

# Indicators for Organizational Digital Transformation in the Thai University Context

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## ABSTRACT

Organizational digital transformation comprises a number of significant factors for measuring success, each of which involves different evaluating criteria. This research was aimed at developing indicators and criteria behind Thai universities' organizational digital transformation by the use of the quantitative research method and a questionnaire for data collection. The informants included administrators of six Thai universities: 303 high-level administrators, 174 middle-level administrators, and 18 low-level administrators. From the total of 495 administrators, 262 completed and returned the questionnaire. Analyses were then performed based on the statistics showing frequencies and percentages. The findings showed nine key indicators, nine sub-indicators, and 10 evaluating criteria that are appropriate for evaluating the work outcomes in the dimension of digital transformation. The most appropriate indicators were the digital strategies and personnel. The results would benefit administrators, academics, researchers, and the officers involved in deploying the work of organizational digital transformation under the educational context. The benefits would be in planning and developing the policy in digital transformation of Thai universities that is in the right direction and more clarified. Other institutions would also be able to effectively and successfully apply the indicators in their digital transformation process.

## KEYWORDS

Digital Technology, Digital Organization, Digital Transformation, Transformation Indicators, University Transformation

## INTRODUCTION

The present reliance on different technologies, systems, and platforms is changing the global economy from the industrial era to a new economic era. Traditional businesses are fading away and are being replaced by digital businesses. Organizations need to undergo this situation with the use of their existing resources and tools (Osmundsen et al., 2018) and inevitably attempt to transform the organizational ecology to be in line with the new age. This process involves a new business structure, implementation processes, consumers' experiences, personnel, organizational culture,

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infrastructures, and technologies that assist in streamlining interaction of people in the organization (Richards, 2018). Many organizations have become aware of the importance of such changes so that they can compete and adjust themselves in time with the digital-age development, notwithstanding whether it is the operational process or transforming the thoughts of personnel that requires urgent action (Osmundsen et al., 2018).

Universities are another sector affected by technologies and digital tools. Traditional concepts on the teacher-centered approach have changed to a learner-centered approach; therefore, learning and teaching strategies and approaches have also changed (Taraghi et al., 2010). Former or traditional instructional forms may no longer meet the learners' needs. Instructors who used to be university lecturers may become specialized personnel in small institutions, whereas entrepreneurs in the private sector may become instructors who can provide learners with new experiences. The former mode of instruction in which learners attend the lesson in the classroom will turn to online learning that is available at any place and time (Tapscott, 2014; Logically, 2018; Numnonda, 2020). This evidence of change demonstrates that the present digital technology development has effected impacts on the teaching and learning approaches. If universities do not take any action to transform their organizations, then they risk the condition known as digital disruption.

Recently, Thai universities have been working hard to transform into a complete digital organization until this effort becomes the trend in university development. The urge comes from the Ministry of Higher Education, Science, Research and Innovation (MHESRI). MHESRI has outlined the policy and plans to implement works in the line of digital technology, along the same direction and in accordance with the national developmental strategies. The goal is for the university to be an organization that operates proficiently with digital technology (MHESRI, 2019). In addition, the CIO Digital University Forum of Thai universities has been established as a venue for university administrators to discuss, learn, and share experiences among themselves and propose common guidelines for organizational digital transformation (CIO Digital University Forum, 2018).

Organizational digital transformation is not only an application of technology for individual and organizational changes (Veiga & Andrade, 2021) but also a strategy applied in organizational development for efficient operations. In so doing, technologies will be integrated with digital channels to meet the expectations of consumers, facilitate cross-cooperation between working units, and adjust the duties and roles by means of dynamic competency. A digital organization will be able to rapidly draw the advantages from new digital alternatives when facing the changing customers' expectations (Soule et al., 2016; Osmundsen et al., 2018). However, the process of pulling out and mobilizing all the organizational resources for this new development is a challenge (Veiga & Andrade, 2021). The organizational digital transformation process usually comes in the form of set activities that are consecutively carried out to attain the predetermined objectives. The activities must be assessable so that the work outcomes can be realized. According to SoluteLabs (2023), measuring the progress of digital transformation can be challenging because it encompasses various aspects of an organization's operation, such as strategy, technology infrastructure, processes, and talent. Indicators can help an organization assess the progress of its digital transformation efforts. This assessment can provide a baseline measurement and identify gaps and areas for improvement. Thus, specifying the implementation indicators for realistic translation of organizational strategies is important. The indicators and organizational strategies are interrelated; if any strategy of an organization is not evaluated, that strategy is of no use and meaning (Vukomanović et al., 2010).

At present, different organizations' attempts to become a digital organization have begun, with clarified indicators. However, their digital transformation indicators cannot be applied in the university context where operations are different. This situation indicates that universities still have no indicator for evaluating the work under the dimension of organizational digital transformation (Numnonda, 2020). Without indicators to guide their organization's digital transformation, universities may struggle to measure their progress and identify areas of improvement. Indicators provide a framework for evaluating the effectiveness of digital transformation efforts, and they also can help

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