

# Riyanto

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# Effect of Digital Transformation on Company Operational Efficiency

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## Abstract

Technology has a combinatorial effect that accelerates advancement in a variety of corporate and social contexts. Customer Experience, Company Operations, and Business Models are the three primary ways in which digital transformation has affected enterprises. This study intends to examine the impact of digital transformation on the operational efficiency of the business. This study employed a quantitative methodology. In Bekasi, 96 managers of enterprises in the manufacturing industry were surveyed to collect data. Using a questionnaire created specifically for this study, measurements were taken and evaluated using multiple linear regression. The findings of the study indicate that digital transformation has a substantial impact on the operational efficiency of the business. This indicates that organizations who actively utilize digital technologies might increase operational efficiency and, consequently, company performance as a whole.

Keywords: Digital Transformation, Operational Efficiency, Company.

## A. INTRODUCTION

Today, technology is almost capable of making anything possible. For example, as an example, the development of technology embedded in cellphones in the past decade, the presence of cloud services, sensor technology, analysis capabilities in Big Data, and the Internet of Things (Herdinata & Pranatasari, 2019). The combinatorial effect that technology provides exponentially accelerates growth in a variety of elements of both business and social life. In this regard, digital innovation is currently "disrupting" company and operational paradigms and having some substantial effects on the social lives of individuals (Karinda et al., 2018).

The word "digital transformation" refers to an all-encompassing concept that encompasses an organization's ability to harness digital technology to improve the efficiency and effectiveness of its internal operations as well as the products and services it offers to external markets (Vial, 2019). Moreover, innovation is driven outside the bounds of the company and into external innovation networks by digital transformation (Westergren et al., 2019). The term "digital transformation" refers to changes and transformations that are prompted by technical forces and constructed on top of a technological base (Nwankpa & Roumani, 2016). The process through which a business migrates its operations to digital platforms such as big data, analytics, the cloud, mobile, and social media is referred to as digital transformation.

The proliferation of digital technologies and opportunities has prompted dramatic shifts in the corporate landscape, which are currently being witnessed in today's business climate. In an effort to develop a digital business strategy that is competitive, businesses are increasingly embracing options such as analytics, big data, cloud computing, social media platforms, and mobile applications (Schwertner, 2017). There is a growing focus on digital business opportunities and strategies, with practitioners and academics aiming to understand how businesses can capitalize on digital opportunities and drive enterprise-wide innovation.

and transformation. This is one of the reasons why there is a growing emphasis on digital business opportunities and strategies (Markus & Loebbecke, 2013).

The use of digital technology in business has changed the way companies operate and communicate with customers and other stakeholders. Digital transformation is important for companies to maintain competitiveness in an increasingly digital and innovative era (Winasis & Riyanto, 2020). Digital transformation opens up new opportunities for companies in terms of collecting, analyzing, and utilizing data to produce valuable information for companies (Wakil et al, 2022).

By digital transformation, businesses can get fresh views on company management, streamline company operations, and create more effective business models (Febrianty et al, 2020). Hence, digital transformation is corporate transformation in the contemporary period. In the age of digitalization, this idiom is becoming increasingly widespread. Every firm relies increasingly on data and technology to function more efficiently and give consumers with value (Sudirman et al, 2020).

Numerous earlier studies have addressed digital transformation within the context of management and business. For instance, Frendiana and Soediantono's research demonstrates that the usage of digital technology can boost operational efficiency and employee productivity in businesses. In addition, Wijaya et al. (2019) research indicates that organizations that utilize digital technology tend to do better than those that do not. In addition, research by Fatihudin & Firmansyah (2019) shows that companies that implement digital transformation can create a better customer experience and increase customer loyalty.

There are many benefits from digital transformation, there are still many companies that have not fully adopted it. Some companies are still hesitant to use digital technology because of the costs involved and the challenges of integrating new technology into their business processes. Therefore, research on the effect of digital transformation on company operational efficiency can provide further insight and understanding for companies in adopting digital technology effectively to improve company operational efficiency.

## B. LITERATURE REVIEWS

### 1. Digital Transformation

Digital transformation is the process of integrating all system components within an organization using digital technologies such as cloud computing, mobile computing, and virtualization technology (Vial, 2019). In addition, digital transformation can be viewed as the result of a combination of business and digital innovation that results in changes to an organization's internal and external structure, values, processes, positions, and ecosystems (Ebert & Duarte, 2018). Digital transformation is the process by which firms integrate digital technologies throughout all business domains, thereby significantly altering the manner in which they give value to clients. Businesses embrace cutting-edge digital technologies in order to better adjust their organizational culture and operations to fluctuating customer needs (Schwertner, 2017).

In addition to enhancing firm performance in the digital era, digital transformation offers numerous other benefits. The following are some of the benefits that businesses obtain from undertaking digital transformation:

- a) Altering the client experience. The establishment of a digital transformation strategy to enhance the customer experience will enhance the performance of the business. More data-driven insights. When businesses transition to digital business, they can get

a variety of data. By leveraging digital transformation, businesses are able to track and analyze data for the development of marketing plans that boost human resources.

- b) Departments collaborating in a dynamic manner. Businesses that implement digital transformation effectively can enhance communication between departments. With strong departmental cohesion, the organization will be able to find human resources with the same objectives to boost the company's success.
- c) Improved creativity.'
- d) Digital transformation may foster innovation and business growth for enterprises. 68% of firms, according to Imaginovation.net, can enhance innovation through digital transformation.

## 2. Company Operational Efficiency

The company's operational efficiency is one of the key factors in achieving business success and competitive advantage. Operational efficiency refers to a company's ability to produce and produce products or services in a cost-effective manner, use resources efficiently, and maximize the use of company assets. In the management context, operational efficiency is usually measured by several performance metrics, such as productivity, production costs, and lead time (Prasetyo & Darmayanti, 2015).

To improve the company's operational efficiency, it is necessary to analyze and improve the company's business processes. This can be done by using a business process management approach that aims to identify, evaluate, and improve inefficient business processes. In addition, companies can also improve operational efficiency by using digital technology to automate business processes, increase collaboration between departments, and improve the quality and efficiency of data use (Gobel, 2013).

Operational efficiency of a company can only be achieved if a company is able to control all costs incurred to generate revenue. Sales results are the number of sales to buyers during an accounting period, minus returns and discounts. What is meant by the proceeds of this sale is the selling price multiplied by the quantity sold, so that it does not include value added tax. Shipping costs paid by the company, but the buyer is asked to replace them are also not included in the sales results (Baik et al, 2013)

Operational efficiency can also have a direct impact on a company's financial performance. Companies that have high operational efficiency tend to have lower production costs, and can generate greater profits than their competitors. In addition, high operational efficiency can also enable companies to produce better quality products or services, increase customer satisfaction, and increase customer loyalty (Ramanathan & Akanni, 2015).

## C. METHODS

In this study, the authors used a descriptive research methodology with a quantitative approach. The purpose of descriptive research according to Abdi and Usman in Arikunto (2009) is to describe/solve problems systematically, factually, and accurately regarding the facts and characteristics of a particular population or region. In this study, the population consists of managers from manufacturing companies who have carried out digital transformation in their company operations in Bekasi, whose number is unknown. The sample approach used is stratified random sampling. On this basis, 96 respondents became the research sample. Google forms are used to distribute questionnaires to collect data. Using a Likert scale, the questionnaire serves as an instrument for data collection. According to Sugiyono (2011), the Likert scale is defined as follows: "The Likert scale is used to examine

attitudes, opinions, and individual or group perceptions of social phenomena." Using SPSS 25.0 for Windows, a simple regression analysis was carried out to analyze the data (Ghozali (2006). The research will be conducted in accordance with the principles of research ethics, including privacy and confidentiality of respondent data, obtaining consent from respondents, and avoiding the dissemination of information that could harm respondents or other parties involved in the research.

## D. RESULTS AND DISCUSSION

### 1. Validity test

Tests were conducted on the indicators of each variable, namely digital transformation and operational efficiency, to determine the validity of this study. The validity test results indicate that the correlation value  $r_{count}$  is more than the probability value  $r_{table}$ , which is 0.1986. The following table details the results of each indicator's validity test:

**Table 1 Validity Test for Digital Transformation Variables**

Items Question	$r_{count}$	$r_{table}$	Information
TD 1	0.537	0.1986	Valid
TD 2	0.612	0.1986	Valid
TD 3	0.512	0.1986	Valid
TD4	0.681	0.1986	Valid
TD 5	0.586	0.1986	Valid
TD6	0.776	0.1986	Valid
TD 7	0.654	0.1986	Valid
TD 8	0.819	0.1986	Valid
TD 9	0.715	0.1986	Valid

The correct item value, the total correlation  $r_{count} > r_{table}$ , can be concluded from the results of the validity test for the question item digital transformation variable (X), as shown in table 1. The Community variable questionnaire item (X) is valid and can be used as a measure of this community.

**Table 2 Validity test for operational efficiency variables**

Items Question	$R_{count}$	$R_{table}$	Decision
EO1	0.576	0.1986	Valid
EO2	0.632	0.1986	Valid

EO3	0.643	0.1986	Valid
EO4	0.572	0.1986	Valid
EO5	0.611	0.1986	Valid
EO6	0.532	0.1986	Valid
EO7	0.679	0.1986	Valid
EO 8	0.643	0.1986	Valid
EO 9	0.612	0.1986	Valid

Table 2 shows that the corrected item values - total correlation  $r_{count} > r_{table}$  - can be concluded from the results of the validity test for the item statement variable Company operational efficiency (Y). So, item Y in the operational efficiency variable declaration is correct and can be used.

## 2. Reliability Test

This procedure determines whether a certain part of the research data can be trusted or not. If the Cronbach's alpha value is more than 0.60, then it can be safely assumed that the data is credible.

**Table 3 Reliability Test Results**

Variable	Cronbach's alpha	Std Reliability	Information
digital transformation (X)	0.863	0.60	Reliable
Operational efficiency (Y)	0.918	0.60	Reliable

On the basis of the data processing results presented in table 3, it was determined that the Cronbach Alpha value of each research variable was larger than 0.60, so it can be inferred that all variables in this study were trustworthy.

## 3. Simple Linear Regression Analysis

**Table 4 Simple Linear Regression Results**  
Coefficients<sup>a</sup>

Model	Unstandardized Coefficient		Standardized Coefficient	t	Sig.
	b	std. error	Betas		
1. Constant	18,484	4,359		0.475	0.631
digital transformation	0.657	0.070	0.767	10,859	0.001

a. Dependent Variable: Operational efficiency

Table 4 of the SPSS output contains the basic linear regression equation  $Y = 18.484 + 0.657X$ , where 18.484 is the constant value of operational efficiency (Y) if digital



transformation (X) does not exist, and 0.657 is the percentage increase in the company's operational efficiency (Y) for every 1% digital transformation enhancement (X).

#### 10 4. Coefficient of Determination (R<sup>2</sup>)

**Table 5 The Coefficient of Determination (R<sup>2</sup>)  
Summary Model <sup>b</sup>**

Model	R	R Square	Adjusted R Square	std. Error of the Estimate
1	0.557 <sup>a</sup>	0.310	0.302	3,392

The R Square value of 0.309 is calculated from the data in table 5 using SPSS version 20. This shows that digital transformation affects operational efficiency only by 31.0%. On the other hand, the remaining 69.0% is influenced by factors that were not taken into account in our analysis.

#### 5. t test

**Table 6 Simple Linear Regression Results**

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Model	Unstandardized Coefficient		Standardized Coefficient	t	Sig.
	b	std. error	Betas		
2. Constant	18,484	4,359		0.475	0.631
digital transformation	0.657	0.070	0.767	10,859	0.001

b. Dependent Variable: Operational efficiency

7  
2 Table 6 of the SPSS version 25 results above shows that H<sub>0</sub> is accepted with a significance value of 0.001 < 0.05 and a t-count value of 10.859 > t-table of 1.985. This shows that digital transformation (X) has a significant effect on the operational efficiency of manufacturing companies in Bekasi.

#### Discussion

6  
3 According to the findings of the study, the significance value was 0.001 < 0.05 and the t-count value was 10.859 greater than t-table 1.98. This demonstrates that H<sub>0</sub> is rejected and H<sub>1</sub> is approved, indicating that digital transformation has a positive and substantial effect on the operational efficiency of Bekasi's manufacturing enterprises. And digital transformation has a 31% impact on the company's operational efficiency. The remaining 69% is affected by factors that were not examined in this study.

Digital transformation has become a significant change in the modern business world. In this context, the company's operational efficiency is a key factor in business success. Operational efficiency can be interpreted as a company's ability to use resources optimally in achieving its business goals. The use of digital technology can help companies achieve better operational efficiency.

One of the ways digital transformation affects operational efficiency is by automating business processes. In this case, companies can replace manual work with digital technology to increase operational efficiency (Ming\_Hsien et al, 2011). For example, the use of automated

manufacturing systems can help companies improve production efficiency and reduce production costs.

In addition, digital transformation also allows companies to increase efficiency in supply chain management. The use of digital technology in supply chain management can help companies monitor and manage their supply chain more effectively and efficiently (Harrison et al, 2004). Companies can reduce costs and increase delivery speed by optimizing their supply chain through digital technology integration.

The use of digital technology can also increase operational efficiency in data management. In this case, companies can use digital technology to manage data more effectively and efficiently. For example, companies can use a centralized database management system to more effectively manage company data and improve data accessibility for employees.

In addition, the use of digital technology can also speed up the decision-making process and strengthen corporate risk management. In this case, companies can use digital technology to quickly analyze data and provide useful information for business decision making. The use of digital technology can also help companies identify risks and monitor risks in real-time.

Finally, digital transformation also allows companies to improve efficiency in customer service. Companies can use digital technologies such as chatbots or online ordering systems to increase efficiency in providing customer service. In this case, the use of digital technology can help companies improve the quality of customer service and reduce operational costs (Happy & Windasari, 2021).

In order to achieve better operational efficiency, companies need to pay attention to the use of digital technology wisely and on target. Digital transformation involves not only implementing digital technology, but also changing culture and processes within the company. Therefore, companies need to prepare well before implementing digital transformation, so they can optimize the benefits of using digital technology and achieve better operational efficiency.

## E. CONCLUSION

The findings of the research presented above allow one to draw the obvious conclusion that digital transformation has a significant impact on the operational efficiency of businesses. It is possible to draw the conclusion that Hypothesis 1 (H1) is correct given that the test results acquired a significant value of 0.001 < 0.05 and a t-count value of 10.859 > t-table 1.985. The term "digital transformation" refers to a significant shift in the manner in which businesses apply digital technology in order to innovate their business operations and provide increased value to their consumers. According to the findings of the study, digital transformation management has a large and favorable impact on the operational efficiency of businesses located in Bekasi. Factors such as human resource development, information system development, and the use of digital technology have proven to have a significant influence on the company's operational efficiency. Digital transformation management can help companies improve operational efficiency and financial performance. Therefore, companies need to pay attention to and optimally implement digital transformation management to achieve business success in today's digital era.



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