



Organizational agility unleashed: Tapping intellectual capital for digital transformation effectiveness

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ABSTRACT

Digital transformation has become a critical and inevitable priority for organizations navigating increasingly dynamic and competitive environments. However, the mechanisms through which intellectual capital drives digital transformation effectiveness remain underexplored. This study examines the mediating role of organizational agility in this relationship, highlighting how its three dimensions—workforce, operational, and network agility—enable organizations to adapt and thrive in the digital era. A quantitative, correlational, and cross-sectional survey design was employed, underpinned by a post-positivist approach. Data were collected through a multi-stage sampling method from 265 respondents across 10 organizations in China and Thailand, representing various industries. The hypothesized mediation model was tested using PLS-SEM. The findings reveal that organizational agility fully mediates the effect of intellectual capital—comprising human, structural, and relational capital—on digital transformation effectiveness. Each dimension of organizational agility plays a distinct yet complementary role in enhancing digital transformation outcomes. This study uniquely contributes to the literature by providing a quantitative analysis of organizational agility's mediating role across its three dimensions. It advances the understanding of organizational agility as a multi-dimensional higher-level dynamic capability, bridging critical gaps in dynamic capabilities and digital transformation research. By elucidating these mechanisms, the study provides practical insights for organizations aiming to leverage intellectual capital and agility to drive transformative success, navigate uncertainty, and sustain a competitive advantage.

1. Introduction

Digital transformation goes beyond a mere technological shift (Henriette et al., 2015); it represents a complex, organization-wide transformation process that integrates technology with human and organizational factors, such as leadership, talent development, strategy, organizational culture, and strategic alliances (Fatima and Masood, 2024; Gong and Ribiere, 2021; Goran et al., 2017; Kane et al., 2017; Nadkarni and Prüg, 2021; Westerman et al., 2014). However, effective digital transformation requires more than just technological investment—organizations must also leverage their intangible assets, particularly intellectual capital (IC), to navigate uncertainty and sustain competitive advantage. IC is a critical intangible asset that encompasses accumulated knowledge, expertise, and relational networks that foster the knowledge and capabilities needed to drive digital transformation (Nwankpa et al., 2022; Subramaniam et al., 2019). While knowledge management focuses on how knowledge is created, shared, and used to

create value, IC emphasizes the intangible knowledge assets that exist within an organization (Dabić et al., 2021; Paoloni et al., 2020). Yet, how can organizations effectively mobilize IC into successful digital transformation outcomes?

Some research has investigated IC's role in fostering innovation, new product development, innovative performance, organizational learning, and dynamic capabilities (Afshari and Hadian Nasab, 2021; Costa et al., 2014; Dinu, 2025; Oliveira et al., 2020; Thanh Nhon et al., 2020; Tsakalerou, 2015), while others have conceptually highlighted organizational agility (OA) as a strategic enabler of DT (e.g., Vial, 2019; Warner and Wäger, 2019). This study address the above mentioned question by examining the role of OA as a mediating mechanism between IC and digital transformation effectiveness (DTE). DTE refers to the extent to which an organization successfully achieves its intended strategic and operational digital transformation objectives, such as business model innovation, new value creation, customer engagement, and stakeholder satisfaction, etc. (Bresciani et al., 2021; Kane, 2019; Vaska et al., 2021).

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