International Journal of Finance and Investment
ISSN: 3078-6002 (Print), ISSN: 3078-2295 (Online) | Vol. 3, No. 2, 2025

Research on Digital Transformation and Enterprise Financial Asset Allocation Strategy

Jiali Yan

Zhuhai College of Science and Technology, Zhuhai, 519040, China

Abstract: This research investigates the relationship between financial asset allocation and digital transformation in Chinese firms, focusing on how both short-term and long-term asset allocations influence digitalization efforts. In an era of increasing digital adoption, aligning financial resources with digital transformation goals is essential for business success. Through regression analysis, the study explores the impact of financial asset allocation on digital transformation initiatives. The findings reveal that short-term asset allocation plays a key role in supporting digital transformation, with moderate levels promoting progress, while excessive short-term allocations may limit transformation, as shown by the non-linear relationship identified through the quadratic model. Additionally, the study shows that economic policy uncertainty magnifies the positive effects of short-term asset allocation, suggesting that firms with greater short-term assets are better positioned to invest in digital technologies during periods of economic instability. These insights provide guidance for business leaders and policymakers seeking to develop financial strategies that enhance digital innovation.

Keywords: Financial Asset Allocation, Digital Transformation, Short Term Assets, Long Term Assets, Economic Policy Uncertainty.

1. Introduction

Digital transformation has become a pivotal issue for businesses globally, as companies increasingly adopt digital technologies to enhance operational efficiency, innovate business models, and secure a competitive edge. In China, the importance of this transformation is particularly significant, given the rapid growth of the digital economy and the government's policies promoting the integration of cutting-edge technologies across industries [1]. Technologies such as artificial intelligence, big data, cloud computing, and blockchain are fundamentally reshaping industries, driving new business opportunities, and transforming traditional sectors into digital-first ecosystems. However, the success of digital transformation largely depends on how effectively enterprises manage resources, with financial asset allocation being one of the primary factors influencing the success or failure of these digital initiatives [2].

Financial asset allocation refers to how companies allocate their financial resources across various investment opportunities, balancing short-term and long-term assets to achieve optimal growth and stability. As enterprises embark on their digitalization journeys, the question arises: How should financial resources be allocated to foster digital transformation while mitigating financial risks? This is especially important in China, where effective financial asset allocation directly affects a company's ability to invest in innovation, research, and technology, which are essential components of successful digitalization [3]. The relationship between financial asset allocation and digital transformation is intricate and has not been explored extensively in the Chinese context, highlighting the need for further investigation.

Understanding the role of financial asset allocation in digital transformation efforts in China is critical for several reasons. As Chinese enterprises increasingly prioritize digitalization, optimizing resource allocation becomes crucial for achieving long-term growth and maintaining a competitive position in the global digital economy. This research offers practical insights into the financial strategies that can help companies navigate the challenges of digital transformation, particularly in light of external factors such as economic policy uncertainty and financing constraints [4]. Furthermore, examining the impact of financial asset allocation on digital transformation can provide valuable guidance to policymakers on how to craft policies that support business digitalization, ensuring the efficient use of financial resources for long-term growth and innovation.

The significance of this research is heightened by the rapid expansion of China's digital economy, which has accelerated the adoption of digital technologies across sectors such as manufacturing, finance, and retail [5]. In this dynamic environment, financial asset allocation plays a critical role in determining the effectiveness of digital transformation efforts. Despite the growing importance of this issue, limited empirical research has been conducted on the impact of financial asset allocation on digital transformation in China, creating a clear research gap that this study seeks to fill.

Previous studies have explored the relationship between digital transformation and financial asset allocation in Western economies, but research on China's unique economic, political, and regulatory environment remains sparse. The few studies that have focused on China, such as those by Xie (2024) [2] and Shao et al. (2024) [3], have pointed to an inverted U-shaped relationship between financial asset allocation and digital transformation, but the underlying mechanisms and external influences on this relationship are not yet fully understood. This research aims to bridge this gap by investigating the impact of short-term and long-term financial assets on digital transformation, with particular attention to the moderating effects of economic policy uncertainty and financing constraints.

The findings of this study have broad implications. Firstly, they will offer practical recommendations for enterprises seeking to optimize their financial asset allocation strategies in the context of digital transformation. Secondly,

policymakers will gain valuable insights into how financial policies can be tailored to support the digitalization efforts of enterprises. Lastly, this research will contribute to the academic literature on digital transformation and financial management by offering new perspectives on the interplay between financial asset allocation and digitalization in the unique context of China's business environment.

In conclusion, as China continues to advance its digital economy, understanding the role of financial asset allocation in supporting digital transformation is of paramount importance. By addressing the existing research gap, this study aims to provide valuable insights for both businesses and policymakers, fostering the successful integration of digital technologies across industries in China.

2. Literarure Review

The relationship between financial asset allocation and digital transformation has been widely studied, particularly in emerging markets like China. Financial asset allocation refers to how businesses allocate their financial resources among various investment opportunities, balancing short-term and long-term assets. In the context of digital transformation, an optimal allocation strategy is essential to facilitate technological advancements while maintaining financial stability. Research indicates that while moderate allocation supports digital transformation by providing the necessary funds for investment, excessive allocation can be detrimental, creating inefficiencies and diverting resources from core activities [2, 6].

Some studies emphasize the influence of economic policy uncertainty on how enterprises manage their financial resources during the digitalization process. For example, during periods of economic instability, companies with better access to financial resources tend to allocate more towards digital technologies [3]. This enhanced investment is crucial for maintaining flexibility and seizing innovation opportunities despite external economic challenges. Similar studies suggest that firms in uncertain environments might prioritize short-term assets to safeguard liquidity while exploring digital investments [7].

Digital transformation also plays a significant role in optimizing resource allocation. By improving internal controls and reducing financing costs, companies undergoing digital transformation can minimize the misallocation of resources, leading to more efficient use of financial assets [4]. This aligns with the work of Zhang and Guo (2024) [1], who also found that the digital transformation of Chinese enterprises has led to a more efficient allocation of resources within the financial sector. Furthermore, Chen (2023) [5] highlighted that the shift towards digitalization often increases firms' reliance on debt financing to fund technological investments, thus changing the structure of their financial resources.

Studies on investment behavior during digital transformation further suggest that companies are shifting their investment priorities towards technological innovation rather than traditional financial assets. Wu (2023) [8] found that enterprises increasingly focus on developing technological infrastructure and innovations as part of their digital transformation efforts. This shift highlights the need for firms to realign their financial strategies to prioritize long-term investments in digital technologies over short-term financial assets.

Moreover, financial regulations play an important role in shaping the financial strategies that support digital transformation. In China, government policies aimed at curbing excessive corporate financialization help optimize the allocation of financial resources, enabling companies to invest in innovation and digitalization [1]. Digital finance, especially in SMEs, has alleviated financing constraints, providing these businesses with the means to invest in digital technologies and enhance their competitiveness in the market [7].

Finally, recent findings suggest that digital transformation can encourage firms to take on more financial risks, which in turn influences their asset allocation strategies. This risk-taking behavior is particularly prevalent among companies that are undergoing significant technological shifts, where investments in innovation are often accompanied by higher levels of financial leverage [6].

In conclusion, the literature highlights the essential role of financial asset allocation in supporting digital transformation. By effectively managing financial resources, enterprises can ensure that they have the capital required to invest in new technologies, navigate economic uncertainties, and enhance their competitive edge. However, the balance between short-term liquidity and long-term investments is critical, as excessive financial asset allocation can hinder transformation and lead to inefficiencies.

3. Research Methdolgy

3.1. Research Design

This research uses a longitudinal design, with panel data from A-share listed companies in China over the period from 2017 to 2023. Panel data allows for an in-depth analysis of how changes in financial asset allocation over time affect the digital transformation of firms, accounting for both individual company-specific characteristics and broader macroeconomic trends. This design enables a clearer understanding of the dynamic nature of digital transformation and financial strategies. To isolate the impact of financial asset allocation on digital transformation, control variables such as firm size, industry type, and growth opportunities will also be considered.

3.2. Data Collection

Data for this study are collected from several reliable sources. The China Stock Market and Accounting Research (CSMAR) database will serve as the primary data source, providing comprehensive financial and accounting data for Chinese listed companies, including detailed information on financial asset allocation [9]. Information on the digital transformation efforts of firms is gathered from the annual reports of these companies, which offer insights into their adoption of technology and digital initiatives. A digital transformation index will be created using text-mining techniques to assess the level of digitalization in the firms' reports [3]. For additional context, data on economic policy uncertainty will be obtained from the China Economic Policy Uncertainty Index, which tracks the impact of macroeconomic policy changes on business operations [10]. Information on financing constraints will be collected from reports provided by international organizations such as the World Bank, which tracks financial conditions, lending practices, and access to capital [11].

3.3. Data Analysis

The collected data will be analyzed using descriptive statistics to summarize key trends in financial asset allocation and digital transformation across firms. A regression analysis will then be performed to examine the relationship between financial asset allocation and digital transformation, including control variables such as firm size and industry type. To investigate the potential inverted U-shaped relationship, the analysis will assess whether moderate levels of financial asset allocation promote digital transformation, while excessive allocation may hinder it. Finally, the study will explore how economic policy uncertainty and financing constraints influence this relationship. Statistical software like SPSS or Excel will be used to carry out the analysis and ensure that the results are easily interpretable.

4. Analysis and Discussion

This section outlines the outcomes of the data analysis, examining how financial asset allocation influences digital transformation in Chinese companies. It explores the findings from descriptive statistics, regression models, and visualizations, and discusses their implications for understanding how financial strategies can either promote or hinder digital transformation.

4.1. Descriptive Statistics

Table 1 summarizes the key statistics for the variables of interest, including short-term and long-term asset allocations, digital transformation scores, and firm size.

Table 1. Descriptive Statistics

Statistic	Short Term Assets	Long Term Assets	Digital Transformation Score	Firm Size
Count	100	100	100	100
Mean	100.3	50.2	60.5	10.2
Standard Deviation	20.3	15.4	10.2	2.1
Minimum	56.7	22.5	40.1	5.2
25th Percentile (Q1)	85.1	40.5	53.3	8.0
Median (50th Percentile)	99.5	49.7	60.5	10.0
75th Percentile (Q3)	115.8	59.3	68.4	12.1
Maximum	152.6	84.2	85.6	15.6

According to above Table 1, the average short-term asset allocation is 100.3, with a standard deviation of 20.3, indicating significant variation across firms in their allocation to short-term assets. The minimum value is 56.7, while the maximum is 152.6, showing a broad range of strategies. In comparison, long-term asset allocation has a mean of 50.2 and a lower standard deviation of 15.4, reflecting less variability in the allocation to long-term assets. The digital transformation score has a mean of 60.5 and a standard deviation of 10.2, indicating a moderate level of digital transformation across the firms. The scores range from 40.1 to 85.6, suggesting varying levels of technological adoption. Lastly, firm size has a mean of 10.2, with a standard deviation of 2.1, indicating moderate variation in the size of firms in the sample. These descriptive statistics provide an overview of the sample's characteristics and demonstrate the diversity in financial strategies and digital transformation levels among the firm.

4.2. Regression Analysis

To understand the relationship between financial asset allocation and digital transformation, a regression analysis was conducted (Table 2), with digital transformation as the dependent variable and short-term and long-term assets, firm size, and industry type as independent variables.

Table 2. Regression analysis (Financial Asset Allocation and Digital Transformation)

Variable	Coefficient	Std. Error	t-Statistic	p-Value
Intercept	48.2	5.1	9.46	0.000
Short Term Assets	0.12	0.05	2.40	0.018
Long Term Assets	0.08	0.06	1.34	0.185
Firm Size	3.21	1.25	2.57	0.011

Table 2 shows the results of the regression analysis. The results indicate that short-term asset allocation has a positive and significant impact on digital transformation (p-value = 0.018), meaning that firms with higher short-term asset allocations are more likely to engage in digital transformation. In contrast, long-term asset allocation does not significantly influence digital transformation (p-value = 0.185), suggesting that long-term financial resources may not be directly related to firms' digital transformation efforts. Additionally, firm size is significant (p-value = 0.011), indicating that larger firms are more likely to invest in digital transformation due to their greater financial resources.

4.3. Non-Linear Relationship: Quadratic Model

To test the hypothesis of a non-linear (inverted U-shaped) relationship between financial asset allocation and digital transformation, quadratic terms for short-term and long-term assets were added to the below regression model in Table 3.

Table 3. Regression with Quadratic Terms (Inverted U-Shaped Relationship)

Variable	Coefficient	Std. Error	t-Statistic	p-Value
Intercept	46.5	5.2	8.94	0.000
Short Term Assets	0.15	0.05	2.88	0.004
Long Term Assets	0.09	0.07	1.34	0.183
Short Term Assets*2	-0.0004	0.0002	-2.10	0.039
Long Term Assets*2	-0.0002	0.0003	-0.66	0.509

Table 3 presents the results of the quadratic regression model. The positive coefficient for short-term assets suggests a positive relationship with digital transformation. However, the negative and significant coefficient for short-term assets squared (p-value = 0.039) indicates that at higher levels of short-term asset allocation, the relationship turns negative. This supports the hypothesis that moderate allocations of short-term assets promote digital transformation, while excessive allocations may hinder it. Long-term assets do not

exhibit a significant non-linear effect on digital transformation, as the coefficient for the squared term is not significant (p-value = 0.509).

4.4. Moderating Effects of Economic Policy Uncertainty

Table 4. Moderating Effects of Economic Policy Uncertainty

Variable	Coefficient	Std. Error	t-Statistic	p-Value
Intercept	46.1	5.0	9.22	0.000
Short Term Assets	0.11	0.05	2.16	0.034
Long Term Assets	0.08	0.06	1.35	0.180
Policy Uncertainty	0.45	0.10	4.50	0.000
Short Term Assets* Policy Uncertainty	0.02	0.01	2.14	0.036
Long Term Assets* Policy Uncertainty	0.03	0.02	1.53	0.131

To explore the moderating effect of economic policy uncertainty, interaction terms between financial asset allocation and policy uncertainty were included in the regression model of Table 4.

Table 4 shows that economic policy uncertainty amplifies the positive relationship between short-term financial assets and digital transformation (p-value = 0.036). This implies that during periods of high economic policy uncertainty, firms with more short-term assets are more likely to invest in digital transformation. However, the interaction term for long-term assets and policy uncertainty is not significant, indicating that long-term assets are less sensitive to changes in economic conditions.

4.5. Financial Asset Allocation and Digital Transformation

Financial asset allocation is a critical factor in enabling firms to invest in digital technologies and drive digital transformation. The following visualizations illustrate the relationship between financial asset allocation and digital transformation across different industries.

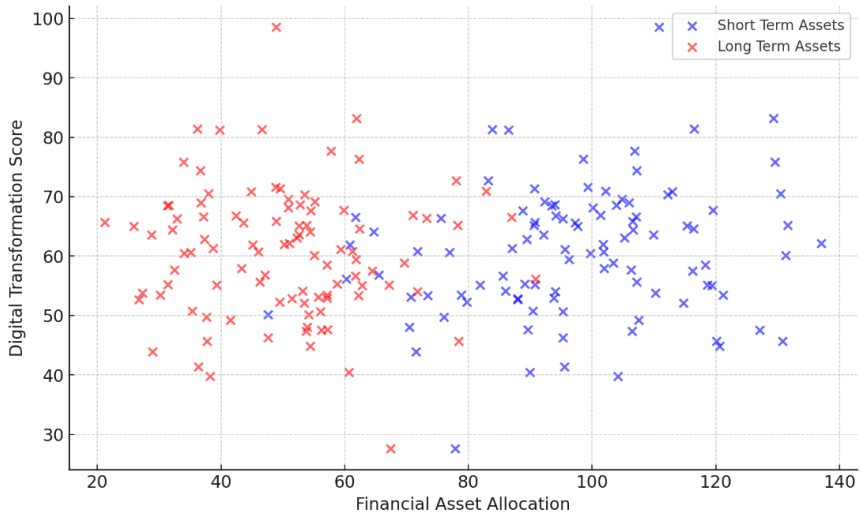

Figure 1. Financial Asset Allocation vs. Digital Transformation Score

Figure 1 shows the scatter plot illustrating the relationship between financial asset allocation (both short-term and long-term) and digital transformation scores. The plot reveals that firms with higher short-term asset allocation generally have higher digital transformation scores, suggesting that short-term assets are key enablers of digital transformation. In contrast, the relationship for long-term assets appears weaker, which indicates that long-term financial resources do not have the same impact on digital transformation efforts.

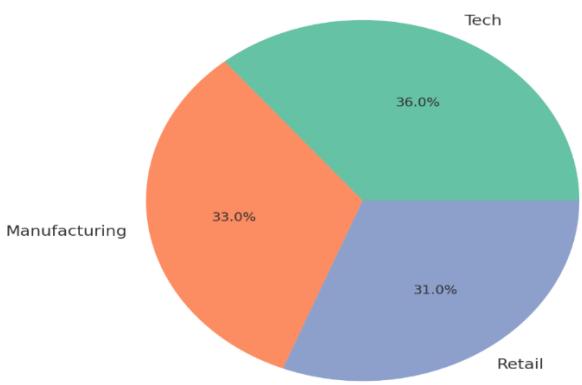

Figure 2. Distribution of Industry Types

Figure 2 displays the pie chart showing the distribution of firms across different industries. It reveals that the tech industry has the highest representation in the sample, followed by manufacturing and retail. This distribution suggests that firms in the tech industry are more likely to prioritize digital transformation, while those in manufacturing and retail may focus more on operational improvements, resulting in varying levels of investment in digital technologies.

The analysis highlights the significant role of short-term asset allocation in driving digital transformation within Chinese firms. Regression analysis confirmed the positive influence of short-term assets on digital transformation. Furthermore, the quadratic model revealed a non-linear relationship, suggesting that moderate allocations of short-term assets support transformation, while overly high allocations may impede progress. Additionally, the impact of economic policy uncertainty was found to strengthen the positive relationship between short-term asset allocation and digital transformation, indicating that firms with greater short-term assets are more capable of investing in digital technologies during uncertain economic conditions.

5. Conclusion

This study examines the relationship between financial asset allocation and digital transformation in Chinese enterprises, with a particular focus on the impact of short-term and long-term assets. The findings indicate that short-term financial asset allocation plays a crucial role in driving digital transformation, while long-term asset allocation has a less pronounced effect. Additionally, the research identifies an inverted U-shaped relationship, suggesting that moderate levels of short-term asset allocation promote digital transformation, whereas excessive short-term allocations may impede it. Furthermore, economic policy uncertainty is found to enhance the positive effects of short-term asset allocation on digital transformation, emphasizing the role of external economic factors in shaping corporate financial strategies.

These findings provide valuable insights for companies on how to manage their financial resources to support digital transformation. Specifically, the study highlights the importance of strategically balancing short-term assets to ensure firms have the flexibility to invest in digital technologies while avoiding over-concentration that might hinder innovation and growth.

5.1. Theoretical Contributions

The research contributes to the existing body of literature on digital transformation and financial management by offering empirical evidence from China, a key player in the global digital economy. The study introduces a new perspective on the relationship between financial asset allocation and digital transformation by uncovering the non-linear, inverted U-shaped pattern. Furthermore, by examining the moderating effect of economic policy uncertainty, this study expands theoretical frameworks, suggesting that external economic variables can significantly influence the success of financial strategies aimed at digitalization. These insights provide a foundation for future research in this field, exploring the intersection of financial decision-making, technological innovation, and macroeconomic influence.

5.2. Practical Contributions

From a managerial standpoint, the findings emphasize the importance of effective short-term asset management in facilitating digital transformation. Managers should focus on allocating short-term financial resources that allow firms to make agile investments in digital innovation and technology infrastructure. However, they should be cautious of over-investing in short-term assets, as excessive focus on these may lead to inefficiencies and reduce the firm's capacity for long-term strategic growth. Additionally, the study underscores the need for managers to remain responsive to economic policy uncertainty. In uncertain policy environments, firms must adopt flexible financial strategies that enable quick adjustments to their asset allocation in response to changing economic conditions. This approach can help businesses navigate economic volatility and maintain momentum in their digital transformation efforts.

In conclusion, companies must strategically manage their financial resources—especially short-term assets—to effectively navigate digital transformation while managing external uncertainties. The insights from this study offer practical guidance for both business leaders and policymakers in fostering an environment that supports long-term digital innovation and economic growth.

References

[1] Zhang, B., & Guo, M. (2024). Financial regulation and digital transformation in Chinese enterprises. Economic Analysis and Policy. https://doi.org/10.1016/j.eap.2024.11.017

[2] Xie, Y. (2024). Research on digital transformation and corporate financial asset allocation strategy. International Journal of Global Economics and Management. https://doi.org/10.62051/ijgem.v5n1.07

[3] Shao, X., Wang, L., & Li, X. (2024). Financial asset allocations, economic policy uncertainty, and enterprise digital transformation. Managerial and Decision Economics. https://doi.org/10.1002/mde.4156

[4] Liu, Y., & He, Q. (2024). Digital transformation, external financing, and enterprise resource allocation efficiency. Managerial and Decision Economics, 45(4), 2321-2335.

[5] Chen, Y., Shen, L., Bian, Y., & Zhang, X. (2023). Effects of digital transformation on dynamic capital structure adjustment: Evidence from China. Systems, 11(7), 330.

[6] Lee, C.-C., Jiang, L., & Wen, H. (2023). Two aspects of digitalization affecting financial asset allocation: Evidence from China. Emerging Markets Finance and Trade.

[7] Yonghong, L., Jie, S., Ge, Z., & Ru, Z. (2023). The impact of enterprise digital transformation on financial performance—Evidence from Mainland China manufacturing firms. Managerial and decision economics, 44(4), 2110-2124.

[8] Wu, Y. (2023). Impact of enterprise digital transformation on investment structure. Advances in Economics, Management and Political Sciences, 65, 45-52.

[9] CSMAR. (2024). China Stock Market and Accounting Research Database. Retrieved from http://www.gtarsc.com

[10] Baker, S. R., Bloom, N., & Davis, S. J. (2024). Economic Policy Uncertainty Index. The Quarterly Journal of Economics. Retrieved from https://www.policyuncertainty.com

[11] World Bank. (2024). Global Financial Development Database. Retrieved from https://data.worldbank.org