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Digital Transformation: How they can Impact in the State-own Enterprise in Indonesian

KEYWORDS
cost efficiency, productivity, digital transformation, quality of financial statements company performance, State-Owned Enterprises

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ABSTRACT
This study provides empirical evidence on the effects of cost efficiency, productivity, digital transformation, and quality on company performance. Using a sample of 64 state-owned companies in Indonesia from 2019 to 2022, the findings reveal that cost efficiency and productivity significantly enhance company performance. However, digital transformation and the quality of financial statements do not exhibit a direct impact. Notably, the study underscores the need to explore the broader implications of digital transformation in driving long-term organizational competitiveness and resilience.

INTRODUCTION

Globalization has ushered in a new era of civilization marked by the rapid advancement of information technology systems (Vlados & Chatzinikolaou, 2025). These developments have successfully bridged spatial and temporal barriers, enabling the fulfillment of diverse human needs. This era is characterized by increasingly sophisticated communication tools capable of processing, producing, and disseminating information on a massive scale. Technology has emerged as a transformative force, supporting human activities across various domains, including politics, social sciences, culture, the economy, defense, security, and education. As a developing nation, Indonesia embraces globalization by adapting to technological advancements. However, the opportunities and challenges posed by digital transformation, particularly in sectors such as state-owned enterprises, warrant deeper exploration. Globalization can be understood as the spread of universal practices, the expansion of cross-continental relationships, the organization of social life on a global scale, and the growth of global awareness (Nag, 2024).

Interpreted globalization in four ways. First, globalization is characterized by a growth in the number of transactions and a level of dependence between countries, referred to as internationalization. This process involves increased international relations activities by each country while maintaining its unique identity. Second, globalization is marked by the fading of boundaries between countries, a phenomenon known as liberalization. This includes policies related to export or import pricing, migration, and foreign exchange traffic, which pose specific operational challenges for state-owned enterprises in navigating regulatory frameworks. Third, globalization involves universalization, which necessitates standardization and uniformity in culture, economy, law, and politics across countries. This can be seen in the widespread dissemination of material and immaterial goods globally, demanding enhanced productivity and cost efficiency to remain competitive. Finally, globalization can be characterized by Westernization, referring to the spread of culture and perspectives that influence global practices. This dynamic requires enterprises to adopt adaptive strategies, particularly in addressing the challenges of digital transformation and financial quality improvements (Yeow et al., 2018).

In this era of globalization, the urgency for digital transformation across various industries has become increasingly critical, especially in light of the profound changes brought about by the COVID-19 pandemic, which drastically altered lifestyles and business practices worldwide. As Saarikko et al. (Saarikko et al., 2020) note, digital transformation is one of the most pressing challenges facing organizations today. It represents substantial shifts within society and industry driven by the adoption of digital technologies (Jafari-Sadeghi et al., 2021). At the organizational level, it is argued that companies must find ways to innovate using these technologies by designing a "strategy that embraces the implications of digital transformation and drives better operational performance". "Digital transformation" refers to a company's ability to leverage digital technologies to enhance the efficacy and efficiency of both its internal operations and external market offerings. Beyond improving internal processes, digital transformation also drives innovation by extending its influence to external innovation networks (Jarrahi & Sawyer, 2019). It is characterized by changes and transformations rooted in technology. While these studies provide valuable insights into digital transformation, this research contributes a novel perspective by focusing on its implementation and impact within Indonesian state-owned enterprises, an area that has been less explored in existing literature. Comparing the findings with prior studies underscores the unique context and contributions of this research.

Digital transformation in an enterprise refers to the organization's adoption of big data, analytics, cloud computing, mobile, and social media platforms. The emergence of these digital technologies has significantly reshaped the corporate landscape in today’s dynamic environment. By leveraging big data, analytics, cloud computing, social media, and mobile platforms, enterprises aim to create competitive and sustainable digital business strategies. Expanding on these advancements, it is essential to explore how such transformations can influence policies and strategies for stakeholders, including policymakers and business leaders, enabling them to make informed decisions and drive impactful change (Janssen & Helbig, 2018).

focusing more on digital business strategies and opportunities to determine how businesses can take advantage of these opportunities and spur innovation and change throughout the organization (Svahn et al., 2017). The financial industry, especially banking, is one of the industries that move quickly by continuing to improve services by using digital technology. Research on digital transformation in the financial services sector has a lot of promise because more businesses and entrepreneurs are getting involved in it. Recently. massive cost reduction programs have been implemented by companies. However, long-term success cannot be achieved without the development of new business ideas, innovative products and services, and an intensive focus on customer retention (Mehta et al., 2016).

According to some academics, there is a strong correlation between technical and financial innovation, and without innovation from financiers, economic growth will eventually slow down (Laeven et al., 2015). Information technology (IT) has made it possible to create economies of scale and has led to an increase in interference between financial and technological innovation. By performing digital transformation, it is hoped that the banking industry will continue to make innovations that will ultimately improve company performance.

Digital innovation and change are thought to present some managerial issues, according to prior research on the topic. Digital technology adoption may result in reorganized business processes, altered system design, challenges with problem formulation, and interactions among value chain participants (Hussain & Papastathopoulos, 2022). Digital transformation mediates the relationship between IT capabilities and business performance, giving it a more complex function. Businesses must understand the significance of the digital shift and how to best use IT capabilities to create and propel their own performance. Studies conducted by (Henfridsson, 2020) have highlighted how the unique nature of digital technologies enables new types of innovation and entrepreneurship that differ from industrial analogue processes. The results of the study revealed that innovation is an important factor that drives company survival. Based on some results of previous research and the phenomena described earlier, investigating how digital transformation can affect company performance is interesting.

The sociocultural process of adjusting businesses to new organizational structures and skill sets required to stay competitive and relevant in the digital era is known as "digital transformation." It surpasses earlier ideas like business process re-engineering and information technology (IT)-)-enabled change, which aims to enhance current processes. Conversely, "a process that aims to improve an entity by triggering significant changes to its properties through a combination of information technology, computing, communication, and connectivity" is what digital transformation is best defined as.

Changes and transformations that are induced and constructed on the basis of digital technology are referred to as digital transformations. Digital transformation in the context of an enterprise refers to the organization's use of big data, analytics, cloud, mobile, and social media platforms. Digital transformation is a type of change that is based on digital technology and brings about distinctive changes in company operations, business processes, and value generation; however, organizations nevertheless adapt and change in response to the shifting business landscape (Nwankpa & Roumani, 2016). For instance, make a distinction between digital transformation—which happens when digital technologies are used to drastically alter entire business operations, value creation, and, in some cases, value creation—and digital upgrading, which is the use of digital technologies to improve efficiency and effectiveness in a company’s business processes. Organizations can use digital transformation to engage customers by developing digital breakthroughs and incorporating digital technologies into various elements of their business (Aral & Weill, 2007). Possessing traditional IT skills entails being able to engage in newly developing digital transformation.

We are currently in industrial revolution 4.0, where one of its characteristics is the development of increasingly sophisticated available technology. This development has made people's life behaviour more modern. They are very dependent on the internet, either through computers or smartphones. People can access information from anywhere easily without recognizing the limits of time and place. The ease of accessibility, flexibility of time, price, and quality are indicators people use when considering a product. This is what ultimately makes businesspeople compete to innovate.

Innovation is defined as the creation and discovery of new ideas, practices, processes, products, or services (Daft, 1978). Innovation is non-routine and significant and involves changing existing organizational competencies (Mezias & Glynn, 1993). Innovation is acknowledged as a vital component for businesses seeking to generate value and maintain a sustainable competitive advantage in an increasingly competitive business environment (Wang & Wang, 2012). According to Verganti (2016), innovation can be divided into two categories: advancement and novel approaches.

Although improvements are novel approaches that seek to address a preexisting problem or definition of value (Verganti, 2016), the new path of innovation takes a more radical approach by developing whole new value propositions and routes. Due to the focus on innovation, practitioners and researchers have conducted a great deal of research to better understand how innovation affects business success (Datta & Roumani, 2015). It should come as no surprise that more innovative businesses are better able to create new skills and adapt to the changing business environment, which results in improved performance (Calantone et al., 2002.

According to Cao and Zhang (2011), a company's performance is determined by how well it meets its goals and objectives in relation to its primary competitors. Profitability, expansion, and market value are typically indicative of good business success (Cho & Pucik, 2005). Anticipatedly, there has been a great deal of scholarly focus on deciphering the causal framework of business performance and elucidating the variance in performance between rival companies (March & Sutton, 1997). (Muhammad Ibnu R et al., 2021) stated that financial performance is a reflection of the company's current state of affairs. Strong financial performance allows a company to maximize profits, whereas weak financial performance indicates a decline in ownership relative to income. This study contains several variables, such as.

Cost efficiency of company performance

With qualified quality and competence, it is expected that business organizations can run productively. One dimension of productivity that leads to the achievement of maximum targets and is related to the quality, quantity, and use of time is referred to as efficient work. efficient work means achieving goals that have been set and agreed upon. The level of achievement of an organization can demonstrate its level of efficiency (Hasibuan, 2012). Various existing literature explains that increasing work efficiency can be seen from the ability to achieve targets that have been prepared previously. This requires awareness from every layer of management to work together in developing business organisations. efficiency refers to the ability of human resources to complete work correctly and precisely. Simian (2015) defined effectiveness as the deliberate predetermined use of facilities, infrastructure, and resources in a given amount to generate a predetermined quantity of timely, high-quality goods and services.

H1: Cost efficiency has a significant effect on company performance.

Increased productivity affects company performance

Productivity describes the relationship between inputs (such as man-hours, effort, equipment usage) and outputs (such as products produced, customer complaints handled, and so on). With qualified quality and competence, it is expected that business organizations can run productively. One dimension of productivity that leads to the achievement of maximum targets and is related to the quality, quantity, and use of time is referred to as work effectiveness. Work effectiveness refers to the achievement of goals that have been set and agreed upon. The level of achievement of an organization can demonstrate the level of effectiveness (Hasibuan, 2012).

H2: Increased productivity has a significant effect on company performance.

Financial quality on company performance

Quality is defined as the fulfilment of stakeholder expectations and needs for the requested financial statements.

H3: Financial quality has a significant effect on company performance.

Digital transformation on company performance

Businesses can improve their consumer offerings through more customization, more customer satisfaction and lower sales costs as digital transformation grows (Brynjolfsson & Hitt, 2000; Mithas et al., 2005). Through enhanced communication, transparency, and monitoring, digital integration between suppliers and value chain partners can lower coordination costs (Malone, 1987), transaction costs (Williamson, 1977), and agent costs (Aral & Weill, 2007). Prior research on the effects of digital technology indicates that a company's performance can be positively impacted by digitalization. Therefore, the authors hypothesize the following:

H4 : Digital transformation has a significant effect on company performance

METHODS

Type of Research

According to Sugiyono (2018), quantitative data is a research method based on concrete data, research data in the form of numbers that will be measured using statistics as a calculation test tool related to the problem under study to produce a conclusion.

Population and sample

The population in this study were State-Owned Enterprises companies in 2019-2022 with sampling using purposive sampling.

Definisi operasional Operational definition of variables

Independent Variable

Cost Efficiency

Cost efficiency is the process of emphasizing budget expenditure to get maximum results. Cost efficiency is one of the important variables in business operations. In this study, to measure cost efficiency using:

Efficiency ratio = Total operating expenses/gross revenue

Productivity

Productivity is a measure of productive efficiency, a comparison between output and input. Input is often limited to labour, while output is measured in physical units, form and value. The company productivity formula can be formulated as follows :

Productivity = output/labour

Digitalization Transformation

A continuous network spanning all economic sectors and actors' adaptation to the new conditions of the digital economy are known as "digital transformation". Digitalization or digital transformation, relates to changes that can be made by digital technology, realizing company business models, products, processes and organizational structures.

ROI = (Total Sales - Investment)/ Investment

Financial Statement Quality

The end product of the accounting process is financial statements, which contain historical data. Accounting is the process of locating, evaluating, and summarizing economic data so that users of the data can draw conclusions and choose wisely. What is meant by the quality of financial statements is the preparation of financial statements that are carried out in accordance with standards so that they are able to describe the actual situation. The formula for the quality of financial statements is as follows :

FSQ = Covariance of Net Sales - Covariance of Net Income

Dependent Variable

Company performance

Performance is Company Performance is the level of achievement of the company in carrying out activities or activities that are its responsibility in optimizing the achievement of the vision, mission and goals set by the company, which can be assessed by comparing achievements with targets or with the performance of several companies in the same industry. Company performance is measured by two indicators, namely financial performance and operational performance (Jahanshahi et.al 2012).

Gross profit margin = (Gross Profit/Revenue) x 100%

Control Variables

Company Age

Company age describes the length of time a company has been established and running its business. In this study, the age of the company is measured by the difference between the research period and the year the company was founded. The age of the company can be described in the following formula:

Company age = Year of Research - Year of Company Establishment

Liquidity

Liquidity is the ability of a company to meet its short-term obligations in a smooth and timely manner. Subramanyam (2017) defines the liquidity ratio as a tool for analyzing credit that serves to evaluate the ability to meet short-term obligations. The liquidity formula can be seen as follows:

Liquidity = Current Assets / Current Liabilities x 100%

Leverage

Leverage is a measure of the amount of assets that are financed with debts used to finance assets from creditors, not from shareholders or investors. The leverage or solvency of a company shows the company's ability to fulfill all its financial obligations if the company is liquidated at one time. Weston and Copeland (1997) formulate the leverage ratio as follows :

DAR = Total debt / Total Assets x 100%

Data analysis technique

The data analysis technique uses panel data, which is processed with the help of the spss 26 program.

Research model

The research model is formulated as follows :

PER = a + b1EFC + b2PRD + b3QUA + b4TRN + b5AGE + b6LIQ+ b7LEV+ e

RESULTS and DISCUSSION

Table 1.

Variables	**B**	***S.E***	***t***	***Sig***
Constant	0,101	0,116	0,873	0,008
EFC	-0,592	0,092	-6,404	0,008
PRD	1,915	0,258	7,417	0,973
DGT	0,0000002762	0,000	0,849	0,963
QFR	0,0000000006562	0,000	0,341	0,963
AGE	-0,001	0,001	-0,519	0,949
LIQ	0,000	0,001	0,371	0,996
LEV	-0,025	0,014	-1,768	0,961

The results show that cost efficiency affects company performance. Operating costs are a type of cost that companies incur annually, for both large and small companies, in certain amounts. Operational costs are also sometimes referred to as commercial costs. Besides, there are also those who sometimes consider operational costs as costs that have a major influence on the success of a company in achieving its goals. Operating costs include all operating costs except interest and income taxes (Juki, 2008).

The second research result found that productivity affects company performance. Productivity is the company's ability to produce compared to the inputs used, the company can be said to be productive if it is able to produce services as expected in a short or appropriate time.

In the third result equation, it was found that digitalization had no effect on company performance. Digital technology has an important role in building effective work for the individuals who use it because the application of digital applications can trigger faster brain work in completing tasks, so it does not require a long time to complete tasks. The effect of the application of digital applications felt by users (employees) depends on their competence and understanding; the higher the knowledge of the application used, the maximum results will be achieved by using the application. Therefore, it is hoped that companies can improve their HR capabilities.

Finally, we found that the quality of financial statements has no effect on company performance. The quality of financial statements is closely related to the presentation of the financial statements. The presentation of financial statements that are not in accordance with financial accounting standards and that cannot be traced for evidence of transactions can result in low-quality financial statements. In addition, there are accrual policy policies from agency leaders for which there is no accrual evidence, such as depreciation of assets, reserves for losses on receivables, and changes in inventory recording methods, which can also affect the quality of financial statements. The quality of good financial reports shows that an organization's leadership has good intentions in being accountable for accountable and transparent financial management to the public. Conversely, low-quality financial statements can mislead users into disclosing financial statements when conducting analysis and decision-making. Reviews of the quality of financial statements, especially at the local government level, are still interesting issues to review, so research on testing the quality of company financial reports needs to be investigated further.

This study focuses on cost efficiency, productivity, and digital transformation and reports quality variables of financial company performance. In fact, several other variables can affect company performance outside the variants examined in this study. This research sample used only state-owned enterprise companies in Indonesia in 2019-2022.

It is hoped that further research will include or add other variables outside the variables included in this study. Future research is also expected to increase the number of research samples, which will increase the quality of the research to be conducted to obtain a better level of generalizability.

CONCLUSION

This study empirically demonstrates that cost efficiency and productivity significantly influence company performance. However, digitalization and the quality of financial statements do not exhibit a measurable impact on company performance. To enhance company outcomes, businesses should focus on strategies that improve cost efficiency and productivity, while reassessing the role of digitalization and financial reporting quality in their operational framework.

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