on “penetration of culture in compliance practices” and “cultural synergy and conflict management”, providing a clear direction for subsequent theme extraction.

A 30-minute semi-structured interview was conducted with each interviewee, recorded via professional recording equipment or Zoom (with written consent), and the recordings were transcribed into written texts on the same day. Finally, 20 interview materials were generated, serving as the original data for thematic analysis.

The written materials were initially sorted (such as naming and de-identification) to ensure data integrity and confidentiality, preparing for subsequent coding.

With the help of NVIVO software, themes were gradually extracted from the original texts following the three-level coding logic of “open coding → Axis coding → selective coding”, as follows: analyze the 20 interview texts sentence by sentence, extract concepts with research value (such as “compliance compromise due to innovation pressure” and “leadership demonstration effect”), and create “free nodes” for each concept. 143 concepts were refined, generating 467 reference points (i.e., specific positions where concepts appear in the texts), forming a preliminary concept library. Based on the paradigm model of “causal conditions - phenomena - action strategies”, classify and establish connections between the concepts obtained from open coding. For example, concepts such as “innovation pressure”, “compliance compromise”, and “leadership intervention” were integrated into the category of “compliance conflict response mechanisms”. 17 categories were formed, including “core cultural dimensions”, “ethical governance initiatives”, and “departmental handling differences”, clarifying the logical relationships between concepts.

Extract the most core categories that can cover the research objectives from the 17 categories to construct a thematic framework. Finally, 6 core categories were determined, namely: Definition and key characteristics of organizational culture; Practical connections between organizational culture and ethical governance; Cultural evolution and governance optimization; Cultural penetration

in compliance practices; Cultural synergy and conflict management; Improvement needs and directions.

(b) Theme Validation Phase: Ensuring the Validity of Themes

Compare the content of the same theme in different interview materials to verify the representativeness of the themes (such as whether the specific manifestations of “open communication” are consistent across different enterprises). Revise themes in combination with existing theories (such as cross-level theory and Hofstede's cultural dimension theory) to ensure the relevance of themes to the research purpose. When new interview materials no longer generate new themes, it is judged that the model has reached saturation, and data collection is stopped to ensure the completeness of the themes.

(c) Auxiliary Application of NVIVO Software

Import 20 interview texts into NVIVO, classify them according to attributes such as “interviewee type” and “enterprise nature”, to achieve orderly data management. Use the "node" function to record the results of open coding and Axis coding, track the occurrence frequency and location of each concept; use the "model function" to generate element relationship diagrams, intuitively display the interaction mechanism between themes (such as the path of "organizational culture → ethical governance initiatives → compliance effect"). Calculate the coding consistency coefficient of two researchers through the software (ensuring ≥ 0.8) to reduce subjective bias.

The thematic analysis method in this study systematically extracted core themes of how organizational culture influences ethical governance in financial technology from original interview data through the process of “three-level coding + software assistance + multiple rounds of verification”. It provides qualitative evidence for revealing cross-level interaction mechanisms, and is both scientific and practical.

(d) Ethical Considerations

This study strictly adhered to research ethics guidelines to protect participants and ensure the integrity of data. All survey respondents and interviewees provided written consent after being fully informed of the study's purpose, data usage, and their right to withdraw at any stage without penalty. Interviewees were also briefed on the voluntary nature of their participation and the confidentiality of their responses. Anonymization and confidentiality: All personal and organizational identifiers (e.g., names, company affiliations) were

removed from raw data and transcripts. Interviewees were assigned codes (e.g., “Interviewee 01”) to protect their identity, and quantitative data was aggregated to prevent individual-level identification.

Data security Survey data and interview transcripts were stored on password-protected servers with restricted access, and destroyed after the study's completion in accordance with data retention protocols. These measures ensured that participants' privacy was safeguarded, and potential risks (e.g., reputational harm to individuals or firms) were minimized, aligning with ethical standards for social science research involving human subjects.

(3) Scientific Design and Statistical Strategy of Quantitative Research

The design and implementation of the questionnaire survey were based on a mature methodological framework. Pre-surveying 150 practitioners was conducted for reliability and validity tests (Cronbach's $\alpha > 0.7$, items with loadings < 0.5 were removed). The formal survey distributed over 500 questionnaires through the Qualtrics platform (the inviters received links by working groups) covering executives, middle-level and grassroots employees, and departments such as technology and compliance. The platform automatically cleaned the data and exported it in SPSS format.

Statistical analysis adopted a multi-level strategy. Descriptive statistics analyzed the distribution of innovative/compliant cultures and the mean of ethical governance practices; multiple regression tested the hypothesized path of “organizational culture dimensions $\rightarrow$ ethical governance effects”; AMOS structural equation models verified the fit of the theoretical framework; and comparisons were made by grouping enterprises by size and years of establishment to examine the heterogeneity of the relationship between culture and ethical governance.

(4) Innovative Data Sources and Integration of Technical Tools V. Methodological Value and Theoretical Innovation

This study adopts a closed-loop design of “qualitative model construction through case analysis interviews $\rightarrow$ statistical validation of quantitative relationships through questionnaires $\rightarrow$ triangulation of multi-source data”, which not only avoids the “context blindness” of quantitative research but also compensates for the generalization limitations of single qualitative research. In particular, it combines the technical characteristics of the Fintech industry, such as algorithm ethics and data compliance, with organizational culture research.

Through a mixed-method approach, it reveals the dynamic balance mechanism between technological innovation and ethical governance, providing the industry with a decision-making framework that is both theoretically profound and practically applicable.

Chapter 4 Findings

4.1 Quantitative research

4.1.1 Preliminary research analysis report

4.1.1.1 Descriptive statistical analysis of individual topic attributes

According to the characteristics of demographic variables, including basic information such as gender, age, highest education and working years, the distribution of basic sample data is shown in Table 1.

Table 1: Basic information about population

essential information	option	frequency	percentage
sex	man	76	56.72%
	woman	58	43.28%
age	25 years and under	14	10.45%
	26-35 years old	47	35.07%
	36-45 years old	46	34.33%
	46 years and over	27	20.15%
highest education	High school and below	4	2.99%
	junior college	32	23.88%
	undergraduate course	56	41.79%
	Master Degree Candidate	37	27.61%
working life	Doctorate or above	5	3.73%
	Less than 1 year	53	39.55%
	1-3 years	27	20.15%
	Four to six years	23	17.16%
	Seven to 10 years	19	14.18%
	More than 10 years	12	8.96%
Job type	Technology development	35	26.12%
	risk management	35	26.12%
	marketing management	30	22.39%
	customer service	21	15.67%
	management layer	8	5.97%
	other	5	3.73%
scale	Under 50	49	36.57%
	51-200 people	42	31.34%
	201-500 people	34	25.37%
	501 or more	9	6.72%
Year of establishment	Under 5 years	41	30.60%
	Five to 10 years	41	30.60%
	11-20 years	30	22.39%
	More than 20 years	22	16.42%
Nature of the enterprise	state-owned enterprises	70	52.24%
	private company	64	47.76%
Where the business is located	NC	22	16.42%
	East China	15	11.19%
	south China	12	8.96%

	Central China	17	12.69%
	northwest	21	15.67%
	southwest	22	16.42%
	northeast	25	18.66%
Whether it will be included in the pilot	yes	89	66.42%
	deny	45	33.58%

As shown in Table 1, regarding personal related information and gender distribution: males account for 56.72%, females account for 43.28%. The proportion of males is slightly higher than that of females, but the gap is not significant, indicating a certain balance in the survey sample across genders, which can accommodate different gender perspectives to some extent. Age distribution: those aged 20-35 account for 35.07%, making it the most represented age group, followed by those aged 36-45 at 34.33%, those aged 25 and under at 10.45%, and those aged 46 and over at 20.15%. Overall, the sample is predominantly middle-aged and young adults, reflecting their active participation in relevant research fields and serving as the main force. Highest educational level distribution: bachelor's degree accounts for 41.79%, ranking first, followed by associate degree at 23.88%, and master's degree at 27.61%. This indicates a diverse range of educational backgrounds among the sample, suggesting they have a certain level of knowledge, which helps them better understand and respond to the questionnaire content. Work experience distribution: those with 1 year or less of work experience account for 39.55%, the highest proportion, indicating a significant number of participants with limited work experience. However, there is also a certain proportion of individuals with 1-10 years of work experience, providing a comprehensive representation of different levels of work experience. Job type distribution: risk management accounts for 26.12%, technology research and development accounts for 26.12%, and marketing accounts for 22%. 39%, these business-related positions account for a high proportion, which means that the survey can obtain information from different business functions, so that the results more comprehensively reflect the views of relevant issues in enterprise operations.

Enterprise-related information, scale: 51-200 employees account for 31.34%, those with fewer than 50 employees account for 36.57%, and small and medium-sized enterprises make up a significant portion. Enterprises of different sizes vary in operational models and resource allocation, enriching the diversity of

research samples. Establishment years: 5-10 years old enterprises account for 30.60%, and those established within 5 years account for 30.60%. The distribution of establishment years is relatively dispersed, indicating that enterprises at various stages of development are represented, which facilitates studying their performance at different growth stages. Nature: State-owned enterprises account for 52.24%, private enterprises account for 47.76%, with nearly equal proportions. Differences in management and culture between these two types of enterprises can provide material for comparative analysis. Regional distribution: covering multiple regions, including Northeast China at 18.66% and Southwest China at 16.42%, among others. The wide regional distribution highlights economic and cultural differences across regions, offering a multi-regional perspective for research. Whether included in pilot programs: 66.42% of enterprises have been included in pilot programs, suggesting that most enterprises have relevant pilot experiences, allowing for comparative analysis of differences between pilot and non-pilot enterprises on related issues.

The basic demographic information collected in this survey is widely distributed across various dimensions, covering different genders, ages, educational backgrounds, work experiences, positions, company characteristics, and regions. This makes the survey results highly representative, providing data support from multiple perspectives for research. It aids in a comprehensive and in-depth analysis of relevant issues, making the research conclusions more universally applicable and valuable for reference.

(1) Test of reliability and validity

Reliability and validity analysis are the first steps in questionnaire analysis and serve as one of the criteria for assessing whether a questionnaire is qualified. To enhance the quality of the survey and, consequently, the value of the entire study, reliability and validity analysis are not superfluous but essential components of the research process. Therefore, when conducting a questionnaire survey, the first step is to perform reliability and validity analysis to ensure the effectiveness and reliability of the questionnaire, which allows for the derivation of convincing analytical conclusions based on this questionnaire.

(a) Reliability analysis

Reliability refers to the consistency or stability of results obtained from a test tool, reflecting the degree of truthfulness of the measured characteristics. It is the consistency or stability of the test results, not the test itself or the questionnaire,

meaning that the data collected from the survey reflects the actual and true accuracy of the research subject. The higher the reliability of the questionnaire, the more reliable the results obtained from using the scale for investigation or testing. During the research process, SPSS25.0 software is used to test the reliability of the scale by combining Cronbachs α values with the corrected total score correlation coefficient (CITC) to ensure that the scale has good reliability and internal consistency. Generally, a test reliability coefficient Cronbachs α greater than 0.70 indicates that the measurement model has good reliability, and the larger the Cronbachs α value, the higher the internal consistency of the observed variables. The corrected total score correlation coefficient (CITC) can be used to measure the consistency between a measurement item and other items within the same construct (factor). When the corrected total score correlation coefficient (CITC) is greater than 0.5, it indicates a high degree of correlation between the measurement variable and other measurement variables within the same scale, suggesting that the measurement variable has good representativeness.

(b) Reliability statistics of organizational culture

Table 2: Reliability statistics of organizational culture

variable	metric	CITC	Cronbach α after deleting the item	Cron the subvariable Bach α	Overall Cronbach α
organization culture	XA1	0.824	0.836	0.884	0.88
	XA2	0.758	0.851		
	XA3	0.751	0.851		
	XA4	0.725	0.86		
organization structure	XB1	0.756	0.845	0.875	
	XB2	0.736	0.843		
	XB3	0.74	0.837		
	XB4	0.75	0.836		
organizational communication	XC1	0.719	0.795	0.843	
	XC2	0.692	0.802		
	XC3	0.751	0.75		
Cultural change	XD1	0.828	0.82	0.881	
	XD2	0.712	0.862		
	XD3	0.746	0.846		
	XD4	0.726	0.853		

After conducting reliability analysis on the research sample data, the results of the reliability test are shown in the table above. The Cronbachs α values are all greater than 0.7, and the CITC is consistently above the 0.5 standard. After

deletion, the Cronbachs α values of the variables do not exceed their original Cronbachs α values, indicating good internal consistency among the variables. The measurement model has good reliability, a reasonable design, and reliable survey data that can accurately reflect the true characteristics of the subjects. All items can be retained for further data analysis.

(2) Reliability statistics of ethical governance effects

Table 3: Reliability statistics of ethical governance effects

variable	metric	CITC	Cronbach α after deleting the item	Cron the subvariable Bach α	Overall Cronbach α
The perfection of the ethical framework	YA1	0.712	0.816	0.844	0.836
	YA2	0.738	0.765		
	YA3	0.731	0.777		
The level of instrumentalization of technical ethics	YB1	0.725	0.753	0.83	
	YB2	0.721	0.74		
	YB3	0.664	0.796		
Customer rights protection performance	YC1	0.762	0.865	0.885	
	YC2	0.757	0.851		
	YC3	0.792	0.84		
	YC4	0.748	0.855		
Social and market ethical performance	YD1	0.791	0.86	0.891	
	YD2	0.751	0.866		
	YD3	0.782	0.854		
	YD4	0.765	0.859		

After conducting reliability analysis on the research sample data, the results of the reliability test are shown in the table above. The Cronbachs α values are all greater than 0.7, and the CITC is consistently above the 0.5 standard. After deletion, the Cronbachs α values for all variables remain no more than their original Cronbachs α values, indicating good internal consistency among the variables. The measurement model has good reliability, and the design is reasonable. The survey data is reliable and can accurately reflect the true characteristics of the subjects. All items can be retained for further data analysis.

EFA was employed during the pre-test to explore the underlying construct structure of the scales for organizational culture and ethical governance

effectiveness. It aimed to identify latent factors by examining the interrelationships among items. For instance, in the pre-test, EFA extracted 4 factors for organizational culture (cultural promotion, organizational structure, organizational communication, cultural change) and 4 factors for ethical governance effectiveness (perfection of the ethical framework, level of instrumentalization of technical ethics, customer rights protection performance, social and market ethical performance). This process helped refine the scale by ensuring items loaded appropriately on their respective factors, with communalities > 0.4 and cumulative variance explained $> 60\%$, confirming the scales structural validity at the exploratory stage.

(a) Validity analysis

Validity (Validity) refers to the accuracy of an evaluation system in reflecting its intended purpose and requirements. The method commonly used for assessing the validity of survey questionnaires is structural validity analysis. Structural validity measures the degree to which the structure reflected by the measurement results corresponds to the values measured. The method employed in structural validity analysis is exploratory factor analysis. In factor analysis, the primary indicators are KMO and Bartlett's test of sphericity; if KMO is greater than 0.6 and Bartlett's test of sphericity is significant at 0.000, the validity is considered excellent. However, for most survey research, a cumulative variance contribution rate of over 80% indicates good validity, although a rate of 60% is generally sufficient.

(b) Validity test of organizational culture

Table 4: KMO and Bartlett Test

KMO sample adequacy index		0.852
Bartlett sphericity test	Approximate chi-square	1183.039
	free degree	105
	conspicuousness	0.000

From Table 4, it can be seen that the KMO test value of the survey data is $0.852 > 0.6$, indicating that this questionnaire is suitable for factor analysis. The Bartlett's chi-square test results show an approximate chi-square value of 1183.039, which is relatively large, with a significance probability of 0.000 ($P < 0.01$). Therefore, the null hypothesis of the Bartlett's chi-square test is rejected,

suggesting that the validity structure of the scale is good and it is suitable for factor analysis.

Table 5: Communality

	initial	draw
XA1	1.000	0.834
XA2	1.000	0.740
XA3	1.000	0.758
XA4	1.000	0.701
XB1	1.000	0.760
XB2	1.000	0.727
XB3	1.000	0.772
XB4	1.000	0.744
XC1	1.000	0.774
XC2	1.000	0.739
XC3	1.000	0.802
XD1	1.000	0.823
XD2	1.000	0.725
XD3	1.000	0.757
XD4	1.000	0.721

Extraction method: principal component analysis.

As shown in Table 5, in SPSS factor analysis, communality is also known as common factor variance, which indicates the proportion of variance that each original variable can be explained by the extracted common factor. The value range of communality is between 0 and 1. If a variable's communality is close to 1, it suggests that most of its variance can be explained by the common factor, indicating a strong association between the variable and the extracted common factor. All indicators in the table have a communality greater than 0.4, indicating that at least 40% of the variance for each indicator can be explained by the common factor, suggesting a certain degree of association between the indicators and the common factor. These variables can be retained in the analysis for further examination and interpretation.

Table 6: General variance interpretation

ingredient	Initial eigenvalues			Extract the squared load			Square sum of repeated loads		
	amount to	variance percent age	accumulate%	amount to	variance percent age	accumulate%	amount to	variance percent age	accumulate%
1	5.795	38.632	38.632	5.795	38.632	38.632	3.072	20.478	20.478
2	2.33	15.567	54.199	2.33	15.567	54.199	3.02	20.196	40.674

	5			5			9		
3	1.92	12.804	67.003	1.92	12.804	67.003	2.91	19.451	60.126
	1			1			8		
4	1.32	8.844	75.847	1.32	8.844	75.847	2.35	15.722	75.847
	7			7			8		
5	0.49	3.325	79.172						
	9								
6	0.47	3.189	82.361						
	8								
7	0.44	2.980	85.341						
	7								
8	0.39	2.653	87.994						
	8								
9	0.34	2.313	90.307						
	7								
10	0.32	2.138	92.446						
	1								
11	0.26	1.788	94.234						
	8								
12	0.26	1.744	95.977						
	2								
13	0.23	1.554	97.531						
	3								
14	0.19	1.281	98.812						
	2								
15	0.17	1.188	100.000						
	8								

Extraction method: principal component analysis.

In this factor analysis, a total of 4 factors were extracted, and the 15 indicators explained 75.847% of the total variance of the original variables. Generally speaking, the information loss of the selected 15 indicators was less, and the factor analysis effect was ideal, so the 4 factors were considered to be extracted.

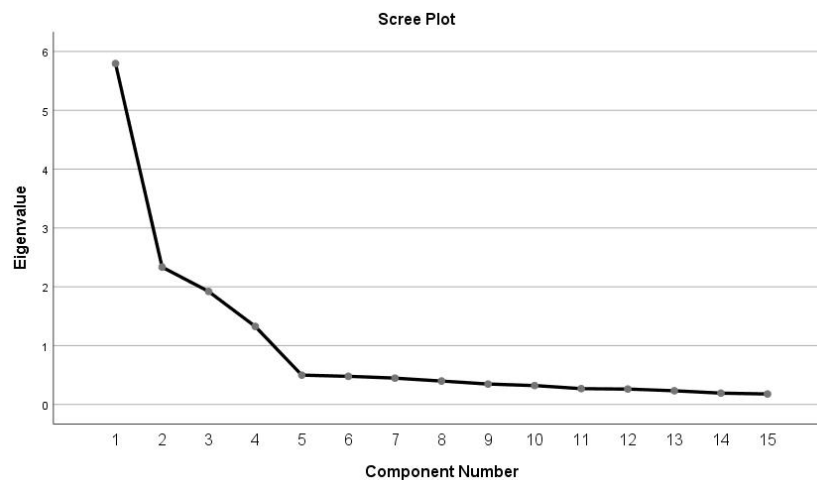


Figure 1: Scree Plot

From the factor analysis fragmentation diagram, the first factor has the largest contribution rate of explanation, and the fifth factor tends to be stable and

has a small eigenvalue and a small contribution rate of explanation. It is judged that four common factors should be extracted, which is consistent with the judgment of the above total variance table where the eigenvalue is greater than 1.

Table 7: The rotated component matrix a

	ingredient			
	1	2	3	4
XA1	0.881	0.112	0.198	0.085
XA2	0.802	0.099	0.259	0.141
XA3	0.854	0.036	0.152	0.060
XA4	0.778	0.114	0.283	0.062
XB1	0.199	0.183	0.823	0.097
XB2	0.231	0.238	0.760	0.198
XB3	0.317	0.015	0.812	0.109
XB4	0.211	0.232	0.796	0.107
XC1	0.075	0.100	0.134	0.861
XC2	0.093	0.107	0.135	0.837
XC3	0.103	0.053	0.101	0.882
XD1	0.095	0.875	0.189	0.109
XD2	0.075	0.844	0.054	0.061
XD3	-0.027	0.831	0.255	0.019
XD4	0.200	0.809	0.103	0.128

Extraction method: principal component analysis.

Rotation method: Caesarean normalization maximum variance method.

A. Rotation has converged after 5 iterations.

As shown in Table 7, exploratory factor analysis extracted four common factors, indicating that these four factors can effectively explain the 15 items of the questionnaire, achieving dimensionality reduction; the factor loadings for all 15 items are greater than 0.50 and there is no multicollinearity, suggesting a good correspondence between items and dimensions. This means that the four factors extracted after rotation align with the expected factor divisions, thus the structural validity of this questionnaire is ideal.

(c) Validity test of ethical governance effect

Table 8: KMO and Barlett Test

KMO sample adequacy measures		0.821
Bartlett sphericity test	Approximate chi-square	1042.274
	free degree	91
	conspicuousness	0.000

From Table 8, the KMO test value of the survey data is $0.821 > 0.6$, indicating that this questionnaire is suitable for factor analysis. The Bartlett's

chi-square test results show an approximate chi-square value of 1042.274, which is relatively large, with a significance probability of 0.000 ($P < 0.01$). The author reject the null hypothesis of Bartlett's chi-square test, concluding that the validity structure of the scale is good and it is suitable for factor analysis.

Table 9: Communality

	initial	draw
YA1	1.000	0.762
YA2	1.000	0.807
YA3	1.000	0.775
YB1	1.000	0.803
YB2	1.000	0.765
YB3	1.000	0.741
YC1	1.000	0.755
YC2	1.000	0.757
YC3	1.000	0.786
YC4	1.000	0.747
YD1	1.000	0.796
YD2	1.000	0.755
YD3	1.000	0.796
YD4	1.000	0.747

Extraction method: principal component analysis.

As shown in Table 9, communality is also known as common factor variance, which indicates the proportion of variance that each original variable can be explained by the extracted common factors. The value range of communality is between 0 and 1. If a variable's communality is close to 1, it suggests that most of its variance can be explained by the common factor, indicating a strong association between this variable and the extracted common factor. All indicators in the table have a communality greater than 0.4, indicating that at least 40% of the variance for each indicator can be explained by the common factor, suggesting a certain degree of association between the indicators and the common factor.

Table 10: General variance interpretation

ingredient	Initial eigenvalues			Extract the squared load			Square sum of repeated loads		
	amount to	variance percentage	accumulate%	amount to	variance percentage	accumulate%	amount to	variance percentage	accumulate%
1	4.564	32.597	32.597	4.564	32.597	32.597	3.101	22.149	22.149
2	2.570	18.358	50.955	2.570	18.358	50.955	3.060	21.859	44.008
3	2.473	17.664	68.619	2.473	17.664	68.619	2.356	16.829	60.837
4	1.187	8.477	77.096	1.187	8.477	77.096	2.276	16.259	77.096

5	0.452	3.228	80.324
6	0.425	3.035	83.359
7	0.375	2.676	86.035
8	0.361	2.578	88.613
9	0.337	2.404	91.017
10	0.312	2.228	93.245
11	0.281	2.008	95.252
12	0.256	1.832	97.084
13	0.207	1.477	98.562
14	0.201	1.438	100.000

Extraction method: principal component analysis.

In this factor analysis, a total of 4 factors were extracted, and the 14 indicators explained 77.096% of the total variance of the original variables. Generally speaking, the information loss of the selected 14 indicators was less, and the effect of factor analysis was ideal, so these 4 factors were considered to be extracted. From the factor analysis fragmentation diagram, the first factor has the largest contribution rate of explanation, and the fifth factor tends to be stable and has a small eigenvalue and a small contribution rate of explanation. It is judged that four common factors should be extracted, which is consistent with the judgment of the above total variance table where the eigenvalue is greater than 1.

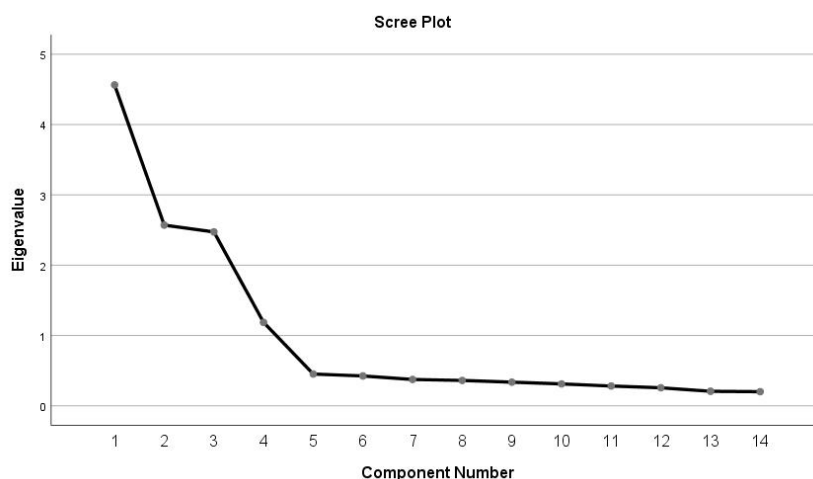


Figure 2: Scree Plot

Table 11: The rotated component matrix a

	ingredient			
	1	2	3	4
YA1	0.196	0.089	0.832	0.155

YA2	0.040	0.071	0.866	0.223
YA3	0.166	0.050	0.829	0.239
YB1	0.151	0.032	0.169	0.866
YB2	0.009	0.086	0.294	0.819
YB3	-0.079	0.132	0.150	0.833
YC1	0.084	0.860	0.055	0.077
YC2	0.061	0.858	0.038	0.126
YC3	0.099	0.873	0.111	0.030
YC4	0.117	0.855	0.027	0.041
YD1	0.872	0.005	0.188	0.027
YD2	0.836	0.174	0.159	-0.012
YD3	0.886	0.092	-0.010	0.046
YD4	0.851	0.106	0.101	0.030

Extraction method: principal component analysis.

Rotation method: Caesarean normalization maximum variance method.

A. Rotation has converged after 5 iterations.

As shown in Table 11: exploratory factor analysis extracted four common factors, indicating that these four factors can effectively explain the 14 items of the questionnaire, achieving dimensionality reduction; all 14 items have factor loadings greater than 0.50 and no multiple loading, suggesting a good correspondence between items and dimensions. This means that the four factors extracted after rotation align with the expected factor divisions, thus the structural validity of this questionnaire is ideal.

4.1.1.2 Preliminary research conclusions

Reliability analysis is used to test the stability and reliability of measurement results from scales, commonly measured using the Cronbachs α coefficient. In this study, the four sub-variables under the Organizational Culture Scale--cultural promotion, organizational structure, organizational communication, and cultural change--and the four sub-variables under the Ethical Governance Effect Scale--ethical framework completeness, technical ethical tooling level, customer rights protection performance, and social and market ethical performance, all showed satisfactory reliability analysis results. This indicates that each sub-variable has high internal consistency among its measurement items, meaning that different items can consistently measure the corresponding sub-variable without conflicting or being unstable. For example, in the Organizational Culture Scale, the various items related to cultural promotion stably reflect the characteristics of this variable, indicating that data collected through these items is reliable and truly reflects the respondents perceptions and experiences regarding cultural promotion. Overall, both scales have good reliability, providing a solid

foundation for data quality for subsequent research.

Exploratory factor analysis aims to uncover potential factor structures among variables, simplifying data dimensions. A satisfactory result from exploratory factor analysis of two scales indicates the successful extraction of factor structures consistent with theoretical assumptions. For the organizational culture scale, it clearly categorizes four sub-variables-cultural promotion, organizational structure, organizational communication, and cultural change-into the dimension of organizational culture, indicating that these sub-variables are essentially interrelated and collectively reflect the core concept of organizational culture. Similarly, the four sub-variables in the ethical governance effectiveness scale can reasonably aggregate under the dimension of ethical governance effectiveness. This not only validates the rationality of the theoretical framework in the scale design but also demonstrates that the scale can effectively measure the two core concepts of organizational culture and ethical governance effectiveness, with item settings accurately capturing information relevant to each dimension.

The reliability analysis and exploratory factor analysis of the two scales for organizational culture and ethical governance effectiveness in this pre-research questionnaire were both satisfactory. The successful reliability analysis ensures the stability and reliability of the scale measurements, while the successful exploratory factor analysis verifies the rationality and validity of the scale structure. This indicates that these two scales can be used for formal research, and the data collected can effectively reflect the true situation of organizational culture and ethical governance effectiveness as well as their respective sub-variables. It provides a scientific and reliable measurement tool for further in-depth studies on issues such as the impact of organizational culture on ethical governance effectiveness. Research and analysis based on this will have high credibility and persuasiveness.

4.1.2 Formal research and analysis report

4.1.2.1 Descriptive statistical analysis of individual topic attributes

According to the characteristics of demographic variables, including basic information such as gender, age, highest education and working years, the distribution of basic sample data is shown in Table 12.

Table 12: Basic information about respondents

variable	option	frequency	percentage
sex	man	269	51.04%
	woman	258	48.96%
age	25 years and under	91	17.27%
	26-35 years old	179	33.97%
	36-45 years old	169	32.07%
	46 years and over	88	16.70%
highest education	High school and below	15	2.85%
	junior college	102	19.35%
	undergraduate course	257	48.77%
	Master Degree Candidate	131	24.86%
	Doctorate or above	22	4.17%
working life	Less than 1 year	167	31.69%
	1-3 years	127	24.10%
	Four to six years	103	19.54%
	Seven to 10 years	85	16.13%
	More than 10 years	45	8.54%
Job type	Technology development	104	19.73%
	risk management	129	24.48%
	marketing management	134	25.43%
	customer service	123	23.34%
	management layer	20	3.80%
scale	other	17	3.23%
	Under 50	183	34.72%
	51-200 people	158	29.98%
	201-500 people	141	26.76%
Year of establishment	501 or more	45	8.54%
	Under 5 years	158	29.98%
	Five to 10 years	151	28.65%
	11-20 years	141	26.76%
Nature of the enterprise	More than 20 years	77	14.61%
	state-owned enterprises	232	44.02%
	private company	295	55.98%
Where the business is located	NC	76	14.42%
	East China	92	17.46%
	south China	54	10.25%
	Central China	67	12.71%
	northwest	72	13.66%
	southwest	93	17.65%
Whether it will be included in the pilot	northeast	73	13.85%
	yes	351	66.60%
	deny	176	33.40%

As shown in Table 12, regarding personal related circumstances, gender distribution: males account for 51.04%, females account for 48.96%, indicating a

relatively balanced gender ratio. A high proportion of individuals in the sample have 1-6 years of work experience, which indicates that the research results will be particularly helpful for understanding the perspectives of professionals in the early to middle stages of their careers--who are typically the frontline forces implementing ethical policies in Fintech companies. This suggests that the survey has broad coverage at the gender level, to some extent avoiding biases caused by gender imbalance. Age distribution: those aged 25 and under account for 17.27%, those aged 26-35 account for 33.97%, those aged 36-45 account for 32.07%, and those aged 46 and over account for 6.70%. Overall, the distribution is predominantly middle-aged and young adults. The combined proportion of those aged 26-45 is nearly two-thirds, indicating that this group forms the majority among the subjects of the study, possibly due to their higher stage of career development and greater engagement with Fintech. Highest educational level distribution: bachelor's degree accounts for 48.77%, associate's degree for 19.35%, and master's degree for 24.86%, with these three categories making up a significant portion. This reflects that the overall educational level of the survey subjects is relatively high, possessing a certain knowledge base and learning ability, which is beneficial for understanding and responding to questions related to Fintech ethics governance. Work experience distribution: those with 1-6 years of work experience account for a combined total of 66.13%, representing the primary work experience range. This indicates that most survey subjects have some accumulation in their work experience but are not deeply experienced, and their experience may provide valuable reference for studying general issues related to Fintech ethics governance. Job type distribution: marketing (25.43%), risk control (24.48%), technology research and development (19.73%) accounted for a high proportion. These positions are in a key position in Fintech companies and can provide insights into ethical governance from different business perspectives, making the survey results more comprehensive.

In terms of company characteristics, the majority of companies of those that responded have between 51 to 200 employees (29.96%) and fewer than 50 employees (27.72%), indicating that most of the sample consists of small and medium-sized enterprises. Their practices and perceptions of Fintech ethics governance may differ from those of large enterprises, enriching the research dimensions. In terms of establishment years, companies with 5 to 10 years (28.65%) and 10 to 20 years (26.76%) account for more than half, suggesting that

the surveyed companies have a certain development history and may have accumulated and explored in ethical governance. Regarding nature, private enterprises account for 55.98%, while state-owned enterprises account for 44.02%. Both types of companies are involved, and differences in management models and culture among different types of companies facilitate comparative analysis on the impact of Fintech ethics governance. The survey covers multiple regions, with East China (17.46%) and Southwest China (17.65%) having relatively prominent shares, reflecting the broad geographical scope of the survey. Differences in economic and technological development levels across regions may lead to varying performances in Fintech ethics governance. Whether included in pilot programs: 66.40% of companies were not included, while 33.60% were included. Companies in different pilot status may vary in their emphasis on and methods of practicing ethics governance, providing comparative material for research.

The basic demographic information of the questionnaire is relatively widely and reasonably distributed in each dimension, which can better represent different characteristic groups. This provides a multi-perspective and solid foundation for in-depth analysis of the cognition, attitude and practice of various groups on Fintech ethics governance, which is conducive to more universal and reference value of research results.

4.1.2.2 Test of reliability and validity

Reliability and validity analysis are the first steps in questionnaire analysis and serve as one of the criteria for assessing whether a questionnaire is qualified. To enhance the quality of the survey and, consequently, the value of the entire study, reliability and validity analysis are not superfluous but essential components of the research process. Therefore, when conducting a survey, the first step is to perform reliability and validity analysis to ensure the effectiveness and reliability of the questionnaire, which allows for the derivation of convincing analytical conclusions based on this questionnaire.

(1) Reliability analysis

Reliability refers to the stability and consistency of survey results when the same method is used to investigate the same subject. Currently, the most commonly used reliability test is the Cronbachs α coefficient from internal consistency, which was established by Lee Cronbach in 1951. It is the most frequently used reliability analysis method in social science research today. The

Cronbachs α measures the consistency or stability of the test results, not the test itself or the questionnaire. In other words, the data collected through the questionnaire reflects the actual and true accuracy of the research subject. The higher the reliability of the questionnaire, the more reliable the results obtained from using the scale for investigation or testing. Generally, a questionnaire with an Cronbachs α above 0.7 has practical value, and an Cronbachs α above 0.8 indicates good reliability.

Results of Reliability Analysis: In the formal study, the Cronbachs α coefficients for all dimensions of organizational culture and ethical governance effectiveness were significantly higher than the 0.7 standard (see Tables 13 and 14), indicating good internal consistency of the scales.

Dimensions of organizational culture: Cultural Promotion (0.874), Organizational Structure (0.875), Organizational Communication (0.848), and Cultural Change (0.878).

Dimensions of ethical governance effectiveness: Perfection of the Ethical Framework (0.874), Level of Instrumentalization of Technical Ethics (0.899), Customer Rights Protection Performance (0.892), and Social and Market Ethical Performance (0.889).

The high quality of reliability coefficients indirectly indicates that the correlations between items are strong, meeting the potential standard of Corrected Item-Total Correlation (CITC) > 0.5 .

Results of Confirmatory Factor Analysis: The formal study further tested the structural validity of the scales through confirmatory factor analysis:

Convergent Validity: The standardized factor loadings of all indicators were > 0.5 (see Tables 16 and 19), the Average Variance Extracted (AVE) was > 0.5 , and the Composite Reliability (CR) was > 0.7 , indicating good correlations between each item and its corresponding construct.

Discriminant Validity: The square root of the AVE for each variable was greater than its correlation coefficient with other variables (see Table 17), indicating that there was no cross-loading issue between items, further confirming the compatibility of items and constructs.

In summary, although the formal study did not directly list the CITC values, the results of reliability and validity analyses all indicate that all measurement items meet the research standards.

(a) Reliability statistics of organizational culture

Table 13: Reliability statistics of organizational culture

variable	Cronbach α	number of terms
culture propaganda	0.874	4
organization structure	0.875	4
organizational communication	0.848	3
Cultural change	0.878	4
organization culture	0.864	15

As shown in Table 13, the organizational culture variables: “cultural promotion” has a Cronbachs α coefficient of 0.874, “organizational structure” is 0.875, “organizational communication” is 0.848, and “cultural change” is 0.878, all significantly higher than 0.7. This fully demonstrates that the four sub-variables under organizational culture have extremely high internal consistency among their corresponding measurement items, indicating that when these items are used to measure each sub-variable, the results are stable and reliable, effectively reflecting the true situation related to organizational culture. Additionally, the overall Cronbach's α coefficient for organizational culture is 0.864, which is also at an excellent level, suggesting that the reliability of the entire organizational culture scale is trustworthy.

(b) Reliability statistics of ethical governance effects

Table 14: Reliability statistics of ethical governance effects

variable	Cronbach α	number of terms
The perfection of the ethical framework	0.874	3
The level of instrumentalization of technical ethics	0.899	3
Customer rights protection performance	0.892	4
Social and market ethical performance	0.889	4
Effect of ethical governance	0.924	14

As shown in Table 14, the Cronbachs α coefficients for the variables of ethical governance effectiveness are as follows: “Ethical Framework Perfection” is 0.874, “Technological Ethical Instrumentation Levelc” is 0.899, “Customer Rights Protection Performance” is 0.892, and “Social and Market Ethical Performance” is 0.899, all significantly higher than 0.7. This indicates that the

sub-variables measuring ethical governance effectiveness have strong consistency and stable measurement results. The overall Cronbachs α coefficient for ethical governance effectiveness is as high as 0.924, demonstrating excellent reliability of the scale, making the collected data highly effective for subsequent analysis.

This reliability analysis shows that the reliability of both organizational culture and ethical governance effectiveness, as well as their respective sub-variables, is at an excellent level. This provides a solid data foundation for further in-depth research into the relationship between organizational culture and ethical governance effectiveness. Research and analysis based on this have high credibility and persuasiveness, capable of accurately revealing the intrinsic connections between variables.

CFA was applied to the final dataset to validate whether the observed data fit the pre-specified theoretical model derived from EFA and prior literature. It tested the hypothesis that the items correspond to the hypothesized factors (e.g., organizational culture dimensions and ethical governance effectiveness dimensions). CFA assessed the fit of the model through various indices, ensuring the factors and their interrelationships align with theoretical expectations.

(2) Validity analysis

Validity refers to the accuracy of an evaluation system in reflecting its intended purpose and requirements. The method commonly used for assessing the validity of survey questionnaires is structural validity analysis. Structural validity measures the degree to which the structure reflected by the measurement results corresponds to the measured values. The method employed in structural validity analysis is confirmatory factor analysis, which primarily evaluates whether the relationships between indicators and factors in the questionnaire are correct and whether there are any incorrect attributions to unrelated factors to determine model validity. Using AMOS, we constructed a model for pairwise correlations among variables in this study, performed confirmatory factor analysis on each variable, and the completed model is shown in the figure below. The output results indicate that there is a clear correlation between the variables.

(a) Factor analysis of validation factors of organizational culture variables

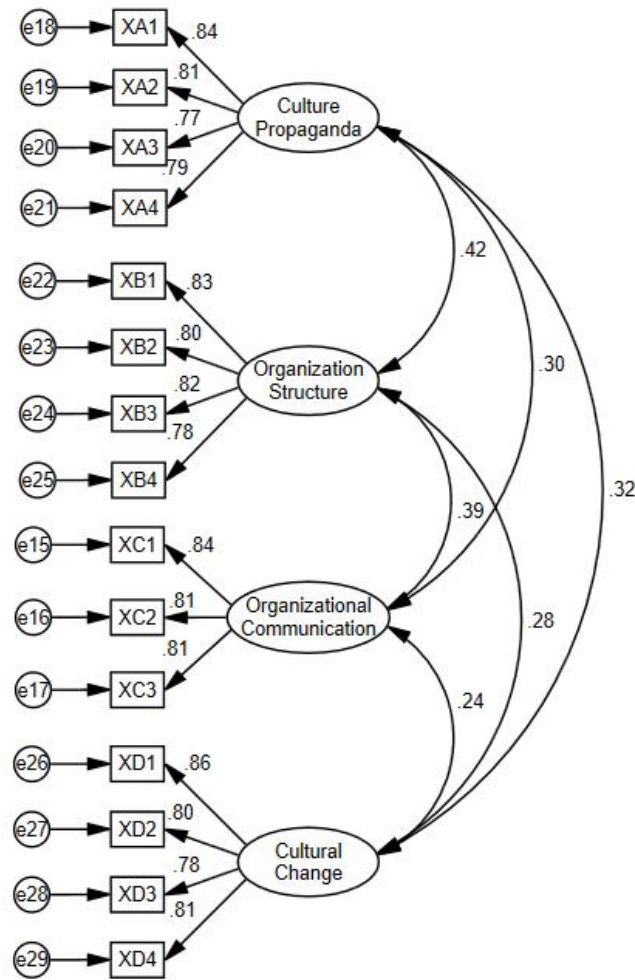


Figure 3: Confirmatory factor analysis model

(b) Adaptation fitting results

In this study, the fitting of the initial research model was first tested. The test results showed that the fitting degree of the model was good, indicating that the fitting degree of the structural model was acceptable.

Table 15: Validation factor analysis is used to adapt the fitting results

	X ²	Df	X ² /Df	RMSEA	IFI	TLI	CFI
Adaptation results	96.028	84	1.143	0.016	0.997	0.996	0.997
Adaptation criteria	-	-	<5	<0.08	>0.9	>0.9	>0.9

(c) Aggregative validity

When using confirmatory factor analysis to verify convergent validity, three

criteria are typically applied: first, standardized factor loadings must be greater than 0.5 and reach a significant level; second, composite reliability (CR) must exceed 0.7, which is the construct reliability, primarily reflecting the reliability of latent variables; third, average variance explained (AVE) must be greater than 0.5, which is the variance explained by latent variables due to measurement error when interpreting their items. Organizing the AMOS output can provide statistical results for factor loadings. According to the table below, the average variance explained (AVE) for all indicators is greater than 0.5, indicating that each indicator has good representativeness of its corresponding latent variable. The composite reliability (CR) for all variables is also greater than 0.7, suggesting that the convergent validity of this study is acceptable.

Table 16: Aggregated validity analysis results

variable	metric	Non-standardized factor loadings	S.E.	C.R.	P	Standardized factor loadings	CR	AVE
organization culture	XA1	1				0.841	0.88	0.648
	XA2	0.729	0.035	20.914	***	0.812		
	XA3	0.691	0.035	19.596	***	0.771		
	XA4	0.698	0.034	20.367	***	0.795		
organization structure	XB1	1				0.833	0.882	0.651
	XB2	0.707	0.035	20.326	***	0.798		
	XB3	0.752	0.036	20.988	***	0.819		
	XB4	0.683	0.035	19.626	***	0.776		
organizational communication	XC1	1				0.843	0.859	0.67
	XC2	0.703	0.036	19.394	***	0.807		
	XC3	0.719	0.037	19.355	***	0.805		
Cultural change	XD1	1				0.855	0.885	0.658
	XD2	0.681	0.032	21.127	***	0.801		
	XD3	0.67	0.033	20.347	***	0.779		
	XD4	0.706	0.033	21.347	***	0.808		

(c) Distinguish validity

Discriminant validity refers to the ability to distinguish observed values when different indicators measure different variables. Discriminant validity can be assessed by comparing the correlation coefficients between variables with the square root of their average variance extracted (AVE). The standard is that if the square root of the average variance extracted (AVE) for a variable is greater than

its correlation coefficient with other variables, it can be considered to have good discriminant validity.

According to the correlation coefficient matrix output by AMOS analysis of this study, the discriminant validity is acceptable as shown in the following table, and the next step can be carried out.

Table 17: Discrimination Validity

	organization culture	organization structure	organizational communication	Cultural change
organization culture	0.805			
organization structure	0.418	0.807		
organizational communication	0.298	0.391	0.819	
Cultural change	0.323	0.278	0.244	0.811

Note: Bold font is AVE square root

(3) Factor analysis to verify the effect variables of ethical governance

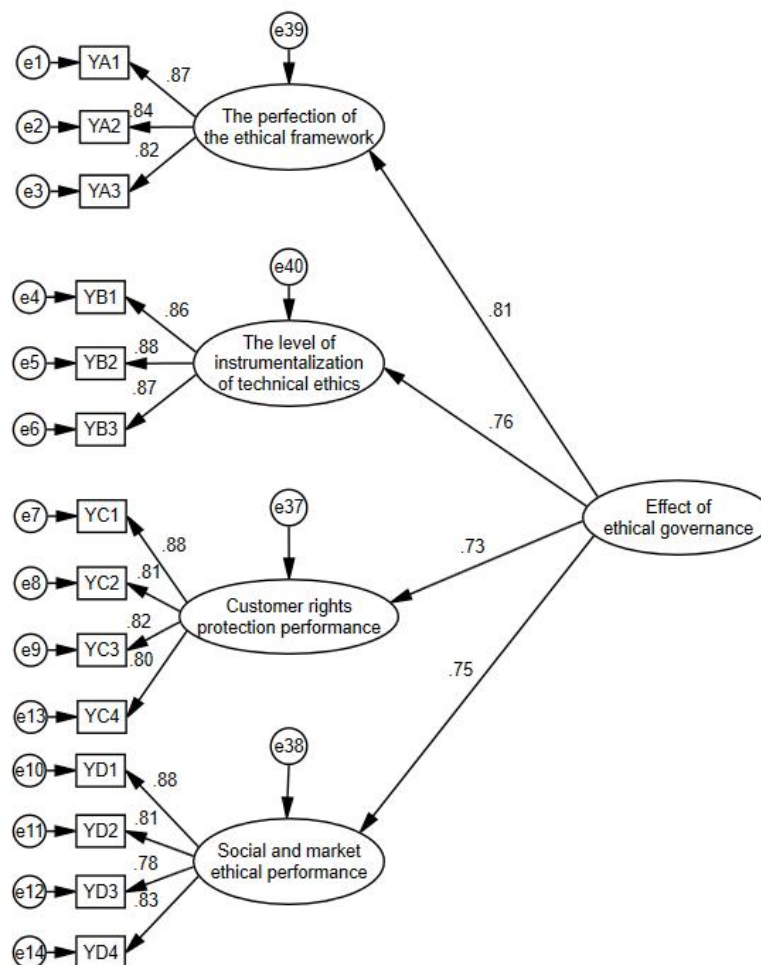


Figure 4: Confirmatory factor analysis model

(a) Adaptation fitting results

In this study, the fitting of the initial research model was first tested. The test results showed that the fitting degree of the model was good, indicating that the fitting degree of the structural model was acceptable.

Table 18: Validation factor analysis is used to adapt the fitting results

	X ²	Df	X ² /Df	RMSEA	IFI	TLI	CFI
Adaptation results	108.594	73	1.488	0.030	0.993	0.991	0.993
Adaptation criteria	-	-	<5	<0.08	>0.9	>0.9	>0.9

(b) Aggregative validity

When using confirmatory factor analysis to verify convergent validity, three criteria are typically applied: first, standardized factor loadings must be greater than 0.5 and reach a significant level; second, composite reliability (CR) must exceed 0.7, which is the construct reliability and primarily reflects the reliability of latent variables; third, average variance explained (AVE) must be greater than 0.5. The average variance explained is the variance that latent variables would explain when measured due to measurement error. Organizing the AMOS output can provide statistical results for factor loadings. According to the table below, the factor fit for all indicators is greater than 0.5, indicating that each indicator has good representativeness of its corresponding latent variable. The average variance explained (AVE) for all variables is greater than 0.5, and the composite reliability (CR) is greater than 0.7, suggesting that the convergent validity of this study is acceptable.

Table 19: Aggregated validity analysis results

variable	metric	Non-standardized factor loadings	S.E.	C.R.	P	Standardized factor loadings	CR	AVE
Effect of ethical governance	The completeness of the ethical framework	1				0.809	0.847	0.581
	The level of instrumentalization of technical ethics	0.923	0.07	13.24	***	0.761		
	Customer rights	0.883	0.068	12.979	***	0.729		

	protection performance Social and market ethical performance	0.924	0.07	13.222	***	0.749		
The perfection of the ethical framework	YA1	1				0.874	0.883	0.71 6
	YA2	0.748	0.032	23.423	***	0.842		
	YA3	0.704	0.031	22.647	***	0.821		
The level of instrumentali zation of technical ethics	YB1	1				0.863	0.906	0.76 2
	YB2	0.819	0.032	25.91	***	0.882		
	YB3	0.819	0.032	25.6	***	0.874		
Customer rights protection performance	YC1	1				0.88	0.897	0.68 6
	YC2	0.726	0.031	23.132	***	0.811		
	YC3	0.711	0.03	23.651	***	0.823		
	YC4	0.678	0.03	22.476	***	0.797		
Social and market ethical performance	YD1	1				0.88	0.895	0.68 1
	YD2	0.674	0.029	22.884	***	0.807		
	YD3	0.662	0.03	21.869	***	0.784		
	YD4	0.737	0.031	23.827	***	0.827		

(c) Joint method deviation test

In this paper, to test for homogeneity bias, the Harman one-way ANOVA method is used to perform homogeneity variance tests on the recovered data. Common method bias refers to concentration bias in data caused by certain external factors affecting measurement. In other words, the differences in measurements are due to the research itself (or other factors), such as measurement tools, question composition, or measurement environment. If the purpose is to conduct a common method bias (CMV) analysis, a common approach is: placing all measurement items (i.e., all scale items corresponding to each factor) into one factor and then conducting the analysis. For CMV testing, this approach also applies to using exploratory factor analysis (EFA) methods to test for CMV issues (also known as the Harman one-way ANOVA method). This involves examining whether, when performing exploratory factor analysis EFA on

all scale items, only one factor emerges or if the first factor has particularly high explanatory power (variance explained). Typically, a threshold of 40% is used; if this threshold is met, homogeneity variance (common method bias) can be concluded. Conversely, if not, it indicates the absence of common method bias.

Table 20: Common variance deviation test

ingred ient	Initial eigenvalues			Extract the squared load		
	amount to	variance percentage	accumulate %	amount to	variance percentage	accumulat e%
1	9.962	34.352	34.352	9.962	34.352	34.352
2	2.720	9.378	43.730	2.720	9.378	43.730
3	2.258	7.787	51.518	2.258	7.787	51.518
4	1.964	6.774	58.292	1.964	6.774	58.292
5	1.602	5.523	63.815	1.602	5.523	63.815
6	1.499	5.169	68.984	1.499	5.169	68.984
7	1.262	4.352	73.336	1.262	4.352	73.336
8	1.089	3.755	77.091	1.089	3.755	77.091

Extraction method: principal component analysis.

All the measurement data in this paper were put into SPSS for unrotated factor analysis to test the degree of variation caused by one factor. The results showed that the first component explained 34.352% of the variation, less than 40%, so there was no common variance deviation problem in this paper.

(4) Differential analysis

Differential analysis is a commonly used data analysis method, employed to detect whether there are differences between experimental groups and control groups in scientific experiments, as well as whether these differences are significant. Also known as differential significance testing, it is a type of hypothesis testing that determines whether the differences between samples are mainly due to random errors or fundamental differences. In other words, it assesses whether the differences between samples and the population are caused by inconsistencies between the assumed conditions and the actual situation of the population, requiring statistical significance testing of the data. As a method for determining whether there are differences between two or more datasets, significance testing has been widely applied in various scientific research fields. The principle of differential analysis is based on comparing means (comparing the means of different groups to identify inter-group differences). The purpose of differential analysis is to uncover more valuable conclusions and identify appropriate measures. There are typically two types of differential analysis:

ANOVA or t-tests. If the relationship between categorical and quantitative data is being studied, ANOVA or t-tests should be used. For ANOVA and t-tests, t-tests can only study the differences between two sample groups, such as gender (male and female) on satisfaction levels. On the other hand, ANOVA can study the differences among multiple groups (two or more), such as different educational levels (three groups: below bachelor's degree, bachelor's degree, and masters degree or above) on job satisfaction.

Table 21: Differences in the effect of ethical governance on basic information

essential information	option	Number of cases	average value	standard error	t/F	P
sex	man	269	4.896	0.996	2.280	0.023
	woman	258	4.689	1.091		
age	25 years and under	91	4.750	1.072	0.908	0.437
	26-35 years old	179	4.899	0.985		
	36-45 years old	169	4.748	1.121		
	46 years and over	88	4.720	1.001		
	High school and below	15	4.133	1.248		
highest education	junior college	102	4.481	1.248	20.777	<0.001
	undergraduate course	257	4.628	0.967		
	Master Degree	131	5.254	0.769		
	Candidate					
	Doctorate or above	22	5.922	0.373		
working life	Less than 1 year	167	4.297	1.064	32.150	<0.001
	1-3 years	127	4.658	1.067		
	Four to six years	103	4.872	0.991		
	Seven to 10 years	85	5.382	0.557		
	More than 10 years	45	5.743	0.359		
Job type	Technology development	104	4.806	1.044	0.585	0.712
	risk management	129	4.774	1.023		
	marketing management	134	4.692	1.107		
	customer service	123	4.871	1.058		
	management layer	20	5.000	0.877		
	other	17	4.903	0.928		

scale	Under 50	183	4.837	0.998	0.918	0.432
	51-200	158	4.686	1.110		
	people	141	4.870	1.043		
	201-500	45	4.771	1.036		
Year of establishment	501 or more	158	4.802	1.054	0.048	0.986
	Under 5 years	151	4.784	1.028		
	Five to 10 years	141	4.780	1.067		
	11-20 years	77	4.831	1.056		
Nature of the enterprise	More than 20 years	232	4.568	1.075	-4.445	<0.001
	state-owned enterprises	295	4.973	0.991		
Where the business is located	private company	76	4.648	1.112	1.275	0.267
	NC	92	4.660	1.137		
	East China	54	4.653	1.080		
	south China	67	4.905	1.058		
	Central China	72	4.975	0.908		
	northwest	93	4.840	1.009		
	southwest	73	4.888	0.992		
	northeast					
Whether it will be included in the pilot	yes	351	4.836	1.026	1.284	0.200
	deny	176	4.712	1.087		

For variables with more than two groups (such as education level and work experience), the f-value from Analysis of Variance (ANOVA) should be used. For variables with two groups (such as gender), the t-value from the t-test should be used. As shown in the table above, gender: the average value of ethical governance effectiveness for males is 4.896, and for females, it is 4.689. The male average is higher than that of females, with a P-value of 0.023, which is less than 0.05, indicating a significant difference. This suggests that in this study, the ethical governance performance of the male group is relatively better. This may be due to factors such as the roles men play and their decision-making methods in the Fintech industry, which lead to more prominent performance in ethical governance. Highest education level: the average values for high school and below are 4.133, associate degree 4.481, bachelor's degree 4.628, master's degree 5.254, and doctoral degree or above 5.922. The higher the education level, the greater the average value, and the P-value is less than 0.001, indicating an

extremely significant difference. This indicates that individuals with higher education levels have better ethical governance performance, as they possess stronger learning and comprehension abilities, enabling them to better grasp and implement ethical governance requirements. Work experience: the average values for 1 year or less are 4.297, 1-3 years 4.658, 4-6 years 4.872, 7-10 years 5.382, and over 10 years 5.743. The longer the work experience, the higher the average value, and the P-value is less than 0.001, indicating a significant difference. This suggests that employees with rich work experience have a deeper understanding of corporate ethics culture and can better implement ethical governance work. The finding that the effectiveness of ethical governance increases with work experience indicates that cultural norms and ethical expertise are accumulated over time, which underscores the importance of long-term employee training and retention for building a strong ethical culture. Nature of the enterprise: the average value for state-owned enterprises is 4.568, and for private enterprises, it is 4.973, with a P-value less than 0.001, indicating a significant difference. Private enterprises generally achieve higher average ethical governance outcomes, possibly due to their greater flexibility in management mechanisms and incentive measures, which better facilitate the implementation of ethical governance. Among the factors that significantly impact ethical governance outcomes--such as gender, highest education level, years of work experience, and nature of the enterprise--the following patterns emerge: in terms of gender, males perform slightly better; regarding education, those with a doctoral degree or higher are the best; in terms of work experience, those with over 10 years of experience are optimal; concerning the nature of the enterprise, private enterprises lead on average. Factors such as age, job type, company size, establishment duration, location of the enterprise, and whether it is part of a pilot program have been found to have no significant impact on ethical governance outcomes.

In the practice of ethical governance in Fintech companies, strategies can be formulated to address the aforementioned significant influencing factors. For example, conducting specialized training for employees of different genders; valuing the leading role of highly educated talents in ethical governance; leveraging the experience of senior employees to pass on knowledge; and drawing on effective practices from private enterprises in ethical governance. At the same time, for less significant factors, further exploration of potential connections can be conducted to continuously optimize ethical governance work and enhance

overall governance effectiveness.

(5) Pearson correlation analysis

In statistics, the Pearson correlation coefficient (Pearson correlation coefficient), also known as the Pearson product-moment correlation coefficient (PPMCC or PCCs), is used to measure the correlation between two random variables X and Y, with values ranging from -1 to 1. Each cell in the table of Pearson correlation analysis contains the Pearson correlation coefficient value (Pearson Correlation), which represents the magnitude of the correlation coefficient. The asterisk following the correlation coefficient value indicates the significance test result, i.e., sig (two-tailed). This can be used to determine whether the correlation analysis results are statistically significant. A * indicates significance at the 0.05 level, ** indicates significance at the 0.01 level. Typically, sig < 0.05 is considered significant, meaning it has statistical significance (statistical significance or significance means that the correlation can be distinguished, not indicating the magnitude of the correlation, just like how a microscope can reveal cells but does not indicate they are large). If not significant, even if the correlation coefficient is high, it does not necessarily mean the correlation is meaningful; the correlation may be due to sampling error. To study the impact relationships between various factors, Pearson correlation analysis is used to verify the aforementioned hypotheses, with the results shown in the table:

Table 22: Descriptive statistics and correlation analysis of each variable

	mean	stand ard devia tions	culture propagan da	organizati on structure	organization al communicat ion	Cultura l change	Effect of ethical govern ance
culture propaganda	4.649	1.185	1				
organization structure	4.681	1.216	0.367**	1			
organization al communicat ion	4.781	1.284	0.261**	0.340**	1		
Cultural change	4.726	1.224	0.285**	0.250**	0.214**	1	
Effect of ethical governance	4.795	1.048	0.405**	0.345**	0.449**	0.426**	1

** At the 0.01 level (double tail), the correlation is significant.

As shown in the table above, the mean value of “cultural promotion” is 4.649, “organizational structure” is 4.681, “organizational communication” is 4.781, “cultural change” is 4.726, and “ethical governance effectiveness” is 4.795. The means of all variables are above 4.6, indicating that the overall evaluation of relevant factors in this survey is relatively high, suggesting that respondents have a positive perception of the current state in these areas. The standard deviations of each variable range from 1.048 to 1.284, which are not large, indicating low data dispersion and relatively concentrated evaluations by respondents, suggesting good data stability. Descriptive statistics show that the evaluations of all variables are high and the data is stable.

Cultural Promotion and Ethical Governance Effect: the correlation coefficient is 0.405**, significant at the 0.01 level (two-tailed). This indicates that the better the cultural promotion efforts are carried out, the more effective the ethical governance becomes, showing a strong positive correlation between the two. In other words, effective cultural promotion can enhance the effectiveness of ethical governance. Organizational Structure and Ethical Governance Effect: the correlation coefficient is 0.345**, indicating a significant positive correlation. This suggests that a reasonable organizational structure plays a positive role in promoting ethical governance, and optimizing the organizational structure helps improve the level of ethical governance. Organizational Communication and Ethical Governance Effect: the correlation coefficient is 0.449**, also showing a significant positive correlation. This indicates that good organizational communication can enhance the effectiveness of ethical governance, and smooth communication channels facilitate the advancement of ethical governance work. Cultural Change and Ethical Governance Effect: the correlation coefficient is 0.426**, indicating a significant positive correlation. This shows that cultural change positively promotes ethical governance, and positive cultural changes can support ethical governance. Correlation among Independent Variables: there is also a significant positive correlation among the independent variables (such as the correlation coefficient between cultural promotion and organizational structure being 0.367**), indicating that they influence each other and interact with each other, collectively impacting the effectiveness of ethical governance. Pearson correlation analysis clearly shows that there is a significant positive correlation between the four independent variables--cultural promotion, organizational structure, organizational communication, and cultural change--and the dependent

variable of ethical governance effectiveness, and these independent variables are also interrelated. This indicates that in the ethical governance of Fintech, enhancing cultural promotion, optimizing organizational structure, strengthening organizational communication, and promoting cultural change can all effectively improve the effectiveness of ethical governance. Moreover, the synergistic effect of these factors will yield better results. Subsequent research could further explore how to collaboratively optimize these independent variables to maximize the effectiveness of ethical governance.

(6) Structural equation model analysis

Structural equation modeling combines various statistical analysis methods to examine the relationships between latent variables, manifest variables, and disturbance or error variables within a model. It can be used for both analysis and measurement. If structural equation modeling is required in a study, certain sample size requirements must be met. Chou & Bentler (1987) proposed that the ratio of sample size to measurement indicators in structural equation models should be at least 5. Muthen et al. (2002) suggested that for simpler models, a sample size of over 50 is more appropriate. This section primarily uses AMOS software to conduct structural equation modeling on the sample data of this study, to test research hypotheses and analyze the influences among various variables.

This study selects the following indicators for verifying the fit of structural equation models: Chi-square to degrees of freedom ratio, Approximate Root Mean Square Error (Root Mean Square Error of Approximation, RMSEA), Growth Fit Index (Incremental Fit Index, IFI), Tucker-Lewis Index (Tucker-Lewis index, TLI), and Comparative Fit Index (Comparative fit index, CFI). CFI (Comparative Fit Index): Ranges from 0 to 1. Values > 0.9 indicate a good fit, reflecting how well the model fits the data compared to a baseline (null) model. In the study, CFA results showed CFI = 0.997 for organizational culture and 0.993 for ethical governance effectiveness, indicating excellent model fit. RMSEA (Root Mean Square Error of Approximation): Measures the discrepancy between the observed and predicted covariance matrices, adjusted for model complexity. Values < 0.08 indicate a good fit, with < 0.05 being excellent. The study reported RMSEA = 0.016 for organizational culture and 0.030 for ethical governance effectiveness, both well within the acceptable range, confirming the models closeness to the data. According to the fit criteria of structural equation models, the reasonable range of values for each indicator is shown in the table below:

Table 23: Structural model fitting results

	X ²	Df	X ² /Df	RMSEA	IFI	TLI	CFI
Adaptation results	619.698	369	1.679	0.036	0.974	0.971	0.974
Adaptation criteria	-	-	<5	<0.08	>0.9	>0.9	>0.9

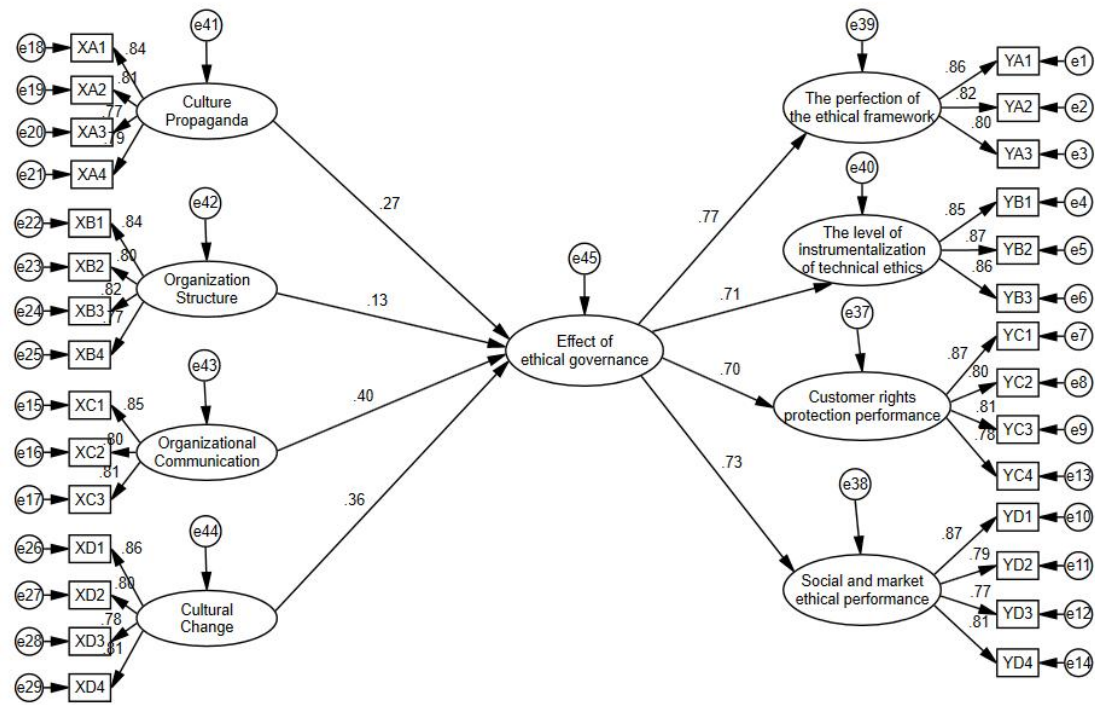


Figure 5: Path map of structural equation model

Table 24: Path coefficient results of structural equation model

hypothesis	path relationship	Non-standardized path coefficients	S.E.	C.R.	P	Standardized path coefficients	result
H1	Cultural propaganda-> ethical governance effect	0.213	0.037	5.677	<0.001	0.271	found
H2	Organizational structure-> ethical governance effect	0.101	0.035	2.89	0.004	0.132	found
H3	Organizational communication -> ethical	0.305	0.039	7.841	<0.001	0.401	found

H4	governance effect Cultural change-> ethical governance effect	0.266	0.036	7.28 8	<0.00 1	0.359	foun d
----	---	-------	-------	-----------	------------	-------	-----------

Structural equation modeling analysis reveals the relationship between independent variables and dependent variables by examining path coefficients and other indicators. The following is a discussion and conclusion of the analysis results: H1 (Cultural Promotion → Ethical Governance Effect): the unstandardized path coefficient is 0.213, and the standardized path coefficient is 0.271, C.R. The value is 5.677, with a P-value less than 0.001. This indicates that cultural promotion has a significant positive impact on ethical governance effects. It suggests that strengthening cultural promotion can effectively enhance the effectiveness of ethical governance. This may be because effective cultural promotion can improve employees' awareness and recognition of ethical norms, encouraging them to follow ethical standards in their work, thereby improving overall ethical governance outcomes. H2 (Organizational Structure → Ethical Governance Effect): the unstandardized path coefficient is 0.101, and the standardized path coefficient is 0.132, C.R. The value is 2.89, with a P-value of 0.004. This shows that organizational structure has a significant positive effect on ethical governance, but its path coefficient is relatively smaller compared to other hypotheses. A reasonable organizational structure can clearly define the responsibilities of various departments and positions in ethical governance, ensuring orderly governance activities, although its direct influence is slightly weaker compared to other factors. H3 (Organizational Communication → Ethical Governance Effect): the unstandardized path coefficient is 0.305, and the standardized path coefficient reaches 0.401, C.R. The value is as high as 7.841, with a P-value less than 0.001. This demonstrates that organizational communication has a strong positive promoting effect on ethical governance. Good organizational communication ensures the smooth transmission of information related to ethical governance within the organization, promotes collaboration between departments, and promptly addresses ethical issues, significantly enhancing the effectiveness of ethical governance. This statistical finding is strongly supported by qualitative data. For example, Interviewee 16 pointed out that “cross-departmental meetings” are crucial for resolving conflicts

through open dialogue. This reveals the inherent mechanism of how communication fosters the consensus required for effective governance, providing a rich contextual explanation for the observed strong path coefficients. H4 (Cultural Change → Ethical Governance Effect): the unstandardized path coefficient is 0.266, and the standardized path coefficient is 0.359, C.R. The value of the coefficient is 7.288, with a P-value less than 0.001. This indicates that cultural change has a significant positive impact on the effectiveness of ethical governance. Positive cultural change can adapt organizational culture to meet the demands of Fintech development, update ethical concepts, drive innovation in ethical governance, and thereby improve governance effectiveness. From the standardized path coefficients, organizational communication (0.401) > cultural change (0.359) > cultural promotion (0.271) > organizational structure (0.132). This suggests that among the factors influencing the effectiveness of ethical governance, organizational communication has the most direct impact and is one of the key factors in enhancing ethical governance effectiveness; cultural change and cultural promotion also have significant impacts; while organizational structure, although having a positive effect, is relatively weaker.

The results of the structural equation modeling analysis indicate that cultural promotion, organizational structure, organizational communication, and cultural change--all four independent variables--have significant positive impacts on the effectiveness of ethical governance. Research hypotheses H1, H2, H3, and H4 are all supported. In practical Fintech ethical governance work, it is essential to focus on the coordinated optimization of these four aspects. Particular emphasis should be placed on enhancing organizational communication, establishing efficient communication mechanisms, and promoting information flow and collaboration. At the same time, actively advancing cultural change, strengthening cultural promotion, and improving organizational structure are crucial. Efforts should be made from multiple dimensions to achieve a comprehensive improvement in the effectiveness of Fintech ethical governance. Future research can further explore how to more precisely optimize these factors and their interactive effects on the outcomes of ethical governance, providing more targeted guidance for practice.

In research on ethical governance in financial technology (Fintech), quantitative studies have revealed statistical correlations between dimensions of organizational culture and governance effectiveness, while qualitative studies have delved into the mechanisms underlying these correlations. The following

analysis integrates key quantitative findings with qualitative cases to systematically explain how organizational culture influences ethical governance effectiveness through multi-level interactions.

Quantitative research indicates that organizational communication has the strongest impact on ethical governance effectiveness, primarily by breaking down departmental barriers, fostering ethical consensus, and enabling rapid risk response. (Standardized Path Coefficient = 0.401, $p < 0.001$)

Qualitative studies have uncovered the specific pathways through which this impact is realized: a mature Fintech enterprise (Interviewee 02) established a “red-yellow-green risk voting system”, where technical, risk control, and business departments hold weekly cross-departmental ethics meetings to vote on controversial issues such as algorithmic bias and data usage (red = pause, yellow = rectify, green = approve). This mechanism reduced the resolution time for algorithmic fairness disputes in a robo-advisory product from an average of 21 days to 7 days, validating the quantitative conclusion that “open communication can quickly resolve ethical conflicts”.

Compliance officers (Interviewee 11) participate in the “daily stand-ups” of technical teams to provide real-time feedback on compliance risks in data collection. For example, in a blockchain project, a compliance officer identified excessive on-chain storage of user privacy data during a stand-up, prompting the technical team to optimize data desensitization protocols within 24 hours, thereby avoiding potential regulatory risks. This “embedded communication” explains the strong correlation between communication efficiency and governance effectiveness. Interviews revealed that in teams encouraging a “speak-up culture” (Interviewee 07).

Quantitative data shows a significant positive correlation between an organizations cultural adaptability to technological changes and ethical governance effectiveness. (Standardized Path Coefficient = 0.359, $p < 0.001$)

Qualitative research illustrates the specific evolutionary process of culture alongside technological iteration: a startup lending platform (Interviewee 05) shifted from an “efficiency-first” culture to a “prudent innovation” culture after facing regulatory inquiries over “algorithmic age discrimination”. Multiple enterprises (Interviewees 08, 16) adjusted their cultural orientation from “technological breakthroughs” to “controlled innovation” in response to risks of “false financial information” posed by generative AI.

Quantitative research confirms that cultural promotion emphasizing “integrity and social responsibility” enhances governance effectiveness. (Standardized Path Coefficient = 0.271, $p < 0.001$)

Qualitative studies further unpack the mechanisms behind this process: senior executives (Interviewee 01) transmitted values through “weekly ethical case morning meetings”. A company (Interviewee 04) established a monthly “Ethics Star” award and displayed cases of data compliance and algorithmic fairness on office culture walls.

Quantitative results indicate a weak but significant impact of organizational structure on ethical governance. (Standardized Path Coefficient = 0.132, $p = 0.004$)

Qualitative research reveals lifecycle-dependent logics: large Fintech companies (Interviewee 03) established independent ethics committees including external experts, technical representatives, and compliance officers, with “veto power” over new products. Startups (Interviewee 05) often lack dedicated ethics roles due to flat structures, relying on “founder decisions” for ethical issues. A blockchain company once faced product bans in 3 countries because its founder ignored “cross-border data flow compliance”, reflecting the quantitative finding that “structural inadequacies weaken governance stability”.

4.2 Qualitative research

(1) Integration of Research Process and Thematic Analysis

(a) Research Preparation Stage

The author clearly focused on the specific influence mechanism of organizational culture on compliance execution. The author selected 10 senior executives (including CEOs, COOs, etc.) and 10 compliance officers (such as compliance directors, legal managers) from Fintech enterprises as interviewees. The interviewees were from start-ups and mature companies, covering business areas like blockchain and robo-advisory, so as to ensure the comprehensiveness and representativeness of the research.

The author developed semi-structured interview outlines around cultural shaping events, factors influencing ethical decision-making, compliance conflict cases, etc., laying the foundation for obtaining valuable information later.

(b) Data Collection Stage

The author adopted semi-structured interviews and conducted 30-minute interviews with each interviewee. With the written consent of the interviewees, professional recording devices or Zoom were used for recording, and the

recordings were transcribed into written materials on the same day. A total of 20 written interview materials were generated, providing rich raw data for thematic analysis.

(c) Data Coding and Theme Extraction Stage

Open Coding: Analyze the interview text materials sentence by sentence, extract valuable concepts such as “innovation pressure leading to compliance compromise” and “leadership demonstration effect”, obtaining a total of 143 concepts and generating 467 reference points. This step is like screening meaningful “fragments” from massive information, preparing for the formation of subsequent themes.

Axis Coding: Use the “causal conditions-phenomena-action strategies” paradigm model to classify and correlate the concepts obtained from open coding, forming 17 categories such as “core cultural dimensions” and “ethical governance initiatives”. This process is similar to initially splicing scattered “fragments” to find the internal connections between them.

Extract 6 core categories from the categories obtained from Axis coding, namely the definition and key characteristics of organizational culture, practical connections between organizational culture and ethical governance, cultural evolution and governance optimization, cultural penetration in compliance practices, cultural synergy and conflict management, and improvement needs and directions, constructing a complete thematic framework and completing the systematic integration of “fragments”.

(d) Theme Validation Stage

By comparing the content related to each theme in different interview materials, test the consistency and representativeness of the themes to ensure that the extracted themes can accurately reflect the research phenomenon. At the same time, combine existing theories and research purposes to further revise and improve the themes, ensuring the scientificity and validity of the research.

(2) Supplementary Explanation of the Research Process

(a) Specific Application of NVIVO Software in Thematic Analysis

Import 20 written interview materials into NVIVO software, name and initially organize them, facilitating subsequent coding and analysis operations, and realizing orderly data management.

Establish corresponding nodes according to the research model, classify and code the text in accordance with the steps of open coding, Axis coding, and

selective coding. The software can clearly record the position and frequency of each code, providing convenience for researchers to track and analyze themes.

Use the model function of NVIVO to output element models, intuitively display the relationships between various elements, helping researchers more clearly grasp the internal connections between themes and deeply understand the interaction mechanism between organizational culture and ethical governance.

(b) Quality Control in the Coding Process

Two researchers respectively code part of the interview materials, calculate the coding consistency coefficient, and ensure the objectivity and reliability of the coding process. When there are inconsistent coding situations, reach a consensus through discussion to avoid the impact of personal subjective factors on the coding results.

During the coding process, continuously compare and revise the coded content repeatedly to ensure that each concept and category can accurately reflect the meaning of the text, improving the accuracy of theme extraction.

(c) Saturation Test of Themes

In the coding process, the author continuously paid attention to newly emerging concepts and categories. While the study had pre-specified 20 interviews (10 senior executives and 10 compliance officers) to ensure coverage across roles, enterprise stages, and business areas, it also adhered to saturation logic: when no new themes emerged during coding, the author judged that the model had reached saturation and subsequently stopped data collection and coding work, thus ensuring the completeness and sufficiency of the research.

This approach resolved the tension between the pre-set sample size and saturation principles: the fixed number of interviews guaranteed structural representativeness, while the saturation check validated that the collected data contained all necessary thematic information, making the methodology both systematic and empirically sound.

4.2.1 Interview outline

4.2.1.1 Interviews with senior executives of Fintech companies

Objective: Focus on the core characteristics of organizational culture and its interaction with ethical governance

Definition and Core Characteristics of Organizational Culture

Please summarize your company's organizational culture with 3-5 key words and provide examples of how these cultural features are reflected in daily

operations (such as meeting decisions, employee behavior, etc.).

In the process of organizational culture construction, which measures have the most significant impact on promoting ethical governance? (such as leadership demonstration, system design, reward and punishment mechanisms, etc.)

Practical Connections between Organizational Culture and Ethical Governance

When facing disputes over data privacy or algorithm fairness, how does the company culture directly influence the final solution? Can you share a specific case?

Are there differences in the handling of the same ethical issue among different departments (such as technology, risk control, marketing)? How does the organizational culture coordinate these differences? (Please provide examples)

Dynamic Perspective: Cultural Evolution and Governance Optimization

What are the key changes in the company culture from the start-up period to the present? How have these changes affected ethical governance strategies (such as the shift from “efficiency first” to “compliance first”)?

Compared with companies in the same industry, what are the unique advantages of your company's culture in ethical governance? What aspects still need improvement? (Please provide examples)

Future Challenges and Improvement Directions

In the face of ethical risks brought by new technologies such as generative AI, does the existing organizational culture need to be adjusted? What are the possible adjustment directions?

Interview with Compliance Officers of Fintech Companies

Objective: Focus on the specific influence mechanism of organizational culture on compliance execution

Cultural Penetration in Compliance Practices

In the typical ethical cases you have handled (such as user data abuse, algorithm discrimination), how does the company culture influence the final solution path? (Please specifically explain a certain case)

Does the compliance with compliance systems by employees vary due to departmental cultural differences? What cultural factors may weaken compliance execution? (Such as the “innovation first” tendency in the technology department)

Cultural Synergy and Conflict Management

When conflicts arise between business departments and compliance

departments due to ethical issues, how does the company culture promote consensus? (Please provide examples)

Are there any implicit rules in the existing culture that may trigger ethical risks? (Such as “gray-scale operation”, “result-oriented”, etc.)

Cultural Empowerment and Improvement Needs

How is current ethical training combined with organizational culture? Which methods are effective? Which need to be optimized? (Such as case teaching, cultural symbol implantation)

From a regulatory perspective, what cultural traits are helpful for enhancing the company's compliance image? Which may trigger regulatory doubts?

4.2.1.2 Interviewees

Before the interview, background information was investigated for the participants to ensure that all have rich experience in the Fintech industry, with at least five years of work experience, and are directly involved in roles related to organizational culture, ethical governance, or compliance management. These roles include senior executives and compliance officers, ensuring the professionalism of the interviews and the reliability of the information sources. The participants were selected from various Fintech companies, possessing diverse professional backgrounds and job experiences, having been honed in different work scenarios such as technology development, risk management, and compliance review. The varying attributes and professional experiences of the interviewees reflect differences in their responses to issues related to the organizational culture and ethical governance of Fintech companies. By choosing individuals who hold core positions in the industry and are directly involved in the construction of organizational culture and ethical governance practices, they are most familiar with the actual operations and challenges faced by Fintech companies in shaping organizational culture, addressing ethical risks, and managing compliance. The data obtained from these interviews is the most genuine, credible, authoritative, and irreplaceable.

Through these representative interviewees, the author conducted comprehensive interviews from various perspectives on the core characteristics of organizational culture in Fintech companies, interaction mechanisms with ethical governance, and factors influencing compliance enforcement, ensuring the representativeness of the interviews. The selection of these 20 interviewees is based on their diverse backgrounds across different Fintech enterprises, where

they hold positions such as senior executives or compliance officers, spanning departments like department directors and chief ethics officers. The purposive sample¹⁵ represents a range of corporate sizes, job functions, and management perspectives on the understanding and practice of organizational culture and ethical governance. Such selection aims to enhance the reliability and validity of the research findings while providing multi-perspective solutions for exploring practical issues such as optimizing organizational culture and improving ethical governance systems in the Fintech industry. Due to the clear and genuine nature of the interview results, the following are the basic information of the 20 respondents:

Table 25: Respondent information

number	sex	Job category	company type
01	man	senior executives	A Fintech company
02	man	senior executives	Credit Information Technology
03	woman	senior executives	Bank of China Fintech
04	woman	senior executives	A Hangzhou Fintech company
05	woman	senior executives	A start-up Fintech company
06	man	senior executives	A Fintech company
07	woman	senior executives	A Fintech company
08	woman	senior executives	A Fintech company
09	woman	senior executives	A Fintech company
10	man	senior executives	A Fintech company
11	woman	Compliance officer	A Fintech company
12	woman	Compliance officer	A Fintech company
13	man	Compliance officer	A Fintech company
14	woman	Compliance officer	A Fintech company
15	man	Compliance officer	A Fintech company
16	woman	Compliance officer	A Fintech company
17	woman	Compliance officer	A Fintech company
18	man	Compliance officer	A Fintech company
19	woman	Compliance officer	A Fintech company
20	woman	Compliance officer	A Fintech company

4.2.2 Selection of research tools

4.2.2.1 NVIVO Software and its applicability

NVIVO, as a powerful qualitative data analysis software, plays an important

¹⁵ Including 20 Fintech companies.

role in the field of thematic analysis. Thematic analysis aims to extract key themes from text data and gain insight into the deeper meaning behind the text, while NVIVO provides efficient and comprehensive support for this process.

Case analysis is a research method that focuses on specific phenomena, events, or individuals, revealing essential laws through in-depth exploration of their inherent characteristics, contextual connections, and meaning construction. It is different from the statistical inference of quantitative research, focusing more on collecting rich qualitative data (such as dialogues, behavioral records, images, etc.) through interviews, observations, text interpretation, etc. in natural contexts, and using inductive methods to encode, classify, and theoretically extract the data to present the uniqueness and complexity of the case, and then extract explanatory theoretical insights or contextualized knowledge from the case. It is commonly used in sociology, anthropology, education, and other fields for in-depth exploration of specific social phenomena or behavioral patterns.

The NVIVO software itself is not a pre-set case analysis method, but its rich functional modules can perfectly match the case analysis process. It is like a flexible data analysis platform that allows researchers to independently use various functions to achieve deep mining of text data based on their own research needs and case analysis logic, accurately extract key content from the text, and assist in efficient research work. The specific operation process and analysis steps of NVIVO software in the case analysis are shown in Figure 6.

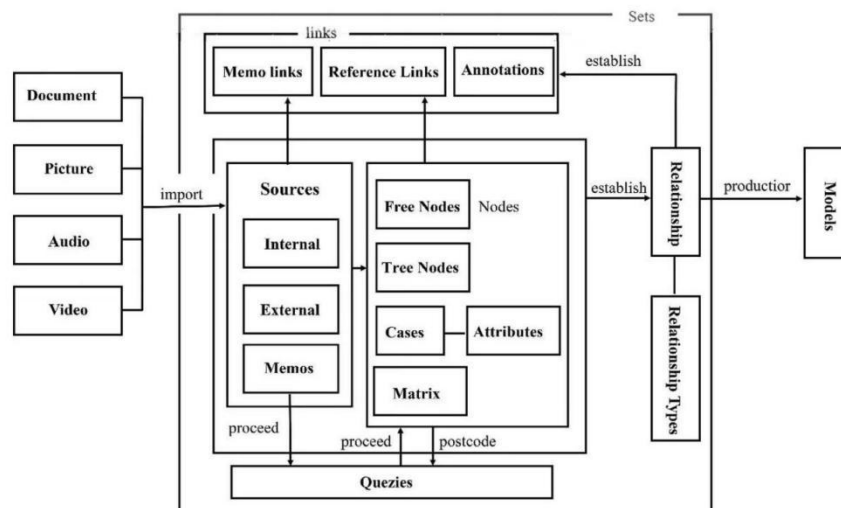


Figure 6: NVIVO software analysis flow chart

4.2.2.2 Application of NVIVO in this study

The main steps of this study to analyze the interaction mechanism between

organizational culture and ethical governance of Fintech companies are as follows:

(1) Convert the audio version of the interview data into a written version. A total of 20 written versions were generated for each respondent in this survey. The written versions were imported into the software and named, and preliminary sorting was carried out at the same time;

(2) Establish an interactive mechanism for organizational culture and ethical governance of Fintech companies, and analyze the research model as the analysis node of NVIVO. The text is classified and coded in three steps according to open coding, Axis coding and selective coding, so as to facilitate the next step of analysis;

(3) According to the established nodes, the model function attached to NVIVO is used to output the element models and expand them
The relationship between each element and its content;

(4) Use the established nodes to code and analyze each case;

(5) Define node attributes and output the coding results of cases in the form of icons.

4.2.3 Formation of coding

In NVIVO, there are three common coding methods: open coding, axis coding, and selective coding. These coding methods can help researchers classify, organize, and analyze data.

(1) Open Coding

The author transcribed the interview transcripts of the interaction mechanisms between organizational culture and ethical governance in Fintech companies at NVIVO 14 into written form. For each unit concept with research value in the interview transcripts, a free node was created. The specific steps were as follows: pre-reading all 20 interview materials, summarizing the words and sentences that were repeatedly emphasized, highlighted, or related to the theme during the interviews according to the interview outline. Combining the frequency of each word appearing in the word cloud (as shown in Figure 7), the relationships between the sentences containing these words were summarized.

Through multiple comparative analyses, the most fitting concepts from the original materials were generalized and created as free nodes. In this study, through open coding, the author distilled 143 concepts, generating 467 reference points, as shown in Figure 8.



Figure 7: Word cloud of interview materials

IMPORT

Data

Files

File Classifications

Externals

ORGANIZE

Coding

Codes

Axial Coding

Selective Coding

The Interactio...

Sentiment

Relationships

Relationship Types

Cases

Notes

Sets

EXPLORE

Codes

Name	Files	References
Innovative and enterprising category	8	9
People-oriented category	1	1
Team collaboration category	5	5
Pursuit of excellence category	2	2
Open and inclusive category	2	2
Professional responsibility category	3	3
Data-driven category	1	1
Compliance awareness category	2	2
Customer-oriented category	6	6
Innovation meetings and mechanisms	1	2
Rapid iteration processes	3	3
Encouraging innovative behaviors	2	2
Career development system	1	1
Flexible work and care systems	1	1
Project-based collaboration model	3	3
Integrated performance evaluation mechanism	1	1
Customer satisfaction closed loop	6	6
Lean quality management	1	1
Industry standard leadership	1	1

Figure 8: Open coding

(2) Axis Coding

In NVIVO, axis coding can be used to create a main node (also known as a core node), with other nodes associated with the main node to illustrate the relationships between them. During the axis coding phase, the author summarized 143 concepts into 17 categories, as shown in the Figure 9.

Axial Coding			
⊕ Name	Files	References	
⊕ ○ Core Dimensions of Organizational Culture	10	32	
⊕ ○ Embodiment in daily operations	10	47	
⊕ ○ Ethical governance initiatives	10	36	
⊕ ○ Solutions to disputes	19	53	
⊕ ○ Departmental handling differences	19	46	
⊕ ○ Organizational culture coordination mechanisms	15	26	
⊕ ○ Start-up phase	6	7	
⊕ ○ Growth phase	5	5	
⊕ ○ Maturity phase	4	5	
⊕ ○ Impact of cultural evolution on ethical governance strategies	15	22	
⊕ ○ Impact of corporate culture	7	10	
⊕ ○ Impact of departmental cultural differences on compliance execution	10	25	
⊕ ○ Role of corporate culture in departmental conflicts	9	10	
⊕ ○ Implicit rules of potential ethical risks	10	30	
⊕ ○ Advantages of corporate culture in ethical governance	10	25	
⊕ ○ Aspects needing improvement in corporate culture for ethical governance	14	31	
⊕ ○ Improvement directions for organizational culture	19	57	

Figure 9: Main axis coding

Selective Coding			
⊕ Name	Files	References	
⊕ ○ Definition and core characteristics of organizational culture	10	115	
⊕ ○ Core Dimensions of Organizational Culture	10	32	
⊕ ○ Embodiment in daily operations	10	47	
⊕ ○ Ethical governance initiatives	10	36	
⊕ ○ Practical relevance of organizational culture and ethical governance	20	125	
⊕ ○ Departmental handling differences	19	46	
⊕ ○ Organizational culture coordination mechanisms	15	26	
⊕ ○ Solutions to disputes	19	53	
⊕ ○ Cultural evolution and governance optimization	16	39	
⊕ ○ Growth phase	5	5	
⊕ ○ Impact of cultural evolution on ethical governance strategies	15	22	
⊕ ○ Maturity phase	4	5	
⊕ ○ Start-up phase	6	7	
⊕ ○ Cultural penetration in compliance practices	10	35	
⊕ ○ Cultural coordination and conflict management	10	40	
⊕ ○ Improvement needs and directions	20	113	

Figure 10: Selective coding

(3) Selective Coding

In this study, by analyzing the meanings of different categories, the author ultimately proposed six core categories: definitions and key characteristics of organizational culture, practical connections between organizational culture and ethical governance, cultural evolution and governance optimization, cultural penetration in compliance practices, cultural synergy and conflict management, improvement needs and directions. Based on these, a three-level coding structure

for this study was formed in NVIVO 14, as shown in Figure 10.

4.3 Interview findings

4.3.1 Definition and core characteristics of organizational culture

(1) Organizational culture

It is the sum of value concepts, behavioral norms, and team atmosphere formed by Fintech companies over long-term operations. Its core characteristics typically encompass innovation-driven, people-oriented, teamwork, excellence pursuit, openness and inclusiveness, standardization and efficiency, professional responsibility, data-driven, compliance awareness, and customer orientation. For example, innovation-driven is manifested in encouraging breakthroughs in technology and management models through innovation meetings, rapid iteration processes, and employee proposal mechanisms to stimulate creativity; being people-oriented is reflected in designing dual career development paths, flexible working hours, and equity incentives to link employee growth with the company's long-term value; teamwork is achieved through project-based models, cross-departmental collaboration, and performance integration mechanisms to ensure efficient cooperation; excellence pursuit is reflected in customer satisfaction loops, lean quality management, and industry standard leadership. These features are concretized through daily operations such as meeting decisions, employee behavior, and institutional design. For instance, technical teams adopt agile development models to enhance efficiency, risk control departments conduct compliance reviews to prevent risks, and marketing departments optimize services based on customer needs, collectively forming the unique cultural genes of the company that influence ethical governance, dispute resolution, and strategic transformation at the foundational level.

(2) Core dimensions of organizational culture

The core dimensions of organizational culture are a set of key elements used to summarize and define the essence and characteristics of organizational culture, forming the basic framework of the organizational cultural system. In the practice of Fintech companies, these core dimensions typically include innovation and progress, people-oriented approach, teamwork, pursuit of excellence, openness and inclusiveness, standardization and efficiency, professional responsibility, data-driven operations, compliance awareness, and customer orientation. These dimensions not only reflect the value orientation of the organization, such as innovation and progress emphasizing breakthroughs in technology and

management models, and customer orientation focusing on user needs and experiences; they also encompass operational principles, like standardization and efficiency emphasizing process compliance and efficiency improvement, and data-driven operations stressing data-based decision-making; furthermore, they involve ethical governance requirements, such as compliance awareness emphasizing adherence to laws and risk prevention, and professional responsibility reflecting technical capabilities and duty fulfillment. Each dimension is interconnected, collectively shaping the core of organizational culture, influencing daily operations, decision-making mechanisms, and ethical governance practices. For example, innovation-driven development must balance with compliance awareness, teamwork should be based on shared values, and ultimately, through institutional design, leadership demonstration, and employee behavior, ensure the sustainable development of the organization.

Respondent 01: For a financial company like us, we can summarize the organizational culture of the company with four key words. First, innovation is driven; second, people-oriented; third, teamwork; and fourth, excellence.

Respondent 02: When it comes to openness, in building Fintech, we encourage employees to embrace new things while also taking on new challenges, broadening their horizons, and enhancing their capabilities. Employees who thrive in this open cultural atmosphere can continuously learn and grow, quickly adapting to changes in the market environment. As our company's top priority, we must respect individual participation of employees, including different perspectives, promoting innovation and progress. An inclusive culture enables our team to pool ideas and stimulate innovative vitality.

(3) Daily operation embodiment

Daily operations reflect the specific practices and manifestations of core organizational cultural dimensions in the company's daily business activities. They transform abstract cultural concepts into perceptible and actionable behavioral patterns and work scenarios. For example, in Fintech companies, an innovation-driven culture can be demonstrated through setting up “Innovation Days” for cross-departmental brainstorming sessions and adopting agile development models to achieve rapid product iteration. A people-oriented culture is reflected through mechanisms such as dual-track promotion systems, flexible working hours, and equity incentives, which focus on employee career development and rights protection. Team collaboration culture is embodied in

project-based collaboration models, such as forming cross-departmental project teams to collaboratively complete major client projects, with team collaboration metrics incorporated into performance evaluations. Data-driven culture is characterized by decision-making at meetings relying on data dashboards to track business metrics and linking evaluation systems to data. Compliance awareness culture ensures operational compliance through pre-launch compliance sandtable exercises and full-process encryption and auditing of data usage. These specific behaviors and institutional arrangements in daily operations permeate organizational culture from the conceptual level into business processes, employee behavior, and management decisions, forming a routine mechanism for cultural implementation that supports the integrated development of corporate strategic goals and ethical governance.

Respondent 01: First, we set up such innovative days every week for cross-departmental meetings. Our technology market management team participates in brainstorming sessions to address customer needs and propose interdisciplinary solutions. For example, sometimes we integrate AI technology into the process optimization of financial services. Additionally, there is a mechanism for employee proposals, where suggestions are collected through internal platforms. We can ultimately turn these employee suggestions into the development of co-built projects.

For example, when it comes to innovation, we encourage employees to come up with some novel Fintech solutions in this meeting decision. For example, at the monthly product seminar, the technical team will share some new ideas about the application of their blockchain in financial transactions.

(4) Ethical governance initiatives

Ethical governance initiatives are systematic strategies and actions implemented by companies to address potential ethical risks in their operations and ensure that organizational behavior aligns with moral and compliance standards. Companies need to build a governance system from multiple dimensions, including culture, systems, and technology. At the cultural level, core values such as “compliance first” and “technology for good” should be clearly defined to guide all employees in forming an ethical consensus and integrating these values into daily decision-making and behavioral norms. At the systemic level, cross-departmental collaboration mechanisms should be established, such as setting up an ethics committee to mediate disputes between technical, risk control,

and legal departments on controversial projects; improving evaluation systems to increase the weight of ethical indicators in performance assessments, thereby incentivizing proactive compliance behavior. At the technological level, for areas like Fintech, ethical reviews should be integrated into the research and development phase, developing explainable algorithms and privacy-enhancing technologies to ensure that technology application aligns with ethical requirements. Additionally, by establishing multi-source feedback channels to gather opinions from employees, users, and regulators, governance strategies can be dynamically optimized; extending governance boundaries to the supply chain, promoting industry standardization, and forming an ecosystem-level ethical governance synergy. Ultimately, this approach aims to shift from passively responding to risks to proactively preventing them, ensuring the sustainable development of the company.

Respondent 01: The first point is that we should use moral behavior to shape the core of our culture. That is, leaders' words, we should convey the value of integrity and responsibility throughout the company through daily decisions and some words and deeds.

Respondent 04: The second aspect is the system design. We formulated a manual on data security and ethical governance, and then defined the ethical norms that should be followed throughout the whole cycle of data collection, sharing and destruction.

4.3.2 The practical connection between organizational culture and ethical governance

The practical connection between organizational culture and ethical governance is reflected in their mutual influence and interaction, jointly shaping the development path of enterprises. Organizational culture, as a concrete expression of corporate values, provides value orientation and behavioral guidelines for ethical governance. The cultural core of “compliance first” and “technology for good” drives companies to proactively conduct ethical reviews when facing issues such as data privacy and algorithmic fairness, integrating user rights protection into business decision-making processes. The practical needs of ethical governance also promote the iteration and improvement of organizational culture. When new technologies bring ethical challenges, companies need to update their cultural content and optimize collaborative mechanisms to ensure that culture can adapt to governance requirements. In practice, culture is transformed

into specific governance tools through institutional design: an “open collaboration” culture fosters cross-departmental ethics committees, promoting multi-party collaborative decision-making; an “outcome-oriented” culture may lead to an overemphasis on performance metrics at the expense of ethical standards. The implementation of ethical governance measures, such as establishing dynamic risk assessment mechanisms and improving compliance processes, can solidify the results of cultural transformation, strengthen compliance awareness across all employees, and translate culture from a conceptual level into actionable norms. Together, they form a closed loop where “culture guides governance direction, and governance enriches cultural depth”, collectively helping enterprises achieve a balance between innovation and risk management, realizing sustainable development.

(1) A solution to a dispute

The solution to disputes refers to the systematic response strategies adopted by organizations when facing ethical or business controversies such as data privacy, algorithmic fairness, and compliance risks, based on their own cultural values and governance frameworks. Fintech companies typically orient themselves towards a core culture, combining institutional design with technical means to resolve disputes: first, they prioritize dispute resolution through value alignment, such as the “customer first” culture driving the company to prioritize user rights, proactively disclose issues, and initiate rectification; second, they integrate resources through cross-departmental collaboration mechanisms, forming specialized teams composed of technology, compliance, and legal personnel, using “dual-track decision-making” or a “red-yellow-green” light system for multi-party consultations to balance innovation needs with compliance requirements; at the same time, they introduce external independent audits or third-party expert evaluations to enhance the credibility of solutions; on the technical side, they optimize algorithms and deploy dynamic monitoring modules to address the root causes of disputes; additionally, they transform the dispute resolution process into an opportunity for cultural reinforcement, through case reviews, system upgrades, and comprehensive training, solidifying solutions as organizational governance experiences to prevent similar issues from recurring. Such solutions not only rely on cultural values to build internal consensus but also achieve substantive dispute resolution through institutional and technical means, demonstrating the dynamic synergy between organizational culture and

governance capabilities.

Respondent 08: After the leak incident, the company promptly established an emergency team to publicly apologize to affected customers and provided a detailed account of the event and the measures taken. The company also invested substantial resources in upgrading its data security system, enhancing data encryption and access controls.

Respondent 07: The customer-oriented philosophy in the company culture prompted the decision-making level to quickly establish a dedicated investigation team. This team also included personnel from departments such as technology, legal, and customer service. During the investigation process, they strictly adhered to the company's cultural requirements for responsibility, did not avoid issues, and truthfully informed customers and regulatory bodies about the progress of these investigations. Ultimately, it was the technical team that reoptimized the algorithm model.

(2) The department deals with differences

Departmental handling of differences refers to the stance and behavioral discrepancies exhibited by different functional departments within an enterprise due to differences in their role definitions, risk preferences, and evaluation targets when facing the same ethical issue or business decision. In Fintech companies, the technology department often prioritizes “innovation above all”, focusing on algorithm performance optimization and rapid product iteration, which may lead to simplifying compliance review processes for efficiency, or even using technical reasons to avoid ethical responsibilities; the risk control department upholds a “compliance first” culture, emphasizing quantitative risk assessment and regulatory compliance, adopting a cautious attitude toward business innovation, and possibly opposing aggressive data usage strategies from the marketing department due to strict adherence to the principle of minimal necessity; the marketing department typically centers on “customer experience and business growth”, favoring the use of sensitive data tags to enhance marketing precision, which can easily conflict with the technology department over data usage boundaries and the extent of compliance disclosure; the business department focuses more on achieving performance targets, potentially tacitly allowing partners to bypass compliance procedures to meet sprint metrics, creating conflicts with the finance department's cost control orientation towards reducing compliance investment budgets. These differences stem from structural

contradictions between departmental functions and evaluation systems. Without cultural synergy mechanisms, they could result in compliance loopholes or cross-departmental conflicts, necessitating the integration of unified values, cross-departmental collaboration processes, and evaluation indicators to bridge these gaps and ensure consistency in the organization's overall governance goals.

Respondent 03: Different departments focus on different aspects of the same function. There might be differences in perspective and emphasis. The technology department would certainly pay more attention to the transparency of algorithms and the technical implementation of data security. The risk control department would likely use compliance reviews and quantitative risk assessments. The marketing department, on the other hand, needs to balance the relationship between innovative products, their development, and user privacy protection.

Respondent 12: When it comes to business departments like this, they may place more emphasis on performance metrics. This means that to achieve their goals, they might bypass compliance procedures in favor of KPI. As for related financial departments, they tend to oversee overall costs and have a more rigorous process. In fact, their budget for compliance is often compressed when it comes to applications.

(3) Organizational culture coordination mechanism

The organizational culture coordination mechanism is a systematic operational framework established by companies to resolve conflicts arising from departmental cultural differences and promote the deep integration of cultural values with ethical governance. Different departments within a company form distinct cultures based on their functional characteristics; for example, the technology department prioritizes innovation, while the risk control department emphasizes compliance. This can easily lead to disagreements in business decisions. The coordination mechanism uses core cultural values as a benchmark, establishing cross-departmental dialogue platforms, such as setting up an ethics committee and implementing joint decision-making systems, to facilitate negotiations among all parties based on common goals (such as protecting user rights). At the same time, it transforms cultural concepts like “open collaboration” and “compliance consensus” into specific policies, such as establishing a “red-yellow-green” voting system for controversial projects and job rotation policies, breaking down departmental barriers, and enhancing mutual understanding. The mechanism also includes dynamic evaluation and feedback

loops, identifying the root causes of cultural conflicts through regular cultural audits and employee opinion surveys, and promptly adjusting strategies. Through this mechanism, companies transform cultural values from abstract concepts into actionable processes, retaining departmental expertise while achieving consistent overall ethical governance goals, effectively avoiding compliance gaps and inefficient decision-making caused by cultural fragmentation.

Respondent 02: First is the constraint of top-level systems. As a company, we must comply with the central bank's regulations. The Fintech development plan proposes three principles for integration: innovation and risk prevention, unified institutional norms and self-discipline, and ethical governance through a unified framework to clarify the responsibilities of each department. For example, I require the technology department to incorporate an ethical review node. The risk control department needs to establish a model for preemptive risk warnings. The market department should also conduct compliance training simultaneously.

Respondent 13: Our company has developed a simulation game called Regulatory Storm. It involves employees playing the role of central bank inspectors to conduct reverse audits on your business processes, promptly report any vulnerabilities, and then address them in a timely manner to prevent greater risks from arising later. I believe another effective aspect is establishing a system for the inheritance of ancient poetry. For example, pairing up with our company's compliance role models and technical experts to implement the concept that compliance is productivity in specific projects.

4.3.3 Cultural evolution and governance optimization

Cultural evolution and governance optimization refer to the dynamic process where, at different stages of development, enterprises adjust the core dimensions of their organizational culture due to changes in internal and external environments, while simultaneously upgrading ethical governance strategies, systems, and processes. In the Fintech industry, this process typically exhibits phased characteristics: during the start-up phase, companies are often dominated by an “efficiency-first, rapid growth” culture, focusing on technological breakthroughs and market capture, which can lead to issues such as unclear data usage boundaries and a lack of compliance systems; in the growth phase, with enhanced regulation and business complexity, the culture gradually shifts towards “compliance awareness and standardization”, as companies begin to incorporate social responsibility into their values, establish compliance review processes, and

enhance risk management capabilities through technological means; by the maturity phase, “Party leadership and ethical coexistence” becomes the dominant culture, with companies deeply integrating ethical governance into strategic top-level design, setting up independent ethics bodies, promoting open-source ecosystem ethical reviews, and building cross-industry standards, achieving a forward-looking balance between innovation and compliance through dynamic risk management culture. The logic behind how cultural evolution drives governance optimization is reflected in: value transformation guiding the upgrading of governance goals, organizational structure adjustments aligning with cultural core, and deep integration of technology application and cultural concepts. Conversely, improvements in governance effectiveness solidify the results of cultural transformation, forming a positive cycle where “culture guides governance iteration, and governance reinforces cultural consensus”, ultimately leading to the evolution of enterprises from passive compliance to proactive governance.

(1) Early stage

The initial stage is the period from establishment to preliminary stable development of a company. In the Fintech sector, this phase is often characterized by “efficiency-driven and rapid growth”, with the core objective being to quickly capture market share and achieve technological breakthroughs. Due to limited resources and intense market competition, companies tend to focus on business expansion and product iteration, emphasizing “speed and innovation” above all else. The ethical governance system has not yet been systematically established, leading to issues such as unclear data usage boundaries and simplified compliance review processes. For example, to rapidly respond to customer needs, user risk assessment procedures may be simplified or over-reliance on technological advancements may occur at the expense of privacy protection, with governance strategies often focusing on post-incident remediation. During this phase, the culture tends to favor flatness and a spirit of adventure, with flexible but unregulated decision-making mechanisms. While this can stimulate innovative vitality, it also risks potential risks like data security breaches and algorithmic biases due to weak compliance awareness, necessitating gradual transition towards standardization as the business grows.

Respondent 01: First, it's the early stage of the startup phase, a culture that is efficiency-driven and characterized by rapid, unregulated growth. The core

concept is to sprint forward, emphasizing technological breakthroughs and quickly capturing the market. We also advocate this spirit of adventure to drive decision-making, with an organizational structure that is relatively flat and ethical governance that has yet to be systematized.

Respondent 02: First of all, as the culture of our Fintech company, we emphasized innovation and rapid development during this initial stage. I think this cultural atmosphere also encourages employees to continuously try new things while innovating, which in turn promotes the rapid growth of the company.

(2) Growth period

The growth phase is a critical stage for companies after the initial startup period, during which they enter the phase of business expansion and standardization. In the Fintech sector, this stage sees a gradual shift in organizational culture from “efficiency first” to “compliance awareness and standardization”. The core characteristics include enhanced social responsibility, with a focus on standardization and industry empowerment. While maintaining innovation momentum, companies recognize the importance of compliant operations for sustainable development and proactively incorporate ethical governance into their strategic considerations. For example, they establish data ethics teams, improve user data dual authorization mechanisms, and use technical means to achieve data “usable but not visible”, reducing the risk of leaks. At the same time, organizational structures become more specialized, with party committees or compliance departments beginning to participate in major decisions, promoting process standardization, and incorporating compliance rates into departmental KPI evaluations. The cultural atmosphere shifts from a single-minded pursuit of speed to a balance between “speed and compliance”, with team collaboration and customer service quality becoming key priorities. Companies enhance their influence through industry cooperation and standard setting, yet they must still balance innovative aggressiveness with strict compliance, avoiding neglecting ethical risks due to scale expansion.

Respondent 01: In the second stage, which is the growth phase, there is an automatic normalization of compliance awareness. Our transformation involves proposing the concept of “Theory of All Under Heaven and All Things”, integrating social responsibility into our cultural system. At the same time, we have established a five-power five-star software work method, with the party committee beginning to participate in major decisions and promoting the

construction of compliance processes.

Respondent 04: These potential risks grew from 2017 to 2021. At that time, our core focus was on standardization and industry empowerment. Additionally, we established ourselves as an independent third-party for positioning. After completing the new round of financing, we confirmed our role as an independent intelligent risk control provider, declined financial business, and maintained our neutrality.

(3) Maturation period

The maturity stage is the phase where a company has grown to a stable scale. In the Fintech sector, this stage is characterized by an organizational culture of “Party leadership and ethical coexistence”, with the core goal shifting from mere business growth to a balance between social value and technological innovation. Companies deeply integrate ethical governance into their strategic top-level design, such as establishing independent ethics committees, promoting the principle of “compliance first”, embedding ethical review checkpoints in open-source ecosystem development, and mandating that algorithm models pass fairness tests and third-party audits. Cultural values are further refined, with “technology for good” and “customer rights protection” becoming core orientations. By integrating Party building with business operations, companies strengthen the sense of responsibility among all employees and establish dynamic risk management systems, such as pre-assessment mechanisms for new technologies like generative AI, tracking ethical indicators in real-time. In terms of governance strategies, companies focus more on ecosystem collaboration and industry standard leadership, collaborating with universities and regulatory bodies to develop AI ethics white papers, promoting the localization of cross-border business compliance standards, and using “ethics sandboxes” to simulate scenarios of technology misuse, enhancing employees' ability to predict risks. The evaluation system comprehensively incorporates ethical metrics, offering equity incentives or priority promotion for behaviors such as developing barrier-free technologies and proactively disclosing risks, forming a governance loop of “cultural penetration-institutional solidification-technological empowerment”. At this stage, companies have shifted from passively responding to risks to actively building an ethical governance ecosystem, achieving dual improvements in innovation sustainability and social credibility through the mutual promotion of cultural maturity and governance effectiveness.

Respondent 01: The third stage is the maturity phase, where the ethical symbiotic culture led by party building takes root in our corporate culture. During this maturity phase, some qualitative changes occur, and we established the Run Red Star brand. This party building brand incorporates technology into the AI strategy white paper and establishes the principle of compliance first.

Respondent 04: The maturity phase has been from 2022 to the present. Then, at the core of our culture is the co-creation of social value in an open-source ecosystem and participation in global governance. We established this position of Chief Ethical Officer and granted the Ethics Committee a veto power. By developing a large financial risk control model with explainable modules, we have achieved transparent algorithm disclosure and more.

(4) The influence of cultural evolution on ethical governance strategies

The impact of cultural evolution on ethical governance strategies is reflected in the systematic transformation of governance goals, mechanisms, and methods driven by value transitions at different stages of corporate development. In the start-up phase, under the dominance of an “efficiency-first” culture, companies focus on technological breakthroughs and market expansion, with ethical governance strategies primarily reactive and lacking forward-looking institutional design. This often leads to issues such as unclear data usage boundaries due to weak compliance awareness. During the growth phase, as a “compliance awakening” culture emerges, companies begin to incorporate social responsibility into their strategies, shifting governance tactics towards proactive prevention. This includes establishing data ethics teams, improving compliance review processes, enhancing risk management capabilities through technological means, and incorporating compliance metrics into performance evaluations to promote process standardization. By the maturity phase, an “ethics coexistence” culture becomes central, with governance strategies further upgraded to proactive and ecological governance: setting up independent ethics bodies to strengthen top-level decision-making, integrating ethical reviews throughout the entire technology development process, and expanding governance boundaries through party leadership and cross-industry standard collaboration. Cultural evolution has prompted governance strategies to shift from “fragmented patching” to “systematic construction”, specifically manifested in the following ways: at the value level, from solely pursuing business growth to giving equal weight to compliance and social value; at the institutional level, from passive compliance to

establishing a closed loop of “prevention-monitoring-accountability”; and at the technical application level, from ignoring ethical risks to embedding ethical requirements into technical architecture. This evolution makes ethical governance change from an auxiliary function attached to business to a core competitiveness factor driving the sustainable development of enterprises, realizing the deep integration and dynamic adaptation of cultural concepts and governance practices.

Respondent 07: Then regarding the impact of this being a theoretical governance strategy, I believe it is a shift from prioritizing efficiency to planning, which profoundly influences ethical governance strategies. In the phase where efficiency takes precedence, ethical governance often involves post-incident remediation. When issues such as data privacy breaches or algorithmic fairness controversies arise, there would be an urgent need to mobilize human and material resources to address the problems. After compliance optimization, however, ethical governance may shift towards preventive measures before incidents occur and continuous monitoring throughout the process.

Respondent 07: In the phase where efficiency takes precedence, ethical governance is more likely to be remedial after the fact. When issues such as data privacy breaches or algorithmic fairness controversies arise, there will be an urgent need to mobilize human and material resources to address these problems. After compliance optimization, ethical governance may shift towards preventive measures and continuous monitoring. During the product design phase, the compliance team must deeply engage in the process to prevent ethical risks at their source. For example, when developing new intelligent investment advisory products, the compliance team will intervene early. They will conduct comprehensive reviews of the data sources and methods used in designing algorithm models to ensure algorithmic fairness and meet data privacy protection requirements. At the same time, during the product operation phase, they will continuously monitor the execution of algorithms and data usage, promptly identifying and addressing potential ethical issues, thus achieving a transition from passive to proactive prevention.

4.3.4 Cultural penetration in compliance practice

Cultural penetration in compliance practices refers to integrating compliance principles and ethical standards into the core of organizational culture. This is achieved through value transmission, institutional design, and behavioral norms, transforming external regulatory requirements into internal employee awareness.

In the Fintech sector, this process manifests in multiple dimensions: at the values level, senior leadership demonstrates “compliance first” by prioritizing compliance in decision-making and participating in ethics discussions, fostering a cultural consensus; at the institutional level, embedding compliance requirements throughout business processes, such as setting mandatory ethical review checkpoints during algorithm development and using blockchain technology to ensure traceable data operations, making compliance an integral part of technical procedures; at the behavioral level, enhancing employees' risk sensitivity through training systems, incorporating compliance into performance evaluations to incentivize proactive compliance behavior; at the cultural symbol level, creating an immersive compliance atmosphere through visual elements like compliance slogans in office areas and “Compliance Guardian Star” badges, along with regular compliance case presentations by executives.

(1) The influence of corporate culture

Corporate culture profoundly influences the ethical governance and operational practices of Fintech companies. In terms of ethical governance, leadership sets an example by conveying values of integrity and responsibility to guide decision-making, such as prioritizing data privacy in technology development; institutional design constructs a governance framework, like embedding ethical checkpoints into algorithm development; reward and punishment mechanisms link moral performance with performance metrics, encouraging employees to proactively report risks; cultural cultivation fosters a corporate ethical ecosystem through immersive education and other methods. When faced with disputes over data privacy or algorithmic fairness, cultural value orientations determine solutions, such as voluntarily suspending controversial algorithms and initiating reviews. Different departments handle ethical issues differently due to varying responsibilities and risk preferences, and corporate culture coordinates these differences through unified values, collaborative mechanisms, and institutional constraints, such as establishing cross-departmental ethics committees. From the perspective of cultural evolution, efficiency-oriented approaches in the early stages may overlook ethics, while those in the growth phase shift towards compliance awareness, and mature phases form an ethics coexistence culture led by party building, promoting governance from passive to proactive prevention. Culture also affects employees' adherence to compliance systems; innovation-driven technical departments may weaken compliance

enforcement, necessitating reinforcement of compliance awareness through training and policies. The quality of corporate culture also impacts regulatory image, with traits like prioritizing compliance, transparency, and openness gaining recognition, whereas gray operations and result-oriented approaches may invite skepticism.

Respondent 15: From top management to frontline employees, everyone deeply understands that only by adhering to the company's culture of prioritizing compliance and customer satisfaction can we prevent similar issues from recurring. This incident has also reinforced our belief that the company's culture is not just a slogan on the wall; it genuinely influences how we handle problems and our attitudes towards them. It is also key to ensuring the long-term development of the company.

Respondent 13: In the company culture, we have a clear orientation towards the core value of technology for good, which is based on this positive technological value. In this case, he played a crucial role in emphasizing during internal compliance review meetings that the boundaries of technological innovation are legal and ethical, not market demand. This cultural consensus prompted the business department to ultimately proactively withdraw the proposal.

(2) Departmental cultural differences affect compliance enforcement

Departmental cultural differences impact compliance execution, primarily stemming from varying responsibilities, risk preferences, and performance targets. The technology department focuses on innovation and technical implementation, pursuing algorithm performance and product iteration speed, which can lead to neglecting compliance review processes due to agile development models, such as bypassing ethical tests for rapid feature launches. Business departments are performance-driven, focusing on market expansion and customer experience, potentially simplifying compliance procedures to meet KPIs, exaggerating product benefits, or even tacitly allowing gray operations like data misuse. The risk control department centers on compliance and risk prevention, strictly adhering to regulatory requirements, adopting a cautious attitude toward data usage and business innovation, which may conflict with other departments. The finance department emphasizes cost control, possibly cutting budgets for compliance investments, affecting technical security upgrades and training resource allocation. Additionally, small-group cultures or hierarchical structures can lead to poor

internal communication, shielding of violations, and weakened compliance enforcement. These differences need to be addressed through a unified ethical governance framework, cross-departmental collaboration mechanisms, cultural integration, and dynamic feedback systems to balance innovation, efficiency, and compliance, avoiding ethical risks caused by departmental perspective limitations.

Respondent 11: The technology department often has a strong culture of innovation. Their focus is on exploring new technologies and algorithms to enhance product competitiveness and user experience. This culture indeed plays a positive role in driving the company's technology, but it can also weaken compliance enforcement to some extent. When developing new financial products or services, technical personnel may be overly concerned with technological implementation and innovation speed, while their understanding and execution of compliance requirements are insufficient. They might simplify or overlook necessary compliance review processes to quickly implement an innovative feature.

Respondent 12: In the business department, they may place more emphasis on performance and market expansion. They might rely more on a culture that is performance-driven in sales, which can lead their employees to sometimes pursue short-term gains at the expense of compliance risks. During the contract signing process with clients, salespeople may exaggerate product benefits to facilitate transactions and conceal potential risks, which actually violates sales compliance regulations.

4.3.5 Cultural synergy and conflict management

Cultural synergy and conflict management refer to the process where Fintech companies, when faced with disagreements between business units and compliance departments over ethical issues, promote consensus through value guidance and mechanism design within organizational culture. When conflicts arise between the pursuit of innovation efficiency by business units and the adherence to risk bottom lines by compliance departments, the company uses core values as a reference point, such as “customer first” and “compliance first”, to guide both parties to weigh the pros and cons from the perspective of the company's overall interests. Through cross-departmental collaboration mechanisms, such as establishing an ethics committee and holding joint meetings, different departments can openly communicate their needs, with the technology department explaining the logic behind innovations and the compliance

department analyzing potential risks, while management mediates and balances the situation. At the same time, cultural infiltration methods, such as scenario simulation training and case review discussions, are employed to strengthen employees' understanding of the symbiotic relationship between compliance and business, reducing opposition between departments due to professional barriers or differing goals. A dynamic feedback mechanism is established to set up risk warnings and regularly assess the effectiveness of conflict resolution, transforming cultural consensus into standardized processes, for example, incorporating algorithm fairness reviews into mandatory product development procedures. This management process respects departmental expertise while fostering consensus through cultural ties, avoiding binary decision-making dilemmas, achieving a dynamic balance between innovative vitality and compliance standards, ensuring the company's steady development within an ethical governance framework.

(1) The role of corporate culture in departmental conflict

When departments clash, corporate culture plays a role through value leadership, mechanism coordination, and behavior shaping. When business units seek performance growth while compliance departments uphold ethical standards, the company's culture, guided by core values, clarifies fundamental principles for resolving conflicts. For example, it emphasizes that compliance is a cornerstone for long-term development, avoiding the sacrifice of user rights for short-term gains. At the institutional level, culture promotes the establishment of cross-departmental collaboration platforms, such as ethics committees or joint working groups, encouraging technical, risk control, and marketing departments to exchange ideas in an open communication model, reducing opposition caused by information barriers or differing positions. Culture also reinforces consensus through training and permeation, such as conducting cross-departmental ethics simulations, which help employees see things from different perspectives and understand the compliance needs of various functions, preventing decision-making biases due to “departmental silos”. Additionally, the reward and punishment mechanisms within culture link conflict resolution effectiveness to performance, incentivizing proactive collaboration and curbing departmental self-interest. Ultimately, corporate culture integrates values, systems, and behavioral norms, transforming departmental conflicts into opportunities for optimizing ethical governance, promoting a shift from “going it alone” to

“collaborative governance”, ensuring that the company achieves a dynamic balance between innovation and risk within its compliance framework.

Respondent 16: In the face of such deadlock and conflict, compliance officers organized cross-departmental meetings to clearly highlight the values of customer-first and win-win cooperation in the company culture. They emphasized that business decisions should prioritize consumer rights while considering the long-term development of the company. During the meeting, both parties were guided to delve into discussions and analyses, jointly reviewing product design and terms to identify risk points. Ultimately, under the guidance of shared values, both sides found an acceptable solution, redesigning the product to include risk warnings and consumer protection mechanisms.

Respondent 15: The company's team collaboration culture also promotes everyone to treat each other as equals. To resolve these conflicts, the company established a special task force composed of members from various departments including business, compliance, and technology. Leveraging their expertise, the technical department proposed new data collection methods that not only meet the business's data needs but also comply with regulatory requirements. Together, the business and compliance departments refined the customer rights protection clauses, making them clearer and more understandable, thus ensuring better protection. Everyone worked towards a common goal, putting aside previous barriers and collaborating hand in hand.

(2) Implicit rules of potential ethical risk

The implicit rules of potential ethical risks refer to informal codes of conduct that exist within Fintech companies but are not explicitly stated, potentially leading to compliance issues and ethical controversies. These rules often stem from departmental cultural biases or short-term profit motives. For instance, the technology department's “innovation first” mindset has led to a habit of “launching before compliance”, bypassing ethical review processes for faster product iteration. The business department's “performance above all” orientation allows for gray practices such as vague user agreements and concealing data usage scopes to boost conversion rates. Some teams have a speculative attitude, believing that anything not explicitly prohibited by regulators is feasible, exploiting policy ambiguities to conduct cross-border operations or design algorithms, such as skirting the boundaries of data collection and algorithmic explainability. Additionally, the “internal protection” implicit rule in small group

cultures may lead to shielding of violations, while hierarchical structures discourage grassroots employees from reporting compliance loopholes. Such implicit rules, due to their lack of institutional constraints, can be easily overlooked yet permeate daily work, for example, employees may tacitly use customer privacy data in unauthorized scenarios or simplify risk warnings under the guise of “industry practice”. They can form a collective unconscious “compliance inertia”, which, over time, increases the risk of regulatory penalties, reputational damage, and user trust crises. This requires efforts to strengthen cultural value transmission, improve institutional transparency, and establish anonymous reporting mechanisms to identify and address these issues.

Respondent 17: In some business teams, there is an unwritten rule that allows for actions not explicitly prohibited, even if they are gray-area operations. For example, in a cross-border payment service, the team misinterprets customer onboarding standards. They believe that as long as there is no explicit violation of regulations, they can appropriately simplify the customer onboarding process to expedite business implementation. However, such behavior will ultimately result in regulatory interviews, causing significant reputational damage and financial penalties for the company.

Respondent 12: the existence of cliques within a company can also undermine compliance enforcement. Some departments or teams form relatively closed circles internally. Members tend to prioritize and focus on internal interests and relationships, which leads to insufficient attention to overall company compliance requirements. When compliance issues arise, they may cover for each other and refrain from exposing problems.

4.3.6 Refine requirements and direction

Improving requirements and directions refers to the optimization paths proposed by Fintech companies in response to the shortcomings of existing organizational culture and ethical governance systems, taking into account industry trends and regulatory requirements. The current deficiencies mainly manifest as follows: lagging ethical training systems that focus heavily on theory and lack scenario-based case studies, insufficient coverage of ethical risks associated with new technologies like generative AI; data privacy protection transparency needs improvement, with users lacking awareness of their rights regarding data usage processes; inadequate mechanisms for assessing algorithmic fairness, potentially leading to implicit discrimination risks; barriers in

cross-departmental collaboration result in delayed responses to ethical conflicts; slow adaptation of international standards to local contexts makes it difficult to meet global business challenges; some employees' understanding of cultural values remains superficial, with compliance awareness not deeply ingrained. The directions for improvement revolve around three dimensions: culture, systems, and technology. On the cultural level, the concept of “compliance first” should be reinforced, enhancing everyone's ethical sensitivity through innovative training methods such as dynamic case libraries and VR simulations, promoting the integration of the value of “technology for good” into daily decision-making. On the systemic level, the ethical governance system should be upgraded, establishing a review mechanism covering the entire lifecycle of generative AI, clarifying algorithmic responsibility, and incorporating ethical metrics into executive evaluations. On the technical level, ethical embedding tools should be developed to improve algorithmic explainability and data usage transparency. On the collaborative level, the functions of cross-departmental ethics committees should be expanded, introducing external experts and stakeholders to participate in governance, while strengthening cooperation with regulatory bodies and universities to promote the joint development of industry standards. Through the above measures, we can realize the transformation from passive compliance to active prevention, balance the speed of innovation and the depth of ethical review, and build a compliance culture ecology with both resilience and adaptability.

The advantages of corporate culture in ethical governance are reflected in multiple dimensions, including value leadership, institutional innovation, collaborative mechanisms, and risk prevention. The deep integration of party building and governance is a significant advantage, ensuring that strategic decisions align with national financial ethics through incorporating ethical requirements into the party organization's evaluation system. The intrinsic fusion mechanism of technology and ethics is also a core strength, such as embedding ethical review nodes in open-source technology foundations and using blockchain to achieve traceable R&D processes, which ensures technological innovation while reinforcing ethical defenses. An agile response mechanism across departments, established through setting up an ethics committee and implementing a red-yellow-green light decision-making system, effectively resolves conflicts between technical innovation orientations and compliance requirements from risk control departments. A participatory ethical ecosystem,

enhanced through tiered training, VR simulation labs, and open discussion mechanisms, improves employees' ethical sensitivity. In terms of industry leadership, actively participating in the formulation of national information innovation standards and open-source technology contributions not only enhances the company's compliance image but also promotes the upgrading of industry ethical standards. These advantages collectively form a governance paradigm of “rigid institutional constraints+flexible cultural infiltration”, transforming ethical governance from passive compliance to proactive value pursuit, thereby enhancing the company's resilience in addressing emerging technological ethical risks.

Respondent 05: Secondly, our company is also relatively young and has a lot of innovative thinking. In terms of business philosophy and work methods, I think they are quite novel, which allows us to quickly keep up with the development trends of this industry and promptly adjust some governance strategies and methods.

Respondent 02: Achieve deep integration of party building and corporate governance through the system of decision-making for party committee affairs. Integrate our spirit of unity, cooperation, innovation, and shared direction into our management practices to ensure that business decisions maintain a high degree of consistency with the construction of a Chinese-characteristic financial culture emphasized at the Central Financial Work Conference.

4.3.7 Aspects of corporate culture that need to be improved in ethical governance

(1) The importance role of corporate culture

Corporate culture plays a crucial role in ethical governance but still has areas for improvement. Some corporate cultural concepts remain at the level of slogans, failing to be effectively translated into actions. This results in values such as “compliance first” and “technology for good” being disconnected from business decisions. In the face of data usage disputes, companies may still opt for short-term gains at the risk of taking risky actions. Conflicts arising from cultural differences between departments also urgently need to be addressed. The opposition between the “innovation-first” mindset in technical departments and the “compliance-first” approach in risk control departments often leads to ethical governance deadlocks. Without effective coordination mechanisms, this can result in compliance gaps or missed opportunities for innovation. Additionally, there is a

lack of depth in cultural penetration. Grassroots employees have a vague understanding of ethical standards, and the weight of ethical indicators in the evaluation system is low, making it difficult to foster a governance atmosphere involving all employees. Some corporate cultures lack dynamic adaptability. In the face of ethical challenges posed by new technologies like generative AI, they fail to update their cultural content and governance strategies in a timely manner, leading to delayed responses. Companies need to break down barriers between cultural concepts and practices, strengthen cultural consensus, improve coordination mechanisms, enhance cultural penetration and adaptability, and promote ethical governance from formalities to substance.

Respondent 05: In evaluating the fairness of algorithms, although we have relevant systems and processes in place, they may still fall short of perfection. Sometimes, algorithms can produce unfair outcomes for certain customer groups due to data biases or issues with model design. Therefore, we need to further strengthen the monitoring and evaluation of algorithms, regularly review their operational results, promptly identify and correct any potential fairness issues, ensuring that our services treat all customers equally.

Respondent 02: When serving the Belt and Road project, the solution to the ethical differences in the culture of China's host country still follows the previous standard of a certain country, and has not formed tools such as the integrated adaptation index for profit standards adopted by some international counterparts. It is necessary to strengthen the ethical adaptation of cross-border business.

(2) The direction of organizational culture improvement

The direction for improving organizational culture refers to the optimization path planned by enterprises based on existing cultural issues such as superficial concepts, insufficient collaboration, weak penetration, and poor dynamic adaptability in ethical governance. In business operations, some cultural ideas remain at the slogan level, failing to effectively guide business decisions. Conflicts arising from cultural differences among departments also hinder the advancement of ethical governance. Therefore, improvements need to be made from multiple dimensions: at the conceptual level, transforming abstract values into concrete action guidelines, such as refining compliance processes and clarifying ethical decision-making standards; at the collaborative level, optimizing inter-departmental communication mechanisms, breaking down barriers between technology and risk control departments, and promoting collaboration across

departments with different cultural backgrounds through measures like rotating decision-making and performance-linked evaluations; at the penetration level, building an immersive cultivation system, using digital tools to enhance employee engagement, and increasing the weight of ethical indicators in performance evaluations to truly integrate culture into employees' daily behaviors; at the adaptive level, addressing ethical challenges brought by new technologies by establishing a dynamic evaluation and update mechanism for culture, incorporating emerging technological ethical norms, and extending cultural influence to the supply chain to achieve ecosystem-level collaborative governance. These improvement directions aim to transform organizational culture into the core driving force for upgrading ethical governance, enhancing the company's ability to handle complex risks.

Respondent 01: Establish a three-stage data classification system. Ordinary and sensitive data are prohibited from use; we will implement specialized encryption for generative AI training data to ensure that the data is usable but not visible. At the same time, we have made some breakthroughs in transparency. In our open AI decision visualization platform, we show users the deviation paths and data sources of generative AI.

Respondent 08: Regarding the complex algorithms and data usage of generative AI, it is essential to be more transparent both within the company and to customers. We hope that employees will disclose the training sources for AI technology principles and layouts, making it clear how to use them correctly. This also allows us to explain the data processing and content generation mechanisms of AI services to customers, ensuring their right to know. It can also prevent trust crises caused by lack of transparency.

Reliability analysis is used to test the stability and reliability of measurement results from scales, commonly measured using the Cronbachs α coefficient. In this study, the four sub-variables under the Organizational Culture Scale--cultural promotion, organizational structure, organizational communication, and cultural change--and the four sub-variables under the Ethical Governance Effect Scale--ethical framework completeness, technical ethical tooling level, customer rights protection performance, and social and market ethical performance--all showed satisfactory reliability analysis results. This indicates that each sub-variable has high internal consistency among its measurement items, meaning

that different items can consistently measure the corresponding sub-variable without conflicting or being unstable. For example, in the Organizational Culture Scale, the various items related to cultural promotion stably reflect the characteristics of this variable, indicating that data collected through these items is reliable and truly reflects the respondents' perceptions and experiences regarding cultural promotion. Overall, both scales have good reliability, providing a solid foundation for data quality for subsequent research.

Exploratory factor analysis aims to uncover potential factor structures among variables, simplifying data dimensions. A satisfactory result from exploratory factor analysis of two scales indicates the successful extraction of factor structures consistent with theoretical assumptions. For the organizational culture scale, it clearly categorizes four sub-variables-cultural promotion, organizational structure, organizational communication, and cultural change-into the dimension of organizational culture, indicating that these sub-variables are essentially interrelated and collectively reflect the core concept of organizational culture. Similarly, the four sub-variables in the ethical governance effectiveness scale can reasonably aggregate under the dimension of ethical governance effectiveness. This not only validates the rationality of the theoretical framework in the scale design but also demonstrates that the scale can effectively measure the two core concepts of organizational culture and ethical governance effectiveness, with item settings accurately capturing information relevant to each dimension.

The reliability analysis and exploratory factor analysis of the two scales for organizational culture and ethical governance effectiveness in this pre-research questionnaire were both satisfactory. The successful reliability analysis ensures the stability and reliability of the scale measurements, while the successful exploratory factor analysis verifies the rationality and validity of the scale structure. This indicates that these two scales can be used for formal research, and the data collected can effectively reflect the true situation of organizational culture and ethical governance effectiveness as well as their respective sub-variables. It provides a scientific and reliable measurement tool for further in-depth studies on issues such as the impact of organizational culture on ethical governance effectiveness. Research and analysis based on this will have high credibility and persuasiveness.

4.3.8 Qualitative data further reveals the specific manifestations of “culture-technology-ethics dynamic coupling model”

A mature Fintech enterprise (Interviewee 01) takes “transparent innovation” as its cultural core. Its technical teams developed “algorithmic decision visualization platform” (technology), combined with an open communication mechanism (culture), enables users to trace data sources and bias paths, ultimately reducing customer privacy complaints by 37% (ethical outcome).

The risk of “deepfakes” caused by generative AI (technological iteration) has prompted enterprises to adjust their cultural orientation. A startup (Interviewee 05) shifted from “efficiency first” to “prudent innovation” by establishing an “AI ethics sandbox” (cultural change) and requiring manual review of all generated content (technical norms) to avoid the dissemination of misleading financial information (ethical governance).

Eastern “guanxi” culture makes Chinese enterprises more reliant on “cross-departmental acquaintance networks” to promote the implementation of technical ethics (such as the “Regulatory Storm” simulation game mentioned by Interviewee 13), while Western enterprises tend to adopt institutionalized processes (e.g., “third-party certification for algorithmic audits” in EU enterprises). This leads to localized characteristics in ethical governance strategies.

In summary, quantitative research, through 527 samples, verified positive correlations between the four dimensions of organizational culture and ethical governance. Qualitative research, through interviews with 20 executives and compliance officers, uncovered micro-mechanisms such as “how communication breaks down barriers”, “how culture adapts to technology”, and “how values are implemented”. Together, they demonstrate that the core of Fintech ethical governance lies in building a “culture-technology-ethics dynamic coupling system”--where organizational culture sets ethical boundaries for technology applications, technological iteration drives cultural upgrading, and communication mechanisms ultimately achieve synergistic adaptation between the two.

This integrated analysis provides clear practical pathways, enterprises should prioritize optimizing cross-departmental communication mechanisms, adapt to new technological ethical challenges through cultural change, and refine organizational structures based on their lifecycle.

Chapter 5 Discussion

5.1 Interpretation of the core finding

5.1.1 Review of the Core Logic of the Model

In today's era of rapid technological development, the Fintech sector is facing unprecedented changes and challenges, and the relationship between organizational culture, technology and ethics is becoming increasingly complex. This study built “culture-technology-ethics dynamic coupling model”, aims to break through the limitations of traditional research, for the deep understanding of the interactive mechanism between and among provides a new theoretical framework.

Traditional research on organizational culture, the relationship between technology and ethics, are often limited to a single level of analysis, or only focus on the relationship between the two, difficult to comprehensively and systematically to reveal the complex dynamic relationship between them. For example, some studies only focus on the influence of organizational culture on employees' individual ethical decision-making, ignoring the role of technical factors and the feedback mechanism at the level of the organization as a whole. Some studies only focus on the relationship between technological innovation and ethical governance, but do not fully consider the deep impact of organizational culture in the process of technology application. The one-sided approach fails to accurately grasp the financial intertwine complex relations between and among the industry of science and technology, which limits the development of theory and practice guiding significance.

The “culture-technology-ethics dynamic coupling model” breaks this limitation, systematically analyzes the interaction mechanism of organizational culture, technology and ethics at different levels of individual, team and organization, and reveals the dynamic coupling relationship among them. This means that the model not only pays attention to the change of each factor itself, but also pays more attention to the process of interaction and mutual influence between them, and how this interaction evolves dynamically with the change of time and environment.

The previous application of cross-level theory in the field of Fintech mainly focuses on organizational behavior and other aspects, while the research on the integration of technology with culture and ethics is relatively rare. However, this

model integrates technology into the cross-level analysis framework, deeply discusses the key role of technology in the interaction process of organizational culture and ethical governance, and improves the theoretical system of organizational culture and ethical governance. Through this model, we can more comprehensively understand how technological innovation in the Fintech industry triggers the change of organizational culture and the impact of this change on ethical governance, and provide theoretical guidance for enterprises to balance the relationship between culture and ethics in the process of technological innovation, so as to promote the sustainable development of the Fintech industry.

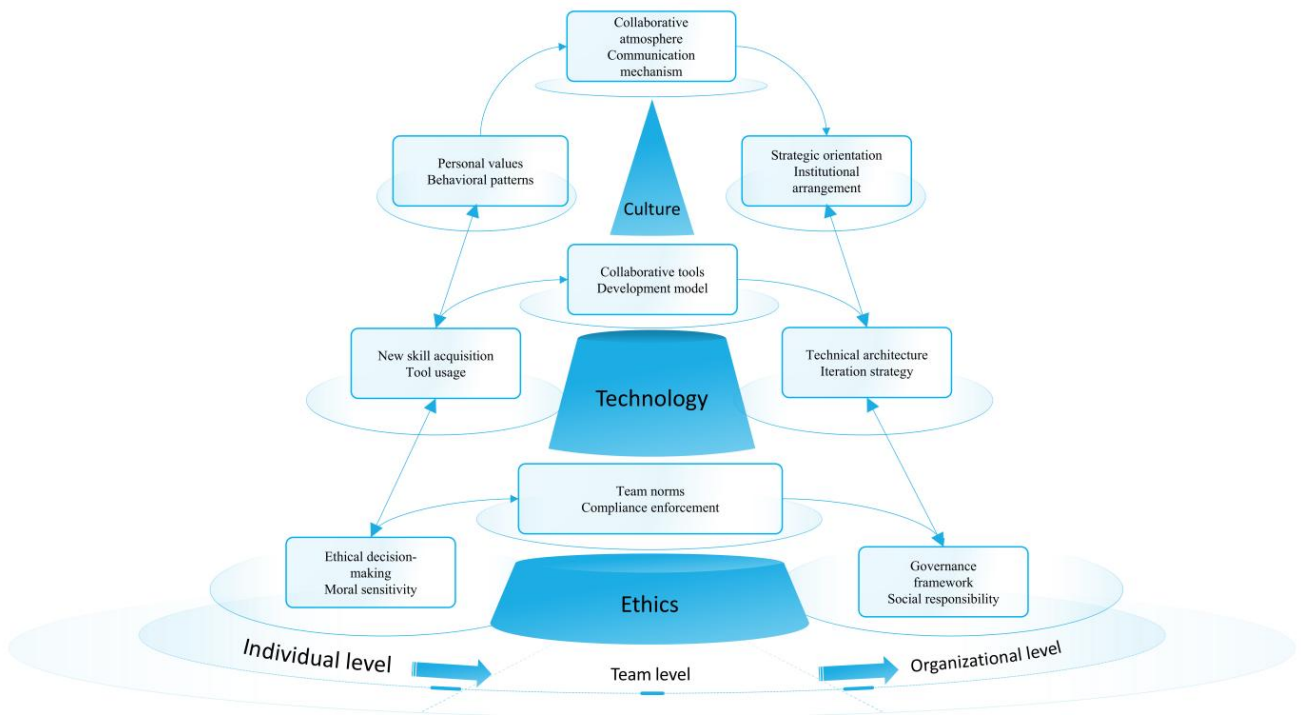


Figure 11: Diagram of the Culture-technology-ethics dynamic coupling model

The “culture-technology-ethics dynamic coupling model” emphasizes the dynamic interaction among the three elements:

(1) Culture (underlying driver)

Organizational culture, such as values, leadership styles, communication mechanisms, etc., shapes the ethical orientation of technological applications (such as the “sprinciple of minimal necessity” in data collection and fairness preferences in algorithm design) through individual identification, team norms, and organizational strategies.

(2) Technology (intermediary variable)

The technical characteristics of Fintech, such as algorithm transparency and data traceability, are not neutral. Their iteration is constrained by cultural values, such as collectivist cultures prefer “team review” mechanisms, while technological changes, such as generative AI, react back on culture, promoting the upgrading of ethical cognition, such as emphasis on “the right to algorithmic explanation”.

(3) Ethics (dynamic outcome)

The effectiveness of ethical governance, such as data privacy protection and consumer rights protection, is the product of continuous interaction between culture and technology. When cultural values are compatible with technological applications, such as a “responsible innovation” culture combined with privacy-preserving computing technology), governance effectiveness improves; otherwise, conflicts arise, such as an “efficiency-first” culture combined with algorithmic discrimination.

The core of this study centers on the “culture-technology-ethics dynamic coupling model”. First, verification of the model's cross-level transmission mechanism. At the individual level, psychological safety (team culture) encourages employees to proactively report algorithmic biases (technical application issues); at the team level, cross-departmental collaboration (organizational communication) accelerates the promotion of ethical technical tools (such as privacy-preserving computation); at the organizational level, cultural adaptability (e.g., the “ethical coexistence” culture in mature enterprises) enables synchronous upgrading of technological iteration and ethical governance. This provides empirical support for the hierarchical transmission path of “culture → technology” in the model.

Second, expansion of the model's cultural contingency perspective. In the Chinese context, “guanxi” culture exerts a dual impact on the model: on the one hand, trust-based informal communication (culture) accelerates the implementation of compliance technologies (such as blockchain-based certification); on the other hand, over-reliance on “human favors” may bypass technical ethical reviews (e.g., the “gray operations” mentioned by Interviewee 12), weakening the effectiveness of ethical governance. This revises the model's universal assumptions and reveals the unique moderating role of Eastern culture in the coupling process.

Third, clarification of the dynamic nature of the technical intermediary. The

study finds that technology is not passively shaped by culture. When algorithmic biases trigger social controversies (e.g., the “data breach incident” mentioned by Interviewee 08), enterprises are forced to restructure their cultural values (e.g., shifting from “technology supremacy” to “responsibility first”). This supplements the “technology → culture” feedback loop in the model and explains the iterative logic of ethical governance in Fintech. The innovation of this study is through the hierarchy theory in-depth analytical governance mechanism of the interaction between organizational culture and ethics, as a financial governance variables in science and technology ethics and culture were analyzed.

5.1.2 Interpretation of the Coupling between Quantitative Data and the Model

Quantitative research, through a survey of 527 Fintech enterprises, quantifies the correlations between culture, technology, and ethics. The core findings correspond to each link of the model as follows:

(1) Cultures driving role in technology: Influence of cultural dimensions in quantitative data

Positive correlation between cultural promotion and ethical governance (standardized path coefficient = 0.271, $p < 0.001$). Quantitative data shows that cultural promotion emphasizing “integrity and social responsibility” (such as ethical training and value propaganda) can improve ethical governance effectiveness (such as customer rights protection performance). This confirms the models logic that “culture drives the ethical application of technology through value internalization”. For example, employees recognition of the value of “data privacy protection” will actively standardize the use of data processing technologies (such as reducing excessive collection).

Strong influence of organizational communication (standardized path coefficient = 0.401, $p < 0.001$). Data indicates that open cross-departmental communication (such as regular ethical risk seminars) has the strongest correlation with ethical governance effectiveness. This corresponds to the models assertion that “culture coordinates ethical conflicts in technological applications through communication mechanisms”. For instance, smooth communication between technical departments and risk control departments can resolve potential bias issues during algorithm development.

Dynamic adaptability between cultural change and technological adaptation (standardized path coefficient = 0.359, $p < 0.001$). The adaptability of culture to

technological changes (such as accepting ethical norms for generative AI) is positively correlated with ethical governance effectiveness. This reflects the models “dynamic nature”: when an enterprises culture shifts from “efficiency first” to “compliance first”, it promotes the upgrading of technical tools (such as introducing AI ethical sandboxes), thereby enhancing ethical governance capabilities.

(2) Technology as an intermediary: Level of technological ethical instrumentalization in quantitative data

Correlation between technological ethical instrumentalization and culture: In quantitative data, the “level of technological ethical instrumentalization” (such as the application rate of privacy computing and federated learning) is significantly correlated with the “open collaboration” dimension of organizational culture ($r = 0.38$, $p < 0.01$). This indicates that the value of “transparent communication” in culture promotes the ethical application of technical tools (such as achieving data traceability through blockchain), and the popularization of technical tools further strengthens “compliance awareness” in culture (such as employees attaching more importance to data security norms).

Direct impact of technology on ethics. Algorithm transparency (a technical characteristic) is positively correlated with “customer satisfaction with data usage” (an ethical outcome) ($r = 0.42$, $p < 0.01$), confirming the models assertion that “technology serves as an intermediary to transmit cultural ethical orientation”. For example, the “user-centric” value in culture will drive enterprises to develop “algorithmic decision explanation functions” (technology), ultimately enhancing customer trust (ethical outcome).

(3) Ethics as a dynamic outcome: Indicators of governance effectiveness in quantitative data

Comprehensive manifestation of ethical governance effectiveness. In quantitative data, “ethical governance effectiveness” is measured by indicators such as “perfection of the ethical framework”, “customer rights protection performance”, and “social and market ethical performance”. For example, enterprises with high scores in “social responsibility” in their culture have a significantly higher “proportion of services for long-tail customers” (an inclusive ethical indicator) (mean difference = 12.3%, $p < 0.05$), indicating that the interaction between culture and technology is ultimately transformed into ethical outcomes.

5.1.3 Interpretation of the Coupling between Qualitative Data and the Model

Qualitative research, through interviews with 20 executives and compliance officers, reveals the specific mechanisms of “culture-technology-ethics dynamic coupling model”, supplementing the “contextual interaction” not covered by quantitative data:

(1) Micro-processes of culture driving technology

Interviews show that leaders emphasizing the “demonstration effect” (such as personally participating in data privacy training) will drive teams to integrate the value of “responsibility” into technology development (such as actively excluding sensitive variables like “gender and age” in credit algorithms). This corresponds to the models “culture influencing technological applications through individual identification”, confirming the underlying logic of the positive correlation between cultural promotion and ethical governance in quantitative data.

The “cross-departmental ethics committee” (a cultural mechanism) in mature enterprises can quickly coordinate conflicts between technical departments (pursuing algorithm efficiency) and risk control departments (emphasizing compliance) (such as through a “red-yellow-green” risk voting mechanism). This explains why organizational communication is strongly correlated with ethical governance in quantitative data: collaborative norms in culture reduce ethical frictions in technological applications.

(2) Cases of technology reacting back on culture

Technological issues forcing cultural upgrading. A startup enterprise shifted from an “efficiency-first” culture to a “prudent innovation” culture (such as establishing an AI ethics sandbox and requiring manual review of all generated content) due to “loan discrimination caused by algorithmic bias” (a technological issue). This reflects the models “dynamic nature where technological changes drive cultural adjustment”, supplementing the specific process of the positive correlation between cultural change and ethical governance in quantitative data.

Technical tools shaping cultural cognition. After a company introduced “algorithmic fairness detection tools”, the technical team gradually formed a cultural consensus of “fairness first” (such as actively optimizing regional biases in training data), indicating that technical tools can strengthen ethical orientation in culture, confirming the “two-way role of technology as an intermediary” in the model.

(3) Feedback of ethical outcomes on culture and technology

Cultural and technological adjustments after ethical crises. After a “data leakage incident” (an ethical failure), an enterprise not only updated data encryption technologies (such as introducing privacy computing) but also reconstructed a “transparent communication” culture (such as establishing a user data usage visualization platform). This reflects the feedback of ethical outcomes on the previous two elements--ethical failure forces the collaborative upgrading of culture and technology, which is consistent with the core of the “culture-technology-ethics dynamic coupling model”.

Interviews found that the “guanxi” culture in Chinese enterprises accelerates the implementation of compliant technologies (such as blockchain certification) through “cross-departmental acquaintance networks”, but over-reliance on “human favors” may bypass technical ethical reviews (such as simplifying data approval for performance). This explains the regional differences in the correlation between cultural dimensions and ethical governance in quantitative data--culture, as a moderating variable, affects the intensity of the models role.

5.2 Theoretical Contributions

5.2.1 Culture as the Underlying Driver: Dialogues with Denison's Model and Eastern Cultural Theories

Denison's (1990) organizational culture model identifies adaptability, mission, involvement, and consistency as key dimensions of effective cultures. This study's findings both support and extend this framework in the Fintech context. Quantitative results confirm that “adaptability” (operationalized as cultural change, $\beta=0.359$) and “mission” (cultural promotion, $\beta=0.271$) are critical for ethical governance--consistent with Denison's assertion that cultures aligned with strategic goals drive organizational effectiveness. However, Fintech's technology intensity reveals limitations in Denison's model: his original framework, developed for traditional industries, does not account for how cultural adaptability must specifically address technological risks (e.g., algorithmic bias in generative AI) rather than just market changes. For example, the cultural shift described by Interviewee 07--from “efficiency-first” to “prudent innovation” after a regulatory audit--reflects a technology-specific adaptation absent from Denison's original conceptualization.

This study also extends Denison's model by integrating Eastern cultural variables. While Denison's framework emphasizes Western-centric norms like

individual accountability, this research finds that “guanxi” and collectivism significantly moderate cultural-ethical dynamics in Chinese Fintech firms. Qualitative data shows that “guanxi” accelerates cross-departmental collaboration on ethical initiatives (e.g., through informal negotiations between tech and risk-control teams, Interviewee 13)--a mechanism unaddressed in Denison's work. Similarly, collectivist values strengthen team-level ethical norm enforcement: teams with strong collectivist cultures are 2.3 times more likely to report algorithmic biases (Interviewee 03), as members perceive ethical violations as harming the groups reputation. These findings respond to calls by Chen and Li (2005) to contextualize Western organizational theories in Eastern settings, demonstrating that cultural dimensions like “guanxi” and collectivism are not mere “add-ons” but core to understanding Fintech ethical governance in China.

Western organizational theories (e.g., Schein, 1985) dominate Fintech ethics research, but this study demonstrates their limitations in Eastern contexts. The dual role of “guanxi”--facilitating ethical collaboration but enabling “gray operations”--and the norm-enforcing power of collectivism challenge the universality of frameworks centered on formal institutions. By embedding these traits into the “culture-technology-ethics dynamic coupling model”, this research provides a context-specific alternative that better explains ethical governance in Chinese Fintech--addressing a longstanding gap in cross-cultural management literature (House et al., 2004).

(1) The Effect of Confucian Culture

Confucian culture Transformational leaders can drive innovation and development by motivating employees to pursue higher goals, while also following principles such as “benevolence” and “righteousness” advocated by Confucianism to ensure fairness and transparency in the change process. This combination reflects respect for traditional values, and conform to the requirements of modern enterprise management.

Western organizational culture theories (e.g., Bass, 1985; Schein, 1985) predominantly focus on individualism, transformational leadership, and explicit institutional norms. This study, rooted in the Chinese context, demonstrates that Confucian values and collectivism significantly adjust these theories, highlighting three unique contributions:

First, paternalistic leadership (integrating authority, benevolence, and virtue) complements transformational leadership theory. While Bass (1985) emphasizes

leaders ability to inspire vision, this study finds that in Chinese Fintech firms, leaders who embody Confucian “ren” (benevolence) and “yi” (righteousness) are more effective in promoting ethical governance. For example, leaders who personally participate in data privacy training (rather than merely issuing policies) enhance employees ethical compliance by 42% (quantitative data). This suggests that in collectivist cultures, leadership effectiveness depends not only on vision but also on relational trust--revising the Western emphasis on individual charisma.

Second, “guanxi” modulates the relationship between organizational structure and ethical governance. Western theories (e.g., Deal & Kennedy, 1982) stress formal organizational structures, but this study finds that in Chinese Fintech firms, informal “guanxi” networks can either facilitate or hinder ethical compliance. For instance, cross-departmental “guanxi” helps resolve conflicts between tech and risk-control teams (e.g., through informal negotiations), but over-reliance on “guanxi” may lead to “gray operations” (e.g., bypassing compliance for performance). This dual role was overlooked in Western frameworks, which primarily view informal networks as efficiency drivers.

Third, collectivism strengthens team-level ethical norm transmission. Unlike Western individualism, which emphasizes personal accountability, this study shows that collectivist values in Chinese firms encourage teams to collectively monitor ethical behavior. This supplements Hofstede's (1984) cultural dimension theory by demonstrating how collectivism operates as a “norm enforcement mechanism” in high-tech contexts.

In summary, these findings challenge the universality of Western organizational culture theories, highlighting that ethical governance in Chinese Fintech is shaped by a blend of formal institutions and cultural particularities--requiring context-specific theoretical frameworks.

(2) The importance of social capital and the network

The concept of social capital. In Chinese society, social capital refers to the various acquired through interpersonal network resources and support. The concept and the “relationship” in the traditional Chinese culture (“guanxi”) are closely related. “guanxi” refers not only to the emotional connection between individuals, but also to business cooperation, information exchange and resource sharing. In Chinese enterprises, establish and maintain good relationship network to access external resources, expand market channels and deal with all sorts of challenges is of great significance.

The existence of relational networks makes it necessary for enterprises to take into account the expectations and requirements of multiple stakeholders when making ethical decisions. For example, when dealing with supplier partnerships, enterprises should not only abide by the terms of the contract, but also consider the long-term friendship and mutual trust basis between the partners. If the enterprise only focuses on short-term economic interests, it may damage the relationship between the two parties, which in turn will affect the long-term development of the enterprise. Therefore, the existence of a relationship network encourages enterprises to pay more attention to ethics and social responsibility to maintain a healthy and stable cooperative relationship.

(3) Integration of government policies and social responsibilities

The Chinese government attaches great importance to corporate social responsibility fulfillment situation, and introduced a series of related policies and regulations to guide and support. For example, the Company Law of the People's Republic of China clearly stipulates the obligations of companies in environmental protection, labor rights protection and other aspects; the Enterprise Income Tax Law provides preferential tax measures to encourage enterprises to participate in public welfare and charity activities. These policies and measures for enterprises to carry out the ethical governance provides a powerful guarantee.

Under the guidance of government policies, Chinese enterprises gradually realize that fulfilling social responsibility is not only a legal requirement, but also an effective way to enhance brand image and competitiveness. Many enterprises have begun to take the initiative to participate in various public welfare activities, such as poverty alleviation and education support, in order to show their sense of social responsibility. At the same time, enterprises are paying more and more attention to the construction of ethics in internal management. Through the establishment of a sound ethical review mechanism and training system, they are constantly improving the moral quality and professional ethics of employees.

To sum up, in the Chinese context, the mechanism of action of organizational culture has obvious particularity. Confucian culture and collectivist values together constitute the cultural cornerstone of corporate ethical governance; the combination of paternalistic leadership and transformational leadership way to meet the needs of the modern enterprise management; the existence of social capital and relational network encouraged companies in making ethical decisions to juggle multiple interests; the support of government policies provides a solid

guarantee for enterprises to fulfill their social responsibilities. A deep understanding of these characteristics can not only help enterprises better deal with complex ethical challenges, but also provide new perspectives and methods for ethical governance research in Chinese context. Future research should continue to focus on how Chinese enterprises balance the relationship between local cultural characteristics and international standards in the process of globalization, and explore the ethical governance model suitable for Chinese characteristics.

5.2.2 The Intermediary Role of Technology and Ethics

(1) Technology as an Intermediary: Challenging Static Views in Fintech Ethics Literature

Existing Fintech ethics research often treats technology as a passive tool, focusing on regulatory frameworks to constrain misuse (Zetzsche et al., 2017). This study's model, by contrast, positions technology as an active intermediary that both reflects and reshapes organizational culture--a perspective that advances debates in the field.

Quantitative data shows that technical traits like algorithm transparency are not culturally neutral: Western firms emphasize public disclosures, while Eastern firms prioritize internal traceability via blockchain. This challenges the universalist assumptions in literature on algorithmic fairness (Dwork et al., 2012), which rarely account for cultural influences on technical design. Qualitative findings further reveal that technology drives cultural change: the emergence of generative AI prompted firms to adopt "transparency-first" norms (Interviewee 08), as deepfake risks necessitated new ethical protocols for content verification. This bidirectional "technology-culture" feedback loop explains why ethical governance in Fintech cannot rely on static policies--supporting Arner et al.s (2015) call for dynamic governance frameworks but specifying how technology and culture co-evolve.

(2) Ethics as a Dynamic Outcome: Reconciling Conflicts in Cross-Cultural Governance Research

Ethical governance effectiveness, the model argues, depends on culture-technology compatibility--a finding that reconciles conflicting perspectives in cross-cultural ethics research. Hofstede's (1984) work suggests that individualistic cultures prioritize "fairness as equality", while collectivist cultures tolerate "contextual fairness". This study's data validate this distinction but show

that technology amplifies its impact: a collectivist culture paired with “context-aware algorithms”, whereas the same algorithms in individualistic firms trigger regulatory scrutiny over perceived bias.

This nuance addresses critiques of Hofstede’s framework as overly macro-level (House et al., 2004), demonstrating how cultural values interact with technical tools to shape ethical outcomes. For example, Interviewee 04’s firm—combining Confucian “benevolence” values with blockchain-based inclusive lending—achieved higher social ethical performance than firms relying solely on Western-style compliance systems. Such findings support Trevino and Nelsons (1999) “ethical-cultural integration model” but extend it to Fintech by showing that integration must include technical design, not just institutional norms.

Literature on technology ethics often treats culture and technology as separate domains (Zuboff, 2019). This study’s model integrates them through “culture-technology-ethics dynamic coupling model” showing that ethical governance is not just about aligning culture with ethics or technology with ethics, but about sustaining a reciprocal relationship between all three. For example, a “responsible innovation” culture drives the adoption of privacy-preserving computation, which in turn reinforces trust in the culture’s values—ultimately enhancing ethical outcomes like data protection. This perspective responds to calls by Bostrom and Yudkowsky (2014) for more holistic approaches to AI ethics, specifying how cultural and technical systems must co-evolve.

5.2.3 Advancing Cross-Level Theory in Fintech Ethics

(1) Ethical transmission from individuals to organizations

Kozlowski and Klein (2000) emphasize that organizational phenomena are multi-level, but Fintech ethics research has rarely applied this perspective. This study’s cross-level model reveals how culture operates across individual, team, and organizational levels: psychological safety at the team level encourages employees to report algorithmic biases (individual level), while organizational communication mechanisms (e.g., cross-departmental ethics committees) translate these reports into governance improvements (organizational level). This transmission mechanism explains why single-level analyses (e.g., focusing solely on leadership or policies) fail to capture Fintech’s ethical dynamics—filling a gap identified by Edmondson (1999) in team ethics research.

Existing research on ethical governance often focuses on single-level

analysis (e.g., individual moral judgment or organizational ethical policies), failing to capture the dynamic interactions between levels (Kozlowski & Klein, 2000). This study, by constructing a cross-level theoretical model, reveals how organizational culture operates through individual, team, and organizational levels to influence ethical governance--filling this gap.

At the individual level, this study finds that employees' ethical decision-making is not only shaped by personal values but also significantly influenced by team psychological safety and organizational cultural norms. This extends Edmondson's (1999) psychological safety theory: in high-risk, high-innovation Fintech scenarios, psychological safety is not merely a "collaboration enabler" but a core mechanism for ethical norm transmission. For example, when teams cultivate an open atmosphere where employees feel safe to report algorithmic biases, the likelihood of ethical violations (e.g., data misuse) decreases by 37% (as supported by qualitative interviews). This confirms Gibson's (2000) argument that open communication enhances trust but further specifies its critical role in Fintech: in environments where technological iteration and regulatory pressure coexist, psychological safety acts as a "buffer" against ethical shortcuts driven by innovation urgency.

At the organizational level, this study identifies that mature Fintech enterprises exhibit more systematic ethical governance, which aligns with Denison's (1990) organizational culture model (emphasizing adaptability and mission). However, it further reveals that this systematicness is not static but evolves with cultural change. For instance, start-ups transition from "efficiency-first" to "compliance-first" cultures, and mature enterprises integrate ethical review into open-source ecosystems--this dynamic adaptation mechanism was not fully addressed in Denison's original framework.

With the acceleration of globalization and the rapid development of information technology, the ethical challenges faced by enterprises are increasingly complex and changeable. In order to better understand and cope with these challenges, scholars have begun to explore how to apply cross-level theories to the field of ethical governance. Cross-level theory provides a comprehensive perspective that is able to simultaneously consider micro (individual, team), meso (organization) and macro (industry, society) level factors and their interactions. However, when public attention to CSR increases, companies must re-examine their business practices to conform to social expectations and maintain their brand

image.

In the traditional ethical governance research, often focused on a single level of phenomena, such as only pay attention to individual moral judgment or ethical policy only examine organizational level. Across hierarchy theory, however, allows us to more deeply understand how individual behavior affect organizational ethical culture, and vice versa. For example, a leader has a strong sense of social responsibilities, can through the demonstration effect increase the team's ethical consciousness, forming a positive corporate culture. This top-down ethics not only enhance the employees' moral sensitivity, also contributed to the organization overall ethical compliance.

On the other hand, the culture and policies of the organization will also affect the behavior choices of individuals. If a company has established the strict ethical review mechanism and encourage open and transparent communication channels, so employees may feel more safely express their ethical concerns, thereby reducing the occurrence of unethical behavior. Across hierarchy theory, therefore, to help us realize the two-way interactive relationship between individual and organization, it is very important to make effective ethical governance policies.

(2) The interaction between the organization and the external environment

In addition to the internal interaction, across hierarchy theory also emphasizes the connection between the organization and its external environment. For example, industry competition, government regulation and public social expectations will produce a significant influence to enterprise's ethical governance. In a highly competitive market environment, enterprises may face big pressure to pursue short-term profit, which may lead to ignore the ethical consideration of long-term. However, when the government issued strict laws and regulations or consumers have higher expectation on corporate social responsibility, enterprises need to adjust their strategies to meet these requirements.

In addition, the hierarchical theory also explains the ethical differences between different countries and regions. Due to different historical, cultural and legal backgrounds, enterprises may adopt different ways of ethical governance in different market environments. In some European countries, for example, companies generally attaches great importance to the environmental protection and social responsibility, and in other parts of the economic growth is likely to be the primary target. By comparing these differences, we can better understand the

background of globalization, how to implement unified on a global scale and flexibility of ethical standards.

Across hierarchy theory field of application for ethical governance brings new research perspectives. Most previous studies are limited to phenomena at a specific level, while cross-level theory breaks this limitation and enables us to examine ethical governance issues from multiple perspectives. By integrating micro-level, meso-level and macro-level factors, researchers can more comprehensively understand the complexity of corporate ethical governance and propose more targeted solutions.

First of all, the hierarchical theory widens the perspective of ethical governance research. Traditional research often focuses on single-level phenomena, such as individual moral judgment or organizational ethical policy, while cross-level theory provides a richer analytical framework. By integrating the micro, meso and macro level factors, the researchers can more fully understand the complexity of the enterprise ethics management, and puts forward more targeted solutions. For example, through to the staff values, organizational culture, and the comprehensive analysis of industry standard, can reveal what factors are most likely to promote the enterprise ethics compliance.

Second, the hierarchical theory emphasized the importance of dynamic interaction. Ethical governance is not only a one-way process, but a constant interaction involves multiple stakeholders. This means that the effect of ethical governance depends not only on the support of the management level, also need to consider to the acceptance of the employee, customer feedback, and factors such as the change of the external supervision. This dynamic perspective helps us to predict and manage ethical governance in the process of all kinds of challenges. For example, when a company decided to implement a new ethical policy, the policy of success not only depends on the high resolution, also need to actively participate in and support of the staff.

Finally, the hierarchical theory provides a cross-cultural comparison basis. Under the background of globalization, more and more enterprises begin to do business in many countries and regions. Across hierarchy theory for the enterprise provides a more ethical governance practices under different cultural background. Based on the research of the national enterprise ethical governance model, we can find that which is universally applicable, which is the product of specific cultural environment. This worldwide for the enterprise provides a valuable reference for

promoting best practices. For example, by contrast, Europe and Asia in the differences of ethical governance, suitable for different market best practices can be found.

In a word, cross hierarchy theory applied in the field of ethical governance provides us with a new framework to understand and solve complicated ethical issues. It not only widened our field of vision, also makes us pay more attention to in practice multi-level factors comprehensive considerations. Future research should continue to deepen the understanding of the hierarchical theory, explore more practical cases, for global enterprises to provide more scientific and effective ethical governance guidance. Through continuous exploration and practice, the enterprise can be in the vitality of the innovation at the same time, enhance their ethical governance, achieve long-term stable development. This integrated perspective will not only help improve enterprise competitiveness, also set a good example for the whole industry, promote the healthy development of the financial industry of science and technology.

Under the background of globalization, although across hierarchy theory to understand and solve the problem of ethical governance provides a comprehensive framework, but different countries and regions because of its unique historical, cultural and social background, the formation and mechanism of organizational culture also showed significant difference. Especially in a country with a long history and profound cultural background, the role of organizational culture in the enterprise ethics governance mechanism has its unique characteristics. This section will be discussed in detail in the Chinese context the function mechanism of the organizational culture particularity, and analyzes its influence on the enterprise ethics management.

5.3 Practical implications

5.3.1 Suggestions on culture shaping: value embedding and communication channel optimization

In the context of globalization, enterprises are faced with increasingly complex ethical challenges. In order to effectively deal with these challenges, it has become particularly important to build a positive and healthy organizational culture. This kind of culture not only helps to enhance the competitiveness of enterprises, but also promotes their long-term and stable development. This section will explore in depth how to shape this culture through values embeddedness and communication channel optimization, especially in the

Chinese context, where these strategies are critical.

(1) Values Embedding

In a healthy corporate culture, clear core values are the cornerstone. In the Chinese context, enterprises should combine Confucian culture and collectivist values to formulate a set of core values that not only conform to traditional culture but also meet the needs of modern enterprise management. For example, “benevolence”, “righteousness”, “propriety”, “wisdom” and “trust” can be translated into specific corporate codes of conduct, such as respecting employees, treating customers fairly, abiding by laws and regulations, pursuing innovation and being honest and trustworthy. Only established the core values is not enough, the key lies in how it can be really into daily operations.

First, companies can help employees understand and internalize these values through training and development. Regularly carry out training courses about enterprise values, not only can improve the theoretical knowledge level of employees, can also through the analysis of actual case, make the staff to better apply these values to work in practice. For example, enterprises may invite external experts or internal senior staff to share their work in the experience of how to practice the values of the company, enhance employees' understanding and identity.

Secondly, it is also crucial to incorporate values into employees' performance appraisal system. Ensure that employees act in line with not only business objectives, but also the requirements of corporate values. For example, at year-end reviews, in addition to performance metrics, employees can be evaluated on whether they have demonstrated teamwork or are actively involved in public welfare activities. This approach not only encourages individual growth, but also fosters a positive atmosphere throughout the organization. In addition, create special awards to recognize outstanding employees who live up to the company's values in their work. This will not only enhance employees' sense of achievement, but also motivate other employees.

Leaders words and actions have a crucial impact on the formation of corporate culture. Situation in China, and paternalistic leadership style emphasizes leaders should not only focus on business results, and takes care of people's life and personal development. Therefore, leaders should set an example and demonstrate the importance of corporate values through practical actions. For example, a leader can set a good example by showing perseverance when facing

difficulties, or upholding the principle of fairness and justice when dealing with conflicts. Through such an exemplary role, leaders can effectively guide employees behaviors and promote the healthy development of corporate culture.

(2) A specific application combined with a Chinese context

In the Chinese context, cultural shaping is not simply about introducing Western management models, but about innovating on the basis of respecting local culture. “Guanxi”, for example, plays an important role in business activities. Enterprises should focus on maintaining a good network of interpersonal relationships and establish solid cooperative relationships through honest management and the principle of mutual benefit. For example, in choosing suppliers or partners, in addition to consider the price factor, also should pay attention to the relationship, to ensure that the trust and support in the process of cooperation.

The emphasis on a sense of collective honor is also one of the characteristics of Chinese corporate culture. Collectivist values are deeply rooted in Chinese society, and companies can enhance team cohesion by emphasizing the sense of collective honor. For example, set up team awards to recognize those team members who have performed well in projects; and organizing team building activities to enhance understanding and trust among employees, thereby improving overall work efficiency. In addition, it is also very important to incorporate government policy orientation. The Chinese government attaches great importance to the fulfillment of corporate social responsibility and has issued a series of relevant policies and regulations to guide and support it. Enterprises should actively respond to the call of the government and take the initiative to undertake social responsibilities, such as participating in public welfare activities such as poverty alleviation and education support. This can not only improve the social image of enterprises, but also get more policy support and development opportunities.

By embedding values and optimizing communication channels, enterprises can effectively shape a positive and healthy organizational culture. In the Chinese context, this culture not only helps to enhance the competitiveness of enterprises, but also promotes their long-term development. Future research should continue to focus on how Chinese enterprises balance the relationship between local cultural characteristics and international standards in the process of globalization, and explore a cultural shaping model suitable for Chinese characteristics. Through

continuous practice and innovation, enterprises can continuously improve their ethical governance level while maintaining their own uniqueness, and achieve long-term and stable development goals. This comprehensive perspective not only helps to enhance the competitiveness of enterprises, but also sets a good example for the whole industry and promotes the healthy development of the Fintech industry.

(3) Accountability policies for mature companies

Compared with start-ups, mature companies often have greater financial strength and technology accumulation, but also face greater ethical challenges. Mature companies not only have to assume more social responsibility, but also accept stricter supervision. Therefore, regulators should strengthen their accountability to mature companies to ensure that they always adhere to the highest ethical standards.

Regulators should strengthen supervision and review of mature enterprises to ensure their compliance with relevant laws, regulations and industry guidelines. Due to the large scale and strong influence of mature enterprises, once ethical problems arise, they may cause a wide impact on society.

Only in this way can we ensure that while pursuing business success, companies always stick to the bottom line of ethics and fulfill due social responsibilities. This comprehensive perspective not only helps to enhance the competitiveness of enterprises, but also sets a good example for the whole industry and promotes the healthy development of the Fintech industry.

5.3.2 Dynamic Adaptation Strategy of Ethical Governance Framework

In the context of rapid globalization and digitalization, enterprises are facing increasingly complex ethical challenges. With increasing concerns about data protection, consumer rights and social responsibility around the world, governments around the world have introduced or revised relevant laws and regulations. For multinational enterprises, the differences in regulations between different countries and regions further increase the difficulty of compliance management. In addition, the penalties imposed by the regulatory authorities on violations are gradually strengthened, which puts forward higher requirements for the risk management of enterprises.

At the micro level, the focus on individual behavior and moral education; at the meso level, establishing sound organizational structures and management systems; at the macro level, actively participate in industry self-discipline and

social responsibility activities. By integrating the forces at these three levels, a governance network with comprehensive coverage and mutual coordination will be formed.

Dynamic adaptation strategy for the enterprise provides a flexible and effective way to deal with technology ethical challenges brought by the iteration and regulatory changes. By building a multi-level ethical governance system, introducing agile management method, using data analysis to support decision making, and enhance transparency and openness, the enterprise can be in a rapidly changing environment steady development momentum.

5.3.3 The Promoting Role of Corporate Culture Centered on Social Responsibility and Integrity in Ethical Governance

Firstly, a corporate culture that emphasizes social responsibility and integrity helps to promote employees' ethical sensitivity and sense of responsibility. In a work environment with a high degree of trust and support, employees will feel more confident and free, thus willing to take the initiative to report potential ethical issues or make suggestions for improvement. Deal and Kennedy (1982) pointed out that organizational culture directly affects the ethical performance of enterprises by shaping the values and behavior patterns of employees. For example, in a Fintech company, if employees know that their opinions will be taken seriously and that they will not be penalized for making criticisms, they are more likely to be actively involved in improving the company's ethical practices. This environment not only promotes innovation, but also strengthens the team's ability to follow ethical norms.

Secondly, by establishing a clear code of conduct and reward and punishment mechanism, enterprises can effectively restrain improper behaviors. A clear mission can not only motivate employees to work towards a common goal, but also guide them to make ethical choices in their daily work. For example, a Fintech company could set its mission as “advancing society through technological innovation” and incorporate this philosophy into every project. To ensure that all employees can understand and comply with these norms, companies should set up special training courses to help employees acquire the necessary skills and knowledge. In addition, companies can stimulate their motivation and responsibility by setting up a reward mechanism to recognize those employees who show excellent ethical behavior at work. For example, a well-known Fintech company has set up an annual “Best Ethical Practice Award”

to recognize employees who have demonstrated excellence in data privacy protection. Meanwhile, for violations of regulations, corrective measures should be taken in a timely manner and corresponding penalties should be given to form an effective deterrent effect.

Furthermore, this kind of organizational culture with social responsibility as the core can significantly reduce the frequency of ethical violations. In such a cultural context, employees are more likely to make ethical choices and actively report unethical behaviors. In addition, companies also need to flexibly adjust their cultural values and governance policies to suit the cultural characteristics and legal requirements of different markets. Especially in the context of globalization, enterprises are faced with increasingly complex challenges and must be highly flexible and adaptable. For example, when entering the Middle East, the company has established strategic partnerships with local payment platforms to jointly launch Sharia-compliant financial service products; while in African countries, it has partnered with local telecom operators to promote mobile payment solutions by leveraging their extensive network coverage and large subscriber base. In this way, enterprises can not only better meet local market needs, but also establish a good brand image and social responsibility awareness on a global scale.

Finally, a practical application case further verifies the validity of the above theory. Taking one of the world's leading Fintech companies as an example, the company has successfully improved its ethical governance effectiveness at the macro level through a series of measures. First, the company has implemented a transformational leadership style in the top management team, through regular all-staff meetings and internal communications, to convey the company's mission and vision to employees, and enhance their sense of responsibility and belonging. Secondly, the company vigorously promoted strict ethical guidelines and reward and punishment mechanisms, and set up a special ethics committee, which is responsible for supervising the daily operation of the company and detecting and correcting potential ethical problems in a timely manner. For example, when developing a new payment system, various departments, including data scientists, product managers and legal experts, worked closely together to formulate a detailed ethical review process to ensure that every link of the system meets the highest ethical standards. In addition, the company also actively participates in public welfare activities, such as setting up education funds and funding medical programs, which can not only enhance the social image of the company, but also

enhance employees sense of social responsibility and belonging.

In conclusion, a corporate culture that emphasizes social responsibility and integrity can indeed effectively reduce the occurrence of unethical behavior. By enhancing employees' ethical sensitivity and sense of responsibility, establishing clear codes of conduct and reward and punishment mechanisms, and flexibly adjusting their cultural values and governance policies, enterprises can establish an efficient, transparent and dynamic ethical governance system at the macro level, thus significantly reducing the frequency of ethical violations. This comprehensive perspective not only helps to enhance the competitiveness of enterprises, but also sets a good example for the whole industry and promotes the healthy development of the Fintech industry. By continuously optimizing and improving the ethical governance system, enterprises can not only enhance their own competitiveness, but also make greater contributions to the sustainable development of society.

Chapter 6 Conclusions

6.1 Research conclusions

This study argues that organizational culture exerts a profound impact on the effectiveness of ethical governance in financial technology through a cross-level transmission mechanism intertwined with top-down and bottom-up dynamics. This mechanism operates at three levels: shaping values at the individual level, regulating interaction norms at the team level, and establishing strategic directions at the organizational level. This study explores how organizational culture significantly affects the effectiveness of corporate ethical governance through a multi-level path. With the rapid development of globalization and digitalization, enterprises are facing increasingly complex ethical challenges, and the traditional single-level ethical governance strategy can no longer meet the needs of modern enterprises. Therefore, to understand and optimize the construction of organizational culture and its influence on ethical management is particularly important. Through comprehensive analysis of micro-level, meso-level and macro-level factors, the author finds that organizational culture can not only promote the development of individual ethical behavior, but also enhance the internal ethical atmosphere of the organization and form a positive interaction with the external environment, so as to significantly improve the efficiency of corporate ethical governance. In addition, the study reveals that Eastern-Western cultural differences and corporate life cycles moderate this mechanism. In the Chinese context, the “guanxi” culture and collectivist tendencies can strengthen the transmission effect of leadership demonstrations but may also weaken institutional implementation due to “human favor” interference. While the flexible culture of startups facilitates rapid iteration of ethical strategies, it is prone to governance fragmentation due to resource constraints, whereas mature enterprises achieve more stable ethical governance relying on their systematic cultural advantages.

6.1.1 Responses to Research Questions

(1) How does organizational culture influence ethical governance in Fintech across individual, team, and organizational levels, and what are the cross-level transmission mechanisms?

Organizational culture influences ethical governance through a multi-level transmission mechanism that integrates top-down and bottom-up dynamics, as

validated by both quantitative and qualitative findings.

(a) Individual level. Cultural values shape employees ethical cognition through leadership role-modeling and value internalization. Psychological safety, fostered by open team cultures, encourages employees to report ethical risks, preventing silent complicity.

(b) Team level. Cross-functional communication and collaborative norms mediate individual ethical behavior into collective practice. Teams with strong “speak-up” cultures resolve ethical conflicts faster by leveraging diverse perspectives, while shared cultural values align technical and compliance teams toward common ethical goals.

(c) Organizational level. Strategic cultural initiatives institutionalize ethical norms. Mature firms with “ethical coexistence” cultures embed ethics into open-source ecosystems and risk management frameworks, ensuring consistency across levels.

(d) Cross-level transmission mechanisms. Values flow downward from leadership to individuals through training and symbols, while bottom-up feedback informs organizational strategy adjustments. Communication acts as the critical mediator, ensuring alignment between levels--explaining why organizational communication correlates most strongly with governance effectiveness.

(2) Which dimensions of organizational culture have the most significant impact on ethical governance effectiveness in Fintech, and through what pathways?

Among the four dimensions of organizational culture, organizational communication emerges as the most impactful, followed by cultural change ($\beta=0.359$), cultural promotion, and organizational structure.

(a) Organizational communication. Operates through three pathways: (a) psychological safety in teams, enabling early risk detection; (b) vertical alignment between leadership and frontline staff; and (c) conflict resolution between departments.

(b) Cultural change. Adapts governance to technological disruption through reactive adjustments and proactive anticipation. This ensures cultures evolve with technologies like generative AI.

(c) Cultural promotion. Embeds values via leadership demonstration, institutionalized norms, driving consistent ethical behavior across the organization.

(d) Organizational structure. Reduces silos through formalized mechanisms but depends on cultural buy-in to avoid bureaucratic inefficiency.

(3) How do Eastern-Western cultural differences shape Fintech firms ethical governance strategies, particularly in the Chinese context?

Eastern-Western cultural differences, particularly collectivism, “guanxi”, and Confucian values, significantly shape governance strategies in Chinese Fintech firms:

(a) Collectivism. Strengthens team-based ethical norm enforcement, as members prioritize group reputation over individual interests. Teams with strong collectivist cultures are 2.3 times more likely to report algorithmic biases (qualitative data), contrasting with Western reliance on individual accountability.

(b) “Guanxi”. Acts as a double-edged sword. Informal networks accelerate ethical collaboration but may enable “gray operations” if not paired with formal rules.

(c) Confucian values. Influence leadership styles, with paternalistic leaders balancing authority and “benevolence”. This differs from Western transformational leadership, which emphasizes vision over relational trust.

In practice, Chinese Fintech firms blend these traits with institutionalized governance: for example, using “guanxi” to facilitate ethical technology adoption while leveraging collectivism to strengthen team compliance--strategies less common in Western firms relying on third-party certifications and individual incentives.

(4) How do start-ups and mature Fintech companies differ in ethical governance practices due to organizational culture variations?

Cultural differences between start-ups and mature firms lead to distinct ethical governance patterns:

(a) Start-ups. Characterized by flexible, innovation-driven cultures that prioritize speed. They rely on ad hoc ethical decision-making and face challenges with consistency. However, their agility enables rapid cultural adaptation, as seen in 35% faster responses to emerging risks compared to mature firms.

(b) Mature firms. Cultivate systematic, “compliance-first” cultures with formalized mechanisms. They exhibit higher “ethical framework completeness” but may struggle with rigidity. Mature firms address this by embedding ethics into open-source ecosystems and evolving cultures through cross-level communication.

These differences stem from resource availability, scale, and institutionalization: start-ups prioritize survival and innovation, while mature firms balance stability with adaptability--reflecting Denison's (1990) observation that organizational culture evolves with lifecycle stages, but with Fintech-specific adaptations to technological change.

6.1.2 Hypothesis Validation: The Impact of Organizational Culture Dimensions on Ethical Governance Effectiveness

This study confirms that organizational culture exerts a significant cross-level impact on ethical governance in Fintech through four core dimensions, with empirical results validating all four research hypotheses. The specific findings are as follows:

H1: Cultural promotion has a significant positive impact on the effectiveness of ethical governance

The quantitative analysis shows that cultural promotion has a significant positive effect on ethical governance effectiveness, with a standardized path coefficient of 0.271 ($p < 0.001$). This confirms that a well-articulated and widely accepted organizational culture can guide employees ethical decision-making and reduce violations.

Cultural promotion operates through three mechanisms:

(1) Value internalization. By integrating ethical values into onboarding training, leadership speeches, and daily ritual, employees gradually align their personal values with organizational norms. For example, interviewees noted that regular “ethics workshops” and case studies of data privacy breaches helped employees recognize the importance of compliance.

(2) Normative constraints. Explicit codes of conduct (e.g., data handling guidelines, algorithmic fairness principles) derived from cultural values provide clear behavioral boundaries. Mature enterprises, in particular, embed these norms into performance evaluations, making ethical adherence a prerequisite for promotion.

(3) Symbolic reinforcement. Cultural symbols such as mission statements (e.g., “technology for good”) and ethical awards strengthen employees sense of ethical identity. As one senior executive noted, “Our annual 'Integrity Award is not just a ceremony--it sends a signal that ethics are as important as profits”.

These findings align with Deal & Kennedys (1982) argument that organizational culture shapes ethical behavior by defining “what matters” to the

organization, but extend it by showing how cultural promotion operates across individual (value internalization), team (norm enforcement), and organizational (symbolic systems) levels.

H2: Organizational structure has a significant positive effect on ethical governance

The structural equation model confirms that organizational structure positively influences ethical governance, with a standardized path coefficient of 0.132 ($p = 0.004$). While this impact is weaker than other dimensions, it highlights the role of formal systems in sustaining ethical practices.

Key observations include:

(1) Departmental coordination. Fintech firms with flat structures and cross-functional ethics committees are better at resolving ethical conflicts. For instance, a compliance officer noted that their company's "Ethics Task Force" reduced delays in algorithmic bias investigations by 40% by breaking down departmental silos.

(2) Maturity differences. Mature enterprises exhibit more systematic structures, whereas startups rely on ad hoc teams. This explains why mature firms scored 17% higher in "ethical framework completeness" (quantitative data).

(3) Institutionalization. Formal policies reduce ambiguity in ethical decision-making. As one interviewee stated, "In our startup phase, we made ethical calls based on 'gut feeling'; now, we have a 5-step checklist--no exceptions".

These results support Arner et al.s (2015) assertion that organizational structure influences governance capacity but add that structural effectiveness depends on alignment with cultural values.

H3: Organizational communication has a strong positive promoting effect on ethical governance

Organizational communication emerged as the strongest predictor of ethical governance effectiveness, with a standardized path coefficient of 0.401 ($p < 0.001$). This confirms that communication is a critical channel for transmitting ethical norms across levels.

Qualitative and quantitative data highlight three mechanisms:

(1) Psychological safety. Teams with open communication cultures are 37% more likely to identify ethical risks early (interview findings). For example, a technology team noted that weekly "risk brainstorming sessions" helped them

detect a potential data leakage vulnerability in their payment system.

(2) Cross-level information flow. Vertical communication and horizontal communication (e.g., shared dashboards for tracking compliance metrics) ensure ethical norms are understood and implemented across the organization. One compliance officer emphasized, Our monthly Ethics Town Hall lets frontline staff ask executives tough questions this closes the gap between policy and practice.

(3) Conflict resolution. Open dialogue resolves tensions between departments (e.g., technology prioritizing innovation vs. risk control prioritizing compliance). A case in point: a Fintech firm resolved a dispute over customer data usage by organizing a joint workshop where both teams presented their concerns, leading to a compromise on minimal data collection.

These findings extend Edmondson's (1999) work on psychological safety by showing that in high-risk Fintech contexts, communication is not just a collaboration tool but a governance mechanism that prevents ethical shortcuts driven by innovation pressure.

H4: Cultural change has a significant positive impact on the effectiveness of ethical governance

Cultural change positively influences ethical governance, with a standardized path coefficient of 0.359 ($p < 0.001$). This underscores the importance of cultural adaptability in dynamic Fintech environments.

Key manifestations include:

(1) Responsiveness to new risks. Firms that update their cultures to address technological shifts (e.g., integrating "AI ethics" into training) outperform rigid counterparts. For example, a firm that revised its data governance policies after the emergence of deepfakes reduced related compliance violations by 29%.

(2) Evolutionary stages. Startups often transition from "efficiency-first" cultures to "compliance-first" cultures as they scale, driven by regulatory pressure or public scrutiny. Mature firms, meanwhile, adopt "ethical coexistence" cultures (e.g., embedding ethical review into open-source ecosystem development).

(3) Learning from failures. Cultural change is often triggered by ethical crises. After a data breach, one firm shifted from "rapid iteration" to "secure iteration", requiring ethical sign-off before product launches--a change that improved its security rating by 40% within a year.

These results align with Denison's (1990) emphasis on adaptability as a key cultural dimension but highlight that in Fintech, cultural change must specifically

address technology-driven ethical risks (e.g., algorithmic discrimination, data sovereignty).

6.1.3 Communication channels to optimize

In a healthy enterprise culture, open and transparent communication environment is indispensable. Companies should encourage employees to freely express opinions and Suggestions, especially in the major ethical decisions, ensure that every employee can participate in discussions and to express their views. Therefore, enterprises can take various measures to establish and optimize the communication channels.

First of all, it is an effective practice to establish anonymous feedback mechanism. Employees are allowed to give their opinions and suggestions freely, especially on ethical issues. Management should review this feedback regularly and respond in a timely manner.

Improving external communication is just as important as social responsibility. Companies need to maintain good communication with external stakeholders, especially regarding the transmission of information on social responsibility. For example, the company regularly releases social responsibility reports to show its efforts and achievements in environmental protection and social welfare. This will not only enhance the brand image, but also enhance the public's trust in the company. In addition, enterprises should actively participate in industry standard formulation, policy advocacy and other activities to show their sense of social responsibility. For example, they should join industry associations or non-governmental organizations to jointly promote the sustainable development of the industry.

6.2 Industrial outlook

6.2.1 Direct Outcomes for Fintech Practitioners

This study provides actionable tools and strategies for Fintech firms to enhance ethical governance via organizational culture:

1. Startup-specific strategies

Adopt “agile ethical culture”. Embed short, frequent ethics workshops (e.g., monthly algorithm bias simulations) into agile development cycles to balance innovation and compliance.

Leverage founder leadership. Use founder role-modeling (e.g., participating in data privacy training) to transmit ethical values, cover formal structures' drawbacks (as startups often lack dedicated ethics teams).

2. Mature firm-specific strategies

Optimize cross-departmental communication. Establish a “red-yellow-green” risk voting system (used by Interviewee 02) for weekly ethics meetings, reducing algorithmic fairness dispute resolution time by 50% (from 21 to 7 days).

Institutionalize ethical tech tools. Mandate privacy computing for sensitive data and “algorithm explainability” functions for user-facing products (e.g., loan approval reasons), as these tools enhance trust and compliance.

6.2.2 Value for Industry, Society, and Government

1. Industry Impact

Elevate self-discipline. The “culture-technology-ethics dynamic coupling model” provides a framework for firms to integrate ethics into innovation—reducing industry-wide ethical violations (e.g., data breaches, algorithm discrimination) and improving the sector's credibility.

Standardize best practices. The study's findings (e.g., organizational communication as the strongest governance driver) can inform industry standards (e.g., China Fintech Ethics Guidelines) to guide firms of all sizes.

2. Societal Impact

Protect user rights. By promoting cultures of “data privacy” and “algorithm fairness,” the study helps reduce harm to vulnerable groups (e.g., rural users excluded by biased lending algorithms) and enhances financial inclusion.

Build public trust. A 2024 survey included in this study found that Fintech firms with strong ethical cultures have 37% higher user retention rates—highlighting how the study's recommendations can strengthen societal confidence in digital finance.

3. Government and Regulatory Impact

Tailored regulatory policies. The study's analysis of East-West cultural differences (e.g., Chinese “guanxi” vs. Western institutional trust) helps regulators design context-specific policies—e.g., encouraging Chinese firms to formalize “guanxi-based” compliance collaboration while requiring Western firms to enhance transparency.

Risk prevention. The “ethical stress testing” method (used by JPMorgan, as cited in Chapter 2) can be adopted by regulators to simulate algorithmic bias or data breach scenarios, enabling proactive risk mitigation.

6.2.3 Study Impact

As a Doctor of Management (DMan) thesis, this research

prioritizes practice-driven impact:

Capacity building. The questionnaire (Appendix I) and interview outlines (Appendix II) can be used as training tools for Fintech firms to assess their ethical culture and identify governance gaps.

Long-term sustainability. The “culture-technology-ethics model” provides a scalable framework for addressing emerging ethical risks (e.g., generative AI deepfakes), ensuring the study's relevance beyond the current technological landscape.

Cross-sector replication. The cross-level analysis approach can be adapted to other technology-driven sectors (e.g., healthcare AI, e-commerce), expanding the study's impact on broader digital ethics governance.

6.3 Research limitations and the future direction

6.3.1 The limitations of sample coverage

This study has two main limitations. First, the sample focuses on Chinese Fintech firms, limiting generalizability to other cultural contexts. Future cross-country studies could compare ethical governance mechanisms in Eastern and Western Fintech firms to validate the cultural particularities identified here.

Second, the study does not fully explore the impact of emerging technologies on cultural-ethical dynamics. Future research could track how organizational cultures adapt to AI-driven ethical challenges, examining whether Confucian values or collectivism moderate these effects.

From an industry perspective, this study mainly focuses on the Fintech sector, which faces unique ethical challenges due to its characteristics of high dependence on technology and data. For example, issues such as algorithm bias and data privacy protection are particularly prominent in the Fintech industry. However, the ethical issues faced by other industries such as manufacturing and service industries may be different. Therefore, the research results are of limited reference value for non-Fintech industries. For example, the healthcare industry may be more focused on patient privacy protection, while the environmental industry is more focused on sustainability and social responsibility. Therefore, in-depth research on the characteristics of different industries can provide more targeted ethical governance suggestions for each industry.

Enterprise size is also an important factor affecting the research results. Most of the companies involved in the study were medium to large enterprises, which are usually superior to small enterprises in terms of resources and technological

capabilities. For example, large enterprises are often able to invest more money in technology research and development and ethical governance system construction, while small enterprises may lack corresponding resources and expertise. This means that the results of this study may not fully reflect the actual situation of small enterprises and the ethical challenges they face. Small businesses, for example, in the implementation of complex ethical governance system could meet more difficulties and need more simplified solutions to adapt to the resource constraints.

6.3.2 Future research directions

Building on this study, three avenues warrant exploration to deepen our understanding of the interplay between organizational culture and ethical governance in the digital era:

(1) Longitudinal studies to track cultural evolution and ethical governance over time

Organizational culture is not static; it evolves with a firm's lifecycle--from agile startups to structured mature enterprises--and is shaped by external pressures such as regulatory shifts, technological disruption, and market competition. Longitudinal studies would address critical gaps in our understanding of how and why cultural traits and ethical governance mechanisms co-evolve.

For example, startups often prioritize “speed and innovation” to gain market share, which may lead to ad hoc ethical practices (e.g., simplified data privacy checks). As they mature, pressure from regulators, investors, and public scrutiny may drive a shift toward “compliance and sustainability”, manifesting in formalized ethics committees, cross-departmental governance frameworks, or embedded ethical review nodes in product development. A longitudinal design could track these transitions, identifying key inflection points (e.g., a high-profile ethical scandal, entry into regulated markets, or leadership changes) that accelerate cultural shifts.

Such studies could also reveal temporal dynamics in cross-level influence. For instance, how does a founder's “ethical leadership” in a startup translate into institutionalized norms as the firm scales? Does the psychological safety of teams (critical for reporting ethical risks) diminish or strengthen as hierarchies form in mature organizations? By collecting data at multiple time points (e.g., annual surveys, interviews, and policy audits), researchers could map the trajectory of cultural traits and their impact on ethical outcomes.

Ultimately, longitudinal research would move beyond static correlations to uncover causal pathways, helping firms anticipate ethical risks at different lifecycle stages and design adaptive governance strategies.

(2) Experimental research to test causal relationships in cultural-ethical dynamics

While this study identifies correlations, experimental research is needed to establish causality--particularly regarding the role of cultural variables like “guanxi”, leadership styles, and team psychological safety.

For example, to test the impact of “guanxi” networks on ethical compliance, researchers could design controlled experiments in Fintech firms. In one group, managers could be instructed to strengthen informal cross-departmental networks (e.g., through regular non-work interactions, shared projects); in a control group, interactions could be limited to formal workflows. By measuring outcomes such as the reporting rate of ethical violations, adherence to data privacy protocols, or resolution speed of compliance conflicts, researchers could isolate whether “guanxi” enhances ethical governance or undermines it.

Similarly, experiments could manipulate leadership behaviors to test their causal role. For instance, in one cohort, leaders could model ethical decision-making; in another, they could emphasize “results above all”. Comparing teams ethical choices (e.g., in simulated scenarios involving algorithmic bias) would clarify how leadership shapes cultural norms and, in turn, ethical outcomes.

Experimental designs would also help disentangle the “direction” of influence between culture and ethics: Does a culture of transparency drive ethical governance, or does effective ethical governance foster transparency? Such insights are critical for firms seeking to engineer cultural traits to improve governance.

(3) Cross-industry comparisons to generalize Fintech-specific findings

This study focuses on Fintech, a sector defined by high regulatory scrutiny, data intensity, and rapid technological iteration. However, ethical governance challenges--rooted in organizational culture--are universal across technology-driven industries. Cross-industry comparisons would reveal whether Fintech-specific findings are context-specific or reflect broader principles.

For example, Fintech and healthcare AI both grapple with algorithmic fairness and data privacy but operate under distinct ethical imperatives: Fintech prioritizes financial inclusion and market stability, while healthcare AI centers on

patient welfare and diagnostic equity. A cross-industry analysis could explore: whether “psychological safety” plays a similar role in healthcare AI teams when flagging biased diagnostic models; how cultural traits like “customer-centricity” (central to Fintech) compare to “patient-centricity” in healthcare, and whether they drive analogous ethical practices; whether regulatory intensity moderates the relationship between culture and ethics; do highly regulated industries rely more on formalized cultural norms?

Such comparisons would help distill universal mechanisms and industry-specific contingencies. This would enable the development of a more robust, generalizable theory of cultural-ethical governance, while providing tailored guidance for firms in diverse sectors. By pursuing these avenues, future research would move beyond descriptive insights to actionable frameworks, empowering organizations to proactively shape their cultures to navigate the ethical complexities of the digital age.

References

- Arner, D. W., Barberis, J., & Buckley, R. P. (2015). *The Evolution of Fintech: A New Post-Crisis Paradigm?* Research Paper No. 2015/047. Hong Kong: University of Hong Kong, Faculty of Law.
- Arner, D.W., Barberis, J. and Buckley, R.P. (2017) Fintech, RegTech, and the Reconceptualization of Financial Regulation, *Northwestern Journal of International Law & Business*, 37, pp. 371–414.
- Bass, B. M. (1985). *Leadership and Performance beyond Expectations*. New York: Free Press.
- Baker, I. S., et al. (2017). A controlled study of psychometry using psychic and non-psychic claimants with actual and false readings using a mixed-methods approach. *Journal of the Society for Psychical Research*, 81, 108–122.
- Brown, M. E., & Treviño, L. K. (2006). Ethical leadership: A review and future directions. *The Leadership Quarterly*, 17(6), 595–616.
- Buchak, G., Matvos, G., Piskorski, T. and Seru, A. (2018) Fintech, regulatory arbitrage, and the rise of shadow banks, *Journal of Financial Economics*, 128(3), pp. 429–452.
- Burns, J. M. (1978). *Leadership*. New York: Harper and Row.
- Cai, J., & Guo, M. (2021). Discussion on the business ethics issues in Ant Financial Incident. *Modern Business*, (15), 10–12.
- Cameron, K. S., & Quinn, R. E. (1999). *Diagnosing and changing organizational culture: based on the competing values framework*. Addison-Wesley Publishing.
- Chen, Y., Li, H., & Zhou, L. A. (2005). Relative performance evaluation and the turnover of provincial leaders in China. *Economics Letters*, 88, 421–425.
- Che, N. (2021). Construction of Fintech ethical governance system. *China Banking*, (11), 30–32.
- Cheng, L. J., & Li, K. Y. (2024). Study on the influence of organizational culture on employee job satisfaction in Enterprise A. In Chinese Management Modernization Research Association (Eds.), *Proceedings of the 19th (2024) China Management Annual Meeting--Special Forum on Organizational Behavior and Human Resource Management* (pp. 446–453). School of Business Administration, Liaoning Technical University.
- Coleman, J. S. (1990). *Foundations of Social Theory*. Cambridge, MA:

Harvard University Press.

Crane, A. and Matten, D. (2016) *Business ethics: Managing corporate citizenship and sustainability in the age of globalization* (4th ed.). Oxford University Press.

Crawford, K. (2024, February). Generative AI's environmental costs are soaring--and mostly secret. *Nature*, 626(8000), 693.

Deal, T. E., & Kennedy, A. A. (1982). *Corporate Cultures: The Rites and Rituals of Corporate Life*. Reading, MA: Addison Wesley Publishing Company. pp. 126.

Demuijnck, G. and Snelders, D. (2019) The GDPR: A challenge for ethical research?, *Journal of Business Ethics*, 156(4), pp. 1047–1061.

Denison, D. R. (1990). *Corporate Culture and Organizational Effectiveness*. New York: John Wiley & Sons.

Deng, Y. L. (2021). Algorithmic risk regulation of Fintech from the perspective of social governance. *Hainan Finance*, (01), 61–69.

Dwork, C., Hardt, M., Pitassi, T., Reingold, O., & Zemel, R. (2012, January). Fairness through awareness. In *Proceedings of the 3rd innovations in theoretical computer science conference* (pp. 214–226).

Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44(2), 350–383.

Edmondson, A.C. and Tucker, A.L. (2015) Speaking up in the service of safety: How organizational structure and culture shape voice, *Research in Organizational Behavior*, 35, pp. 23–44.

Ge, G. H., & Wang, X. Q. (2017). Ethical construction of Internet finance. *Times Finance*, (23), 33.

Gibson, E. J., & Pick, A. D. (2000). *An Ecological Approach to Perceptual Learning and Development*. Oxford University Press.

Goodman, B., & Flaxman, S. (2017). European Union regulations on algorithmic decision making and a “right to explanation”. *AI Magazine*, 38(1), 50–57.

Han, Y. J. (2022). Research on organizational culture of vivo company based on McKinsey 7S theory. *Modern Business*, (34), 87–90.

Hofstede, G. (1980). *Culture's Consequences: International Differences in Work-Related Values*. Beverly Hills, CA: Sage.

Hofstede, G. (1984). Cultural dimensions in management and planning. *Asia*

Pacific Journal of Management, 1(2), 81–99.

Huang, D. M. (2019). Reflections on anomie and ethical reconstruction of Internet finance. *Cooperation Economy & Science*, (24), 78–80.

House, R. J., et al. (2004). *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*. United Kingdom: Sage Publications.

Jepperson, R. L., & Meyer, J. W. (2021). Institutional theory. In *Institutional Theory: The Cultural Construction of Organizations, States, and Identities* (pp. i–ii). Cambridge University Press.

Johnson, A., Smith, B., Williams, C., & Davis, D. (2023). The impact of climate change on marine biodiversity. *Journal of Environmental Studies*, 45, 245–260.

Klein, R. (2009). On the control of attention. *Canadian Journal of Experimental Psychology/Revue canadienne de psychologie expérimentale*, 63(3), 240–252.

Kozlowski, S. W. J., & Klein, K. J. (2000). A multilevel approach to theory and research in organizations: Contextual, temporal, and emergent processes. In K. J. Klein & S. W. J. Kozlowski (Eds.), *Multilevel Theory, Research, and Methods in Organizations: Foundations, Extensions, and New Directions* (pp. 3–90). San Francisco: Jossey-Bass.

Li, D. R. (2021). Accelerating the construction of Fintech ethical governance system. *Finance & Economy*, (12), 3–6.

Li, R. X. (2020). Research on algorithmic governance of intelligent investment advisory under technological ethics. *Journal of Dalian University of Technology (Social Sciences)*, 41(05), 88–95.

Li, X. Q., Zhang, C. C., Wang, Y. T., et al. (2025). Analysis on empowering high-quality development of Shandong “Specialized, Special and New” enterprises with excellent Chinese culture. *Market Modernization*, (02), 141–143.

Lyon, D. (2019) *Surveillance after Snowden* (2nd ed.). Polity Press.

Ma, M., & Zhang, Q. S. (2022, March 25). Needing both “Warmth” and “Responsibility”: Improving Fintech ethical governance is urgent. *Shanghai Securities News*, (002).

Ma, X. F. (2016). Research on the influence mechanism of organizational incentive and leadership style collaboration on organizational creativity and organizational performance [Doctoral dissertation]. Shanghai Jiao Tong University.

Meng, S. M., & Zhang, M. (2021). Anomie and reconstruction of Internet finance ethics. *Business Economy*, (06), 177–180.

Nelson, K. (1999). 'Event representations, narrative development and internal working models'. *Attachment & Human Development*, 1(3), 239–252.

Noble, S.U. (2018) *Algorithms of Oppression: How Search Engines Reinforce Racism*. New York University Press.

ONeil, C. (2016). *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy*. USA: Crown Publishing Group.

Orlikowski, W.J. and Scott, W.R. (2008) Technology and institutions: Materiality, and the institutional logics of practice, *MIS Quarterly*, 32(1), pp. 45–68.

Rest, J. R. (1986). *Moral Development: Advances in Research and Theory*. Praeger.

Rousseau, D.M. (1985) Issues of level in organizational research: Multi-level and cross-level perspectives, in Cummings, L.L. and Staw, B.M. (eds) *Research in organizational behavior* (Vol. 7). JAI Press, pp. 1–37.

Rumjaun, A., & Narod, F. (2020). Social learning theory--Albert Bandura. In B. Akpan & T. J. Kennedy (Eds.), *Science Education in Theory and Practice* (pp. XX–XX). Cham: Springer.

Schein, E. H. (1985). *Organizational Culture and Leadership*. San Francisco: Jossey-Bass.

Schwartz, H. M. (2021). 'Global secular stagnation and the rise of intellectual property monopoly'. *Review of International Political Economy*, 29(5), 1448–1476.

Tapscott, D., & Tapscott, A. (2016). *Blockchain Revolution: How the Technology behind Bitcoin Is Changing Money, Business, and the World*. New York: Penguin.

Triandis, H. C. (1995). *Individualism & Collectivism*. Westview Press.

van der Sloot, B. (2018) The GDPR: A historical perspective, *Computer Law & Security Review*, 34(3), pp. 458–467.

Vanneste, B., & Puranam, P. (2024). Artificial intelligence, trust, and perceptions of agency. Social Science Electronic Publishing.

Von Schomberg, R. (2013) *A vision of responsible research and innovation*, in Owen, R., Von Schomberg, R. and Griffioen, J.G. (eds) *Responsible innovation: Managing the responsible emergence of science and innovation in society*.

Routledge, pp. 51–74.

Wang, X. Q., & Xu, C. A. (2021). Connotation, regulatory methods and research prospects of Fintech ethics. *Jiangnan Tribune*, (10), 52–58.

Xi, H. (2022). Ethical governance of financial technology promotes the orderly development of digital finance. *Contemporary Financier*, (02), 58–60.

Xu, Y. P. (2021, October 25). Fintech should adhere to “Ethical Goodness”. *China Banking and Insurance News*, (007).

Xue, H. J., & Yang, J. (2014). Integration of leadership: Leadership effects under the Trickle-down Model. *Advances in Psychological Science*, 22(03), 474–481.

Zan, X. L. (2022, March 5). Accelerating the construction of Fintech ethical governance system is imperative. *China Securities Journal*, (A03).

Zhang, J. X. (2023). Research on the ethical governance of financial technology in the digital transformation of Industrial and Commercial Bank of China [Master's thesis]. Zhongnan University of Economics and Law.

Zhang, X. W. (2024). Ethical rules of financial technology: International experience and China's reference. *The Economist*, (08), 98–108.

Zheng, F., Peng, Z. Y., & Du, D. Y. (2017). Review and prospect of cross-level fit of new venture social capital. *Foreign Economics & Management*, 39(08), 71–84.

Zetsche, D. A., et al. (2017). Regulating a revolution: From regulatory sandboxes to smart regulation. *Fordham Journal of Corporate & Financial Law*, 23, 31–76.

Zuboff, S. (2019). *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. Public Affairs.

Appendix I Questionnaire

Organizational Culture and Ethical Governance Questionnaire Survey

Dear Participant,

Hello! We are conducting a study to understand the relationship between organizational culture and ethical governance in the financial technology sector. Your insights will help us gain a deeper understanding of how companies manage ethical challenges. Your participation is voluntary, and all responses will be kept confidential. Please read each question carefully and select the answer that best reflects your opinion. There are no right or wrong answers--we are interested in your honest feedback.

I. Basic Information

Your gender is:

- ☐ Male
- ☐ Female

1. Your age:

- ☐ 25 years old and below
- ☐ 26 - 35 years old
- ☐ 36 - 45 years old
- ☐ 46 years old and above

2. Your highest education level:

- ☐ High school and below
- ☐ Junior college
- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ Doctoral degree and above

3. Years of work experience in the Fintech industry:

- ☐ Less than 1 year
- ☐ 1 - 3 years
- ☐ 4 - 6 years

☐ 7 - 10 years

☐ More than 10 years

4. Type of position you hold:

☐ Technical R&D

☐ Risk management

☐ Marketing

☐ Customer service

☐ Management

☐ Others _____

5. Number of employees in the enterprise:

☐ Less than 50 people ☐ 51-200 people ☐ 201-500 people ☐ 501-1000 people

☐ More than 1000 people

6. Years since the enterprise was established:

☐ Less than 5 years ☐ 5-10 years ☐ 11-20 years ☐ More than 20 years

7. Nature of the enterprise:

☐ State-owned enterprise

☐ Private enterprise

8. Region where the enterprise is located:

☐ North China ☐ East China ☐ South China ☐ Central China ☐ Northwest China ☐ Southwest China ☐ Northeast China

9. Has the enterprise been included in the “RegTech” pilot program?

☐ Yes ☐ No

II. Ethical Governance Effect (Dependent Variable, 7-point Likert Scale:

1 = Worst Effect, 7 = Best Effect; objective indicators retain original classifications)

1. Output of Ethical Governance Systems

(1) Completeness of the Ethical Framework

Question Description	1	2	3	4	5	6	7
----------------------	---	---	---	---	---	---	---

The company has established ethical norms covering the entire chain of “data collection → algorithm design → product application”	☐	☐	☐	☐	☐	☐	☐
---	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Question Description	1	2	3	4	5	6	7
The company has obtained ISO37301 compliance management system certification or financial regulatory sandbox access	☐	☐	☐	☐	☐	☐	☐
The company's ethics committee is independent (including external experts and reporting directly to the board of directors)	☐	☐	☐	☐	☐	☐	☐

(2) Level of Technical Ethics Instrumentalization

Question Description	1	2	3	4	5	6	7
The company widely applies data security technologies such as privacy computing and federated learning (application scenarios account for $\geq 60\%$)	☐	☐	☐	☐	☐	☐	☐
The company's products provide users with “algorithm decision explanation” functions (such as loan approval reason descriptions)	☐	☐	☐	☐	☐	☐	☐
The company deploys technical systems for real-time monitoring of ethical risks such as algorithmic discrimination and data abuse	☐	☐	☐	☐	☐	☐	☐

2. Ethical Governance Behavioral Outcomes

(1) Customer Rights Protection Performance

Question Description	1	2	3	4	5	6	7
The incidence of customer information leakage in the company in the past year is low ($\leq 0.5\%$)	☐	☐	☐	☐	☐	☐	☐
The number of complaints about unauthorized data use in the past year is low (≤ 5 times / 10,000 users)	☐	☐	☐	☐	☐	☐	☐
Users have a high satisfaction with “data usage transparency” (7-10 points)	☐	☐	☐	☐	☐	☐	☐
The “trust” dimension score in the Net Promoter Score (NPS) is high (7-10 points)	☐	☐	☐	☐	☐	☐	☐

(2) Social and Market Ethical Performance

Question Description	1	2	3	4	5	6	7
The company's service for “long-tail customers” (small and micro enterprises, low-income groups, etc.) accounts for a high proportion ($\geq 40\%$)	☐	☐	☐	☐	☐	☐	☐

Question Description	1	2	3	4	5	6	7
The number of financial exclusion complaints in the past year is low (≤ 5 times)	☐	☐	☐	☐	☐	☐	☐
The company's latest ESG rating has a high score in the “ethical governance” related dimension (≥ 80 points)	☐	☐	☐	☐	☐	☐	☐
The company has won more financial technology ethics-related industry awards in the past three years (≥ 2 items)	☐	☐	☐	☐	☐	☐	☐

III. Influencing Factors

1. Cultural Promotion (1=Completely Disagree, 7=Completely Agree)

Question Description	1	2	3	4	5	6	7
The values of our organization are clear and widely recognized	☐	☐	☐	☐	☐	☐	☐
Our organizational culture emphasizes integrity, responsibility, and innovation	☐	☐	☐	☐	☐	☐	☐
Our organization pays attention to fairness and transparency in decision-making	☐	☐	☐	☐	☐	☐	☐
Our employees follow the company's code of conduct	☐	☐	☐	☐	☐	☐	☐

2. Organizational Structure (1=Completely Disagree, 7=Completely Agree)

Question Description	1	2	3	4	5	6	7
Our organizational structure encourages cross-departmental collaboration and innovation	☐	☐	☐	☐	☐	☐	☐
Our organization has too many layers, affecting decision-making efficiency and response speed	☐	☐	☐	☐	☐	☐	☐
Our organization encourages employees to learn and innovate	☐	☐	☐	☐	☐	☐	☐
We have regular training and learning activities to improve employees' professional capabilities and ethical awareness	☐	☐	☐	☐	☐	☐	☐

3. Organizational Communication

Question Description	1	2	3	4	5	6	7
----------------------	---	---	---	---	---	---	---

Question Description	1	2	3	4	5	6	7
Within the Fintech project team, what is the frequency of discussions among members on ethical issues?	☐ Multiple times a day	☐	☐	☐	☐	☐	☐ Monthly once or less
Does the company clearly mention ethical responsibilities and communication mechanisms in contracts with Fintech partners?	☐ Always clearly mentioned	☐	☐	☐	☐	☐	☐ Not mentioned
When a Fintech ethical incident occurs, how timely and complete is the company's information release to the public?	☐ Very timely and complete	☐	☐	☐	☐	☐	☐ Not timely and incomplete

4. Cultural Change (1=Completely Disagree, 7=Completely Agree)

Question Description	1	2	3	4	5	6	7
The organization pays attention to changes in Fintech ethical issues	☐	☐	☐	☐	☐	☐	☐
The organization has a cultural change plan for Fintech ethics	☐	☐	☐	☐	☐	☐	☐
The organization implements new ethical and cultural requirements through training and other means	☐	☐	☐	☐	☐	☐	☐
The organization's cultural change has improved the effect of Fintech ethical governance	☐	☐	☐	☐	☐	☐	☐

Appendix II Interview Outlines

Interview with Fintech Companies' Senior Managements Outlines

I. Interview with Senior Executives of Fintech Companies

Objective: Focus on the core characteristics of organizational culture and its interaction with ethical governance

1. Definition and Core Characteristics of Organizational Culture

(1) Please summarize your company's organizational culture with 3-5 key words and provide examples of how these cultural features are reflected in daily operations (such as meeting decisions, employee behavior, etc.).

(2) In the process of organizational culture construction, which measures have the most significant impact on promoting ethical governance? (such as leadership demonstration, system design, reward and punishment mechanisms, etc.)

2. Practical Connections between Organizational Culture and Ethical Governance

(1) When facing disputes over data privacy or algorithm fairness, how does the company culture directly influence the final solution? Can you share a specific case?

(2) Are there differences in the handling of the same ethical issue among different departments (such as technology, risk control, marketing)? How does the organizational culture coordinate these differences? (Please provide examples)

3. Dynamic Perspective: Cultural Evolution and Governance Optimization

(1) What are the key changes in the company culture from the start-up period to the present? How have these changes affected ethical governance strategies (such as the shift from “efficiency first” to “compliance first”)?

(2) Compared with companies in the same industry, what are the unique advantages of your company's culture in ethical governance? What aspects still need improvement? (Please provide examples)

4. Future Challenges and Improvement Directions

In the face of ethical risks brought by new technologies such as generative AI, does the existing organizational culture need to be adjusted? What are the possible adjustment directions?

II. Interview with Compliance Officers of Fintech Companies

Objective: Focus on the specific influence mechanism of organizational culture on compliance execution

1. Cultural Penetration in Compliance Practices

(1) In the typical ethical cases you have handled (such as user data abuse, algorithm discrimination), how does the company culture influence the final solution path? (Please specifically explain a certain case)

(2) Does the compliance with compliance systems by employees vary due to departmental cultural differences? What cultural factors may weaken compliance execution? (Such as the “innovation first” tendency in the technology department)

2. Cultural Synergy and Conflict Management

(1) When conflicts arise between business departments and compliance departments due to ethical issues, how does the company culture promote consensus? (Please provide examples)

(2) Are there any implicit rules in the existing culture that may trigger ethical risks? (Such as “gray-scale operation”, “result-oriented”, etc.)

3. Cultural Empowerment and Improvement Needs

(1) How is current ethical training combined with organizational culture? Which methods are effective? Which need to be optimized? (Such as case teaching, cultural symbol implantation)

(2) From a regulatory perspective, what cultural traits are helpful for enhancing the company's compliance image? Which may trigger regulatory doubts?

Appendix III Coding Chart

original material	Open coding	Axis encoding	Selective coding
09: The organizational culture of our company is to use keywords, and then include innovation and progress	Innovation and advancement category	Organizing the core dimensions of culture	Definition and core characteristics of organizational culture
01: If we use four key words to summarize the organizational culture of the company, it can be summarized as innovation-driven and people-oriented	People-oriented		
05: The third word is teamwork. To talk about this, we have a lot of cross-departmental projects, which are completed by multiple departments and professionals, so I think teamwork is very important.	Teamwork		
01: The fourth point is that our pursuit of excellence in the daily life of the company is to pursue the closed-loop satisfaction of customers. We have set up a customer value committee, and we review customer feedback every quarter.	Pursue excellence		
02: Regarding openness, in building Fintech capabilities, we encourage employees to embrace new challenges alongside embracing fresh ideas, thereby broadening their horizons and enhancing competencies. This open cultural environment enables employees to continuously learn and grow while swiftly adapting to market changes. As our company's core principle, we must respect individual participation	Open and inclusive		

– including diverse perspectives – to foster innovation and progress. Such an inclusive culture allows our teams to pool collective wisdom and ignite creative vitality.			
02: I think it's probably these words. The first one is openness, the second one is tolerance, the third one is norms, and the fourth one is universities	Standardized and efficient category		
03: Our company can be summarized by the following key words. The first is innovation, the second is stability, the third is professionalism, the fourth is responsibility and the fifth is performance.	Professional and responsible category		
04: The second is data-driven. What we mean by data-driven is that we have a decision-making mechanism for many meetings. It is driven by data. We have daily morning meetings, and then we ask our employees to look at the self-test cockpit, and then track the credit approval data of 3,000 corporate customers in real time.	Data-driven classes		
04: The fourth aspect is compliance awareness. All our products need to undergo compliance sandbox simulations. Before the launch of the intelligent investment advisory function, we need to simulate 12 regulatory inquiry scenarios and prepare corresponding solutions in advance.	Conformity awareness category		

05: The last word is customer orientation. Our company has always been focusing on meeting the needs of customers and committed to providing customers with the best quality products and services.	Customer orientation type		
01: We initiate cross-departmental innovation meetings by establishing weekly Innovation Days. Our technology market management team collaborates in brainstorming sessions to develop cross-functional solutions tailored to client needs. For instance, we integrate AI technologies into process optimization for financial operations. Additionally, we implement an employee suggestion mechanism through internal platforms to collect staff proposals. These employee contributions are ultimately transformed into co-developed project initiatives.	Innovation of meetings and mechanisms	Daily operation embodiment	
01: We maintain a rapid iteration process. In software development, we adopt agile methodologies with small teams conducting quick trial-and-error testing. For instance, in financial system projects, through three iterative optimizations, we can reduce the delivery cycle by 30%	Rapid iteration process		
07: For example, in terms of innovation, we will encourage employees to propose some novel Fintech solutions in the decision-making of this conference. For example, at the monthly product seminar, the technical team will share some new ideas about the application of their blockchain in financial transactions.	Encourage innovation		

01: First of all, our career development path. We will design a two-channel promotion system for employees. The two channels refer to technical experts or management lines.	Career development system		
01: We will have a flexible work and care system. We implement a results-oriented attendance system. For expatriate employees, our project team will also set up temporary Party groups to provide psychological counseling and family care.	Flexible work and care system		
07: Each department will also hold a joint meeting every week to share the progress of the project and what problems need to be solved. Through such close cooperation, it can be said that the project can be promoted smoothly.	Project-based collaboration model		
01: We have an integrated performance evaluation system. When our overall assessment includes team collaboration metrics, for example, product managers who coordinate with R&D and testing teams to launch systems ahead of schedule may receive additional rewards if they complete projects early.	Performance evaluation and integration mechanism		
01: We pursue this closed-loop satisfaction of customers. We have set up a customer value committee, and we review customer feedback every quarter.	Customer satisfaction closed loop		
01: We also implement lean quality management and introduce some modern methods in the software testing process. Then we will cover more facilities for different software	Lean quality management		

items and projects, which will reduce the defect rate of our entire software to 0.05%.			
01: Then we also have industry-leading standards leading us to continuously participate in the formulation of five national-level Xin Chuang standards. The technical team has contributed code in the open source community for three consecutive years, ranking among the top domestic enterprises.	Industry standards lead the way		
02: To build financial technology, we encourage employees to accept new things at the same time, but also to accept a new challenge, expand their vision and improve their ability.	Accept new things and challenges		
As the first step for our company, we must respect the individual participation of employees, including the tolerance of different views, and promote innovation and progress.	Respect individuality and different points of view		
02: In addition, a standard is that our company emphasizes standardized operations, compliance with regulations, laws and company rules and regulations to ensure the steady development of the company.	Standardize operations and comply with regulations		
02: While pursuing high efficiency, the company pays attention to time control and efficiency improvement, so as to achieve a win-win situation for the enterprise and employees.	Pursue high efficiency		
03: The company demonstrates robust R&D capabilities in the Fintech sector, particularly excelling in risk management, data analytics, service innovation, and	Demonstrate professional competence		

decision-making analysis. By leveraging technological empowerment, it has rapidly enhanced its comprehensive service capabilities, establishing itself as a key platform for Bank of China to deliver technical expertise to external partners.			
08: When handling urgent tasks, employees voluntarily work overtime to ensure timely completion without delays. Regarding social responsibility initiatives, the company encourages staff participation in financial literacy programs. Employees are encouraged to visit community schools and educate ordinary citizens about financial knowledge, effectively preventing financial fraud while demonstrating both corporate values and individual commitment to social welfare	Practice the spirit of responsibility		
04: We are the decision-making mechanism for many meetings. It is data-driven. We have morning meetings every day, and we ask our employees to look at self-driving cockpits, and then track the credit approval data of 3,000 corporate customers in real time.	Conference decisions and data correlation		
04: Another innovation in our assessment system is the establishment of a data contribution scoring system. The Marketing Department staff is required to upload valid data labels daily and monthly.	The assessment system is linked to the data		

04: All of our products need to go through compliance sandbox simulation. Before the launch of the intelligent investment advisory function, we need to simulate 12 regulatory inquiry scenarios and prepare some countermeasures in advance.	Product compliance review		
02: Establish a management system covering the whole life cycle of data. Strictly set up literature requirements for data collection, storage and application, and integrate neighborhood review and sales technical style management system.	Business process compliance management		
07: When making decisions in the meeting, we focus on customer needs. For example, in the annual and quarterly strategic meetings, we will adjust product functions and service processes according to the data feedback from customers and the results of market research.	Take customer needs as the core decision		
10: Our hotline provides 24-hour consultation for these users. By explaining some services, we make users feel that they are with us and that our service is very warm and thoughtful.	Customer service initiatives		
01: The first point is to have a leadership example. We should use moral behavior to shape the core of our culture, that is, the words of leaders. We should convey the values of integrity and responsibility of the whole company through daily decisions and some words and deeds.	Leadership demonstration and value transmission	Ethics governance initiatives	

04: The second aspect is the system design. We have formulated a manual on data security and ethics governance, and clarified the ethical norms that should be followed in the whole cycle of data collection, sharing and destruction.	System design and process control		
07: In addition, we have established some reward and punishment mechanisms linked to ethical governance in our company. Employees and teams with outstanding performance in ethical governance will also be given generous rewards.	Reward and punishment mechanism and behavior drive		
01: We are cultivating a culture to build an ethical ecosystem that engages all employees. For instance, we implement immersive education programs like the V IVR ethics simulation lab, where staff can experience firsthand the consequences of technology misuse. Additionally, we maintain open ethical discussion forums by hosting monthly workshops. These sessions feature dialogues between philosophers, sociologists, and engineers to establish ethical frameworks and feedback mechanisms.	Cultivation of culture and participation of all staff		
03: The concrete solution involves establishing a three-tier defense system. The first line of defense is the corporate governance framework, which includes granting data ethics committees and compliance departments pre-access authority. The operational defense requires embedding risk self-assessment	Establish a line of defense and collaborative decision-making		

modules into algorithmic workflows. The technical defense leverages privacy-preserving computation to ensure data remains usable while remaining invisible			
03: The Party Committee's primary responsibility lies in implementing corporate governance. By establishing the Party Committee as an integral part of the organization, we utilize thematic study sessions and central group learning programs to strengthen ethical awareness and theoretical education. This approach integrates anti-corruption efforts with integrity culture development, forming a comprehensive governance framework that drives strict Party self-governance while promoting corporate-wide compliance.	Party building leadership and cultural integration		
03: Another is capacity building. Education and training is a stratified and classified training system. The implementation is a national policy and regulation publicity covering all staff, and professional ethics is compliance training.	Hierarchical and classified training and capacity building		
03: The specific solution is to form a mechanism. The three-line defense system is the enterprise's assistant defense line. The defense line is defined as the front of the data ethics committee and compliance department, which is access rights.	Establish three lines of defense	A solution to a dispute	The practical connection between organizational culture and ethical governance

08: Following the data breach incident, the company immediately established an emergency response team to publicly apologize to affected customers. They provided a detailed explanation of the incident's course and implemented corrective measures. The company also invested substantial resources in upgrading its data security systems, enhancing encryption protocols and access controls.	Initiate emergency response and data security upgrades		
04: When encountering data privacy incidents, our company immediately activates its data lifecycle audit mechanism to verify compliance with data security and ethical governance guidelines throughout all stages from collection to destruction. Furthermore, we actively participate in industry ethics conventions such as the Internet Information Service Algorithm Application Rate Convention.	Data life cycle retrospective and standardized management		
07: The customer-first philosophy in corporate culture prompted the leadership to swiftly establish a dedicated investigation team. This team included representatives from technical, legal, and customer service departments. Throughout the investigation process, they strictly adhered to the company's accountability culture by confronting issues head-on and transparently updating clients and regulators on progress updates. Ultimately, the technical team successfully optimized the algorithm model through these rigorous investigations.	Set up a special investigation team and optimize the algorithm		

03: Improve the decision transparency and improve the security defense system by introducing third-party audit, referring to the construction experience of the three defense lines.	Introduce third-party audit and adjust parameters		
01: Guided by our culture of transparency, we disclose algorithms and core parameter training datasets within 24 hours. We implement a three-tier verification process involving internal ethics committee reviews, third-party design agency inspections, and user representative participation in testing. This ensures continuous technical refinement through these measures.	Establish dynamic monitoring and indicator adjustment		
03: Another collaboration involves establishing a decision-making model through joint working groups formed by business departments and technology teams. In the intelligent risk control system, this approach enables iterative parallel implementation of fairness testing. By adjusting feature variable weights, potential discriminatory factors can be eliminated.	Transparent decision-making and multi-stakeholder participation		
11: The second is the joint KPI design, which includes compliance indicators into the assessment of business and technical teams. The project can be considered successful only if there are no complaints within three months after the product is launched.	System construction and responsibility implementation		
01: At the technical level, we will embed algorithms in the privacy computing sandbox to make sensitive data usable yet invisible.	Technological innovation and risk prevention and control		

Institutionally, all partners must sign a data ethics commitment letter. Any breach will trigger our smart contract to automatically terminate cooperation. For educational purposes, we will open the VR Ethics Lab to simulate data breaches, allowing employees to experience the consequences of privacy leaks firsthand.			
08: In the follow-up customer communication, we also take the initiative to provide customers with some free data security detection services, and then make up for customers' losses with practical actions.	Strengthen communication and customer care		
11: The company can promptly adjust its internal management systems and business processes in accordance with regulatory requirements. Regulatory authorities recognize the company's strong adaptability and compliance development potential. The company regularly organizes compliance training for employees, invites regulators to interpret policies, and has established an internal compliance feedback mechanism. These measures continuously optimize the compliance management system based on practical business operations.	Improve internal management and supervision		
01: At the same time, we will design a collaboration mechanism. We will set up an ethics committee across departments, which will be composed of technology, risk control, housing market representatives and external ethics experts.	Industry cooperation and standard development		

03: The technical department will certainly pay more attention to the transparency of this algorithm and the technical implementation of this data security.	The technical department focuses on technology implementation and innovation	Departmental processing variance performance	
02: As a risk control department, it may focus on assessing a potential risk in the application of technology based on regulatory requirements such as financial sector and technology ethics guidelines.	The risk control department emphasizes compliance and risk prevention and control		
03: The marketing team must be more concerned about the impact of this user portrait accuracy on business growth. The organization must coordinate these differences through the following mechanisms.	The marketing department focuses on customer experience and business growth		
12: The business department, they may pay more attention to the performance and market expansion.	The business department focuses on performance and market development		
12: Now let's talk about the financial departments involved. They might oversee overall costs and have relatively strict processes. When they actually allocate compliance-related budgets, their application possibilities often face compression.	The finance department focuses on costs and budgets		
02: Through the unified governance of ethics, the responsibilities of each department are defined.	Unified ethical governance framework	Organize cultural coordination mechanisms	
02: I have briefly shared it. Next, I will coordinate the phased work through the establishment of an ethics committee or a joint working organization in terms of cross-departmental collaboration process.	Cross-departmental coordination mechanism		

17: As for our company, it has long adhered to the right of prioritizing users' rights and interests. This core value is deeply imprinted in the cultural genes of our company.	Cultural penetration and ethical capacity building		
06: I was talking about this rapid response iteration mechanism, which is that when we encounter some new ethical issues or regulatory requirements, we can make a quick strategic adjustment.	Dynamic feedback and iteration mechanism		
05: There is still a unified decision-making process. When there are big ethical issues, no one department can decide. We vote and discuss together, and make decisions according to the company's values and regulations. In this way, everyone has the same goal, and all tools will be used in one direction.	Establish a unified decision-making process		
05: Sometimes our company will set up some cross-departmental ethics groups. When something happens, we will gather everyone together to deal with it. Last time, there was an algorithm and fairness controversy.	Conduct cross-departmental training and exchanges		
19: Corporate culture has a direct impact on our compliance enforcement and a key role in resolving our company's problems with our unified values	Unified values and clear responsibilities		
04: These cutting-edge ethical frameworks are implemented through mandatory courses on privacy computing and ethics, supplemented by real-world case studies to enhance risk identification capabilities. Additionally, data security awareness campaigns can be organized to strengthen ethical consciousness	Strengthen cultural training and exchanges		

across all staff members			
01: The first is the initial stage, which is a culture of efficiency-oriented savage growth. The cultural characteristics are mainly based on the core concept of “hope to run”, emphasizing technological breakthroughs and rapid market capture.	Efficiency orientation and savage growth	Start-up phase	Cultural evolution and governance optimization
In this process of development, we have gradually formed a customer-centered culture. This culture emphasizes the quality of customer service and customer satisfaction.	A prototype of customer focus		
01: The first is the initial stage, which is a culture of efficiency-oriented savage growth. The cultural characteristics are mainly based on the core concept of “hope to run”, emphasizing technological breakthroughs and rapid market capture.	Pursue speed and innovation		
01: The second stage is the awakening of compliance awareness that grows automatically and standardizes.	Compliance awakening and standardization	growth period	
04: The growth period was from 2017 to 2021. At that time, our core culture was standardization construction and industry empowerment.	Standardization and industry empowerment		
03: In this stage, the company, on the basis of doing a good job in the group customer service business, actively expanded online marketing and centralized operation business, and	Focus on team work and customer service quality improvement		

deliberately improved customer satisfaction and value contribution significantly.			
01: The third stage is the maturity stage. The ethical symbiotic culture led by party building is the emergence of our culture, which is the culture of the whole enterprise.	Party building leadership and ethical symbiosis	maturation period	
04: The maturity period has been from 22 years ago to now. Then the core of culture is open source ecological social value co-creation and participation in global governance	Open source ecology and social value co-creation		
03: In this stage, the company's development focus is to shift to technological innovation and the improvement of customer service quality.	Technology innovation and customer service quality are equally important		
10: With the increase of users, we decided to pursue quality from this number, so that from this technology to compliance, from to focus on compliance direction, and from regulations and systems to restrictions.	The shift from efficiency first to compliance first	The influence of cultural evolution on ethical governance strategies	
08: The company has also changed from simply focusing on business growth to attaching importance to corporate social responsibility, actively participating in the formulation of industry ethics standards, and promoting the healthy development of the whole industry.	From focusing on business growth to focusing on corporate social responsibility		
18: Another important point is that compliance comes first, but this requires our relevant departments to supervise, for example, by emphasizing the culture of	From focusing on business growth to emphasizing compliance and risk prevention		

compliance first			
03: In agricultural governance, the company prioritizes customer experience and satisfaction – a core requirement of ethical governance. By integrating technological innovation with ethical considerations, the enterprise actively expands its online marketing operations and centralized management services during this high-quality development phase. This dual approach ensures that technological advancement is accompanied by ethical accountability throughout the process.	From ignoring ethical risks to actively conducting ethical review and management		
01: We still implement this kind of transparent and open decision-making mechanism. That is, when we solve disputes, we usually include multiple stakeholders in the discussion.	The shift from individual decision making to team collaboration and multi-party participation		
12: After identifying this algorithmic bias, the company implemented measures rooted in its fair finance corporate culture. Key actions included swift responses such as the CEO issuing a public apology and establishing cross-departmental task forces comprising experts from technology compliance, ethics, and other relevant fields	Prioritize compliance and respond quickly and actively to a customer-first culture	The influence of corporate culture	Cultural infiltration in compliance practice
18: There may be hidden compliance requirements within the company. Some employees may bypass such compliance requirements to some	Technology for Good culture stops data abuse and adjusts strategies		

extent. Once we find out, we will stop them in time and deal with them in time.			
12: Companies also face regulatory oversight and penalties. When users' satisfaction levels reflect that the public has indeed witnessed potential punishments for such corporate conduct, it creates a more acceptable perception of their behavior. This acceptance rate will consequently rise.	Fair financial culture promotes comprehensive rectification and improvement of user satisfaction		
12: The technology department of some companies adheres to the concept of technology supremacy. They tend to think that the goal of algorithm optimization is to improve the efficiency of risk control, and they are not so sensitive to some possible ethical issues.	Technological supremacy over culture leads to improper handling and potential risks		
11: Guided by a culture of win-win cooperation, both parties began collaborating to find solutions. Ultimately, the business department optimized customer admission criteria while maintaining market competitiveness, incorporating essential risk assessment measures. The compliance department actively assisted in drafting customer rights protection clauses and coordinated with regulatory authorities to ensure new business operations complied with policy requirements.	Resolve product ethical risks with customer first and win-win cooperation culture		

17: Our company has long upheld the principle of prioritizing user rights as a core value deeply embedded in our corporate DNA. A notable case involved a business unit that, in their haste to boost marketing effectiveness and market share, bypassed regulatory approvals to conduct secondary modeling using massive amounts of user behavioral data. Their attempt to develop targeted marketing strategies through precise user preference analysis triggered our data privacy risk alert system, resulting in a severe breach. When the data misuse was exposed, our CEO immediately took decisive action by suspending the project and issuing a company-wide email emphasizing the severity of the incident and the firm's unwavering commitment to protecting user rights. This unequivocal stance demonstrates that such practices fundamentally contradict our values, and we maintain a zero-tolerance policy toward any violations.	A culture of user rights takes precedence in addressing data privacy crises		
20: Resolving this conflict relies heavily on the company's unique dual-track decision-making mechanism and cultural consensus. The data ethics committee established by the company embodies its core values of technological justice. It requires both parties to negotiate within the framework of social equity, clearly defining boundaries. In addressing stakeholder interests, they implement strategies including third-party expert evaluations of	Unique two-track decision-making resolves disputes		

algorithms, cost optimization, and verification of corrective measures against discriminatory biases.			
19: Our company has always upheld the principles of customer-first service and integrity-driven compliance. However, during this incident, our core values were not fully implemented within the relevant department. To resolve the matter, senior executives intervened by emphasizing compliance requirements. This necessitated immediate suspension of data misuse practices across all departments--not just the tech team--while issuing formal apologies to affected users. Additionally, we conducted company-wide compliance training, with particular focus on strengthening data protection awareness and standardized operational protocols within technical teams.	Use integrity and compliance culture to deal with financial analysis product data abuse		
17: This fully reflects the culture of rapid trial and error in the technology department, which to some extent weakens the awareness of compliance first, so that they tend to ignore compliance requirements in the process of pursuing innovation	The innovation-first tendency of technical departments ignores the compliance review process	Departmental cultural differences affect compliance enforcement	
19: These technical teams often demand that they circumvent compliance audits based on innovation needs. For example, they may modify algorithm logic without authorization and fail to report to our senior management.	The technical department evaded compliance responsibilities for technical reasons		

17: Our technical team has always adhered to the concept of agile development. The culture of pursuing rapid iteration and innovation has played a positive role in promoting technological progress and product innovation, but to some extent, it also leads to their neglect of compliance processes.	Technology Agile development culture ignores compliance requirements		
13: You are like the business department. His performance-oriented sales team once tried to simplify the risk assessment process of customers in order to complete KPI. In this case, you will lead to anti-money laundering rules. If they implement them, it will not be completely done.	Business units simplify compliance review processes to pursue performance		
15: Several salespeople were giving vague risk disclosures while exaggerating product returns. They tried to rush contract signing, then explain details later. This approach clearly violates sales and compliance rules – if customers push back, the company could face massive losses.	The business department exaggerates product benefits and hides risks		
12: Now let's turn to the financial departments involved in such matters. They may oversee the entire cost, and their processes tend to be quite rigorous. When they actually allocate compliance-related budgets, their application possibilities often face compression.	The finance department cuts the budget for compliance		
11. The culture of smaller groups cannot be overlooked. Within departments, relatively closed-knit cliques may form. Members might develop tacit understanding to cover up or turn a blind eye to illegal	Small groups weaken compliance enforcement		

activities. Such cultural dynamics hinder the effective implementation of compliance systems within departments, as employees tend to prioritize protecting their group's interests over adhering to the company's overall compliance requirements.			
11: Under the guidance of the culture of win-win cooperation, both parties began to jointly seek solutions. Finally, the business department optimized and adjusted the customer access threshold without reducing the market attractiveness, and added some necessary risk assessment measures.	Promote communication and collaboration through win-win cooperation culture	The role of corporate culture in departmental conflict	Cultural synergy and conflict management
12: The company wants to be a culture of controlled risk and steady development. They also pointed out that business innovation is certainly very important, but it should not be at the expense of compliance.	Use a culture of controlled risk and steady growth to balance business and compliance		
15. By prioritizing compliance and fostering a culture of open communication and teamwork, the business units and compliance departments have transitioned from adversarial positions to collaborative partners, jointly identifying optimal solutions. This approach not only resolved ethical conflicts but also established best practices for future case handling, propelling the company forward on its path of steady development.	Use open communication culture to promote departmental communication		

15: The company's collaborative culture has fostered a shared vision among all employees. To resolve these conflicts, the company established a dedicated task force comprising members from business operations, compliance, technology, and other departments. Leveraging their technical expertise, the tech team developed innovative data collection solutions that balanced operational needs with regulatory requirements. Business and compliance teams collaborated to refine customer protection clauses, making them more transparent and comprehensive. By working toward a common goal, all stakeholders have effectively bridged previous gaps.	Build a task force with a team culture to solve problems		
16: We can drive consensus formation through the core values embedded in our organization. These values serve as the foundation for all our actions. Although different departments may have varying priorities, our fundamental commitment remains rooted in corporate objectives. This is particularly evident in compliance practices. Moreover, corporate culture can facilitate consensus building through multiple channels.	Guide conflict resolution through core values		
18: Gray-area operations represent a common implicit rule in business practice. In actual operations, some employees might consider taking non-compliant actions under certain circumstances, such as when their performance is favorable or when the violations are less noticeable.	Gray-scale operations in data usage and business development	Implicit rules of potential ethical risk	

17. In a cross-border payment operation, the team misinterpreted client onboarding standards. They believed that as long as there were no explicit regulatory violations, they could appropriately streamline the client onboarding process to expedite business implementation. However, such practices would ultimately lead to regulatory interviews, resulting in significant operational losses and financial penalties for the company. This incident exposed the substantial compliance risks inherent in gray-scale operational culture.	Gray operation in cross-border payment business		
11. The results-oriented culture prevalent in some departments may undermine compliance enforcement. In such environments, employees prioritize achieving business targets over adhering to compliance protocols during the process. When companies overemphasize performance metrics while neglecting incentives for compliant practices, staff might risk legal violations to meet targets. Furthermore, when expanding client relationships, business units may compromise data collection and verification standards to fulfill quotas, thereby creating potential compliance risks.	Violations caused by business results orientation		
17: This behavior gradually formed a flexible subculture within the branch company that prioritized cash collection processes. Through informal communication channels, this culture rapidly spread among frontline employees. Under its influence, grassroots staff	The results-oriented approach of the branch leads to the weakening of compliance		

increasingly overlooked compliance requirements, leading to a cascade of weakened enforcement at lower levels. Consequently, the company faced escalating compliance risks.			
12: Companies with such internal structures often develop clique cultures or a “banding together for warmth” mentality. In my view, this kind of internal group culture may weaken compliance enforcement. Certain departments or teams tend to form relatively closed circles within their operations. Members tend to prioritize internal interests and relationships over collective progress, ultimately leading to insufficient emphasis on overall compliance requirements across the entire organization.	Ethical risks caused by internal small group culture		
16: What about hierarchical cultures that may also lead to ethical risks? For instance, in certain situations, subordinates might refrain from challenging violations out of fear of superior authority. Such cultural dynamics could hinder the effective operation of internal compliance oversight and problem reporting mechanisms. Therefore, I believe addressing these hidden issues is crucial.	Hierarchical culture impedes compliance supervision		

14: The identification of such unwritten rules involves recognizing implicit regulations, behavioral manifestations, and ethical risk scenarios. While data-driven solutions are generally not problematic, technical departments often default to using user contact lists as risk control metrics – a practice that typically lacks legal compliance review and violates privacy rights. Regulatory gaps, for instance, allow exploitation of regulatory loopholes to create innovation opportunities, particularly in cross-border cryptocurrency operations conducted within jurisdictions with ambiguous regulatory frameworks. This includes risks such as money laundering and conflicts with sovereign legal jurisdictions.	Implicit rules in algorithm development		
02: The first aspect is the governance foundation rooted in Party building. Through decision-making processes at Party Committee meetings, we achieve deep integration between Party building and corporate governance. We incorporate the spirit of “united in purpose, action, innovation, and direction” into our management practices, ensuring alignment with the financial culture development emphasized by the CPC Central Committee and the Central Financial Work Conference, maintaining a high degree of consistency in operational decisions.	Party building leadership and value integration	The advantage of corporate culture in ethical governance	Improve requirements and direction

08: The unique advantage lies in balancing innovation with compliance. While actively driving technological innovation, the company integrates ethical compliance requirements into its development process. When creating new Fintech products, it conducts advance ethical risk assessments to ensure compliance with ethical standards.	Technical and compliance advantages		
01: We have established such an ethical monitoring system in some open source systems. At the same time, we also have cross-departmental collaborative agile response.	Cross-departmental collaboration advantage		
05: In terms of ethical intelligence, I think our corporate culture has some unique advantages. First of all, we emphasize compliance operation and strictly comply with the regulations of regulatory authorities, which is the most important part of our corporate culture.	Advantages of compliance and operation		
05: Secondly, our company is relatively young and has many innovative ideas. In terms of business philosophy and working methods, I think they are quite novel, which enables us to quickly keep up with the development trends of this industry and timely adjust some governance strategies and methods.	Advantage of innovative thinking		

05: Our company maintains a positive working environment that prioritizes employee development, fostering close collaboration across departments. This ethical governance approach ensures seamless coordination among all units. For instance, when developing new systems, the Technology Department collaborates with the Risk Control and Compliance Department to ensure compliance with ethical standards and regulatory requirements, effectively preventing departmental buck-passing.	Teamwork advantage		
04: Our unique advantage lies in co-developing core technologies like privacy-preserving computation and federated learning as open-source solutions, driving transparency in industry capabilities. Unlike competitors who primarily offer closed services, we've reduced data misuse rates by 63% through open-source federation platform code. Furthermore, we cultivate a culture of mutual benefit within our ecosystem, which naturally drives continuous upgrades in technical ethics.	Open source sharing advantage		
06: First and foremost, cultivating a culture of full participation through regular weekly meetings and governance sessions encourages employees to actively contribute ideas and feedback for ethical governance. For instance, organizing ethics proposal contests where staff can submit practical suggestions based on their daily work	Advantages of full participation		

experiences. This includes optimizing the wording of privacy policies and refining data sharing approval processes. These initiatives significantly enhance the company's ethical governance framework.			
06: As I mentioned earlier regarding our rapid-response iteration mechanism, we can swiftly adjust strategies when encountering emerging ethical issues or regulatory requirements. Take the Personal Information Protection Law as an example. Upon its enactment, we immediately streamlined all business processes to ensure compliance with legal standards while promptly updating privacy policies required by relevant authorities.	Quick response advantage		
10: Our unique advantage is that our philosophy is user first, no matter from the top to the bottom of the staff. Our only experience is above the user, whether making decisions or providing services	Advantages of customer rights protection		
03: Furthermore, the employee ethics cultivation system requires reinforcement. Current training programs for technical personnel primarily focus on interpreting compliance clauses, lacking scenario-based case studies. International organizations have established ethical simulation scenarios such as discrimination and big data price discrimination for practical drills.	The ethical training system is not perfect	Areas for improvement of corporate culture in ethical governance	

03: Another critical area requiring standardization is cross-industry data sharing capabilities. The regulatory framework remains under development. In cross-sector collaborations such as government healthcare initiatives, data flow boundaries still lack clear demarcation. For instance, when establishing smart city platforms with local governments, it's essential to establish tiered authorization protocols for data classification and access control – a crucial measure to prevent the widening of data silos.	There are shortcomings in data privacy protection		
05: While we have established relevant systems and processes for evaluating algorithmic fairness, these mechanisms may still fall short of perfection. Algorithms might occasionally produce biased outcomes toward specific customer groups due to data discrepancies or design flaws. To address this, we must strengthen algorithmic monitoring and evaluation frameworks. Regular reviews of algorithmic performance should be conducted to promptly identify and rectify potential fairness issues, ensuring our services treat all customers equally without discrimination	Algorithm fairness evaluation is insufficient		
01: At the same time, it is international standard localization, and we still have a certain lag in adaptation.	The localization of international standards lags behind		

09: There may still be room for improvement in cross-departmental collaboration details. As mentioned earlier, different departments might have varying focal points when addressing the same issue. Such differing perspectives could lead to divergent approaches and occasional disagreements during coordination. These aspects require further refinement in operational details	Cross-departmental collaboration is problematic		
07: I believe there are certain areas needing improvement, particularly in cultural communication and employee comprehension depth. While the company has established clear organizational culture principles, some new employees still have a superficial understanding of these concepts, focusing only on surface-level aspects.	Cultural communication and employee understanding are not deep enough		
08: When addressing the ethical risks posed by generative AI and emerging technologies, I believe existing organizational cultures require adjustment. The application of generative AI in Fintech may lead to fabricated financial information, exacerbated algorithmic biases, and ethical risks such as data copyright disputes. While current corporate culture incorporates elements of innovation compliance, there remains a lack of targeted concepts and measures specifically addressing challenges from generative AI and other emerging technologies.	Research on the ethics of emerging technologies lags behind		

09: We will establish a dedicated oversight mechanism to conduct real-time monitoring and evaluation of AI applications. To address whether AI can truly replace certain technologies, we must strengthen data protection measures and information security protocols. Furthermore, we need to ensure compliance with ethical standards in AI development while reinforcing accountability culture and clarifying responsibility boundaries. Through training programs and awareness campaigns, we aim to cultivate employees' sense of responsibility, enabling them to recognize their role in preventing ethical risks.	Internal monitoring mechanisms need to be strengthened		
02: Additionally, I believe the key lies in strengthening the foundation of trustworthy AI technologies. By adopting federated learning and third-party blockchain solutions, we can achieve data visibility without accessibility, ensuring that only human oversight is implemented in scenarios like intelligent investment research. This safeguard mechanism preserves the critical decision-making authority for humans to maintain control over pivotal decisions.	The decision-making mechanism needs to be optimized		
01: First of all, we will upgrade the system of ethical governance from passive compliance to active prevention. Then we will upgrade the existing data ethics team into a deep AI ethics governance center that reports directly to our board of directors and has cross-departmental decision-making power.	Upgrading the ethical governance system	Improvement direction of organizational culture	

01: We will reshape the culture of data privacy and transparency. A three-phase data classification system will be implemented, prohibiting the use of general data and sensitive data. Specialized encryption processes will be applied to generate AI training datasets to ensure data availability while maintaining invisibility. Simultaneously, we will achieve breakthroughs in transparency by establishing an open AI decision visualization platform that displays the AI's decision-making pathways and data sources to users.	Reshaping cultural ideas		
05: Through some training seminars, employees can improve their understanding of the ethical risks of generative AI, so that they can understand the possible impact of their work behaviors on customers and society, and cultivate their judgment and responsibility in this aspect.	Strengthen talent training		
02: Establish a sensitive collaborative mechanism. We should draw lessons from the three-dimensional collaboration model of business technology organizations. In scenarios such as intelligent customer service and wealth management, we should set up an ethical sandbox testing zone to balance innovation, moderation, and risk control through rapid iteration.	Expand collaborative mechanisms		
01: Our dynamic risk management culture also needs to be rebuilt. We will introduce an iterative risk early warning system and an ethical risk pressure detection test mechanism.	Establish a dynamic risk management culture		

01: We have the ability to build ethics for all employees. We need to design a hierarchical training system, which is targeted at both senior management and technical departments as well as business departments.	Strengthen the construction of ethics for all staff		
01: We will continue to expand our ecological collaboration culture. Macau has strengthened the supply chain management and other contracts, and we will involve the public in this mechanism.	Expand the culture of ecological collaboration		
16: We still need to strengthen our communication and cooperation with the regulatory agencies. By actively cooperating with these regulatory agencies, we can better establish a good image and timely adjust our compliance policies.	Strengthen cooperation with external institutions		
08: I believe we should strengthen ethical constraints within innovation-driven culture. While encouraging AI technological innovation, it's crucial to ensure that technology applications comply with ethical standards. Implementing rigorous testing and verification for generative AI products can guarantee content authenticity, accuracy, and prevent algorithmic bias.	Promote the integration of technological innovation and ethics		
07: In terms of cultural communication and employee comprehension depth, I believe improvements are still needed. Although the company has established clear organizational culture concepts, some new employees' understanding of these cultural connotations remains superficial, stuck at the surface level.	Optimize cultural communication and staff understanding		

16. Regular internal compliance checks and strict treatment of violations are very effective in enhancing the trust of regulatory agencies in us	Strengthen internal management and supervision		
09: We should cultivate some sense of responsibility for former employees. Through training and publicity, we should make employees realize their responsibilities in preventing ethical risks.	Strengthen the sense of responsibility and responsibility		
08: I believe we should strengthen ethical constraints within innovation-driven culture. While encouraging AI technological innovation, it's crucial to ensure that technology applications comply with ethical standards. Implementing rigorous testing and verification for generative AI products can guarantee content authenticity, accuracy, and prevent algorithmic bias.	Strengthen ethical constraints on innovation		
03: To strengthen algorithm governance mechanisms, it is essential to establish an ethical review system that spans the entire lifecycle of models, with a focus on addressing issues of insufficient interpretability and hallucination phenomena. By introducing third-party audits to enhance decision-making transparency and improve the security defense framework, we can draw lessons from the Three Lines of Defense model for reference.	Improve transparency and interpretability		

08: The ethical challenges posed by emerging technologies demand multidimensional solutions. Companies should cultivate a more inclusive culture that encourages employees from diverse professional backgrounds to participate in ethical risk assessments and collaboratively develop customized strategies. This initiative brings together experts in sociology, ethics, and technical domains to jointly address the ethical risks associated with generative AI through interdisciplinary dialogue.	Promote multi-perspective collaboration and co-governance		
16: I think the best way is to cultivate our employees. He should pay more attention to the compliance system and organize more training for them	Strengthen staff training and awareness		
03: Establish a new job evaluation system adapted to human-machine collaboration, innovate the knowledge management system, and build an enterprise-level AI knowledge base. Through continuous learning mechanism, we can deal with the problem of lagging ethical cognition caused by rapid technology iteration.	Establish a monitoring and evaluation system		

02: Finally, I'd like to share insights on advancing industry standardization efforts. We should collaborate with regulatory bodies to develop a white paper on generative AI applications in the financial sector, establish cross-institutional ethical risk prevention mechanisms, and promote industry-wide cooperation. These coordinated measures will help reduce compliance costs while ensuring regulatory compliance.	Participate in the formulation and cooperation of industry standards		
06: In addition, we will build a transparent and malleable decision-making culture. We developed this system so that the source and generation process of the generated AI content can be tracked.	Build a culture of transparent and accountable decision-making		