



The Effect of Digital Transformation on Employee Performance (Case Study: PT. Indonesia Power UPJP Kamojang)

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ABSTRACT: PT. Indonesia Power UPJP Kamojang is one of the business units engaged in the Generation Unit and Generation Services (UPJP). Performance at PT. Indonesia Power UPJP Kamojang changes every year. In 2022 it is said that there will be a decrease compared to 2021. In line with this decrease, the company is carrying out a digital transformation that is required for all PLN subsidiaries. The purpose of this study is to determine the digital transformation that is implemented, the performance of existing employees and how much influence digital transformation has on the performance of employees of PT. Indonesia Power UPJP Kamojang based on existing dimensions. This type of research is descriptive and causal in nature. This study used a quantitative method with a questionnaire data collection technique which was distributed to 148 employees of PT. Indonesia Power UPJP Kamojang, with a sampling technique that is simple random sampling. Data analysis using the Structural Equation Model (SEM). The research results show that digital transformation seen from the customer experience and collaborative capability dimensions is categorized as quite good, the process and business model dimensions are categorized as good, the culture and technology dimensions are categorized as strong, and employee performance seen from the dimensions of task performance and contextual performance is categorized as quite high. The statistical test results showed that there was a significant influence of customer experience, collaborative capabilities, process, business model, culture and technology on task performance and contextual performance of PT. Indonesia Power UPJP Kamojang. It is recommended that companies need to improve digital-based customer service technology, training on digital tools, digitalization processes by senior management and supervisory teams, company value propositions, development of digital culture, use of new digital technology, giving targets to employees and giving rewards to employees.

KEYWORDS: Digital Transformation and Employee Performance

INTRODUCTION

The current globalization has led to increased competition among companies to capture markets. This forms the basis for companies to achieve their goals and success in order to survive in this competitive environment. According to Kraus et al. (2021), the pressure on businesses requires them to integrate efficiently not only to survive but to thrive in a competitive environment. Continuous improvement in company performance can assist in winning the competition. Chiavenato (2019) states that performance is a series of characteristics, behaviors, or capabilities of an individual, team, or organization. In line with the views of Vithanage & Arachchige in Alobidyeen et al. (2019), performance is defined as objective functional behavior resulting from the strengths or pressures generated by individuals and as the interaction and harmony between the internal strengths of the individual and the external forces surrounding them. Thus, it can be said that employee performance is a part of organizational performance that needs to be enhanced. PT. Indonesia Power UPJP Kamojang is one of the business units engaged in the Generation and Generation Service Unit (UPJP). In addition, UPJP Kamojang also manages PLN Ulumbu's O&M services with an installed capacity of 4 x 2.5 MW. Other tasks undertaken by the company include the development of a virtual reality power plant project and the Java-Madura-Bali transmission system. To manage its business functions, the company needs to improve the performance of its employees so that the company's objectives can be optimally achieved. Employee performance is a part of overall company performance. According to As'ari (2019:12), company performance is the result of an evaluation of the implementation of company policies. PT. Indonesia Power UPJP Kamojang assesses company performance based on four main perspectives: customer perspective, product and process effectiveness, workforce focus, and financial and market perspective. Internal data collection reveals that changes in the targets set for the company have an impact on its achievements. Therefore, there is a need for strategies to enhance future achievements.



In a study conducted by Alanizan (2023), it was found that employees are more capable of adapting to the digital revolution when organizations implement digital transformation as a distinct operational paradigm, thereby enhancing outcomes and performance. According to Khin (2018:3), digital capabilities complement the digital orientation of a company because only those companies with the skills to manage new technology will be ready to adopt such technology. Additionally, companies must commit to transforming technology into new products. Similarly, in the digital context, companies need to have the commitment and readiness to embrace new technology by developing new products that contribute to a competitive advantage. Digital transformation is the combined effect of several digital innovations produced by actors (and constellations of actors), structures, practices, values, and beliefs that change, threaten, replace, or complement the existing rules in an organization, ecosystem, industry, or field (Hinings et al., 2018:53). Digital transformation has indicators that can be used to determine the success of the transformation carried out by a company. Digital transformation can be measured based on six dimensions, including strategy, organization, culture, technology, customer, and people. In line with the opinion of Bumman and Peter (2019), digital transformation is identified in a comparative analysis, consisting of six areas or dimensions of actions that dominate the framework, including business strategy, the organization, culture, technology, the customer, and people.

PT. Indonesia Power UPJP Kamojang is a company operating in the field of Generation and Generation Service Unit (UPJP). The company consistently engages in digital transformation to streamline all existing business processes. The digital transformation undertaken by the company is referred to as Digitalization Setup, where Indonesia Power provides digital transformation services in the power generation business processes to enable real-time monitoring for maintaining reliability and enhancing efficiency. There are three components in the Digitalization Setup, namely Reliability & Efficiency Setup, CMMS (Computerized Maintenance Management System) Setup, and Inventory Setup (plnindonesiapower.co.id). Based on an interview with the Senior Officer of Engineering HSE, Chemistry, and Environment at PT. Indonesia Power UPJP Kamojang on April 14, 2023, challenges were identified in the areas of operations and maintenance. Consequently, the company implemented digital transformation through the use of an application called MAXIMO. This application was created with the aim of simplifying and expediting the work performed by employees in the company. Based on the functions of digital transformation, it is carried out to reduce costs or increase revenue. The change in the set targets for the company has an impact on the company's achievements. Therefore, there is a need for strategies to improve future achievements. Based on the results of interviews conducted and internal data analyzed, it is evident that these challenges can affect employee performance because digital transformation plays a crucial role in the effectiveness and efficiency of the company. Considering that digital transformation is one of the factors that can influence employee performance.

LITERATURE REVIEW

A. Digital Transformation

According to OECD (2018), digital transformation refers to the economic and social effects of digitization and digitalization. In line with the perspective of Deloitte (2018), digital transformation is the use of technology to radically improve the performance or reach of an organization. In businesses undergoing digital transformation, digital technology enables better processes, enhanced talent engagement, and the emergence of new business models. According to Guzman-Ortiz (2020), digital transformation can be measured based on several dimensions, include:

1) Customer Experience

According to Abolhassan (2017:13), companies must change their strategic approach to become integral, optimizing individual customer experiences across all digital media and traditional touchpoints. It is important to emphasize that simplicity, intuition, and responsiveness are key characteristics that companies, especially in digital transformation, should focus on, particularly in the front-end user interface and integration with the back office. This is because back-end processes in logistics, accounting, warehousing, or product development can have a similar impact on the customer experience as in customer-oriented areas.

2) Collaborator Capabilities

According to Angulo (2017), competencies involve conceptual knowledge, procedural knowledge, and the know-how attitude to determine employees' actions in the workplace through the design and implementation of ongoing training programs to enhance human resource development. Talent, skill development, and the integration between an individual and a team are essential, along with investments in technology as knowledge management facilitators. Overall, it can be said that work



productivity depends on a set of elements that promote good performance in an increasingly changing and demanding environment.

3) Process

According to Stark (2020:29), business processes are a series of organized activities with clearly defined inputs and outputs that create business value.

4) Business Model

According to Vukanovic (2016:78), a business model consists of three components: content, customer experience, and platform. These components work together to create an appealing value proposition for customers.

According to Bumman and Peter (2019), there are six dimensions, but in this research, only two dimensions are used, as follows:

1) Culture

According to Hofstede and Minkov in Bumman and Peter (2019), organizational culture is described as the collective programming of the mind that distinguishes members of one organization from another.

2) Technology

According to Hess et al., (2016), it is emphasized that a crucial dimension of digital transformation strategy is the organization's approach to the adoption of new digital technologies.

B. Employee Performance

According to Campbell et al., as cited in Cini et al., (2023), employee performance is defined as the quality and quantity to which an employee achieves goals and objectives, along with the responsibilities carried out by the employee. Additionally, according to Jena (2015), employee performance is the successful completion of tasks by an individual or a selected person, measured by a supervisor or organization based on predetermined acceptable standards. As for the study conducted by Alobidyeen et al., (2022), which identifies the concept of employee performance based on three dimensions, this research only utilizes two dimensions, included:

1) Task Performance

According to Rotundo and Sackett, as cited in Guzman-Ortiz (2020), task performance is behavior that contributes to the production of goods or the provision of services. Meanwhile, according to Xiaojun, as cited in Alobidyeen et al., (2022), task performance refers to work-related activities that contribute directly to the technical nature of the organization through their use in organizational technology processes or indirectly through the maintenance or service of organizational technical requirements.

2) Contextual Performance

According to Alobidyeen et al., (2022), contextual performance refers to behaviour that does not support the core technical aspects of the organization but instead supports the psychological environment and social processes in which technical operations take place. In the meantime, according to Rotundo and Sackett, as cited in Guzman-Ortiz (2020), this dimension is known as organizational citizenship behaviour, meaning it can be defined as behaviour that contributes to the goals of the organization by contributing to its social and psychological environment.

HYPOTHESIS

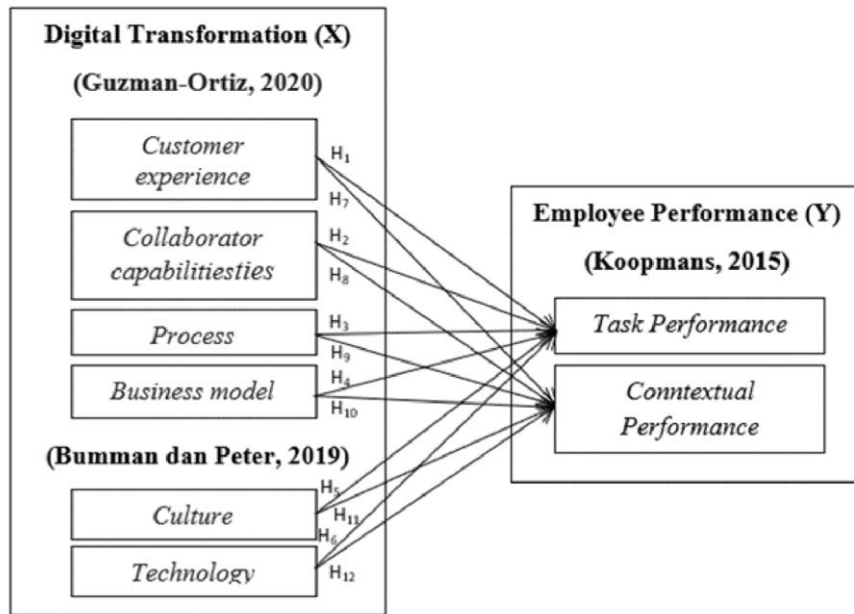


Figure 1. Conceptual Framework

- Hypothesis 1: customer experience has a significant influence on task performance.
- Hypothesis 2: collaborator capabilities has a significant influence on task performance.
- Hypothesis 3: process has a significant influence on task performance.
- Hypothesis 4: business model has a significant influence on task performance
- Hypothesis 5: culture has a significant influence on task performance.
- Hypothesis 6: technology has a significant influence on task performance.
- Hypothesis 7: customer experience has a significant influence on contextual performance.
- Hypothesis 8: collaborator capabilities has a significant influence on contextual performance.
- Hypothesis 9: process has a significant influence on contextual performance.
- Hypothesis 10: business model has a significant influence on contextual performance
- Hypothesis 11: culture has a significant influence on contextual performance
- Hypothesis 12: technology has a significant influence on contextual performance

METHODOLOGY

The aim of this study is to examine the implemented digital transformation, assess the current employee performance, and ascertain the extent of the impact of digital transformation on the performance of PT. Indonesia Power UPJP Kamojang based on various dimensions. The research design is both descriptive and causal in nature. Employing a quantitative approach, the study utilizes a questionnaire as the primary data collection instrument, distributed among 148 employees of PT. Indonesia Power UPJP Kamojang. The sampling technique employed is simple random sampling. The data collected will be analyzed using the Structural Equation Model (SEM). This research seeks to contribute valuable insights into the correlation between digital transformation and employee performance within the organizational context of PT. Indonesia Power UPJP Kamojang.

RESULT

A. Causality Analysis

The estimation analysis was undertaken through an examination of the full model to evaluate the model's adequacy and the causal relationships established within the tested framework. Presented below are the outcomes of the full model estimation in this research:

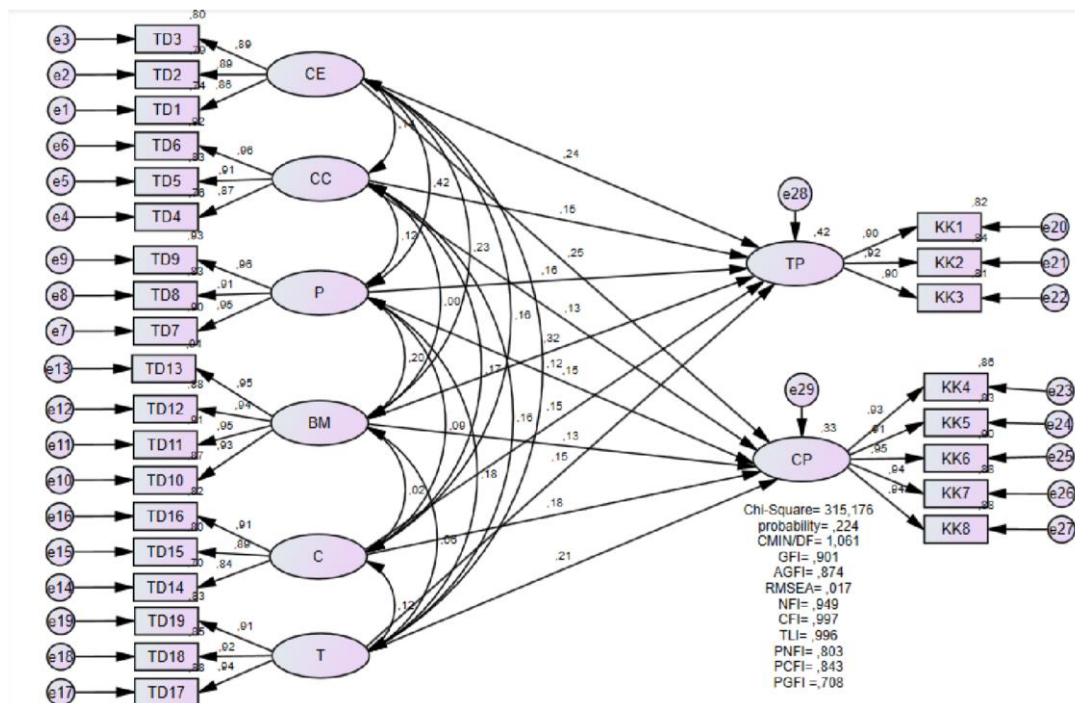


Figure 2. The results of Structural Equation Model (SEM) Analysis (AMOS 23 Output)

Table 1. The recapitulation of the structural equations from SEM analysis.

Effects	Standardized Direct Effect	R ²	Error Var
Customer Experience-> Task Performance	0,241	0,418	0,582
Collaborator Capability-> Task Performance	0,146		
Process -> Task Performance	0,162		
Business Model -> Task Performance	0,315		
Culture -> Task Performance	0,154		
Technology -> Task Performance	0,153		
Effects	Standardized Direct Effect	R ²	Error Var
Customer Experience -> Contextual Performance	0,249	0,331	0,669
Collaborator Capability -> Contextual Performance	0,128		
Process -> Contextual Performance	0,147		
Business Model -> Contextual Performance	0,132		
Culture -> Contextual Performance	0,178		
Technology -> Contextual Performance	0,209		

Based on figure 2 and table 1, it is evident the strength of the influence of exogenous variables on the endogenous variable used in this study, where each variable has a positive impact.



B. Hypothesis Testing

Table 2. Hypothesis Testing Regression Weights: Group number 1 – default model

	Estimate	S.E.	C.R.	P	Label
TP <--- CE	,243	,071	3,407	***	par_34
TP <--- CC	,150	,064	2,368	,018	par_35
TP <--- P	,167	,069	2,411	,016	par_36
TP <--- BM	,296	,058	5,104	***	par_37
TP <--- C	,211	,086	2,451	,014	par_38
TP <--- T	,146	,059	2,484	,013	par_39
CP <--- CE	,270	,079	3,415	***	par_40
CP <--- CC	,141	,070	2,015	,044	par_41
CP <--- P	,162	,076	2,119	,034	par_42
CP <--- BM	,133	,063	2,099	,036	par_43
CP <--- C	,262	,096	2,747	,006	par_44
CP <--- T	,214	,065	3,275	,001	par_45

Based on Table 2, it is known that there is an influence of customer experience, collaborator capabilities, process, business model, culture, and technology on the task performance of PT. Indonesia Power UPJP Kamojang. Additionally, there is an influence of customer experience, collaborator capabilities, process, business model, culture, and technology on the contextual performance of PT. Indonesia Power UPJP Kamojang.

CONCLUSION AND RECOMMENDATION

Based on the research findings, it is revealed that digital transformation, along with several sub-variables used in this study, falls within the categories of moderate to strong based on the assessments provided by the respondents. Within the sub-variable of customer experience, which falls into the moderate category, there is a need for improvement in digital-based customer service technology, prompt response in customer service, and the digital protection of customer privacy data. Regarding the collaborative capability sub-variable, which is categorized as moderate, there is a need for enhancement in training on digital tools by the company, employee adaptation to digitalization processes, and employee commitment in the company's digitalization processes. The process variable, which serves as another sub-variable of digital transformation, falls into the good category; in this regard, there is a requirement for improvement in the digitalization process by senior management and supervisory teams to enhance efficiency in customer service.

Another sub-variable is the Business Model, which falls into the good category. In this regard, there is a need for improvement in the company's value proposition that can consolidate customer loyalty, contribute to the quality of customer service, and enhance the digital platform, encompassing customer security and trust. Furthermore, the Culture sub-variable falls into the good category, necessitating an improvement in freedom to experiment, providing space for creativity, and developing a digital culture distinct from other companies. The final sub-variable of digital transformation is Technology, which also falls into the good category, indicating a need for an approach to the adoption of new digital technologies, utilizing technology as a solution to existing company challenges, and adopting a collaborative approach to technology development.

Based on the research results, for the employee performance variable with two sub-variables, both fall into the moderate category. In the task performance sub-variable, there is a need for an approach to employees to enable them to plan their work for the achievement of the company's goals, prioritize activities for employees, and set targets for employees to align with the company's specified timeline. Additionally, in the contextual performance sub-variable, it is necessary to provide bonuses to employees who take on challenging tasks, offer learning opportunities to update their job-related knowledge, provide job skills training, and involve employees in company activities.



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