

# The Mediating Role of Contextual Ambidexterity in The Relationship Between Digital Platform Capability and Smes Performance

Mohamad Rohieszan Ramdan<sup>1</sup>, Nor Liza Abdullah<sup>2</sup>

<sup>1,2</sup> Faculty of Economics and Management, Universiti Kebangsaan Malaysia, 43000 Bangi, Selangor, Malaysia

<sup>[1]</sup> Faculty of Management and Economics, Universiti Pendidikan Sultan Idris 35900 Tanjong Malim, Perak, Malaysia

## Abstract

Digitalisation has transformed the business landscape and offered many opportunities for Small and Medium Enterprises (SMEs) to venture into new markets with new business models. Although digitalisation has created more business opportunities, apparently many SMEs are left behind due to lacking digital platform capabilities in leveraging the information technology revolution. This study examines the role of digital platform capabilities in enhancing SMEs performance through contextual ambidexterity. Contextual ambidexterity is the firm's ability to implement competency exploration and exploitation simultaneously to generate values vital for great performance. By having contextual ambidexterity, organisation will be able to adapt to changing environments by being more versatile and innovative. Covariance-based SEM was used to test hypotheses based on survey data collected from 277 SMEs that use digital platforms in their business activities. Based on the analysis, the results show that the digital platform capability has a positive indirect effect on SME performance via contextual ambidexterity. The results suggest that SME can enhance their performance using digital platform capability by applying dynamic capability in the form of contextual ambidexterity. These findings enriched the literature on dynamic capabilities in the context of entrepreneurial SMEs that are facing greater challenges in business due to globalisation and environmental complexity.

**Keywords:** Small and Medium Enterprises; digital platform capability; contextual ambidexterity; SMEs performance; dynamic capability.

## 1. Introduction

This decade has seen a surge in scholarly interest in the concept of "digital economy" (Sturgeon, 2021). The business sector is increasingly embracing information technology (IT) and integrating it with cutting-edge technologies, resulting in the rise of the digital economy. Consequently, the role of IT has transformed traditional business models into digital-based business model (Andal-Ancion et al., 2003). According to the Department of Statistics (2019), the digital economy contributed RM267.7 billion in 2018 with a growth of 6.9 per cent (2017: 9.8%). The report also pointed out that the contribution of ICT to technology in Malaysia has also increased, from 18.3 per cent in 2017 to 18.5 per cent in 2018. According to Melville et al. (2004), using ICT may improve operational efficiency by optimising task management and market orientation through advanced market knowledge. However, the implementation of ICT may necessitate significant investment that may not result in improved performance (Yunis et al., 2018). Hence, understanding the impact of digital platforms on firm performance need to be explored, especially studies on SME firms have shown that significant number of firms fail to adopt such platforms (Cenamor et al., 2019).

Recent research concurred the existence of complexities of digital platform adoption despite the distinctiveness it offers to entrepreneurial SMEs. In line with this, it was argued that digital technologies cannot generate benefits on their own (Yunis et al., 2018). Firms need ICT-based capabilities that mobilise and deploy digital technologies in order to effect dramatic organisational change (Giotopoulos et al., 2017). Generally, it was acknowledged that ICT-based capabilities have the potential to transform an organisation by enhancing dynamic capabilities (Parida et al., 2016). Cenamor et al. (2019) proposed that SME firms use dynamic capabilities, such as contextual ambidexterity, in order to develop digital platform capability to leverage effectively the digital platform. The fact that dynamic capability requires adaptation and innovativeness, contextual ambidexterity which involves learning process that allows employees to explore and exploit the knowledge provided by digital platforms (Wan et al., 2017) is a critical factor. Understanding the role of contextual ambidexterity as a mechanism to effectively utilising digital platforms is paramount to SMEs in order to achieve higher performance.

In the context of dynamic capability, majority of the literature focused on the adoption of digital technologies by large companies, and there are only few insights into entrepreneurial SMEs (Mohd Salleh et al., 2017). According to Jin and Hurd (2018), SMEs can overcome their size limitation in competition by leveraging digital platforms as a tool for change in their operations in response to the changing environment. Despite understanding the urgency and the importance of digital platform, many SMEs are still unable to utilise effectively the digital platforms to expand their businesses (Muller, 2019). This factor greater weightage to small and medium-sized businesses, as they faced intense competition has become a requirement for SMEs to compete in the digital economy and ensure their long-term viability (Kenney & Zysman, 2016). Indeed, the significant contribution of SMEs to national output at this time supports the need for research that focuses on their performance (SME Corp. Malaysia, 2018).

In summary, the purpose of this study is to investigate the digital platforms capability, and contextual ambidexterity has a direct impact on SME performance. The role of contextual ambidexterity as a mediator is investigated in this study. The paper is divided into different sections to achieve the study's objectives, including an introduction, literature review,

methodology, and analyses. Following that, there is a discussion and implications for both theory and practise. Finally, there's the issue of limitations and future research.

## **2. Literature Review**

### **2.1 Digital platform capability**

The ability of a firm to establish platform integration (through idiosyncratic time and interaction with partners) and reconfigure platform resources (by modular design and standardised interfaces in applications and processes) is referred to as digital or information technology capability (Rai & Tang, 2010). According to Rai et al. (2006), platform integration reflects the close relationship between information technology infrastructure and partners that are identified as key causal agents in creating value creation foundations. Firms and partners must work on addressing data syntactic and semantic discrepancies, such as merging multiple hardware platforms, communication technologies, and applications, in order to accomplish platform integration (Barua et al., 2004). Meanwhile, the concept of platform reconfiguration is also commonly referred to as information technology infrastructure flexibility by some researchers (such as Byrd & Turner, 2000; Duncan, 1995), based on the literature on modular systems (Schilling, 2000) and platform organisation (Ciborra, 1996).

The development of digital platforms enables businesses to improve the integration functionality inside core modules to expand the business through settings within replaceable modules (Wareham et al., 2014). Digital ecosystems are capable of assisting businesses in sharing information and expertise and jointly utilising resources, while harnessing unique resources to develop new complementing modules (Cenamor et al., 2019). Advances in information collection, analysis, and interpretation have been the motivation for leveraging digital platforms fully, not just as a medium of contact, but as a core element in business models (Van Alstyne et al., 2016). Accordingly, this study defines digital platform capability as the ability of firms to use digital platforms in an integrated and configurable manner involving customers, transactions, services and stakeholder relationships through a digital ecosystem (Cenamor et al., 2019).

### **2.2 Contextual ambidexterity**

Contextual ambidexterity (Birkinshaw & Gibson, 2004) or also known as harmonious ambidexterity (Simsek et al., 2009) considers exploration and exploitation as two complementary organisational activities carried out simultaneously within a business unit. Essentially, exploration and exploitation are two different activities; but research has shown that both can be achieved simultaneously through contextual ambidexterity to help small firms improve their performance (Birkinshaw & Gibson, 2004; Tushman & O'Reilly III, 1996). Thus, in this study, contextual ambidexterity is defined as a firm's ability to use both exploratory and exploitative abilities at the same time to generate values required for long-term success (Atuahene-Gima, 2005; Wang & Rafiq, 2014).

Contextual ambidexterity may be examined at the person, unit, or organisational level (such as Birkinshaw & Gibson, 2004; Gibson & Birkinshaw, 2004; Tushman & O'Reilly III, 1996). The individual level describes how employees may balance simultaneous knowledge discovery and exploitation to achieve long-term success, especially in a rapidly changing

environment (Birkinshaw & Gibson, 2004; Gibson & Birkinshaw, 2004; Tushman & O'Reilly III, 1996; Zhang et al., 2019). On the other hand, at unit level contextual ambidexterity can be described as the behaviour of organisational units that are able to extract value from current markets, efficiency, and resources while also investigating new markets, products, and possibilities in order to achieve long-term success (Gibson & Birkinshaw, 2004; Jansen et al., 2012). At the organisational level, companies with contextual ambidexterity will create individual and organisational behaviours that will drive employees to collaboratively seek and utilise information in order to accomplish long-term organisational goals (Birkinshaw & Gibson, 2004; Gibson & Birkinshaw, 2004).

### **2.3 Dynamic capability theory and organisational learning theory**

From managerial decision processes to organisational routines and competitive activities, dynamic capability cover the area of strategy and content processes (Helfat & Peteraf, 2009). In dynamic capability studies, there are two definitions that are usually utilised (Peteraf et al., 2013). First, according to Teece et al. (1997), dynamic capability is a firm's ability to integrate, create, and restructure internal and external resource capability in response to changes in the environment. Second, Eisenhardt and Martin (2000) define dynamic capability as a process of knowledge resource utilisation comprising the integration, reconfiguration, acquisition, and release of knowledge resources in order to adjust business activities to market changes or changes in the market environment. Although dynamic capability has been researched in different domains, Muller (2019) discovered that in a competitive market, businesses must be able to build new ecosystems or platform-based ecosystems known as multi-sided platforms. Previous researchers (such as Chakravarty et al., 2013; Lim et al., 2011) have been interested in examining the impact of digital technology since it has the potential to improve long-term firm performance. As a result, the significance of digital technology resources in creating dynamic capability, particularly digital platform capability, should be fully used (Benitez et al., 2018).

Organisational learning, which can explain how businesses effectively outperform rivals, must be reinforced by the current interest in dynamic capability development (Antunes & Pinheiro, 2020). It has motivated numerous previous scholars (Argyris & Schön, 1978; Cangelosi & Dill, 1965) to investigate businesses operating in dynamic contexts. Organisational learning has been defined as a process of improving action via increased knowledge and understanding (Fiol & Lyles, 1985). Knowledge acquisition, information distribution, information interpretation, and organisational memory are key components in the organisational learning process (Huber, 1991), which happens at three levels, namely people, groups, and organisations (Crossan et al., 1999). Crossan et al. (1999) developed a 4i framework of intuiting, interpreting, integrating, and institutionalising through organisational learning to consolidate understanding of organisational learning and establish a clear relationship between strategy and learning, particularly in relation to the issue of tension between assimilating new learning (exploration) and applying what has been learned (exploitation). This implies that the application of organisational learning theory in this study is important for clarifying the link between contextual ambidexterity and firm performance, particularly the mediation relationship.

#### **2.4 Digital platform capability and contextual ambidexterity**

Digital platforms have been used effectively (Ravichandran, 2018), however the use of digital platforms to generate knowledge must be accompanied by the implementation of dynamic capability such as contextual ambidexterity (Cenamor et al., 2019). Contextual ambidexterity is a collective and stable patterned learning activity to change the operating routines performed by a firm (Zollo & Winter, 2002). Therefore, the learning process through contextual ambidexterity is also supported by Organisational Learning Theory to help firms consolidate their understanding of organisational learning more effectively (Crossan et al., 1999).

The findings of a study on 248 manufacturing industries in the United Kingdom (UK) by Ko and Liu (2018) found that innovation is high when they are able to implement contextual ambidexterity more effectively through the assimilation of information technology. Previous research (such as Benitez et al., 2018; Plimmer et al., 2017; Soto-Acosta et al., 2018) has discovered that firms managed to successfully maximise the use of information technology because of the presence of contextual ambidexterity as a dynamic capability to acquire knowledge more effectively. Based on these findings, the following hypothesis is proposed in this study:

H<sub>1</sub> Digital platform capability will be positively related to contextual ambidexterity.

#### **2.5 Contextual ambidexterity and SME performance**

According to Organisational Learning Theory, a balance between exploratory and exploitative competence can be achieved through effective organisation learning processes (Crossan et al., 1999; De Clercq et al., 2014; Simsek et al., 2009; Wang & Rafiq, 2014). Indeed, organisational learning processes can effectively assist organisation in becoming more innovative, flexible, and capable of having a direct impact on firm performance (Simsek et al., 2009). In other words, contextual ambidexterity assists firms in adapting to changing environments, and moving forward through innovation (Wang & Rafiq, 2014), thereby improving firm performance (Gibson & Birkinshaw, 2004; Junni et al., 2013; March, 1991; Raisch & Birkinshaw, 2008; Raisch et al., 2009).

The findings of a study conducted by Wang and Rafiq (2014) on 150 firms in the United Kingdom (UK) and 242 firms in China in high-tech industries have revealed that new product innovation in both countries are high due to the ability to implement contextual ambidexterity via an effective learning process. In other words, previous research (such as Ikhsan et al., 2017; Junni et al., 2013; Lubatkin et al., 2006) discovered that the presence of contextual ambidexterity improved firm performance in both financial and non-financial performance. Therefore, this study proposed the following hypotheses:

H<sub>2</sub> Contextual ambidexterity will be positively related to SME performance.

#### **2.6 The mediating role of contextual ambidexterity**

Due to lack of resources and capabilities such as finance, technology, and skilled labour, SMEs frequently face difficulties improving firm performance (Gupta & Bose, 2018; Karimi & Walter, 2016). In line with knowledge resource utilisation process that includes integration, reconfiguration, acquisition, and release of knowledge resources (Eisenhardt & Martin, 2000), digital platforms can function to integrate existing knowledge, build and restructure internal

and external resource capabilities that generate knowledge, and achieve better firm performance (Helfat & Raubitschek, 2018; Teece, 2018). In other words, organisational learning aspects will assist firms in managing knowledge (Crossan et al., 1999), via the use of digital platforms (Li et al., 2016).

However, there are still SMEs that struggle to make effective use of digital platforms due to lack of understanding and capabilities of leveraging digital platforms (Giotopoulos et al., 2017). Therefore, SMEs can apply contextual ambidexterity by combining exploration and exploitation at the same time to assist firms in acquiring knowledge and improving firm performance (Wan et al., 2017). Hence, contextual ambidexterity is important as a dynamic capability that allows firms to learn something new (Levinthal & March, 1993) and generate innovations to improve firm performance (Atuahene-Gima, 2005). A study conducted by Benitez et al. (2018) on 100 small firms in the United States (USA) in the services and manufacturing industries discovered that firms with high innovation performance implement contextual ambidexterity through information technology infrastructure. Thus, the following hypothesis is proposed:

H<sub>3</sub> Contextual ambidexterity will mediate the relationship between digital platform capability and SME performance.

### **3. Method**

#### **3.1 Sample and Procedures**

We conducted a survey targeting entrepreneurial SMEs in the manufacturing and services sector in Selangor, Malaysia to test the proposed hypotheses. These SMEs were chosen because they operate in a competitive and dynamic environment in which the ability to innovate is essential for development and high performance (Parida et al., 2012; Van de Vrande et al., 2009). Moreover, by sampling manufacturing and services SMEs, we focused on SMEs that use digital platforms as the main criteria in sample selection. A self-administered questionnaire was distributed to SMEs in Selangor, Malaysia using purposive sampling approach. The survey was sent via email and delivered in person to the CEOs of SMEs, who have a comprehensive understanding of the company's operations and strategic orientation. A total of 300 useable and full surveys were returned, however after screening the data for outliers, normality, linearity and homoscedasticity, and multicollinearity (Tabachnick & Fidell, 2019), 23 surveys could not be utilised. As a result, only 277 questionnaires could be used sufficiently to run the Covariance Based Structural Equation Modelling (CB-SEM) analysis technique (Hair et al., 2010).

Analyses of the firm's background information showed that the most firms were services sector firms (51.6 per cent) and have 5 to 30 employees (77.6 per cent). On average, firms earn about RM2.42 million per year, with most firms in the range of RM300, 000 to RM3 million annually (78.3 per cent). Importantly, with respect to the use of digital platform applications, the average firm uses Facebook in business operations, which is 104 firms (37.5 per cent), followed by Instagram and WhatsApp (16.6 per cent).

### 3.2 Measures

All constructs were assessed using validated measures used commonly in previous studies. *SME performance* was assessed using 5 financial performances and 5 non-financial performances from a study by Chen et al. (2009). A sample item includes “*Generally speaking, for the past few years we have enhanced sales and profitability of the firm*”. Moreover, the study of Chen et al. (2009) on SME performance has a high reliability value in measuring SME performance items ( $\alpha = 0.95$  for financial performance and  $\alpha = 0.93$  for non -financial performance) and this measures has been adopted widely many research (e.g. Tsou and Hsu (2015). Each item was measured on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). A sample item includes Cronbach’s alpha for this scale was .85.

*Digital platform capability* was assessed using 4 items for integration and 4 items for configuration from a study by Cenamor et al. (2019) which has been adapted from the study of Rai and Tang (2010) on capabilities of information technology. The study by Cenamor et al. (2019) more clearly describes the measurement of digital platform capabilities that focuses on partner systems in creating digital ecosystems as well as having a high reliability value, namely  $\alpha = 0.92$  for digital platform integration capabilities and  $\alpha = 0.90$  for digital platform configuration capabilities. Each item was measured on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). A sample item includes “*Our platform can be easily extended to accommodate new IT applications or functions*”. Cronbach’s alpha for this scale was .90.

Finally, *contextual ambidexterity* was assessed using 5 items for exploration competency and 5 items for exploitation competency from a study by Wang and Rafiq (2014) which has been adapted from the Atuahene-Gima (2005) study. The study by Wang and Rafiq (2014) is clearer and has a high reliability value ( $\alpha = 0.83$ ) for exploration competence and for exploitation competence ( $\alpha = 0.86$ ). Each item was measured on a 7-point scale ranging from 1 (*very little knowledge*) to 7 (*very substantial knowledge*). A sample item includes “*Over the last three years, this firm has acquired technologies and skills entirely new to the firm*”. Cronbach’s alpha for this scale was .81.

## 4. Results

Covariance Based Structural Equation Modelling (CB-SEM) was used to test the study hypotheses. We assessed our conceptual model in two steps following Anderson and Gerbing (1988). We first assessed the construct validity of our measurement model using confirmatory factor analysis (CFA) and secondly performed a structured model evaluation through CB-SEM analysis to test the proposed hypotheses.

### 4.1 Confirmatory Factor Analysis (CFA)

In order to verify factor structure and to provide evidence of convergent and discriminant validities, CFA was performed. The goodness-of-fit statistics of the measurement model showed satisfactory model fit. The Maximum Likelihood estimation approach was used to estimate the parameters (Bentler & Bonett, 1980). Goodness-of-fit for measurement and structural models were assessed using the chi-square ( $\chi^2$ ), Root Mean Square Error of Approximation (RMSEA), Standardised Root Mean Residual (SRMR), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI) and normed Chi-square. According to CB-SEM conventions, a model fit is achieved when the RMSEA and SRMR are .08 or less, the CFI and TLI are .90

or greater and normed Chi-square in the range of 1.0 to 5.0. Therefore, Tab. 1 shows that the measurement model is considered appropriate to proceed with the assessment of construct validity and reliability.

Table 1.1 Measurement model

Goodness-of-fit	$\chi^2$ (df, p)	$\chi^2/df$	CFI	TLI	RMSEA	SRMR
Measurement model	1228.154 (482, 0.000)	2.548	0.913	0.904	0.075	0.0471
Acceptable value*	Significant on $\alpha = 0.05$	1.0-5.0	> 0.9	> 0.9	< 0.08	< 0.08

Note:

\* the level of acceptance is based on Hu and Bentler (1999), Schumacker and Lomax (2004), Reisinger and Mavondo (2007), Hair et al. (2010), Kline (2011), Garson (2012), Gaskin (2012) and Bagozzi and Yi (2012)

Next, reliability, construct reliability (CR), and average variance extracted (AVE) were also examined for evidence of convergent validity (Hair et al., 2010). Based on Table 1.2, the  $\alpha$  value (0.741-0.873), CR range from 0.886 to 0.952, while the AVE range from 0.608 to 0.696. Thus, the results support the reliability of the constructs (Hair et al., 2010) that indicates internally consistency.

To assess the convergent validity, the AVE, standardised factor loadings and CR were examined. As shown in Table 1.2, the AVE and CR values for each construct are greater than 0.5 and 0.7, respectively, and the standardised factor loadings for all items are significant and greater than 0.7. This signifies convergent validity that the items used to assess the assigned concept positively correlate with one another.

Lastly, the discriminant validity was then tested by comparing the values of the square root of the AVE with the relevant inter-construct correlations (IC) (Chiu & Wang, 2008; Fornell & Larcker, 1981). According to the findings (Tab. 2), the square root of the AVE for each concept is greater than the inter-construct correlations (IC) and this supported discriminant validity indicating that the items have more in common with their particular concept rather than with other constructs.

Table 2: Evaluation of the measurement model

Measure	Inter-construct Correlations (IC)			AVE	CR
	DPC	CA	SMEP		
<b>Digital Platform Capability (DPC)</b> (0.842, 0.827, 0.83, 0.817, 0.774, 0.86, 0.873, 0.848) <sup>a</sup>	<b>0.834<sup>b</sup></b>			<b>0.696</b>	<b>0.948</b>
<b>Contextual Ambidexterity (CA)</b> (0.796, 0.837, 0.822, 0.742, 0.82, 0.882, 0.874, 0.848) <sup>a</sup>	0.690	<b>0.830<sup>b</sup></b>		<b>0.688</b>	<b>0.952</b>
<b>SME Performance (SMEP)</b> (0.836, 0.829, 0.794, 0.753, 0.741, 0.778) <sup>a</sup>	0.543	0.796	<b>0.780<sup>b</sup></b>	<b>0.608</b>	<b>0.886</b>

Note:

AVE = average variance extracted =  $\Sigma$  squared loadings/n,

CR = construct reliability =  $(\Sigma \text{loading})^2 / [(\Sigma \text{loading})^2 + \Sigma(1\text{-factor loading}^2)]$

<sup>a</sup> standardised factor loadings, all significant at  $p < 0.001$

<sup>b</sup> square root of AVE (diagonal elements in bold)

### 4.2 Hypothesis testing

The goodness-of-fit indices for the structural model are all within the accepted thresholds. Specifically,  $\chi^2=798.412$  (df=291, p=0.000) is significant,  $\chi^2/df = 2.744$  is below 5, CFI=0.920 and TLI=0.911 are above 0.9, and RMSEA=0.079 and SRMR=0.0461 are lower than 0.08. Hence, the overall model fit is adequate to test the proposed hypotheses. Next, the value of R<sup>2</sup> indicates that 66.9 per cent of the total variation in contextual ambidexterity (CA) can be explained by digital platform capability (DPC). In particular, the relationship between digital platform capability and contextual ambidexterity was significantly positive ( $\beta = 0.460$ , p < 0.001). This proves that H1 is supported. In summary, the results of the study indicate that the implementation of higher digital platform capability tends to lead to the implementation of higher contextual ambidexterity. Meanwhile, the value of R<sup>2</sup> indicates that 82.6 per cent of the variation that exists in SME performance (SMEP) can be explained by contextual ambidexterity. Specifically, the relationship between contextual ambidexterity and SME performance had a significant positive relationship ( $\beta = 0.357$ , p < 0.001). It clearly proves that H2 is supported. Accordingly, the results of the study indicate that higher contextual ambidexterity tends to lead to higher levels of SME performance. The overall test results of the structural model and hypotheses are presented in Tab. 3 and illustrated in Fig. 1.

Table 3: Summary of the hypotheses testing related to direct effects

Hypothesised path	Expected direction	Standardised estimate	t-value	Result
$R^2 (CA) = 0.669$ H1: DPC → CA	+	0.460***	8.496	Supported
$R^2 (SMEP) = 0.826$ H2: CA → SMEP	+	0.357***	5.737	Supported
Goodness-of-fit statistics: $\chi^2=798.412$ (df=291, p=0.000), $\chi^2/df=2.744$ , CFI=0.920, TLI=0.911, RMSE =0.079, SRMR=0.0461				

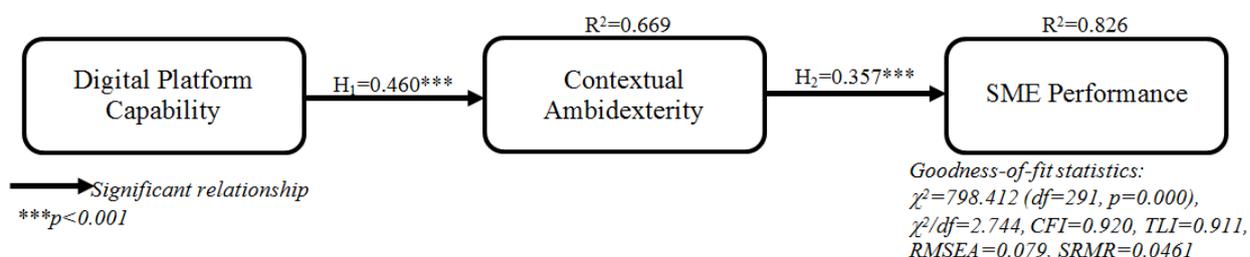
Note:

DPC - Digital Platform Capability, CA - Contextual Ambidexterity, SMEP - SME Performance

Acceptable values: significant  $\chi^2$ ,  $\chi^2/df$  within 1-5, CFI > 0.9, TLI > 0.9, RMSEA < 0.08, SRMR < 0.08

\*\*\* p < 0.001, \*\* p < 0.05, \* p < 0.1

Figure Test results of the proposed structural model :1



Evaluation of the mediation relationship was performed through CB-SEM with a bootstrapping method. There are three types of analysis involved, namely direct relationship testing, bootstrapping analysis, and indirect relationship testing. As shown in the framework, the digital platform capability predicts SME performance through the mediation of contextual ambidexterity. Using the findings of previous studies (such as Gaskin, 2011; Lyytinen &

Gaskin, 2011; Mohd Sobhi, 2013) the bootstrapping method of generating 1000 multiple samples to perform indirect relationships at the 95 per cent confidence level was utilised.

Based on Tab. 4, the results of the analysis of the findings show that there is a significant direct relationship between the digital platforms capability with the SME performance. The findings also found that intermediation exists in the relationship between digital platform capabilities and SME performance through contextual ambidexterity. This is detailed through the insignificant direct relationship of digital platform capability (DPC) to SME performance (SMEP) ( $\beta_{DPC \rightarrow SMEP} = 0.023, p > 0.1$ ), but the indirect relationship through contextual ambidexterity (CA) is significant ( $\beta_{DPC \rightarrow CA \rightarrow SMEP} = 0.156, p < 0.1$ ). Given that direct relationships are insignificant, while indirect relationships are significant; this suggests that contextual ambidexterity as a full mediator in the relationship between digital platform capability and SME performance. Therefore, H3 in this study is supported.

Table 4: Results of bootstrapping analysis for contextual ambidexterity as a mediator to the relationship between digital platform capabilities and SME performance

Hypothesis path model	Beta	p-Value	Significant	BC 95% CI		
				Lower bound	Upper bound	0
<b>Direct Model</b>						
DPC → SMEP	0.179	0.000*	Yes			
<b>Mediation Model</b>						
DPC → SMEP	0.023	0.646 <sup>ns</sup>	Not			
DPC → CA → SMEP <sup>a</sup>	0.156	0.005*	Yes	0.045	0.287	Outside
<b>Results</b>				<b>Full mediation</b>		

Note:

DPC - Digital Platform Capability, CA - Contextual Ambidexterity, SMEP - SME Performance \* $p < 0.1$ , <sup>ns</sup> - not significant

<sup>a</sup> Goodness-of-fit statistics:  $\chi^2=798.246$  ( $df=290, p=0.000$ ),  $\chi^2/df=2.753$ ,  $CFI=0.920$ ,  $TLI=0.911$ ,  $RMSEA=0.080$ ,  $SRMR=0.0460$

## 5. Discussion and implication

The objective of this study was to examine the relationship between digital platform capability and contextual ambidexterity on SME performance, and the role of contextual ambidexterity as mediation in the relationship between the two constructs. The results of the study showed a significant relationship for: i) the direct effect of digital platform capability on contextual ambidexterity, and contextual ambidexterity on SME performance, and ii) the indirect effect of digital platform capability on SME performance through mediation of contextual ambidexterity.

The significant direct relationship between digital platform capabilities and contextual ambidexterity shows that the ability to integrate existing knowledge and implement configurations to better restructure internal and external resource capability (Helfat & Raubitschek, 2018; Teece, 2018) is enhanced by digital platform capability, thus increase firm competitiveness (Kroh et al., 2018; Ravichandran, 2018). In other words, contextual ambidexterity will influence the benefits received from organisational learning processes, such as expediting the use of knowledge by leveraging the digital platforms (Ben Arfi & Hikkerova,

2021). For instance, by having digital platform capability, firms can build good customer relationships and optimise operating costs. The synergy that can be achieved through exploration and exploitation is also contingent on the level of knowledge gained and learned (Crossan et al., 1999; March, 1991) and having a capability to leverage digital platform will inadvertently enhance the process of exploration and exploitation. Accordingly, exploitative and explorative learning are critical for the development of new products (Atuahene-Gima & Murray, 2007) since generating new knowledge (innovation) requires combining exploitative and explorative learning (Madhavan & Grover, 1998; Rothaermel & Deeds, 2004).

The mediating role of contextual ambidexterity in the relationship between digital platform capability and SME performance is explained by the Dynamic Capability Theory and Organisational Learning Theory. In essence, digital platforms are capable of integrating existing knowledge, building and restructuring internal and external resource capabilities, and ultimately, generating knowledge to improve firm performance (Helfat & Raubitschek, 2018; Teece, 2018). This suggests that having contextual ambidexterity aids businesses in improving their performance with the understanding of digital platform capability (Ben Arfi & Hikkerova, 2021). The findings of this study are in line with empirical findings by previous researchers who found that contextual ambidexterity is a significant mediation in the relationship between digital platform capability with SME performance (Benitez et al., 2018).

Theoretically, this study extends the management literature by demonstrating that contextual ambidexterity as a mediator is appropriate for study in the context of SMEs. When compared to structural bilingualism, the results show that contextual binding is indeed suitable for SME firms, as suggested by previous studies (e.g Gibson & Birkinshaw, 2004; Lubatkin et al., 2006). This is because SMEs frequently face resource and capability constraints that prevent them from effectively balancing exploration and exploitation competencies (Junni et al., 2013).

This study also practically contributes to the management of the organisation. In the context of developing countries like Malaysia, digital platform capability has been identified as one of the factors that can improve the performance of firms, particularly SMEs. SMEs are frequently hindered by a lack of resources and capabilities (Gupta & Bose, 2018; Karimi & Walter, 2016) as well as a lack of understanding of digital platforms (Li et al., 2017). Nonetheless, SMEs must overcome these major challenges in order to reap significant benefits from the use of digital platforms. Essentially, the availability of dynamic capabilities through organisational learning improves the effectiveness of digital platform capability. This is due to the fact that the digital platform approach is a complex paradigm that necessitates additional resources and capabilities. As a result, managers should seize the opportunity by utilising digital platforms more effectively, and contextual ambidexterity would allow firms to exploit and explore to improve performance.

## **6. Limitations and future research**

The absence of SME databases using digital platforms prevents probability sampling which allow generalisation of the findings. However, using a non-probability sampling approach which commensurate with the spectrum of the industry enhances the quality of the findings. Definitely, a study with a larger sample size that covers SMEs in Malaysia would give a better picture of the phenomenon of interest. The findings would also be more valuable if

longitudinal or experimental methodology is used to determine causality among variables. The inherent limitation with cross-sectional data can only be used to infer the probable relationships that exist with the variables under study. The use of self-reported data can implicate common method bias, however in this study, procedural remedies have been applied to reduce the impact of common method bias and increase the accuracy of responses, such as ensuring language clarity, labelling all scale points, providing detailed instructions, maintaining anonymity, ensuring confidentiality of responses, explaining the benefits of research to respondents, displaying senior management endorsement, and giving respondents the freedom to withdraw from the survey without providing any reason (Podsakoff et al., 2012). Future studies may take into account other factors such as organisational readiness, organisational culture and related innovation capabilities to obtain a more comprehensive contextual ambidexterity on the relationship of digital platform capability and SME performance.

Overall, this study on the impact of digital platform capability on SME performance has acknowledged the importance of digital platform capability and contextual ambidexterity to increase competitiveness in a dynamic environment. Firms with contextual ambidexterity can mobilise their employees to jointly explore and exploit the knowledge provided by digital platforms in order to achieve their goals. As a result of the new knowledge resulting from the combination of existing knowledge and external knowledge via contextual ambidexterity, the digital platform capability able to execute business operations effectively and efficiently for greater performance.

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