



# From Digital Platform Capabilities to Firm Performance: A Mediation Approach Based on Firm Agility and Network Capabilities

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## ABSTRACT

This study aims to explore the influence mechanism of digital platform capabilities (DPC) on firm performance (FP) through a parallel mediation model of firm agility (FA) and network capabilities (NC) in a specific context. Data for this study were collected from 422 randomly selected Saudi firms with survey questionnaires mainly in central, western, and eastern areas of Saudi Arabia and then analyzed using structural equation modeling. The results showed that there are significant relationships of DPC to FA and to NC. No direct and significant relationship was found between DPC and FP. Moreover, FA and NC fully play their mediating roles between DPC and FP. The study contributes to the literature on digitalization, capabilities, and performance by providing new insights from the Saudi context. It also contributes to the practice by providing managerial implications for Saudi managers. Based on empirical evidence, to the best of authors' knowledge, this is the first endeavor to link DPC and FP and provide a new perspective of its influence mechanism.

## KEYWORDS

Digital Platform Capabilities, Firm Agility, Firm Performance, Network Capabilities, Saudi Arabia

## INTRODUCTION

To better cope with their challenging and changing environments, firms have used new technologies for more flexibility and efficiency (Ahmed et al., 2022). Firms can achieve more competitive, innovative, and organized performance through the efficient use of digital platforms as IT-enabled, competitive tools (Ayadi, 2022; Cenamor et al., 2019; Mikalef & Pateli, 2017; Sedera et al., 2016).

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The emergence and the proliferation of digital platforms have enabled firms to connect, interact, and exchange with their stakeholders (Fu et al., 2021). The global economy is becoming more and more platformized due to the increasing importance of digital platforms for firms and their activities, since digital platforms are a venue for value proposition creation, capture, and delivery (Acs et al., 2021; Aloulou, 2019b; De Reuver et al., 2018). Digital platforms are restructuring the global economy and disrupting existing organizations (Kenney & Zysman, 2015). Firms build their IT-enabled capabilities to adopt digital platforms. This provides infrastructure and tools (software, apps, etc.) for their stakeholders, mediates work for their human resources, facilitates the trade of physical and virtual goods, or transforms service industries (Kenney & Zysman, 2015).

Saudi Arabia, which is one of the G20 countries, has a well-developed IT infrastructure (Alaskar, 2023), and deep (digital) transformations are underway in line with the Saudi 2030 Vision launched in 2016 (Alaskar & Alsadi, 2023). The country's considerable achievements in digital transformation enabled it to make a remarkable progress according to global indicators (Saudi Vision 2030). Several digital platforms were built to make all government services available digitally for citizens and businesses. In the digital age, digital skills and capabilities are needed and have to be empowered to enhance countries' and firms' competitiveness (Mezghani et al., 2022).

Several studies have shifted their attention to digital technologies and their effects on performance outcomes according to the Resource Based View (RBV) and Dynamic Capabilities (DC) theories (Bhatti et al., 2022). Based on these theories, this study uses the main concepts of digital platform capabilities (DPC), firm agility (FA), network capability (NC), and DC to influence firm performance (FP). DPC has become an IT-enabled capability that is needed for firms to interact and exchange with their stakeholders. Drawn from an RBV perspective, IT is deemed to be a technological resource used in digital platforms. Moreover, based on a DC perspective, DPC is referred to as IT-enabled capability.

The literature on digital technologies suggested that DPC alone may not enhance firm performance directly but rather indirectly through dynamic capabilities such as FA and NC. Together, they are needed to adapt and change in the face of shifting market requirements and to navigate volatile, uncertain, complex, and ambiguous environments successfully (Bresciani et al., 2021; Teece et al., 1997; Troise et al., 2022). In this study, we are dealing with two types of DC: As an IT-enabled capability, DPC is a low-level dynamic capability; FA and NC are high-level dynamic capabilities (Bhatti et al., 2022; Felipe et al., 2020; Steininger et al., 2022).

To address this knowledge gap, we suggest that FA and NC mediate the relationship between DPC and FP. The purpose of this study is to examine the causal mechanisms through which IT-enabled DC can help sustain a higher firm performance level by allowing a firm to rapidly reposition itself when conditions require it.

In this study, we address the research gap and contribute to the literature on DPC, FA, NC, and FP in three ways. First, this paper seeks to access the links among DPC, FA, NC, and FP in the Saudi context, an emerging country with a fast-growing economy, robust digitalization strategy, and fairly developed digital infrastructure (Alaskar & Alsadi, 2023). Such research helps to increase understanding of the influence mechanisms of DPC in relation to other mediating and dependent variables when relying on a parallel mediation model and data collected from 422 Saudi firms. By examining these relationships, we hope our findings can be generalized to other emerging countries with economic and digital infrastructure similar to the Saudi context. Our paper fills this specific research gap. Second, through the RBV and DC perspectives, the paper focuses on the role of FA and CN as high DC enhanced by DPC as a low dynamic capability. This insight helps increase understanding of the mechanisms that link low to high DC. Third, the paper contributes to practice by providing empirical evidence on DC to raise awareness among top Saudi managers of how to build such capabilities to improve their performance levels.

The remainder of the paper is structured as follows. The subsequent section presents the theoretical background by introducing the main concepts of DPC, FA, NC, and FP from the perspectives of RBV and DC, and it details the proposed model through hypotheses development. In the third section,

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