Plan Overview

A Data Management Plan created using DMPonline

Title: the impact of digital transformation on enterprises' risk-taking ability

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Template: DCC Template

Project abstract:

With the deepening development of new-quality productive forces, digital transformation has become a critical pathway for enterprises to adapt to epochal changes and enhance core competitiveness. To explore the impact of digital transformation on corporate risk-taking capacity, this study utilizes data from Chinese A-share listed companies between 2014 and 2024. By extracting keyword frequencies related to digital transformation from annual reports, we construct a corporate digital transformation indicator. Industry-adjusted ROA volatility is employed to measure risk-taking ability, and a fixed-effects model is constructed for empirical testing. The fixed-effects model regression reveals that a one-unit increase in digital transformation significantly elevates risk-taking by 0.38%. This conclusion remains robust across multiple tests: the positive effect persists when using a lagged model, and intensifies when the dependent variable is replaced with five-year industry-adjusted ROA volatility. Further heterogeneity analysis reveals significant differences based on ownership attributes: the risk-taking enhancement effect of digital transformation is more pronounced in non-state-owned enterprises, while this effect is insignificant in state-owned enterprises. Interaction term models further confirm that state-owned ownership attributes significantly weaken the risk-taking promotion effect of digital transformation. This study empirically demonstrates at the micro level that digital transformation, as a new factor of production, effectively enhances corporate risk-taking capacity. It provides empirical evidence for non-state-owned enterprises to enhance innovation willingness and market competitiveness through digital transformation, and offers reference for policies promoting differentiated digital transformation among enterprises.

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Data Collection

What data will you collect or create?

The research sample selected for this study comprises Chinese A-share listed companies on the Shanghai and Shenzhen stock exchanges from 2014 to 2024, with their original data undergoing screening.

The dependent variable is firm risk-taking (Risk). Following the methodology of Yu, Minggui et al. (2013), we measure the level of firm risk-taking using industry-adjusted volatility of return on assets.

The explanatory variable is digital transformation (ADT). Following Wu Fei's (2021) methodology, we measure the degree of corporate digital transformation by counting the frequency of keywords related to digital transformation in publicly listed companies' annual reports. Specifically, we select keywords associated with digital technologies such as big data, artificial intelligence, cloud computing, and blockchain, tally their occurrences in the annual reports, then add 1 and take the natural logarithm.

How will the data be collected or created?

To mitigate the adverse effects of extreme values and enhance stability and validity, this study selected a research sample comprising A-share listed companies on the Shanghai and Shenzhen stock exchanges from 2014 to 2024, and screened their raw data. The screening process primarily involved the following key steps: (1) Excluding companies with ST, *ST, and PT designations; (2) Excluding financial and insurance companies; (3) Excluding enterprises with less than five years of service; (4) Applying the Winsorization method, all continuous variables were truncated to fall within the 1% and 99% ranges. The primary data source for the sample study is the CSMAR database.

Documentation and Metadata

What documentation and metadata will accompany the data?

There are three main files, namely:Data on Risk-Taking Levels of Listed Companies, 2000-2024 (Financial STPT companies excluded, data truncated)□Processed data.XLSX and Wu Fei Edition - Digital Transformation of Listed Companies (1999-2024).xlsx.

Ethics and Legal Compliance

How will you manage any ethical issues?

The present project has no ethical issues.

How will you manage copyright and Intellectual Property Rights (IPR) issues?

The authors carefully check the copyright and IPR

Storage and Backup

How will the data be stored and backed up during the research?

The authors carefully check the data used in this research for copyright and IPR issues, and restrictions on the reuse of third-party content.

How will you manage access and security?

Our data are open data, so there are no security issues.

Selection and Preservation

Which data are of long-term value and should be retained, shared, and/or preserved?

The digital transformation level is of great importance and can be stored and used for a long time

What is the long-term preservation plan for the dataset?

I will save it to Baidu Cloud, Xunlei Cloud, and the local disk of my computer.

Data Sharing

How will you share the data?

Currently, we do not intend to share the data.

Are any restrictions on data sharing required?

Currently, we do not intend to share the data.

Responsibilities and Resources

Who will be responsible for data management?

Aldo

What resources will you require to deliver your plan?

Pay to use Baidu Cloud to store data