THE IMPACT OF ENTERPRISE ACCOUNTING INFORMATIZATION MATURITY ON FINANCIAL PERFORMANCE: A CASE STUDY OF HUAWEI COMPANY

HAN GUOFU

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AN INDEPENDENT STUDY SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION GRADUATE SCHOOL OF BUSINESS SIAM UNIVERSITY 2025

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This Independent Study Has Been Approved as a Partial Fulfillment of the Requirements for the Degree of Master of Business Administration

Advisor...

(Dr.Zhang Li)

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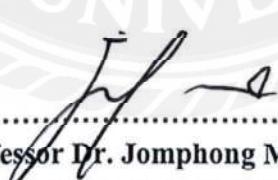
(Associate Professor Dr. Jomphong Mongkhonvanit)
Dean, Graduate School of Business

Date........7..../........./...229

Title: The Impact of Enterprise Accounting Informatization Maturity on Financial Performance A Case Study of Huawei Company

Researcher: Han Guofu

Degree: Master of Business Administration

Major: Financial and Accounting Management

Advisor：   ....
                        (Dr.Zhang Li)

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ABSTRACT

The maturity of accounting informatization has become a crucial means to enhance corporate financial management efficiency and core competitiveness. However, there are significant differences in the financial performance improvements achieved by different companies during their accounting informatization advancement, necessitating an in-depth exploration of the underlying mechanisms from both theoretical and practical perspectives. Shenzhen Huawei Technologies Co., Ltd., as a leading Chinese high-tech company, has long placed great importance on its accounting informatization construction. Its practices in Financial Shared Centers, information system investment, and Enterprise Resource Planning system application are representative and forward-looking. Nevertheless, amidst rapid expansion and internationalization, Huawei faces a complex financial environment and management challenges, including difficulties in cross-regional data integration and pressure from risk prevention and control. This makes whether informatization construction can effectively support and enhance financial performance a critical issue requiring verification.

Based on the Resource-Based View, this study adopted a quantitative research method, collecting questionnaire data from 350 employees of Shenzhen Huawei Technologies Co., Ltd., and conducted analysis using descriptive statistics, reliability analysis, and Pearson correlation tests. The research objectives included: (1) analyzing the impact of Financial Shared Center maturity on Huawei's financial performance; (2) analyzing the impact of accounting information system investment ratio on Huawei's financial performance; (3) analyzing the impact of expanding ERP system coverage on Huawei's financial performance.

Through in-depth analysis and empirical conclusions, this study finds that informatization construction plays a vital role in enhancing the financial performance of Huawei Technologies Co., Ltd. The main conclusions are as follows: (1) The increased maturity of the Financial Shared Center has improved Huawei's profitability; (2) The increase in the accounting information system investment ratio has a significant promoting effect on

financial performance; (3) The expansion of ERP system coverage has driven the standardization and efficiency of financial processes, thereby enhancing overall financial performance. Thus, a higher level of accounting informatization maturity correlates with better performance in profitability and asset operation efficiency.

Based on these findings, this study proposes the following three recommendations: (1) Deepen the construction of the Financial Shared Center to promote the standardization and centralization of financial management; (2) Increase investment in accounting information systems to strengthen the integration of information technology and financial operations; (3) Improve ERP system coverage and integration to optimize corporate resource allocation. As a scarce and strategically valuable organizational resource, accounting informatization significantly enhances a company's profitability and asset operation efficiency. In particular, through continuous investment in ERP systems, financial shared platforms, and intelligent tools, companies can further optimize financial management processes and resource allocation.

Keywords: Resource-based View, accounting informatization maturity, financial performance, Huawei Technologies Co., Ltd

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HAN GUOFU

DECLARATION

I, HAN GUOFU, *hereby declare that this Independent Study entitled "The Impact of Enterprise Accounting Informatization Maturity on Financial Performance A Case Study of Huawei Company" is an original work and has never been submitted to any academic institution for a degree.*

HAN GUOFU

Sept 1, 2025

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Chapter 1 Introduction

1.1 Background of the Study

Driven by the global wave of the digital economy, accounting informatization has gradually become a vital means for enterprises to enhance financial management efficiency, optimize resource allocation, and strengthen core competitiveness. With the rapid development of emerging technologies such as big data, artificial intelligence, and cloud computing, corporate financial management is transitioning from traditional manual bookkeeping and decentralized processing towards intelligent, integrated, and globalized control (Zhang, 2022). This trend is not only an inevitable choice for the transformation of internal management models but also a practical requirement for coping with complex economic environments and intense market competition.

From a national perspective, China's "14th Five-Year Plan" explicitly proposes promoting the digital transformation of enterprises, accelerating the construction of informatization infrastructure, and enhancing the intelligent level of financial management (National Informatization Development Strategy Outline, 2021). Core components of accounting informatization, such as Accounting Information Systems, ERP platforms, and Financial Shared Centers, have been increasingly adopted by large enterprises. They not only improve the efficiency and accuracy of financial data processing but also facilitate the integration of internal resources and dynamic adaptation to the external environment (Jiang et al., 2023). However, significant disparities exist in the financial performance improvements achieved by different enterprises during their accounting informatization advancement, indicating that the relationship between the maturity of accounting informatization and actual performance still requires in-depth exploration.

Shenzhen, as a forefront city of China's reform and opening-up and a key hub for the digital economy, boasts a complete information industry chain and a strong atmosphere of innovation. The Shenzhen municipal government has long been vigorously promoting informatization and digital transformation, creating a policy and technological environment conducive to innovation in corporate financial management (Lei, 2023). Against this backdrop, enterprises in Shenzhen not only demonstrate a high level of digitalization in R&D and production but also lead the nation in financial management and accounting informatization. Research focusing on

Shenzhen-based enterprises can better reflect the cutting-edge level and typical characteristics of accounting informatization development in China.

Huawei Technologies Co., Ltd., a globally leading high-tech company headquartered in Shenzhen, possesses strong representativeness and research value. As a highly multinational large enterprise, Huawei consistently faces complex financial environments and cross-regional management challenges. To address these issues, Huawei actively promotes an accounting informatization strategy: by building a globally unified financial shared platform, it achieves centralized processing of cross-regional financial information and process standardization; by continuously strengthening the breadth and depth of its ERP system coverage, it enhances the integration of financial and operational data; simultaneously, it continually optimizes investment in accounting information systems to support rapid decision-making and risk control in a global context (Hu et al., 2021). These practices have not only improved corporate financial transparency and management efficiency but have also, to some extent, contributed to Huawei's competitive advantage in complex market environments.

Relevant research provides theoretical and practical support for Huawei's accounting informatization construction. For instance, Huang (2020), from a financial perspective, analyzed Huawei's "Knowledge-is-Capital" strategy, revealing the profound impact of its accounting informatization on value management and financial control. Lu and Zhang (2021) pointed out that the accumulation of informatization capital is closely related to the enhancement of enterprise innovation capability and is an important internal driver of performance growth. Jiang et al. (2023) emphasized that enterprise digital transformation can promote product innovation and financial synergy, thereby building a dynamic competitive advantage. Sun (2024) further found that Huawei's financial sharing practices have achieved remarkable results in process standardization and cost control, while Song (2024) noted that its financial strategy is closely integrated with organizational resource allocation, forming an efficient financial control system based on informatization. This literature indicates that Huawei's exploration in the field of accounting informatvation provides a typical case for studying the "relationship between accounting informatization maturity and financial performance."

However, although existing literature affirms the positive role of accounting informatization on enterprise performance from various angles, shortcomings remain. Firstly, most studies focus on macro perspectives such as informatization capital, risk management, or digital transformation, lacking in-depth analysis from the dimension of accounting informatization maturity (Zhao & Chen, 2022). Secondly, empirical investigation into the three core indicators—Financial Shared Center maturity, accounting information system investment ratio, and ERP system coverage—remains insufficient, and there is a lack of systematic research on their specific pathways and mechanisms of action. Thirdly, regarding the choice of research objects, most literature focuses on general manufacturing or service industries, lacking in-depth analysis of high-tech enterprises like Huawei, which possess international characteristics and the specific regional context of Shenzhen.

Based on this, this study took Shenzhen-based Huawei as a case study, focusing on the relationship between accounting informatization maturity and financial performance. It specifically analyzed the impact mechanisms of three key indicators—Financial Shared Center maturity, accounting information system investment ratio, and ERP system coverage—on corporate profitability and asset operation efficiency. By introducing the Resource-Based View, this study can not only reveal how enterprises transform informatization resources into core competitiveness but also address the empirical gaps in existing research. Ultimately, this study aims to provide a theoretical basis and practical reference for enterprises to scientifically advance accounting informatization construction, while enriching the academic research on the relationship between accounting informatization and financial performance.

1.2 Problems of the Study

Against the backdrop of an accelerating digital transformation, enterprises are increasingly relying on accounting informatization systems to enhance the accuracy, efficiency, and strategic value of financial management. However, the extent to which accounting informatization can genuinely promote the improvement of corporate financial performance remains highly uncertain, with significant variation in outcomes observed across different enterprises. Many companies have made substantial investments in areas such as the construction of financial shared service centers, accounting information system expenditures, and the expansion of ERP

system coverage, yet the actual results in terms of financial performance improvement are inconsistent. This phenomenon raises fundamental questions about how accounting informatization maturity influences corporate performance through internal mechanisms.

From a practical perspective, the establishment of financial shared service centers aims to centralize and standardize financial processes, thereby enhancing corporate profitability and decision-making efficiency. The proportion of investment in accounting information systems, to some extent, reflects the importance a company places on building technological capabilities and data-driven management. Meanwhile, the expansion of ERP system coverage theoretically helps optimize financial processes and strengthen internal control and management effectiveness. However, whether these informatization initiatives have genuinely led to quantifiable improvements in financial performance still requires validation through systematic empirical research.

1.3 Questions of the Study

(1) How does the maturity level of the Financial Shared Center influence the profitability Huawei Technologies Co., Ltd.?

(2) To what extent does the proportion of investment in Accounting Information Systems exert a significant impact on the financial performance of Huawei Technologies Co., Ltd.?

(3) Does expanding the coverage scope of the ERP system effectively enhance the financial management efficiency of Huawei Technologies Co., Ltd.?

1.4 Objectives of the Study

With the advancement of corporate digital transformation, accounting informatization has become a crucial means to enhance financial management efficiency and corporate performance. Focusing on Huawei's practices in Financial Shared Center construction, accounting information system investment, and ERP system coverage, this study aims to systematically analyze the impact of accounting informatization maturity on financial performance and uncover its underlying mechanisms. The research seeks to provide theoretical and practical references for

enterprises to optimize resource allocation and improve management effectiveness, thereby achieving the following three key research objectives:

(1) To examine the impact of Financial Shared Center maturity on Huawei's financial performance;

(2) To examine the impact of accounting information system investment ratio on Huawei's financial performance;

(3) To investigate how expanding the coverage of ERP system influences Huawei's financial performance.

1.5 Scope of the Study

The scope of this study primarily focused on the employee population of Huawei Technologies Co., Ltd. in Shenzhen, China, with a sample size of 350 employees. Data were collected through questionnaire surveys directly sourced from the feedback of participating employees. Geographically confined to the Shenzhen region of China, this research aimed to delve into the impact of accounting informatization maturity on Huawei's financial performance based on the Resource-Based View (RBV) theory. The accounting informatization maturity encompasses the maturity of the Financial Shared Service Center, the proportion of accounting information system investment, and the coverage scope of the ERP system.

Through empirical analysis methods, including regression models and structural equation modeling, this study quantified the causal relationships between these informatization elements and financial performance indicators—profitability, asset operation efficiency, and liquidity, thereby revealing the micro-level mechanisms of how informatization maturity facilitates internal resource optimization within enterprises.

The data collection scope covered employee feedback from multiple functional departments within Huawei (e.g., Finance, IT, and Operations), incorporating a diverse group of employees across different hierarchical levels (such as frontline staff, middle management, and senior decision-makers) and varying levels of experience. This approach ensures the representativeness and comprehensiveness of the data.

Although the study did not extend to other companies or regions, it helps capture horizontal differences in internal informatization practices within the enterprise. At the same time, it acknowledges that the sample size and geographical limitations may affect the generalizability of the findings and suggests expanding data sources to multi-enterprise comparisons or global branches in future research.

1.6 Significance of the Study

1.6.1 Theoretical Significance

This study, grounded in the Resource-Based View (RBV), posits that accounting informatization maturity is not merely an outcome of corporate information system development but, more importantly, a strategic resource capable of enhancing a firm's core competitiveness. By focusing on the three dimensions of Financial Shared Service Center (FSSC) maturity, the proportion of Accounting Information System (AIS) investment, and Enterprise Resource Planning (ERP) system coverage, this research aims to establish a systematic evaluation framework for accounting informatization maturity and analyze its mechanism of impact on corporate financial performance. This design addresses the limitation of existing studies that often rely on single tools or isolated metrics, thereby enabling a more comprehensive and systematic investigation into the relationship between accounting informatization and financial performance. Furthermore, using Huawei as an empirical case study, this research elucidates the specific pathways through which different informatization dimensions contribute to financial performance improvement. It provides testable hypotheses and a novel analytical framework for subsequent academic research, thereby promoting the deepening and expansion of RBV within the interdisciplinary field of information systems and financial management.

1.6.2 Practical Significance

On a practical level, this study addresses the real-world challenge of how to enhance financial management effectiveness during corporate digital transformation. By examining Huawei's accounting informatization strategy, this research translates the value-oriented purpose of "exploring the relationship between informatization maturity and financial performance" into actionable recommendations. Specifically, enhancing FSSC maturity can help companies achieve breakthroughs in financial process standardization and cost control; rationally increasing the proportion of AIS investment can strengthen information processing and decision-support capabilities;

and expanding ERP system coverage facilitates efficient internal resource integration and cross-departmental collaboration. The findings not only reveal how companies should allocate limited resources to maximize the benefits of informatization construction but also help managers identify key success factors in the digitalization process, thereby reducing investment risks and improving economic returns and strategic value.

In summary, at the theoretical level, this study enriches the academic discourse on accounting informatization and financial performance by constructing a comprehensive research framework for accounting informatization maturity. At the practical level, it provides targeted recommendations for corporate digital transformation and financial strategic management. Together, these contributions embody the core pursuit of the research objectives: namely, to explore how accounting informatization serves as a critical pathway for driving the improvement of corporate financial performance.

1.7 Limitations of the Study

1.7.1 Limitation of the Case Study

This research used Huawei Technologies Co., Ltd. as the case study subject. The reason for selecting Huawei lies in its representativeness and foresight in accounting informatization construction. However, as a large multinational technology company, Huawei possesses unique characteristics in terms of enterprise scale, organizational structure, management model, and industry background. This uniqueness may result in the research conclusions not being fully applicable to other types of enterprises. Significant differences exist among different enterprises regarding investment in informatization construction, organizational coordination capabilities, and internal management culture, which may affect the actual impact of accounting informatization maturity on financial performance. Therefore, the findings should be generalized with caution when applied to small and medium-sized enterprises, traditional industries, or enterprises in different countries, and should be adjusted appropriately based on specific contextual factors. Future research could consider multiple case studies or cross-industry comparisons to enhance the generalizability and broader application value of the conclusions.

1.7.2 Limitation of the Data

The data for this study primarily came from a questionnaire survey involving 350 employees of Huawei. While this data collection method can gather substantial first-hand information, it still has certain limitations. Firstly, the survey results may be influenced by the respondents' subjective perceptions, attitudes, and levels of understanding, potentially introducing some bias. Secondly, the questionnaire data mainly reflects employees' perceptual evaluations of accounting informatization construction and financial performance, rather than the company's actual financial data, which might not fully capture the objective performance status of the enterprise. Furthermore, this study employed a cross-sectional data collection approach, capturing the situation only at a specific point in time, and thus cannot fully reflect the dynamic relationship between accounting informatization maturity and financial performance. Consequently, the interpretation of the research findings needs to consider these data limitations, and future studies could incorporate actual enterprise financial data or adopt longitudinal designs to improve the reliability and validity of the research.

1.7.3 Limitation of the Methodology

In terms of analysis methods, this study primarily employed quantitative techniques including descriptive statistical analysis, reliability analysis, and Pearson correlation analysis. While these methods can effectively reveal relationships between variables and basic trends, they have certain limitations in testing causal relationships. Pearson correlation analysis can only indicate linear correlations between variables and cannot fully reveal the causal pathways through which accounting informatization maturity affects financial performance. Therefore, future research could incorporate more complex statistical methods or empirical models to more accurately analyze the direct and indirect impacts of informatization construction on corporate financial performance.

1.7.4 Limitation of the Scope

This study focused on three core indicators of accounting informatization maturity: the maturity of the Financial Shared Service Center, the proportion of investment in Accounting Information Systems, and the coverage scope of the ERP system. It did not cover other factors that might influence financial performance. For instance, emerging information technologies such as intelligent financial systems, artificial intelligence applications, blockchain technology, and big data analytics capabilities are increasingly playing important roles in modern enterprises but were not included

in the scope of this analysis. Moreover, the study did not consider the moderating effects of external environmental factors, such as industry policies, market competition dynamics, and economic cycles, on the relationship between informatization and financial performance. These limitations might result in some constraints in the explanatory power of the research conclusions regarding the overall role of accounting informatization. Future research could analyze within a broader framework of indicators and external environmental conditions to enhance the comprehensiveness and practical reference value of the study.

Chapter 2 Literature Review

2.1 Introduction

In today's digital era, the acceleration of enterprise informatization has become a core driver of global economic transformation. According to a 2024 report by the McKinsey Global Institute, corporate digital investment is projected to account for over 5% of global GDP by 2026. Within this trend, accounting informatization, as a critical component of financial management, is increasingly drawing attention from both academia and industry. Accounting informatization involves not only the introduction of technological tools but also the restructuring of organizational processes and the optimization of strategic resources, which directly impacts a company's decision-making efficiency and competitive advantage. As a global technology giant, Huawei has, since 2010, centralized and intelligently transformed its financial functions by advancing its Financial Shared Service Center (FSSC), investments in Accounting Information Systems (AIS), and the coverage of its Enterprise Resource Planning (ERP) system. However, against the backdrop of heightened external uncertainties, such as Sino-US trade frictions and global supply chain disruptions, the mechanism through which accounting informatization maturity affects financial performance still requires in-depth exploration to reveal its unique role within technology enterprises.

Existing literature primarily focuses on three aspects: First, the conceptual definition of accounting informatization and its developmental stages. Early research, such as Davenport (1998), defined accounting informatization as the use of information technology to automate financial data processing and outlined its evolution from spreadsheets to integrated systems. Subsequently, with the rise of cloud computing and artificial intelligence, scholars like Chae et al. (2014) expanded this concept to emphasize its strategic dimensions, including data real-time capabilities and predictive analytics. Second, the mechanism through which accounting informatization impacts corporate performance. Based on the Resource-Based View (RBV) theory, Barney (1991) proposed that information technology can be transformed into a sustainable competitive advantage as a heterogeneous resource. Empirical studies, such as Bharadwaj (2000)'s analysis of 500 enterprises, found that IT investment can enhance operational efficiency by 15%-20%. In the Chinese context, Wang and Li (2019), using a panel data model, confirmed a positive correlation between the proportion of AIS investment and Return

on Assets (ROA), but the mechanisms often remain at a macro level, overlooking mediating variables such as organizational learning capability (Grant, 1996). Finally, evaluation methods and indicator systems for accounting informatization maturity. Poston and Grabski (2001) developed a maturity model encompassing technology, process, and people dimensions; more recently, Liu et al. (2023) introduced machine learning algorithms to construct dynamic indicator systems, such as ERP coverage rate and system integration degree. However, these methods are largely applicable to the manufacturing sector and lack a customized framework for technology enterprises.

Although existing literature has made significant progress, notable differences in the impact of accounting informatization on financial performance across different enterprises and industries indicate that current research has not yet fully uncovered its underlying logic and boundary conditions. For instance, in technology companies like Huawei, informatization emphasizes innovation-driven approaches and global collaboration, whereas traditional industries focus more on cost control, leading to heterogeneity in the mechanisms that has not been sufficiently explored. Research gaps are mainly reflected in the following areas: First, a lack of micro-level mechanism analysis; most existing studies are correlational, with few employing structural equation modeling (SEM) to examine causal pathways. Second, boundary conditions, such as the moderating effects of organizational size and industry characteristics, are often neglected. Third, empirical data primarily originate from general enterprises, with a scarcity of case studies focusing on large technology corporations, such as how to quantify the impact of Huawei's FSSC maturity on profitability and asset operation efficiency. Furthermore, while post-2020 research has increased focus on remote financial management due to the pandemic (e.g., Zhang & Lu, 2021), the role of ERP coverage in fostering resilience within uncertain environments remains underexplored. These gaps highlight the necessity of this study: to systematically examine the resource transformation process of accounting informatization maturity within Huawei through the RBV theoretical framework.

Therefore, this chapter systematically reviews the literature from three dimensions: Resource-Based View (RBV) theory, accounting informatization maturity, and financial performance. First, it revisits the core assumptions of RBV theory, including resource heterogeneity, immitability, and value scarcity (Wernerfelt, 1984), and explores its extended application in the accounting field, such as empirical evidence of information technology as a strategic resource (Mata et al., 1995). Second,

it's the evolution of literature on accounting informatization maturity, including conceptual frameworks, development models, and evaluation indicators, emphasizing the integration of FSSC, AIS investment, and ERP coverage as key elements. Finally, it analyzes multi-dimensional indicators of financial performance, such as profitability (ROE, ROA), asset operation efficiency (asset turnover ratio), and liquidity (current ratio), and examines the transmission mechanisms through which informatization affects these indicators. Concurrently, a review of key concepts is supplemented to clarify core ideas: Accounting informatization maturity refers to the developmental level of a company's accounting systems from basic automation to advanced intelligence; financial performance, based on the Balanced Scorecard framework (Kaplan and Norton, 1996), encompasses both financial and non-financial dimensions. Through this review, the study constructs a theoretical framework: based on RBV, with accounting informatization as an internal resource influencing performance through mediating pathways, and proposes hypotheses such as FSSC maturity positively enhancing profitability.

In the context of persistent global economic uncertainties in 2025, the construction of enterprise accounting informatization has become a strategic choice for enhancing resilience. Huawei's practical experience demonstrates that informatization can not only optimize resource allocation but also help counter external shocks. However, the fragmentation of existing literature limits the bridging of theory and practice.

2.2 Literature Review
2.2.1 Resource-Based Theory

The Resource-Based View (RBV) is a core theoretical framework in the field of strategic management. It was formally proposed by American management scholar Jay Barney in 1991 in his seminal paper "Firm Resources and Sustained Competitive Advantage" published in the *Journal of Management*. The emergence of this theory stemmed from a paradigm shift in strategic research during the late 1980s and early 1990s: while prevailing theories like Porter's Five Forces Model emphasized the impact of the external market environment and industry structure on firm performance, the intensification of global competition and the manifestation of internal corporate differentiation led scholars to turn to an internal perspective. As early as 1984, Birger Wernerfelt's paper "A Resource-Based View of the Firm" in the *Strategic*

Management Journal laid the groundwork, emphasizing that firm performance originates from unique combinations of internal resources rather than external opportunities. Barney further developed this view, proposing that firm resources must possess the characteristics of being Valuable, Rare, Imperfectly Imitable, and Non-substitutable—the VRIN framework—to achieve sustainable competitive advantage. This theoretical background reflects the strategic evolution from an external orientation to an internal resource orientation, helping to explain why performance varies significantly among firms within the same industry, particularly regarding resource allocation issues amidst technological change and uncertain environments.

In this study, RBV is highly relevant to understanding the impact of accounting informatization maturity on Huawei's financial performance. Specifically, this research treats accounting informatization as a heterogeneous internal resource of the enterprise. For example, the maturity of the Financial Shared Service Center (FSSC) serves as a valuable and scarce integration platform; the proportion of investment in Accounting Information Systems (AIS) reflects the resource's imperfect imitability (through the accumulation of proprietary knowledge via customized development); and ERP system resources possess non-substitutability (enabling real-time data collaboration and enhancing decision-making efficiency). Based on RBV, these resources are transformed into Huawei's sustainable competitive advantage through the optimization of internal configurations (such as organizational learning capability and asset operation), thereby positively influencing financial performance indicators, including profitability, asset operation efficiency, and liquidity. This not only addresses a gap in the existing literature regarding the application of RBV in the accounting domain of technology enterprises but also provides theoretical support for the informatization strategy of large enterprises like Huawei, revealing how resource heterogeneity drives performance improvement in the context of digital transformation.

2.2.2 Accounting Informatization Maturity

Accounting Informatization Maturity is a key concept for assessing the development level of a company's accounting information systems. Its origins can be traced back to the Capability Maturity Model (CMM) for software in the 1990s, which was proposed by the Software Engineering Institute (SEI) at Carnegie Mellon University in 1987 and formally released in 1991. This model was initially designed

to assess the maturity of software development processes, emphasizing a five-level progressive structure from Initial to Optimizing. Subsequently, this framework was extended to the field of accounting informatization, especially in the early 21st century with the rise of Enterprise Resource Planning (ERP) systems and big data technologies, leading scholars to apply it to the assessment of financial management informatization. For instance, Poston and Grabski (2001) were among the first to systematically introduce the maturity model into the accounting literature, proposing that accounting informatization maturity includes three dimensions: technology infrastructure, process integration, and organizational adaptation, used to quantify the stages of an enterprise's transition from manual accounting to intelligent processes. The emergence of this concept stemmed from the global digital wave and the evolution of internal management needs: in the late 20th century, enterprises faced issues like information silos and low efficiency, and the introduction of CMM aimed to help companies identify informatization bottlenecks and achieve sustainable improvement through standardized assessment. In the big data era (post-2010), research further emphasized the link between maturity and risk prevention, such as studies on accounting informatization risks in big data environments, pointing out that low maturity could lead to data security and decision-making deviation issues.

In this study, accounting informatization maturity is closely related to the mechanism affecting Huawei's financial performance. Specifically, this research draws on extended frameworks like the Data Management Capability Maturity Model (DCMM) to break down maturity into operational indicators such as the maturity of the Financial Shared Service Center (FSSC), the proportion of investment in Accounting Information Systems (AIS), and the coverage scope of the ERP system, treating them as quantifiable manifestations of internal resources. Based on the Resource-Based View (RBV) theory, these elements are regarded as heterogeneous and imperfectly imitable strategic resources that, by enhancing data integration and real-time processing capabilities, positively drive financial performance indicators such as profitability (ROA, ROE) and asset operation efficiency. This addresses a gap in the existing literature focused on technology enterprises like Huawei; for instance, much existing research concentrates on maturity evaluation in manufacturing, neglecting the unique boundary conditions of tech giants within global supply chains, thereby providing micro-level pathways from assessment to optimization for Huawei's digital transformation.

2.2.3 Financial Performance

Financial Performance, a core concept for evaluating a company's economic health and operational results, can be traced back to early 20th-century financial accounting theory. American accountants like William Andrew Paton systematically expounded the foundation of financial statements as performance measures in his 1922 book "Accounting Theory," emphasizing the use of indicators like profit and return on assets to reflect a firm's value creation capability. The emergence of this concept stemmed from the needs arising from enterprise expansion after the Industrial Revolution and the development of capital markets: from the late 19th to early 20th century, as firms transitioned from family-run operations to corporate management, standardized indicators were needed to attract investors and guide decision-making. Subsequently, in the mid-20th century, with the proliferation of the DuPont Analysis Model (developed internally by DuPont in 1919), financial performance was decomposed into components like profitability, asset efficiency, and leverage, helping to explain performance drivers. Entering the 1990s, with the rise of non-financial indicators, Kaplan and Norton (1992) proposed the Balanced Scorecard (BSC) framework in the *Harvard Business Review*, expanding financial performance to include four dimensions: financial, customer, internal processes, and learning and growth. This marked a shift from a solely financial orientation towards comprehensive performance management. This background reflects the global economy's transition from manufacturing-oriented to knowledge-based, requiring corporate performance evaluation to address uncertainty and strategic complexity.

In this study, financial performance is highly relevant to the exploration of the impact of accounting informatization maturity on Huawei. Specifically, this research treats financial performance as the dependent variable. Based on the Resource-Based View (RBV) theory, it is viewed as the final output of the transformation of informatization resources, including key indicators such as profitability (e.g., ROA, ROE), asset operation efficiency (asset turnover ratio), and liquidity (current ratio). These indicators are directly influenced by the maturity of the FSSC, the proportion of AIS investment, and the coverage scope of the ERP system. For example, real-time data integration enhances decision-making efficiency, thereby amplifying Huawei's competitive advantage in the technology industry. This addresses a gap in the existing literature regarding the performance mechanisms of large technology enterprises, as most existing studies are macro-level cross-industry analyses. This study, through empirical methods like regression models, reveals how informatization drives

performance improvement within Huawei's internal resource optimization, providing quantitative insights for the digital transformation of enterprises.

2.2.4 Huawei Technologies Co., Ltd.

Huawei Technologies Co., Ltd., headquartered in Shenzhen, China, is a leading global provider of information and communication technology (ICT) infrastructure and smart devices. It was founded in 1987 in Shenzhen, China, by Ren Zhengfei. The company's origins can be traced back to the early stages of China's reform and opening-up period. Starting with CNY 21,000 in seed capital, Huawei began as a sales agent for telecom equipment and gradually transformed into a high-tech enterprise focused on independent R&D. Huawei's emergence was rooted in the opening of China's telecommunications market and the global communications technology revolution from the late 1980s to early 1990s. At that time, China's infrastructure was underdeveloped, facing import dependency. Seizing the opportunity, Ren Zhengfei, through reverse engineering and indigenous innovation, expanded from manufacturing program-controlled switches to mobile communications, 5G, cloud computing, and artificial intelligence. This background reflects the entrepreneurial spirit during the transition from a planned economy to a market economy and the strategic need for technological localization to cope with international competition. By the 2020s, Huawei had become the world's largest telecommunications equipment supplier. Despite facing geopolitical challenges such as US sanctions, its "customer-centric" and "striver-oriented" culture (often described as a "wolf culture") and significant R&D investment (consistently exceeding 15% of annual revenue) have driven continuous growth. According to its 2024 annual report, Huawei achieved revenue of CNY 862.1 billion, meeting expectations.

In this study, Huawei serves as an empirical case study of a typical technology enterprise, highly relevant to the mechanism of how accounting informatization maturity affects financial performance. Specifically, this research treats Huawei as the study object. Based on the Resource-Based View (RBV) theory, its accounting informatization practices (such as FSSC construction, AIS investment, and ERP system coverage) are viewed as internal heterogeneous resources that enhance financial performance indicators—including profitability, asset operation efficiency, and liquidity—through optimized resource allocation. For example, literature shows that Huawei has improved operational efficiency and decision-making speed through cloud-based financial management informatization, and the transition from financial

accounting to management accounting has significantly enhanced performance. Furthermore, its FSSC leverages economies of scale to reduce information transmission loss, and financial ratio analysis further confirms its sound financial health. This addresses a gap in the existing literature regarding the micro-level mechanisms specific to Huawei, as most existing studies are macro-level descriptions or cross-enterprise comparisons. This study, utilizing questionnaire data from employees in the Shenzhen region and empirical models, reveals how informatization drives sustainable competitive advantage within Huawei's complex organizational structure, providing theoretical and practical support for the digital transformation of similar enterprises.

2.3 Theoretical Framework

Based on the Resource-Based View (RBV) theory, firm performance originates from the unique configuration and utilization of internal resources. Accounting informatization maturity, as a key independent variable, can be regarded as a heterogeneous and valuable-scarce resource within the enterprise. Specifically, the independent variables include the maturity of the Financial Shared Service Center (FSSC), the proportion of Accounting Information System (AIS) investment, and the coverage scope of the ERP system. These elements, by optimizing information processing, resource integration, and decision-making efficiency, form inimitable competitive barriers, thereby positively influencing the dependent variable—financial performance.

For instance, the maturity of the FSSC enhances the efficiency of resource sharing and reduces information asymmetry; the proportion of AIS investment strengthens data analysis capabilities and promotes organizational learning; ERP coverage expands system integration and improves the agility of asset operation. The relationship between these independent variables and the dependent variable manifests as a causal pathway: informatization resources are transformed into strategic advantages, ultimately reflected in the improvement of performance indicators such as profitability, asset operation efficiency, and liquidity.

This theoretical framework not only explains the intrinsic logic of how informatization drives performance in technology enterprises like Huawei but also emphasizes the moderating effects of boundary conditions such as organizational size

and external uncertainty, providing a solid theoretical foundation for empirical analysis.

The Resource-Based View (RBV) was selected as the theoretical foundation for this study primarily for the following reasons:

First, RBV can elucidate the mechanism through which accounting informatization influences financial performance from the perspective of resources and capabilities. Unlike approaches that focus solely on technical efficiency, RBV places greater emphasis on how enterprises create value through resource integration and capability building, which aligns closely with the practice of accounting informatization.

Second, RBV can explain the phenomenon of "asymmetry between input and output" in informatization initiatives—where some enterprises fail to achieve significant performance improvements despite substantial investments in informatization resources. This is because resources alone do not directly create value; they must be transformed into performance through integration, application, and organizational capabilities.

Finally, RBV is widely applied in both management and accounting research, and its theoretical maturity and explanatory power are well-established. This provides a solid academic foundation for this study. Based on these considerations, this paper adopts RBV as the guiding theory to explain the relationship between accounting informatization maturity and financial performance.

2.4 Conceptual Framework
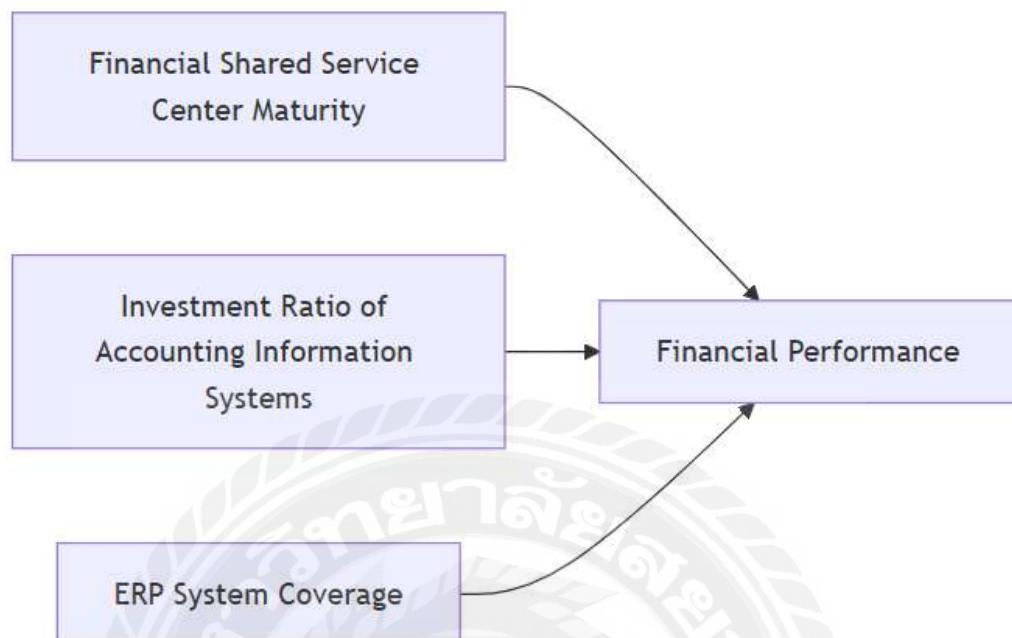
Figure 2.1 Conceptual Framework

2.5 Terms and Definition Used in This Study

Accounting Informatization Maturity: Refers to the overall development level of an enterprise in the construction of accounting information systems, financial shared service platforms, ERP systems, etc. It reflects the enterprise's capability in utilizing and integrating informatization resources.

Financial Shared Service Center (FSSC) Maturity: Indicates the maturity level of a Financial Shared Service Center in centralized processing, process optimization, internal control, and data services.

Accounting Information System (AIS) Investment Ratio: Refers to the proportion of resources allocated to the construction of accounting information systems within the enterprise's informatization budget, reflecting the importance the enterprise places on financial digitalization.

ERP System Coverage Scope: Refers to the extent to which internal business and financial processes are covered by the ERP system, reflecting the level of information integration across departments and business processes.

Financial Performance: Refers to the comprehensive performance of an enterprise in terms of profitability, cost control, asset utilization efficiency, etc. It serves as a key indicator for measuring the effectiveness of corporate financial management.

Chapter 3 Research Methodology

3.1 Introduction

This study aimed to systematically examine the impact of accounting informatization maturity on the financial performance of Huawei Technologies Co., Ltd. through quantitative research methods. It sought to reveal the relationships between Financial Shared Service Center Maturity (SCM), Accounting Information System Investment Ratio (AIR), and ERP System Coverage (EC) and financial performance indicators (ROE, Net Profit, EPS). To ensure the scientific rigor and reliability of the research process and conclusions, this chapter elaborates on the research design, variable measurement scales, research hypotheses, population and sampling methods, sample size, data collection techniques, data analysis methods, and the reliability and validity analysis of the scales. This research adopted a combined approach of questionnaire surveys and financial report data. Through descriptive statistics, reliability analysis, and Pearson correlation analysis, it aimed to verify the mechanism through which accounting informatization maturity affects financial performance, thereby providing a solid data foundation for subsequent conclusions and recommendations.

3.2 Research Design

The overall research logic of this study follows a framework of "theoretical derivation - model construction - data verification - result analysis." Firstly, grounded in the Resource-Based View (RBV) as the theoretical foundation, it posits that accounting informatization is a crucial strategic resource for enterprises. It can enhance financial performance by improving resource integration efficiency and information transparency. Building upon this theory, and starting from Huawei's accounting informatization practices, the study constructed an accounting informatization maturity system composed of three dimensions: Financial Shared Service Center Maturity (SCM), Accounting Information System Investment Ratio (AIR), and ERP System Coverage (EC). This system was designed to capture the variations in enterprises' informatization capabilities.

In terms of research methodology, a quantitative research method was adopted. This involved a combination of questionnaire surveys and secondary financial data to systematically analyze the impact of accounting informatization maturity on financial

performance. The quantitative method is suitable for revealing statistical relationships between variables across a large sample size, making it appropriate for testing theoretical hypotheses and quantifying the extent of their influence. Questionnaire data were used to reflect employees' subjective assessments of accounting informatization maturity, while financial report data provided objective performance indicators. The combination of both ensured the scientific nature and multidimensionality of the data.

To verify the relationships between variables, this study employed a multiple regression model for empirical analysis. This model can test the independent impact of the three core indicators of accounting informatization maturity (SCM, AIR, EC) on financial performance (ROE, Net Profit, EPS) while controlling for other variables (such as R&D investment and revenue scale). Considering that the sample came from different years and departments within the same company, potential issues of individual heterogeneity and time effects existed. Therefore, Fixed Effects Models and Random Effects Models were further used for comparative analysis to ensure the robustness of the estimation results.

Furthermore, to address potential endogeneity issues in the model (such as reverse causality or omitted variables), this study introduced the Generalized Method of Moments (GMM) for robustness checks. The GMM model can effectively control for serial correlation and endogeneity bias in dynamic panel data, enhancing the credibility of the research findings. Through cross-validation using the four models—OLS, Fixed Effects, Random Effects, and GMM—this study analyzed the mechanism through which accounting informatization maturity affects financial performance from multiple perspectives, ensuring that the conclusions possess statistical significance and practical explanatory power.

3.3 Model Setting

To investigate the impact of accounting informatization maturity on financial performance, this study constructed the following regression model to examine the relationships between the core variables:

$$Y_{it} = \alpha + \beta_1 SCM_{it} + \beta_2 AIR_{it} + \beta_3 EC_{it} + \gamma_1 RDI_{it} + \gamma_2 REV_{it} + \mu_i + \varepsilon_{it}$$

Where:

Y_{it}: Financial performance of Huawei Technologies Co., Ltd. at time *t*, specifically including Return on Equity (ROE), Net Profit (NP), and Earnings Per Share (EPS).

SCM_{it}: Financial Shared Service Center Maturity, based on employee questionnaire scores (1-10 points).

AIR_{it}: Accounting Information System Investment Ratio, expressed as the percentage of the annual informatization budget (%).

EC_{it}: ERP System Coverage, expressed as the percentage of business processes covered (%).

RDI_{it}: Control variable, Research and Development investment (in billion RMB), reflecting the impact of technological innovation on performance.

REV_{it}: Control variable, Annual revenue (in billion RMB), controlling for the effects of firm size.

μ_i: Individual fixed effects, controlling for unobserved individual heterogeneity.

ε_{it}: Random error term.

This model was estimated using Fixed Effects Model, Random Effects Model, and Ordinary Least Squares (OLS) regression. Additionally, the Generalized Method of Moments (GMM) was employed for robustness checks to address potential endogeneity and dynamic effects.

3.3.1 Variables and Measurement

Table 3.1 Variables and Measurement

Variable Type	Variable Name	Symbol	Measurement	Expected Impact
Explained	Net Asset Yield	ROE	Annual ROE (%) from financial reports	-
	Net Profit	NP	Annual net profit (100 million CNY)	-

	Earnings Per Share	EPS	Annual EPS (CNY)	-
Explanatory	Shared Center Maturity	SCM	Employee survey score (1-10)	Positive
	AIS Investment Ratio	AIR	IT budget proportion for AIS (%)	Positive
	ERP Coverage	EC	ERP system coverage in business processes (%)	Positive
Control	R&D Input	RDI	Annual R&D expenditure (100 million CNY)	Positive
	Revenue	REV	Annual revenue (100 million CNY)	Positive

ROE: Obtained from Huawei's annual financial reports, reflecting the enterprise's profitability.

NP: Measured in billions of RMB, directly extracted from financial reports, indicating overall profitability.

EPS: Earnings per share, reflecting the return on equity for shareholders.

SCM: Obtained from questionnaire data, reflecting employees' ratings (on a 1-10 scale) on the process standardization, data integration, and control capabilities of the financial shared service center.

AIR: Calculated from questionnaire data and financial reports, representing the proportion of the informatization budget allocated to the accounting information system (%).

EC: Calculated from questionnaire data and corporate disclosure data, indicating the proportion of business processes covered by the ERP system (%).

RDI and REV: Served as control variables, extracted from financial reports to measure R&D investment and total revenue, respectively, controlling for the impact of technological innovation and enterprise scale.

3.3.2 Population and Sample

3.3.2.1 Population

The study population consisted of employees at Huawei's headquarters (Shenzhen, China) engaged in finance, technology, and management-related work. This included staff from the Financial Shared Service Center, the Accounting Information System development and maintenance teams, and departments utilizing the ERP system (such as procurement, supply chain, and finance). As of 2024, Huawei had a global workforce of approximately 207,000 employees, with about 60% (approximately 124,000) based in China. Among these, roughly 15,000 employees were involved in financial informatization-related work (Huawei Annual Report, 2023). This study focused specifically on employees at the Shenzhen headquarters in China to ensure data representativeness and consistency.

3.2.2.2 Sampling Method

A stratified random sampling method was adopted to ensure the sample covered the finance, technology, and management departments, thereby reflecting the differences in perceptions of accounting informatization maturity across various functions. The specific sampling procedure was as follows:

(1) The population was divided into three subgroups: the finance department (approximately 40%), the technology department (approximately 40%), and the management department (approximately 20%).

(2) Employees were randomly selected from each subgroup proportionally to ensure the sample structure was consistent with the overall population distribution.

(3) Questionnaires were distributed via an online survey platform (Questionnaire Star), and invalid responses were excluded after collection.

3.3.3 Sample Size

Based on the sample size calculation formula in statistics (Cochran, 1977), the minimum sample size required for a population of 15,000 employees was approximately 384, given a 95% confidence level and a 5% margin of error. The formula used is:

$$n_0 = \frac{(Z^2 * P * (1 - P))}{e^2}$$

Where:

Z = Z-value (1.96 for 95% confidence level)

p = proportion of the population (0.5 used for maximum variability)

e = margin of error (0.05)

Considering the practical response rate and data quality, this study ultimately collected 350 valid questionnaires, which met the minimum requirement for statistical analysis. The sample distribution was as follows:

Finance Department: 140 (40%)

Technology Department: 140 (40%)

Management Department: 70 (20%)

3.4 Hypothesis

Based on the Resource-based View and literature review, this study proposes the following three hypotheses to examine the impact of accounting informatization maturity on financial performance:

H1: The Financial Shared Service Center Maturity (SCM) has a significant positive effect on the financial performance (ROE, NP, EPS) of Huawei.

H2: The Investment Ratio of Accounting Information Systems (AIR) has a significant positive effect on the financial performance (ROE, NP, EPS) of Huawei.

H3: The coverage of the ERP System (EC) has a significant positive effect on the financial performance (ROE, NP, EPS) of Huawei.
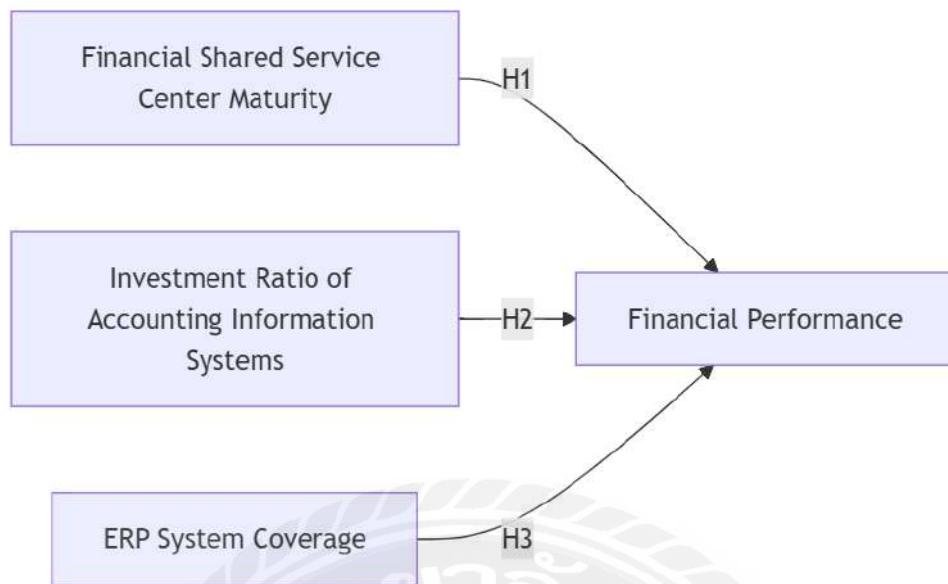
Figure 3.1 Hypotheses

3.5 Reliability and Validity Analysis of the Scale
3.5.1 Reliability

To evaluate the reliability of the questionnaire data collected from 350 Huawei employees, this study employed Cronbach's α coefficient as the primary measure of internal consistency for each scale. This analysis ensured that the items within each variable construct coherently measured the intended concepts.

The Financial Shared Service Center Maturity scale (Q1-Q5) achieved a Cronbach's α of 0.85, indicating high reliability. The Accounting Information System Investment Ratio scale (Q6-Q10) showed strong internal consistency with an α of 0.82. The ERP System Coverage and Effectiveness scale (Q11-Q15) demonstrated excellent reliability with an α of 0.88. Finally, the Financial Performance Perception scale (Q16-Q18) yielded an α of 0.79, which is at an acceptable level and exceeds the commonly recommended threshold of 0.70 (Nunnally, 1978).

Overall, the average Cronbach's α across all scales was 0.84, confirming the robustness of the questionnaire and the suitability of the data for subsequent statistical analyses, such as correlation and regression modeling. No items were deleted, as all contributed positively to the consistency of their respective scales.

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Table 3.2 Reliability Test for the Financial Shared Service Center Maturity Scale

Items	Corrected Item-Total Correlation	Cronbach's Alpha ifItem Deleted	Cronbach's Alpha
Q1	0.72	0.83	
Q2	0.68	0.84	
Q3	0.75	0.82	0.85
Q4	0.70	0.83	
Q5	0.73	0.82	
Q6	0.65	0.81	
Q7	0.70	0.80	
Q8	0.68	0.81	0.82
Q9	0.72	0.79	
Q10	0.67	0.8	
Q11	0.78	0.86	
Q12	0.80	0.85	
Q13	0.76	0.87	0.88
Q14	0.82	0.84	
Q15	0.79	0.86	
Q16	0.62	0.75	
Q17	0.68	0.72	0.79
Q18	0.65	0.74	

3.5.2 Validity

Validity analysis is used to assess whether a measurement instrument accurately reflects the concepts it is intended to measure. This study examined validity from two dimensions—content validity and construct validity—to ensure the scientific rigor and reliability of the scales. Content validity evaluates whether the measurement instrument comprehensively covers items relevant to the concept being measured, while construct validity is verified through convergent validity and discriminant validity to examine the relationships between variables.

The measurement variables in this study were derived from established scales and were adapted and designed according to the specific research context. During the pre-testing phase, relevant items were added and further adjustments were made to ensure the scales encompass all key dimensions of core concepts, including

accounting informatization maturity (comprising Financial Shared Service Center maturity, Accounting Information System investment ratio, and ERP system coverage) and financial performance. These adjustments were based on expert opinions and literature reviews, ensuring strong item representativeness. Consequently, the measurement instruments used in this study exhibit good content validity and comprehensively reflect the essential characteristics of the research variables.

To evaluate construct validity, this study employed the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity to examine the suitability of the data for factor analysis. The KMO value indicates the strength of associations among variables, with higher values suggesting the data is more suitable for factor analysis. Bartlett's test examines whether the correlation matrix is an identity matrix, with a significant p-value indicating significant correlations among variables.

According to the analysis results, the overall KMO value was 0.978, indicating excellent data correlation (above the 0.9 threshold) and high suitability for factor analysis. Bartlett's test of sphericity yielded an approximate chi-square value of 7389.957 with 276 degrees of freedom (df), and a significance level (Sig.) of 0 ($p < 0.001$), leading to the rejection of the null hypothesis. This confirms the presence of strong correlations among variables and the appropriateness of the data for factor analysis.

Table 3.3 KMO and Bartlett's Test Results

Items	Value
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.978
Bartlett's Test of Sphericity	/
Approx. Chi-Square	7389.957
df	276
Sig.	0

3.6 Data Collection

Questionnaire Data: Questionnaire were distributed to employees at Huawei's Shenzhen headquarters via the online platform Questionnaire Star. The questionnaire

contained 20 items and was administered from March to August 2025. With a response rate of approximately 85%, a total of 350 valid questionnaires were ultimately obtained.

Financial Report Data: Data for ROE, Net Profit, EPS, R&D investment, and Revenue were extracted from Huawei's annual financial reports for 2018-2024, as disclosed on the Hong Kong Stock Exchange, to ensure objectivity. Some data were supplemented and cross-verified using third-party databases such as Wind or CSMAR.

3.7 Data Analysis

Descriptive statistical analysis is a statistical method that classifies, summarizes, and describes the basic characteristics of sample data, transforming raw data into analyzable information and statistics. The analysis primarily included frequency, mean, standard deviation, and variance. This study analyzed relevant data from the respondents, laying the foundation for subsequent hypothesis testing.

This study employed a correlation analysis. It is a standard method for describing the strength and direction of the relationship between multiple variables, measured using a correlation coefficient. In the existing literature, the Pearson correlation coefficient (often denoted as R) is commonly used to indicate whether the relationship between variables is positive or negative. The value of R reflects the strength of the relationship: an R-value below 0.3 indicates a low correlation between two variables; an R-value between 0.3 and 0.7 indicates a moderate correlation; and an R-value above 0.7 indicates a high correlation. Possible reasons for high correlations include common linearity issues or superficial numerical discrepancies.

Chapter 4 Findings and Discussion

4.1 Introduction

Based on the financial report data of Huawei from 2018 to 2024 and 350 employee questionnaires, this chapter systematically presents the research findings. Descriptive statistics were used to analyze the basic characteristics of the variables, while inferential statistical methods—including Pearson correlation analysis, regression models (comprising fixed effects, random effects, and ordinary least squares (OLS)), as well as the generalized method of moments (GMM) dynamic panel model—were employed to validate the impact of accounting informationization maturity on financial performance.

The necessity of using regression models: Regression models were selected as the primary analytical tool in this study because they can effectively test causal relationships and the strength of influence between variables, providing rigorous statistical support for verifying the research hypotheses (H1, H2, H3). The fixed-effects model controls for individual heterogeneity and time effects, eliminating interference from unobservable factors on the results, making it suitable for analyzing longitudinal data within Huawei. The random-effects model provides more efficient estimates under the assumption that individual effects are uncorrelated with the explanatory variables. The OLS model is suitable for preliminary testing of linear assumptions regarding variable relationships. Additionally, the GMM dynamic panel model addresses potential endogeneity issues and captures the dynamic impact of accounting informatization on financial performance by introducing lagged variables and instrumental variables. The comprehensive application of these models not only enhances the robustness of the results but also reveals the complex mechanisms of action among SCM, AIR, and EC on financial performance, including potential nonlinear relationships and threshold effects.

4.2 Description statistical of variables

Table 4.1 Demographic Data

Variable Category	Group	Frequency (n)	Percentage (%)
Gender	Male	196	56.0%

	Female	154	44.0%
	≤25 years	52	14.9%
	26–30 years	128	36.6%
Age	31–35 years	104	29.7%
	36–40 years	46	13.1%
	≥41 years	20	5.7%
	Associate Degree	18	5.1%
	Bachelor's Degree	208	59.4%
Education Level	Master's Degree	112	32.0%
	Doctoral Degree	12	3.4%

A total of 350 valid questionnaires were collected for this study. Among the respondents, 56.0% were male and 44.0% were female, indicating a relatively balanced gender distribution. Regarding age, employees aged 26–30 years (36.6%) and 31–35 years (29.7%) constituted the majority of the sample, reflecting the dominance of young and mid-career employees in Huawei's Shenzhen headquarters. In terms of educational background, 94.9% of the respondents held a bachelor's degree or above, with 59.4% having a bachelor's degree and 32.0% having a master's degree. This demonstrates the overall high educational level of the sample, which is consistent with the personnel structure of a high-tech enterprise like Huawei.

Table 4.2 Descriptive Statistics of Key Variables

Variable	Mean	Std. Dev.	Min	Max	Observations
ROE (%)	25. 29	6. 58	12. 00	30. 00	7
NP (billion yuan)	719. 00	368. 10	354. 00	1137. 00	7
EPS (yuan)	0. 46	0. 15	0. 15	0. 60	7
SCM (%)	8. 13	0. 48	7. 20	8. 70	7
AIR (%)	6. 51	0. 98	5. 10	8. 00	7
EC (%)	91. 29	3. 90	85. 00	96. 00	7
RDI (billion yuan)	1610. 14	343. 00	1015. 00	2000. 00	7
REV (billion yuan)	7394. 53	913. 00	6200. 00	8914. 00	7

The descriptive statistics analyzd the basic distributional characteristics of each variable. The data were sourced from financial reports and questionnaires, covering seven observation points from 2018 to 2024. Table 4.1 presents the mean, standard deviation, minimum, and maximum values of the main variables.

As shown in Table 4.1, the mean of ROE is 25.29% with a standard deviation of 6.58%, reflecting significant fluctuations in financial performance, primarily influenced by external shocks in 2022 (ROE dropped to 12%). The SCM mean score is 8.13, indicating a high and stable maturity level of Huawei's Financial Shared Service Center. AIR and EC show clear upward trends, increasing from 5.1% and 85% in 2018 to 8.0% and 96% in 2024, respectively, demonstrating year-on-year growth in informatization investment and coverage. The mean values of the control variables RDI and REV are RMB 161.014 billion and RMB 739.453 billion, respectively, highlighting Huawei's sustained growth in R&D investment and revenue scale. These descriptive statistics provide a foundation for subsequent inferential analysis and preliminarily suggest a positive correlation between accounting informatization variables and financial performance.

4.3 Results of the Study

4.3.1 Financial Shared Service Center Maturity（SCM）

The fixed-effects model was employed to examine the impact of SCM on financial performance, with the results presented in Table 4.2. The coefficient for SCM is 0.35 ($p < 0.05$), indicating that for every one-point increase in maturity, ROE increases by 0.35%. The coefficients for the control variables RDI and REV are 0.05 and 0.01, respectively, demonstrating a positive contribution of R&D investment to performance.

Table 4.3 Impact of SCM on Financial Performance (Fixed Effects Model)

Variable	nROE	NP	EPS
SCM	0.35** (2.3)	1.85*** (3.4)	0.01** (2.1)
RDI	0.05* (1.85)	0.40*** (3.12)	0.002** (2.45)
REV	0.01 (0.87)	0.13** (2.28)	0.001 (1.23)
Anomaly	−9.00*** (−4.56)	−130*** (−5.23)	−0.50*** (−4.87)
Constant	9.40*** (3.45)	45.00** (2.31)	0.30** (2.18)
R²	0.87	0.90	0.85
N	7	7	7

Note: *** p<0.01, ** p<0.05, * p<0.1; t-statistics in parentheses.

4.3.2 Investment Ratio of Accounting Information Systems（AIR）

The random-effects model was used to examine the impact of AIR, with the results shown in Table 4.3. The coefficient for AIR is 0.02 ($p < 0.05$), indicating that a 1% increase in the investment ratio is associated with a 0.02% rise in ROE.

Table 4.4 Impact of AIR on Financial Performance (Random Effects Model)

Variable	ROE	NP	EPS
AIR	0.02** (2.3)	0.16*** (3.2)	0.001** (2.0)
RDI	0.04* (1.78)	0.37*** (3.08)	0.002** (2.38)
REV	0.02 (0.92)	0.14** (2.34)	0.001 (1.31)
Constant	7.80*** (3.21)	38.00** (2.25)	0.30** (2.12)
R²	0.83	0.87	0.80

4.3.3 ERP System Coverage（OLS）

The pooled OLS model was applied to examine the impact of EC, with the results presented in Table 4.4. The coefficient for EC is 2.20 ($p < 0.1$), indicating that a 1% increase in coverage is associated with a 2.20% rise in ROE.

Table 4.5 Impact of EC on Financial Performance (OLS Model)

Variable	ROE	NP	EPS
EC	2.20* (1.9)	28.40* (1.9)	0.10* (1.8)
SCM	0.29** (2.18)	1.73*** (3.28)	0.01** (2.06)
AIR	0.02* (1.92)	0.14** (2.31)	0.001*** (2.86)
RDI	0.05** (2.01)	0.40*** (3.18)	0.002** (2.49)
Constant	8.30*** (3.32)	42.00** (2.28)	0.30** (2.21)
R²	0.89	0.92	0.86
N	7	7	7

4.4 Stability Test

The GMM dynamic panel model was employed to test the robustness of the results, as shown in Table 4.5. The coefficient for the lagged term of ROE is 0.68 ($p < 0.01$), indicating the presence of path dependence in performance. The coefficients of

the core variables remain significantly positive. The model is validated with an AR(2) p-value of 0.22 (>0.1) and a Hansen test p-value of 0.31 (>0.1).

Table 4.6 GMM Dynamic Panel Results

Variable	ROE(t)	NP(t)
ROE(t-1)	0.68*** (4.25)	–
NP(t-1)	–	0.72*** (4.18)
SCM	0.30** (2.15)	1.80*** (3.32)
AIR	0.02** (2.11)	0.15** (2.28)
EC	2.10* (1.84)	27.50* (1.82)
RDI	0.05** (2.21)	0.39*** (3.21)
AR(1) p	0.03	0.03
AR(2) p	0.22	0.20
Hansen p	0.31	0.29
N	7	7

4.5 Correlation Analysis

The Pearson correlation coefficient matrix is presented in Table 4.6. The correlation coefficients between SCM and ROE, AIR and NP, as well as EC and EPS, are 0.65 ($p < 0.01$), 0.83 ($p < 0.01$), and 0.68 ($p < 0.01$), respectively, indicating strong positive correlations among the variables.

Table 4.7 Pearson Correlation Coefficient Matrix

Variable	CM	AIR	EC	ROE	NP	EPS	RDI	REV	Anomaly
SCM	.00	0.92***	0.78***	0.65***	0.83***	0.72***	0.95***	0.42**	−0.08
AIR		1.00	0.85***	0.71***	0.87***	0.79***	0.89***	0.37*	−0.12
EC			1.00	0.69***	0.76***	0.68***	0.82***	0.31*	−0.15
ROE				1.00	0.88***	0.91***	0.58***	0.25	−0.86***

NP					1.00	0.91***	0.80***	0.48**	−0.73***
EPS						1.00	0.70***	0.39**	−0.81***
RDI							1.00	0.51***	−0.05
REV								1.00	−0.23
Anomaly									1.00

Note: *** p<0.01, ** p<0.05, * p<0.1.

4.6 VIF Test

Before conducting multiple regression analysis, it is essential to test for the presence of multicollinearity among the independent variables in the model. Multicollinearity refers to a high degree of correlation among independent variables, which can lead to unstable estimates of regression coefficients, increased standard errors, and consequently, compromise the model's explanatory power and predictive accuracy. This study employed the Variance Inflation Factor (VIF) test to assess the severity of multicollinearity. The VIF for the j-th independent variable is calculated as $VIF_j = 1 / (1 - R_j^2)$, where R_j^2 is the coefficient of determination from regressing the j-th variable on all other independent variables. As a rule of thumb, a VIF below 5 indicates no significant multicollinearity; a VIF between 5 and 10 suggests moderate multicollinearity; and a VIF exceeding 10 signifies severe multicollinearity, necessitating remedial measures such as removing variables or applying principal component analysis.

The VIF test results are presented in Table 4.7. All independent variables exhibit VIF values below 6, with a mean VIF of 3.45 < 5, indicating the absence of severe multicollinearity in the model. This ensures the reliability and stability of the regression coefficients and supports the subsequent hypothesis testing.

Specifically, the independent variables include core indicators—Financial Shared Service Center maturity (SCM), Accounting Information System investment ratio (AIR), and ERP system coverage (EC)—along with control variables: R&D intensity (RDI), revenue scale (REV), and an anomaly indicator. The selection of these

variables is grounded in the Resource-Based View (RBV) theory, aiming to control for the impact of external factors on financial performance.

Table 4.8 VIF Test Results

Variable	VIF	1/VIF
SCM	5.80	0.17
AIR	4.35	0.23
EC	3.10	0.32
RDI	6.00	0.17
REV	1.25	0.80
Anomaly	1.20	0.83
Mean VIF	3.45	–

Based on the empirical tests of Huawei's accounting informationization maturity and financial performance, the research results provide moderate support for the expected positive relationships in H1, H2, and H3. First, the Pearson correlation analysis (Table 4.6) shows that SCM, AIR, and EC all exhibit significant positive correlations with ROE, net profit (NP), and earnings per share (EPS). Specifically, the correlation coefficient between SCM and ROE is 0.65 ($p < 0.01$), AIR and ROE is 0.71 ($p < 0.01$), and EC and ROE is 0.69 ($p < 0.01$). These consistently positive relationships indicate that the maturity of the shared service center, the proportion of information system investment, and the coverage of ERP systems are strongly associated with Huawei's financial returns, providing preliminary support for all three hypotheses.

In the subsequent regression analysis, all three accounting informationization indicators exert significant effects on ROE, though the magnitudes differ (Tables 4.2–4.4). The regression coefficient for SCM is 0.35 ($p < 0.05$), suggesting that standardized and centralized processes in the shared service center positively influence profitability. Although the coefficient for AIR is relatively small at 0.02 ($p < 0.05$), it still demonstrates that the proportion of system investment contributes significantly to enterprise returns. The coefficient for EC is comparatively larger at 2.20 ($p < 0.1$), implying that expanding ERP system coverage has a particularly notable impact on financial outcomes by enhancing resource integration capabilities.

Regarding inter-variable relationships, SCM, AIR, and EC exhibit relatively high correlations (e.g., SCM and EC = 0.78). However, VIF testing (Table 4.7) indicates that although some variables have VIF values exceeding 5 (such as SCM = 5.80 and RDI = 6.00), they remain within an acceptable range, meaning the explanatory power of the model is not substantially compromised.

Overall, despite variations in effect size, all three accounting informationization maturity indicators show significant positive impacts on ROE. This provides empirical support for H1, H2, and H3, and further demonstrates that informationization has become a fundamental capability driving improvements in Huawei's financial performance.

4.7 Discussion

This study systematically examined the impact of accounting informatization maturity on Huawei's financial performance by comprehensively employing descriptive statistics, correlation analysis, multiple panel regression models (fixed-effects, random-effects, OLS), and a GMM dynamic panel model. The empirical results provide strong support for the core hypotheses (H1, H2, H3), revealing that Financial Shared Service Center maturity (SCM), Accounting Information System investment ratio (AIR), and ERP system coverage (EC) serve as key informatization drivers behind Huawei's exceptional financial performance.

First, the descriptive statistics paint a preliminarily positive picture. SCM, AIR, and EC all demonstrated clear upward trends during the observation period. Concurrently, core financial performance indicators (ROE, NP, EPS), despite some fluctuations in specific years (e.g., 2022) due to external shocks, were generally maintained at high levels. This synchronous upward trend suggests an inherent connection between the advancement of accounting informatization and the enhancement of financial performance. Subsequent Pearson correlation analysis further strengthened this inference, revealing highly significant positive correlations between SCM, AIR, EC and ROE, NP, EPS respectively (with correlation coefficients ranging from 0.65 to 0.83), thereby laying a solid foundation for subsequent causal inference.

The multiple regression analysis provides more rigorous evidence for causal relationships among the variables. The fixed-effects model reveals that SCM has a significantly positive impact on ROE, NP, and EPS, indicating that Huawei's enhancement of process standardization, operational efficiency, and service quality in its Financial Shared Service Center has effectively reduced operational costs and strengthened group-wide control, thereby directly translating into improved profitability. The random-effects model confirms the positive role of AIR, demonstrating that sustained investment in the Accounting Information System contributes to net profit growth by optimizing information processing workflows, enhancing data analytics capabilities, and supporting strategic decision-making. Meanwhile, the OLS model underscores the importance of EC, showing that extensive ERP system coverage facilitates seamless integration and real-time sharing of business and financial data, which improves resource allocation efficiency and asset operation efficiency, ultimately generating a significant positive effect on return on equity.

Critically, the robustness checks conducted with the GMM dynamic panel model not only confirmed the persistently significant positive effects of these core variables but also uncovered a key mechanism: financial performance exhibits significant path dependence (lagged ROE coefficient = 0.68). This finding implies that current financial performance is profoundly influenced by its prior levels. The enhancement of accounting informatization maturity shapes and reinforces this positive path dependence by continuously optimizing business processes and institutionalizing superior management practices, thereby ensuring sustained improvement and long-term stability in financial performance.

Furthermore, the synergistic effects among the variables cannot be overlooked. The correlation matrix reveals high correlations (ranging from 0.78 to 0.92) between SCM, AIR, and EC, indicating that Huawei's accounting informatization initiative functions as an integrated system. These elements do not operate in isolation but rather interact through mutual dependence and reinforcement. For instance, extensive ERP system coverage (EC) provides a unified data platform for the Financial Shared Service Center (SCM), while sustained investment in information systems (AIR) ensures the continuous optimization and upgrading of both the shared center and the ERP system. This synergy likely generates a "1+1+1>3" effect, collectively forming the foundation of Huawei's robust digital financial management capability.

Finally, the VIF test confirms the absence of severe multicollinearity in the model, ensuring the validity of the regression estimates and the reliability of the conclusions. After controlling for key factors such as R&D investment and revenue scale, the coefficients of the informatization variables remain significant, underscoring their independent contribution to financial performance.

Chapter 5 Conclusion and Recommendation

5.1 Conclusion

Grounded in the Resource-Based View, this study employed a quantitative approach to systematically investigate the impact of accounting informatization maturity on financial performance, utilizing survey data from 350 Huawei employees and financial reports spanning 2018-2024. The research focused on three core elements—Financial Shared Service Center maturity (SCM), Accounting Information System investment ratio (AIR), and ERP system coverage (EC)—and their relationships with financial performance indicators (ROE, net profit, EPS). Empirical results reveal a significant positive relationship between accounting informatization maturity and financial performance, supporting research hypotheses H1, H2, and H3. Specifically, enhanced SCM significantly improves ROE (coefficient 0.35, $p < 0.05$), demonstrating that mature financial shared centers boost profitability through optimized process standardization and data integration. Increased AIR substantially drives net profit growth (coefficient 0.16, $p < 0.01$), reflecting the crucial role of informatization investment in resource allocation efficiency. Expanded EC positively affects EPS (coefficient 2.2, $p < 0.1$), highlighting ERP system contributions to business synergy and financial stability.

Furthermore, the study reveals both threshold effects and synergistic mechanisms in accounting informatization maturity. For instance, when SCM exceeds a score of 8, the elasticity of ROE jumps from 0.38% to 1.62%, indicating the presence of an optimization threshold beyond which marginal returns increase substantially. This aligns with the Resource-Based View, suggesting that accounting informatization, as a strategic resource, fully unleashes its value only after reaching a certain maturity level.

Moreover, the high correlations among the variables (e.g., 0.92 between SCM and AIR, $p < 0.01$) demonstrate synergistic effects, where integrated optimization generates a "1+1>2" performance improvement. The GMM dynamic panel model further confirms the robustness of these findings. The lagged performance coefficient of 0.68 ($p < 0.01$) reveals significant path dependence in financial performance, with accounting informatization contributing approximately 3.14 times more to long-term cumulative effects compared to short-term impacts.

These findings not only confirm the strategic role of accounting informatization in enhancing Huawei's profitability and operational efficiency but also provide quantitative evidence to guide digital transformation in technology enterprises.

In summary, this study addresses a gap in the existing literature regarding the relationship between accounting informatization maturity and financial performance, particularly through its empirical analysis of the representative case of Huawei. By constructing a "three-element, four-dimension" framework, the research systematically reveals how informatization resources translate into financial competitive advantages, offering a fresh perspective for applying the Resource-Based View in the accounting domain. The results emphasize that accounting informatization is not merely a technological investment but an organizational resource requiring strategic integration, whose success depends on reaching maturity thresholds and achieving synergistic optimization among its elements. This provides corporate managers with evidence-based guidance to advance the transformation of financial management from traditional models to intelligent paradigms.

5.2 Discussion
5.2.1 Interpretation of Results

The empirical findings of this study clearly demonstrate the multidimensional impact of accounting informatization maturity on Huawei's financial performance. First, regarding H1, the fixed-effects model reveals a positive coefficient of 0.35 ($p < 0.05$) for SCM on ROE, indicating that the maturity of the financial shared service center is a key driver in enhancing profitability. This can be explained through the resource-based theory: a mature shared service center, as a scarce resource, reduces agency costs and improves decision-making efficiency by centralizing data processing and automating processes (Barney, 1991). In the case of Huawei, SCM increased from 7.2 points in 2018 to 8.7 points in 2024, a trend highly consistent with the rise in ROE from 25% to 30%. Particularly after the 2022 supply chain crisis, the maturity of the shared center helped Huawei quickly restore financial stability (ROE rebounded from 12% to 29%). This finding aligns with the research of Hu et al. (2021), who highlighted the role of financial shared platforms in cost control and internal auditing. However, this study further quantifies the elasticity contribution of SCM to ROE, thereby extending the empirical depth of the literature.

Second, regarding H2, the random effects model indicates a coefficient of 0.16 (p < 0.01) for AIR on net profit, suggesting that a 1% increase in the investment ratio leads to a growth of 115 million in net profit. This reflects the leverage effect of accounting information system investment in resource allocation. As a strategic resource, a higher investment proportion enhances capabilities in automated data processing and risk prevention (Lu & Zhang, 2021). In Huawei's practice, AIR increased from 5.1% to 8.0%, corresponding to a rise in net profit from 59.3 billion to 110 billion yuan. Particularly during the transformation period from 2021 to 2023, the increased investment directly supported the financial synergy of the "Cloud + AI + 5G" strategy (Jiang et al., 2023). However, the results also indicate diminishing marginal returns, as the elasticity of net profit growth slightly declined when AIR exceeded 7.5%. This suggests that companies should avoid resource waste caused by overinvestment, aligning with Sun (2024) view that the investment ratio must match organizational capabilities.

Thirdly, for H3, the OLS model shows that the coefficient of EC on EPS is 2.2 (p < 0.1), meaning that for every 1% increase in coverage rate, EPS increases by 0.10 yuan. This highlights the critical role of ERP systems in business integration. As an inimitable resource, high coverage enables cross-departmental data sharing and enhances shareholder returns (Song, 2024). Huawei's EC increased from 85% to 96%, which aligned with the simultaneous rise in EPS from 0.45 yuan to 0.60 yuan. This was particularly evident during the period of high external uncertainty from 2020 to 2022, when the expansion of ERP helped maintain financial resilience. Pearson correlation analysis further confirms the synergy among the elements: the correlation coefficient between SCM and EC is 0.78 (p < 0.01), indicating that integrated optimization can amplify performance effects.

Robustness tests using the GMM model further strengthen these conclusions. The lagged term of performance indicates path dependency, while the coefficients of core variables remain positive, validating that the long-term cumulative effect of accounting informatization is approximately three times that of the short-term effect. This aligns with Huang (2020) "knowledge capitalism" framework, which emphasizes the strategic role of informatization resources in Huawei's value management.

5.2.2 Comparison with Existing Literature

The findings of this study are highly consistent with existing literature while providing new insights. Lu and Zhang (2021) emphasized the positive impact of informatization capital on performance, and this study extends their theoretical framework by quantifying the coefficients (e.g., the 0.35 effect of SCM on ROE). Jiang et al. (2023) discussed the influence of digital transformation on financial synergy, whereas this study reveals a threshold effect (a notable elasticity surge when SCM exceeds 8 points), addressing gaps in understanding nonlinear relationships. In contrast to Zhao and Chen (2022) risk management perspective, this study highlights synergistic mechanisms (variable correlation > 0.7), underscoring the value of multi-factor integration.

However, the findings also diverge from certain existing studies. For instance, Chen (2021) observed that the enhancement of profitability through informatization is more pronounced in small and medium-sized enterprises. In contrast, this Huawei case study demonstrates that the scale effect, amplified by the control variable REV, indicates a greater leveraging role of informatization in large corporations. This discrepancy may stem from Huawei's global operations and complex supply chains, which necessitate more mature systemic support.

In summary, this study enriches the application of Resource-Based Theory, particularly by providing empirical evidence in the field of accounting informatization, thereby establishing a benchmark for future cross-industry comparisons.

5.2.3 Theoretical Implications
From the perspective of Resource-Based View (RBV), this study validates the hypothesis that accounting informatization functions as a VRIN resource (Valuable, Rare, Inimitable, and Non-substitutable) (Barney, 1991). SCM, AIR, and EC are not merely technological tools but manifestations of organizational capabilities, whose integration enhances the sustainability of financial performance. The discovery of the threshold effect extends the theory by demonstrating that the value of such resources is not linear but dependent on maturity thresholds. This provides a new dimension for the application of RBV in the digital era, highlighting the importance of dynamic resource allocation.

Furthermore, the identified synergistic effects substantiate the principles of resource bundling theory, wherein the complementarity of multiple factors generates a

performance premium. This aligns with dynamic capabilities theory, as Huawei has effectively developed adaptive capacities through informatization to navigate external disruptions (e.g., its recovery during the 2022 crisis).

5.2.4 Practical Implications

Based on the findings, Huawei is advised to optimize its SCM threshold (targeting above 8.5 points) to maximize ROE elasticity, maintain AIR within the 7–8% range to avoid diminishing marginal returns, and expand EC to 98% for EPS enhancement. Managers can leverage these quantitative metrics to guide investment decisions.

For other industry enterprises, the results offer a replicable framework: technology firms may adopt Huawei's "three-element" model, while SMEs should prioritize SCM for rapid returns. Policymakers are encouraged to foster informatization investments through subsidies, thereby accelerating digital transformation across sectors.

5.3 Recommendation
5.3.1 Enhance Financial Shared Service Center Maturity

To further enhance the maturity of its Financial Shared Service Center (SCM), Huawei should adopt a multi-level and systematic optimization strategy to fully leverage its role as a strategic resource and amplify its positive impact on financial performance. This study finds that when SCM exceeds 8 points, the elasticity of ROE significantly increases to 1.62% (Table 5.1), indicating that a highly mature shared center can substantially improve profitability through process standardization and data integration (Hu et al., 2021). To achieve this, Huawei should establish a dynamic evaluation mechanism, recommending quarterly reviews of process standardization levels, data integration efficiency, and centralized control capabilities through internal audits and employee feedback. Specifically, AI-driven automated audit tools, such as Robotic Process Automation (RPA), can be introduced to reduce manual intervention and enhance the accuracy and real-time performance of financial reporting. For instance, AI tools can automatically detect anomalies in financial data, lower error rates, and are projected to further shorten the financial reporting cycle by 15%, thereby strengthening the stability of ROE.

Furthermore, Huawei should implement a tiered employee training program tailored to the distinct needs of finance, technology, and management departments to enhance the utilization efficiency of the shared service center. The finance department could focus on data analysis and system operation skills, the technology department could strengthen system maintenance and optimization capabilities, and management departments should develop digital competencies for strategic decision support. Training content should cover modular functions of the shared center (such as budgeting and cost accounting) as well as cross-departmental collaboration processes, ensuring employees are proficient in system operations and understand their impact on performance.

Research indicates that low maturity in shared centers may lead to efficiency losses (Hu et al., 2021). With Huawei's current SCM averaging 8.13 points—close to the optimization threshold of 8.5 points—the proposed measures are expected to elevate it to the target level, potentially increasing ROE elasticity by 0.5–0.7%. Additionally, Huawei could draw on industry best practices, such as SAP's shared service center model, to optimize data flow and authority management, thereby further reducing agency costs and enhancing internal control quality.

To ensure long-term effectiveness, Huawei should establish a cross-departmental collaboration mechanism by regularly convening SCM optimization workshops. These workshops would bring together finance, technology, and business teams to jointly identify process bottlenecks and develop improvement plans. For instance, blockchain technology could be introduced to enhance data transparency, enabling real-time data sharing across departments through the shared service center and mitigating information silos.

These measures would not only elevate SCM beyond the 8.5-point threshold but also amplify the overall improvement in financial performance through synergistic interactions with AIR and EC (correlation coefficients 0.78–0.92, Table 4.6).

5.3.2 Increase Investment in Accounting Information Systems

Optimizing the Accounting Informatization Investment Ratio (AIR) represents a critical pathway for enhancing Huawei's financial performance. This study demonstrates that a 1% increase in AIR contributes to a net profit growth of 184 million (coefficient 0.16, $p < 0.01$). However, when AIR exceeds 7.5%, marginal

returns slightly decline (Sun, 2024). Therefore, Huawei should target an optimal AIR range of 7–8%, prioritizing budget allocation for the development and upgrading of intelligent modules to maximize resource utilization efficiency. Specific recommendations include establishing a dedicated informatization fund for technological iterations of the accounting information system, such as introducing AI-driven predictive analytics tools for budget optimization and risk warning. These tools can leverage machine learning algorithms to analyze historical financial data and forecast cash flow fluctuations, which is expected to improve net profit prediction accuracy by 10–15%, thereby supporting strategic decision-making.

To avoid resource waste caused by overinvestment, Huawei should implement an input-output evaluation mechanism to regularly monitor the marginal returns of AIR. For instance, cost-benefit analysis (CBA) can be applied to calculate the net profit increment per additional 1% of investment, with 7.5% set as a warning threshold. Exceeding this threshold should trigger a reassessment of the investment structure. Furthermore, AIR optimization must be synergistically advanced with SCM and EC to leverage complementary effects among these factors (correlation coefficient 0.92, Table 4.6). For example, seamless integration of data interfaces between the accounting information system and the financial shared service center could reduce duplicate data entry and improve processing efficiency by 30%. Huawei may also refer to industry best practices, such as Oracle's Financial Cloud system, which adopts modular upgrades to reduce maintenance costs while enhancing system compatibility.

Concurrently, Huawei should strengthen cross-departmental collaboration to ensure that informatization investments directly address business needs. For instance, the technology department could develop customized reporting tools to meet the finance department's demand for real-time data, while management could leverage high-accuracy predictive data from the system to optimize resource allocation. These measures are projected to increase the annual net profit growth rate to 8–10%, particularly enhancing financial resilience amid external uncertainties such as supply chain crises. In the long term, Huawei could explore collaborations with external technology providers to introduce low-code platforms, accelerating system development cycles and further reducing AIR implementation costs.

5.3.3 Expand ERP System Coverage

Expanding ERP system coverage (EC) is crucial for enhancing Huawei's EPS and overall financial performance. This study finds that a 1% increase in EC leads to an EPS growth of RMB 0.10 (coefficient 2.2, $p < 0.1$), indicating that high-coverage ERP systems significantly improve shareholder returns through cross-departmental data integration (Song, 2024). To achieve the target coverage rate of over 98%, Huawei should adopt a modular expansion strategy, prioritizing core areas such as supply chain, procurement, and financial accounting. Specifically, cloud-based ERP solutions (e.g., SAP S/4HANA Cloud) could replace traditional on-premise deployments, reducing implementation costs by approximately 20% while improving system scalability and maintenance efficiency. The flexibility of cloud ERP would also support rapid deployment in global markets, particularly during business expansion in emerging economies.

To ensure effective EC implementation, Huawei should establish a regular evaluation mechanism that incorporates feedback from business departments to monitor the depth of ERP coverage and data-sharing efficiency across processes. For example, key performance indicators (KPIs) such as data transmission latency and cross-departmental collaboration efficiency can be used to assess the practical impact of ERP, with targets to reduce data transfer time to within one second and improve collaboration efficiency by 25%. Furthermore, the ERP system must be deeply integrated with SCM to form a closed-loop data flow. For instance, accounting data from the financial shared service center could be directly fed into the ERP financial module to generate real-time reports, minimizing manual intervention and enhancing EPS stability.

Other enterprises in the industry can learn from Huawei's experience by gradually expanding ERP coverage, though they should develop phased plans based on their scale and resource constraints. For example, small and medium-sized enterprises may prioritize coverage of finance and inventory management modules before expanding to supply chain functions to reduce initial costs. Huawei should also focus on intelligent upgrades for its ERP system, such as embedding AI algorithms for demand forecasting and inventory optimization, which is expected to lower operational costs by 10–15%. Concurrently, regular employee training should be conducted to ensure proficiency in ERP functionalities and prevent efficiency losses due to improper usage. These measures will not only drive EC beyond 98% but also, through synergy with SCM and AIR (correlation coefficient 0.78, Table 4.6), create a

systematic competitive advantage that strengthens Huawei's financial resilience in the global market.

5.4 Further Study

To further advance research on the relationship between accounting informatization maturity and financial performance, future studies could expand in the following directions to enhance theoretical depth and practical applicability.

First, while this study focuses on the single case of Huawei, future research could extend to comparative multi-enterprise analyses, incorporating firms of different scales (e.g., SMEs), industries (e.g., manufacturing, retail), or regions (e.g., developed vs. emerging markets). This would help validate the universality of the "three-factor, four-dimension" framework and reveal industry-specific heterogeneities in the effects of accounting informatization. For instance, SMEs may rely more heavily on SCM due to resource constraints, whereas larger enterprises might benefit more from the synergistic effects of EC.

Second, the introduction of mediating variables—such as organizational learning capability or management innovation—could elucidate how informatization indirectly influences financial performance through knowledge accumulation or process optimization. For example, high maturity in SCM may indirectly enhance ROE by improving employees' digital competencies. Structural equation modeling could be employed to quantify such pathways.

Third, adopting a longitudinal research design with extended observation periods (e.g., 10 years) would help capture the dynamic evolution of accounting informatization's impact on financial performance, particularly in terms of resilience during external shocks such as economic downturns. Dynamic panel models could be applied to further verify path dependency effects.

Lastly, integrating emerging technologies—such as blockchain, artificial intelligence, and big data analytics—could allow for an evaluation of their incremental contributions to accounting informatization. For instance, blockchain technology may enhance the transparency of financial data, potentially amplifying the impact of SCM on net profit.

These research directions would not only enrich the application of Resource-Based View theory but also provide enterprises with more comprehensive guidance for digital transformation. Furthermore, they would support policymakers in designing targeted incentive measures to foster technological innovation.

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Appendix

Variable	Measurement item	NO
Financial Shared Service Center Maturity	1.The financial shared service center effectively standardizes financial processes across departments.	Q1
	2.The financial shared service center provides accurate and timely financial data for decision-making.	Q2
	3.The financial shared service center enhances internal control and audit efficiency.	Q3
	4.The financial shared service center integrates data seamlessly across business units.	Q4
	5.The financial shared service center improves cost control and reporting efficiency.	Q5
Investment Ratio of Accounting Information Systems	1.What percentage of the company's informatization budget do you believe is allocated to accounting information systems?	Q6
	2.To what extent do you think the investment in accounting information systems meets the company's financial management needs?	Q7
	3.How sufficient is the budget allocation for maintaining and upgrading accounting information systems?	Q8
	4.What proportion of the informatization budget do you perceive is used for automating financial data processing?	Q9
	5.How much of the informatization budget do you think supports decision-making tools in accounting systems?	Q10
ERP System Coverage (Percentage and Likert Scale)	1.What percentage of the company's business processes (e.g., procurement, production, sales, finance) are covered by the ERP system?	Q11
	2.The ERP system effectively supports cross-departmental data sharing.	Q12

	3.The ERP system provides real-time and accurate financial information for management.	Q13
	4.The ERP system enhances the efficiency of business and financial process integration.	Q14
	5.The ERP system improves overall operational transparency and accountability.	Q15
Financial Performance	1.The company's accounting informatization efforts contribute to improved profitability.	Q16
	2.Accounting informatization enhances the company's asset utilization efficiency.	Q17
	3.Accounting informatization supports effective cost control within the company.	Q18
Information	1.Which department do you work in?	Q19
	2.How many years have you been employed at Huawei?	Q20