

# Strategy Creation Behaviour and ‘Last Gasp’ Digitalization as Predictors of Sales Performance and Cash Flow

## Abstract

**Purpose** - Although recent literature has examined diverse measures adopted by SMEs to navigate the COVID-19 turbulence, there is a shortage of evidence on how crisis-time strategy creation behaviour and digitalization activities increase (1) sales and (2) cash flow. Thus, predicated on novel strategy creation perspective, this inquiry investigates the crisis behaviour, sales and cash flow performance of 528 SMEs in Morocco.

**Design/Methodology/Approach** - Novel links between (1) aggregate wage cuts, (2) variable operating hours, (3) deferred payment to suppliers, (4) deferred payment to tax authorities and (5) sales performance are developed and tested. A further link between sales performance and cash flow is also examined and the analysis is performed using a non-linear structural equation modelling technique.

**Findings** - While there is a significant association between the strategy creation behaviours and sales performance, only variable operating hours have a positive effect. Also, sales performance increases cash flow and this relationship is substantially strengthened by e-commerce digitalization and innovation.

**Originality/Value** – Theoretically, this is one of the first inquiries to espouse the strategy creation view to explain SMEs’ crisis-time behaviour and digitalization. For practical use, to supplement Moroccan SMEs’ propensity to seek tax deferrals, it is argued that debt and equity support measures are also needed to boost sales performance and cash flow.

**Keywords:** *Strategy Creation View; Crisis-time Behavior; Digitalization; Sales Performance; Cash Flow; Morocco*

## 1. Introduction

More than previous crises, the public health precautions provoked by COVID-19 prompted SMEs to fashion digital solutions to interface with customers and other stakeholders via remote channels (Onjewu *et al.*, 2022). Notably, prior extremities like the European sovereign debt crisis of 2009 – 2019 and the 2008-2009 financial crisis did not prohibit human interaction by any means (Lane, 2012; Hilmola *et al.*, 2015). In comparison, the transmissible nature of COVID-19 and the ensuing movement controls forced a rethink of channels for product/service delivery in all sectors with high levels of human contact (Hamouche, 2021). To press the point, ‘in the pre-Covid-19 pandemic period, 20.3% of SMEs [in the European Union] thought that there was no need to introduce any digital technologies at all. In contrast, only 15.8% of micro-SMEs and 9.8% of medium-sized SMEs shared this opinion subsequently’ (Muller *et al.* 2021: 3). Thus, Penco *et al.* (2022) attest that during the pandemic, firms of all size and across industries accelerated their investment in web-based technologies such as websites, social media use and e-commerce. Dubbed ‘the great acceleration’ in digitalization (Amankwah-Amoah *et al.*, 2021a), this event occasioned a rich body of work examining the precursors, factors and outcomes of firm digitalization during the pandemic. In particular, parallels have been drawn

between digitalization and SMEs' resilience (Onjewu *et al.*, 2022), survival (Adam *et al.*, 2021), purchasing processes (Dvorak *et al.*, 2021) and recovery (Naicker and Nsengimana, 2022).

Often depicted as digital transformation (Kraus *et al.*, 2021), digitalization 'is the use of new digital technologies such as social media, mobile technology, analytics, or embedded devices to enable major business improvements including enhanced customer experiences, streamlined operations, or new business models' (Fitzgerald *et al.* 2014: 2). Digitalization exceeds the trivial automation of processes and implies computerized activities that bestow new capabilities to the firm (Martin, 2008, Onjewu *et al.*, 2023a). When leveraged effectively, digitalization radically improves the performance and reach of the business (Westermann *et al.*, 2011), and can also be a source of competitive advantage (Kraus *et al.*, 2021). In their systematic review, Pfister and Lehmann (2021: 1) reported that the most reported 'added values' of digitalization are greater efficiency and effectiveness, lower costs, productivity increase and higher customer satisfaction. For these reasons, emerging evidence suggests that SMEs prioritized and embraced digital transformation over other organizational and environmental solutions as a survival strategy during the pandemic (Klein and Todesco, 2021; Rupeika-Apoga *et al.*, 2022; Ngo *et al.*, 2023). In particular, e-commerce solutions enabled SMEs to develop a new market presence and/or enhance their visibility to mitigate the effects of the pandemic on their operations (Zakiah, 2021). Even in the relative aftermath of the pandemic, Tudor (2022) and Alichleh *et al.* (2022) state that the share of e-commerce as a ratio of total sales is ever growing following a severe change in consumer behavior.

Despite the above, SMEs are largely sluggish and reactionary to digitalization opportunities (Barann *et al.*, 2019; Bin *et al.*, 2021), thereby forfeiting the aforementioned advantages. In this vein, Nassir *et al.* (2023) draw particular attention to Moroccan SMEs' lack of readiness for digitalization due to deficient facilitating conditions and the restrictive influence of social factors such as others' opinion during this endeavour. Yet, the sudden halt in customer footfall enthused SMEs to adopt e-commerce as a path towards survival (Onjewu *et al.*, 2022). As the pandemic raged, SMEs' sales fell by 50% in Japan (Fukuda, 2023), 72% in Garowe [Somalia] (Warsame, 2020) and by more than 81% in Calabar [Nigeria] (Ojong-Ejoh *et al.*, 2021). Under such pressure, it became the norm rather than the exception for SMEs to commission websites with payment processing capability in order to salvage their sales (Cheong, 2022; Sonjaya *et al.*, 2023). According to Almahmood and Tekerek (2022), the added value of digital transformation through e-commerce is its ability to recommend secondary offerings of interest to consumers. This has the benefit of further boosting SMEs' sales performance that is critical to firm survival.

Dwelling on SMEs' reluctance, the premise of this paper is that, in strategy development, firms resort to digitalization as an afterthought or last gasp routine (Snow, 2004). In particular, in the face of uncertainty, SMEs seek marginal gains by realigning the resources and activities contributing to sales

performance (Tremblay *et al.*, 2003; Bhattacharya and Wright, 2005). However, as Patel *et al.* (2023) argue, beyond sales, cash flow is a superior measure of adequate profit margin. This is salient because, as Hovakimian and Hovakimian (2009) and Fuertes-Callén *et al.* (2020) affirm, cash flow investments enhance firms' survival by increasing production capability and market exploitation opportunities. Conversely, firms' pursuit of greater production and market exploitation amidst crisis exemplifies strategy creation behaviour. Espoused by Furr and Eisenhardt (2021), strategy creation brings to the surface the steps taken by firms in disrupted markets to boost performance for a fleeting and unpredictable duration. Typically, executives exhibiting strategy-creation 'have limited foresight and time' (Furr and Eisenhardt, 2021: 1917). Furthermore, Onjewu *et al.* (2023b: 8) note that the strategy creation perspective is somewhat a departure from the resource-based view, as performance is enhanced 'not by the quality or resources held, but by the bundle of new routines adopted by the firm'.

To sustain performance in the course of the pandemic, SMEs were also found to review employees' compensation through wage cuts (Dafny *et al.*, 2020), vary operating hours (Priyono *et al.*, 2020), defer payments to suppliers (Anner, 2022) and taxes authorities (Razumovskaia *et al.*, 2020), and undertake technology driven product/service innovation (Chatterjee *et al.*, 2022). To compare, Cajner *et al.* (2020) deduced that the rate of COVID-19 wage cuts is approximately twice the proportion endured by continuing employees in the entirety of the great depression of the 1930s. In terms of variable working hours, firms enforced reduced opening times and working hours for employees (Juergensen *et al.*, 2020; Klyver and Nielsen, 2021). For their financial obligations to stakeholders, there were extensive concessions from suppliers and governments to whom taxes were due (Ahamed, 2021; Mashud *et al.*, 2021). For instance, the Moroccan government postponed certain tax deadlines (Bachisse and Mouline, 2021). Also, Chatterjee *et al.* (2022) reported that SMEs leveraged technology in various guises to develop product and service innovation capabilities during COVID-19. Reconciling these organisational and environmental measures with subsequent digitalization leveraging technology, it is not surprising that several COVID-19 related research have been predicated on the technological-organisational-environmental framework or TOE hereafter (e.g. Effendi *et al.*, 2020; Shahzad *et al.*, 2020; Bai *et al.*, 2021; Hoang *et al.*, 2021).

On the whole, firms' incentive for exploring technological, organisational and environmental opportunities amid COVID-19 is to maximize income in the face of ongoing constraints. Yet, the extent to which specific measures increase sales performance is a paradox, as Shen *et al.* (2020) noted that the specific channels through which COVID-19 affects firms' performance is ambiguous. In this vein, Meyer *et al.* (2021) urged the comparison of disruption measures such as wage cuts against expected performance. Therefore, the overriding question pondered in this inquiry is whether strategy creation behaviours in response to COVID-19 sufficiently boost sales which may in turn enhance cash flow. Hence, using COVID-19 data, this study examines discrete technological, organisational and

environmental measures interacting with sales and cash flow. Digitalization through e-commerce and innovation are considered to be technological factors in firms' toolbox, while wage cuts and variable operating hours are organisational factors, and deferred payments to suppliers and tax authorities are classed as environmental factors. Altogether, the direct and moderating effect of these six measures is weighed against the extent to which they interact with sales performance and cash flow. With evidence from Morocco, the emergent insights will heed Klyer and Nielsen's (2021: 8) call for research investigating the 'contextual differences in the effectiveness of crisis strategies'. The findings will also address Onjewu *et al.*'s (2022) request for COVID-19 studies probing the effect of e-commerce on other dimensions of firm performance (beyond exports).

To proceed, the contribution of this paper is fourfold. First, a novel link associating the six factors with sales and cash flow is developed and validated, as there is no precedent for these relationships being delineated nor tested. In this way, empirical specificity is offered and theoretical ambiguity is reduced. Second, the study imports the strategy creation perspective to the entrepreneurial performance literature. Thus, in addition to offering theoretical robustness, the model accommodates a diversity of measures pursued by firms in the unique circumstances of COVID-19. Third, for practical use and based on the available data, the analysis conducts and presents sector-specific insights into the influence of the six factors on sales and cash flow in manufacturing, retail and service-firm settings. By so doing, the insights will be of tailored value to policymakers and practitioners. Last, definitive crisis-time evidence is examined to forecast cash flow during a period of real disturbance that genuinely threatens firms' cash flow. In this respect, to the best of the authors' knowledge, this article is one of the first to report from Morocco.

The paper is presented as follows: section 2 offers a theoretical background flanked by the development of hypotheses. This is followed by a macro perspective of the Moroccan scene in section 3. Section 4 describes the source of data, measures, items and scales, prior to detailing the findings in section 5; section 6 initiates a discussion; and section 7 concludes with reflections on theoretical and practical contributions.

## **2. Theory and Hypothesis Development**

To begin with, the strategy creation view advances the idea that in times of uncertainty, strategy emanates from firms' learning from and shaping of internal routines, rather than owning, controlling and leveraging resources (Furr and Eisenhardt, 2021). This perspective draws attention to the deployment of heterogenous capabilities, rather than resources that generate competitive advantage (Barney *et al.*, 2021). Strategy creation diverges from the resource-based view by highlighting the inherent (1) degree of uncertainty, (2) market scenario, (3) resources possessed, (4) strategic actions and (5) competitive advantage to be realized (Furr and Eisenhardt, 2021). First, in terms of the degree

of uncertainty, dissimilar to stable environments with gradual change, strategy creation explains firm behaviour under conditions of high volatility and a shifting landscape where executives have a limited response window (Onjewu *et al.*, 2023b). Second, market scenarios that induce strategy-creation are typified by serious shocks such as the COVID-19 pandemic (Bratianu and Bejinaru, 2021). Third, the resources required for value generation in a strategy creation situation are typically vague or transient (Vidmar *et al.*, 2020). Fourth, planning in strategy creation harnesses new routines as opposed to valuable, rare, inimitable and non-substitutable resources that are already known (Dheer and Salamzadeh, 2022). Fifth, strategy creation is not enacted to generate long-term competitiveness, but advantages in the short term (Clauss *et al.*, 2022). Both Guo *et al.* (2020) and Crespo *et al.* (2023) have made specific reference to the proliferation of digitalization in a crisis situation as a course of response that is evocative of strategy creation behaviour among SMEs. This also echoes SMEs pursuit of digital transformation which Gobble (2018) characterizes as a profound alteration of business and organizational activities to fully leverage the changes and opportunities afforded by a mix of digital technologies and their impact across operations in a strategic and prioritized way.

In the ensuing conceptualisation, Moroccan SMEs technological, organisational and environmental behaviours have been isolated as strategy-creation attributes. The selection of wage cuts, variable operating hours, deferred payments to suppliers and tax authorities, innovation and e-commerce is predicated on Tornatzky and Fleischer's (1990) technological, organisational and environmental perspective. This view contends that the technological, organisational and environmental context of the firm is a determinant of performance (Baker, 2012). With respect to technology, Schrock *et al.* (2016) observe that, since the early 2000s, the increasing use of digital tools has positively impacted on firms' performance. Hunter and Perreault (2007) also believe that the application of technology has a positive effect performance. Turning to organisational variables, scholars including Gong *et al.* (2009) and Triatmanto *et al.* (2019) have considered the availability and quality of human resources as an organisational support variable that impacts on firms' performance. Extant studies even draw on the resource-based view to argue that, when effectively exploited, firms' valuable, rare and inimitable human capital is the most important resource for superior performance (Hitt *et al.*, 2001; Nyberg *et al.*, 2014; Ployhart *et al.*, 2014). Nevertheless, while acknowledging the validity of this argument, Andersen (2021: 2092) asserts that 'how different resource exploitation behaviours affect the relationship between firm specific human capital and firm performance remains an unexplored area'. Pertaining to the environment, the effect of government support during episodes of uncertainty vis-à-vis firm performance is also of interest to scholars (Lin and Ho, 2011; Singh *et al.* 2017; Chege and Wang, 2020). This is not limited to government assistance but also includes trade credit by way of deferred payment to suppliers during recessions (Kwon *et al.*, 2020). Yet, studies taking a holistic approach to reconcile governmental and non-governmental concessions afforded to firms are seemingly rare.

Thus, the ensuing conceptualisation conjectures that (1) aggregate wage cuts and variable operating hours as organisational factors and (2) deferred payment to suppliers and tax authorities have, initially, an influence on firms' sales performance. Subsequently, in a last gasp attempt to improve cashflow, firms are inclined to adopt (3) innovation and e-commerce solutions as technological factors.

Underpinned by the foregoing, hypothesis development is now commenced.

### ***Aggregate Wage Cuts as an Organisational Factor***

As a strategy creating behaviour, wage cuts are a reduction in monetary compensation while requiring employees to work under unchanged conditions (Bewley, 2012). O'Brien (1989: 722) gave a 20<sup>th</sup> century account of this routine and its relationship with sales during periods of recession. They wrote that 'wages declined during the mild recession of 1918-1919. From September 1918 to February 1919, the Bureau of Labor Statistics price index [in the United States] declined about 5.5 percent. Between November 1918 and May 1919, manufacturing wages declined about 5 percent. This provides another example from the pre-1929 era of prompt, substantial cuts in wages during a sales decline'. In addition, O'Brien (1989: 731) maintained that firms are aware of limited employment available to workers elsewhere, hence they feel that 'wage cuts would not have adverse consequences for productivity'. Subsequently, Kawaguchi and Ohtake (2007) drew scholars' attention to a nominal wage rigidity effect by which workers become demoralized by fractional wage cuts even in deflationary periods. This is corroborated by the growing volume of evidence suggesting that wage cuts are perceived as unfair by workers, and cause a decrease in their productivity (Kaur, 2019). Thus, Kube *et al.* (2013: 853) investigated the extent to which wage cutting behaviour affects workers' morale and productivity. In their view, 'wage cuts had a detrimental and persistent impact on productivity, reducing average output by more than 20%'. They added that 'an equivalent wage increase, however, did not result in any productivity gains'. To the best of the authors' knowledge, no prior studies have linked wage cuts to sales as an indicator of firms' productivity or performance. For novelty, and to verify the adverse effect of nominal wage rigidity, the first hypothesis is formulated as:

*H1: Aggregate wage cuts have a negative and significant association with firms' sales performance*

### ***Variable Operating Hours as an Organisational Factor***

Operating hours are the total time scheduled for work in comparison to firms' optimal capacity (Foss, 1995). In retail, where selling is the primary activity, operating hours are typically determined by historical customer traffic, type of day<sup>1</sup> and location (Mani *et al.*, 2015; Ganesha *et al.*, 2020). The unique confinement stipulations of the COVID-19 crisis and firms' reaction to intermittent movement

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<sup>1</sup> Such as weekdays, weekends or special holidays

control make this indicator imperative to appraise. There is evidence in the manufacturing sector that high demand for essential items necessitated an upward review of operating hours (Paul and Chowdhury, 2020). Nevertheless, under the same conditions, Gaudecker *et al.* (2020) report significantly reduced operating hours in non-manufacturing environments like professional occupations and firms providing manual labour and social interaction. Retailers and service providers fit these latter categories, but there are exceptions in health-related establishments, for example, where facilities have remained open for longer periods than normal (Liebmann, 2020). In contrast, for SME owners/managers in non-essential retail and service firms, it is more likely that they have ceased operations in compliance with total lockdowns (Allen *et al.*, 2020). Here again, there is a dearth of studies investigating the link between variable operating hours and sales. In their study of electronic benefit transfers, Wolff *et al.* (2020) merely suggested that farmers' sales may be shrunk by limited operating hours without testing the claim. The second hypothesis seeks to examine the extent to which varied operating hours may have impacted on firms' sales. Accordingly:

*H2: Variable operating hours have a positive and significant association with firms' sales performance*

#### ***Deferred Payment to Suppliers as an Environmental Factor***

Deferred payments, also known as trade credit, is the strategy creation behaviour of purchasing inventory on an 'open account' (Haley and Higgins, 1973: 464). Whether facing excess or dwindling demand, supply chains bore the brunt of the COVID-19 pandemic (Hamdi *et al.*, 2020). Intent on increasing order quantity, suppliers delivered inventory without upfront payment through formal or informal interest-free arrangement (Eddine *et al.*, 2021). For firms in receipt of the goods, the benefit is an increase in purchasing power and subsequently cash flow (Chern *et al.*, 2014). Even when deferred payments are only partial, they help buyers lower their costs (Tiwari *et al.*, 2020). Indeed, SMEs consider deferred payments to suppliers as a free source of finance and a price discount (Paul and Boden, 2008; Zhang *et al.*, 2014) which will increase sales by stimulating current demand (Zia and Taleizadeh, 2015). Moreover, SMEs are able to exceed their economic order quantity and, with a larger inventory, satisfy greater market demand (Eddine *et al.*, 2021). Nevertheless, Tiwari *et al.* (2020) caution that buyers are driven to order more inventory than is optimal when deferred payments terms are offered, and this is a concern for selling perishable and seasonal stock. The motivation for the next hypothesis is the thinking that accessing deferred payments to suppliers may significantly improve SMEs' sales (Chern *et al.*, 2014; Paul *et al.*, 2018). Thus:

*H3: Deferred payment to suppliers has a positive and significant association with firms' sales performance*

#### ***Deferred Tax Remittance as an Environmental Factor***

Deferred tax remittance is a state-level support that is much needed to increase internally generated cash and forestall widespread insolvencies in times of declining sales (Mirza *et al.*, 2020). This is true for large and small firms alike, as Skinner (2008) showed that deferred tax accounting enabled Japanese banks to delay a ¥6.6 trillion payment which would have led to their liquidation during the Asian financial crisis. For smaller firms, although they are normally hesitant to defer tax payments due to inherent technical complexities, there are cash flow benefits to be derived from such a concession (Yasseen *et al.*, 2016). Thus, tax deferrals have been a popular government measure in various countries including Russia where 78% of SMEs reported a decline in sales due to COVID-19 (Razumovskaia *et al.*, 2020). Through the ‘Interim Framework Regulation on State Aid Measures to Support the Economy’, the European Union has also moved to assist SMEs in the bloc retain cash in the short to mid-term by suspending tax collection until December 2022 (European Commission, 2021b). In Morocco, the government permitted tax deferrals to firms with an annual turnover of less than €1.8 million for the period leading up to June 2020 (James, 2020). The fourth hypothesis aims to test the contention by Mirza *et al.* (2020) that tax deferrals are an optimal government response to support business performance when firms’ sales fall below pre-COVID-19 levels. Hence, it is probable that:

*H4: Deferred tax remittance has a positive and significant association with firms’ sales performance*

#### ***Sales and Cash Flow as an Outcome***

The link between sales and cash flow during the COVID-19 pandemic is already well-researched, as scholars strive to comprehend how reduced footfall has affected firms’ liquidity (De Vito and Gomez, 2020; Hartmann and Lussier, 2020; Yost *et al.*, 2021). On the one hand, sales are cash receipts for goods and services exchanged or delivered to customers (Nurizzati, 2020), and differ from receivables which are expected compensation for trade credit previously offered (García-Teruel and Martínez-Solano, 2010; Paul *et al.*, 2018). On the other hand, cash flow refers to internal finance available to meet all current liabilities while continuing operations (Mills *et al.*, 2002). Small firms endure cash flow shortages even in normal times (Lee, 2015; Paul *et al.*, 2018), making the COVID-19 movement restrictions doubly damaging to the prospect of generating and retaining cash to sustain operations (Lu *et al.*, 2020). Both sales and cash flow are measures of SME performance, but it is the former that yields the latter. Since the outbreak of COVID-19, cash flow concerns stemming from reduced sales are common (Lu *et al.*, 2020; Turnea *et al.*, 2020; Zaazou and Abdou, 2021). Nonetheless, the basis of the next hypothesis is the indication by Gourinchas *et al.* (2021: 1) that ‘plummeting revenues [from sales] due to COVID-19 could trigger liquidity shortages that eventually turn into solvency problems’. Hence the following hypothesis is contrived:

*H5: Sales performance has a positive and significant association with firms’ cash flow*



### ***The Moderating Role of E-commerce as a Technological Factor***

E-commerce is viewed by firms as an option in the suite of digital technologies that can enhance performance in unfavourable market conditions (Gunasekaran *et al.*, 2011). To be sure, in China, where economic recovery has already been achieved, e-commerce has been instrumental to the promotion and distribution of products with a short shelf life in manufacturing subsectors such as food processing (Zhan and Chen, 2021). The fast adoption and diffusion of e-commerce among firms in Asia and Latin America since the onset of COVID-19 has also been noted (Reardon *et al.*, 2021). Although prior studies have examined the relationship between e-commerce and sales (Gunasekaran *et al.*, 2002; Falk and Hangsten, 2015), and that between e-commerce and cash flow (Burinskienė, 2011; Weytjens *et al.*, 2019), there is no precedent of e-commerce moderating the relationship between sales and cash flow. As earlier alluded, the adoption of digitalization by most SMEs is an afterthought and ‘last gasp’ strategy creation move to enhance performance. Pearson (2016) describes this behaviour as the introduction of new technology to bring about a sudden increase in performance in excess of the status quo. This behaviour also corroborates Teece’s (1986) theory of complementary assets which draws attention to capabilities such as distribution channels and related technologies that allow firms to capture value arising from new strategy implementation. Notwithstanding the shortage of evidence of e-commerce moderating the link between sales and cash flow, Feng *et al.* (2012) have previously provided empirical support for the moderating role of IT implementation as a complementary asset in the link between customer communication and customer involvement. In this sense, harnessing the theory of complementary assets, it is arguable that when the firms’ e-commerce activity is high, it is likely that the relationship between sales performance and cash flow will be stronger and vice-versa. This supports Jia *et al.*’s (2023) view that digital solutions such as artificial intelligence may not necessarily be triggers but enhancers of organisational performance. On this basis, a novel sixth hypothesis is outlined as below:

*H6: E-commerce strengthens the relationship between sales performance and cash flow*

### ***The Moderating Role of Innovation as a Technological Factor***

Innovation manifesting in products or services refers to new technology or a combination of technologies introduced to meet external demand (Utterback and Albernathy, 1975). Whether incremental or radical (Foucart and Li, 2021), innovation is driven by technological novelty (Biazzo and Filippini, 2021). Amidst COVID-19, Amankwah-Amoah (2021b) argued that the crisis has propelled inventiveness and mooted the idea of ‘CoviNovation’ to denote innovation emerging from, rooted in or accelerated by the crisis. In previous crises, the lessons have been that innovation becomes an extravagant activity and is deemed unsustainable when there is a shock to demand (Paunov, 2012). However, Hossain (2018, 2020) stresses that the ingenuity and intensity of low-cost innovation and firms’ creative resource-conservation during crises has been on the rise even though the existing evidence from Morocco does not corroborate this claim. Amraoui *et al.* (2019) affirm that innovation

outcomes in the country are generally poor despite innumerable national strategies to reverse this, and innovation is further weakened by a deficient research and knowledge dissemination culture (Casadella and Bouacida, 2020). Nevertheless, like hypothesis six, the ‘last gasp’ and complementary assets notion may explain the introduction of product and process innovation for performance improvement. Thus, it is also arguable that when the firms’ innovative capability is high, it is likely that the relationship between sales performance and cash flow will be stronger and vice-versa. This informs the seventh hypothesis described as follows:

*H7: Innovation strengthens the relationship between sales performance and cash flow*

### ***The Moderating Role of Sector***

Stark distinctions between the contributions of manufacturing, retail and service firms to GDP in Morocco compel a separate examination of the performance of the different sectors through the six indicators. To reiterate, manufacturing firms produce 14.9% of Morocco’s GDP while service firms account for 51.6%<sup>2</sup>. As the disparity in productivity is self-evident, it is probable that sector-type plays a role in the performance of firms given, particularly, the uneven impact of COVID-19 restrictions. Lu *et al.* (2021) have checked this presumption in China and found that while manufacturing firms have been encumbered by supply chain hitches, retailers are hampered by e-commerce challenges and services like hospitality are saddled with cash flow concerns. Notwithstanding, Sharma *et al.* (2020) reveal that there are still common COVID-19 challenges across sectors such as in the adoption and use of technology. There are also inquiries with a single sector focus in food processing (Aday and Aday, 2020; Hailu, 2020), the labour market (Lemieux *et al.*, 2020), and of course in manufacturing (Deshmukh and Haleem, 2020) and retail (Roggeveen and Sethuraman, 2020). Correspondingly, testing the sector-specific performance culminating in sales and cash flow will add Moroccan evidence to this nascent stream of COVID-19 literature. The last hypothesis is framed as:

*H8: The impact of performance management practices on the firms’ sales performance and cash flow differs by sector*

In the next section, the Moroccan setting and the context of SMEs in the country are described.

### **3. The Moroccan Context**

The Kingdom of Morocco is the farthest country in the Arab West (Mortimer, 1989). With a mainland only 12 kilometres from Europe, it is bordered by the Mediterranean Sea in the north, the Atlantic Ocean in the west, Algeria in the east and Western Sahara in the south. The country is divided into 12 administrative regions with 35 million residents inhabiting a 710,850km<sup>2</sup> total area (Dahchour and El Hajjaji, 2020). Following the events of the Arab Spring in the early 2010s, commentators have described

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<sup>2</sup> The World Bank classifies retailers as service firms.

Morocco as one of the most stable MENA economies (Vidican, 2015). It is the fifth largest market in Africa going by a reported gross domestic product (GDP) of \$119.7 billion in 2019 (The World Bank, 2021a). Morocco's emergence has been put down to the gradual liberalisation and privatisation of public services that commenced in 1993 (Kauffman and Wegner, 2007). Country-wide SME activity was particularly accelerated by the 2005 National Pact for Industrial Emergence and the 2014 - 2020 Industrial Acceleration Plan which provided technical assistance to firms and financed infrastructure upgrades (El-Haddad, 2020; Farissi *et al.*, 2020).

Sector wise, Morocco is known for undertaking manufacturing, retail and service activities (Cammett, 2007). In the first sector of manufacturing, the production of finished and semi-finished goods such as phosphate, arsenic, chemicals, food, rubber products, paper, textile, leather, clothing and beverages (Gasnov and Naumov, 2016; Loutou *et al.*, 2019; Trading Economics, 2021), contribute 14.9% to the country's GDP (The World Bank, 2021a). Over the last decade, Morocco has sought to establish itself as an automotive manufacturing hub by supporting the setting up of a Renault-Nissan factory in the north of the country with the capacity to produce 340,000 vehicles per annum (Del Prete *et al.*, 2018). Peugeot and Linamar, the Canadian auto parts supplier, have since followed suit (Vedie, 2020). In the second sector, the World Bank (2021a) combines retail and service firms in Morocco and estimates a joint 51.6% contribution to GDP. Nonetheless, retailers in the country predominantly take two forms: they are either souks or nanostores (Boulaksil *et al.*, 2019). Souks are open-air markets where vendors mostly sell fresh fruits, vegetables and wildlife (Boulaksil *et al.*, 2019). At one time, there were 1,151 souks in Morocco of which 197 were sited in urban areas while the majority of 954 were rural (Kabbassi, 2007). Urban communities are mostly served by nanostores visited daily by residents to purchase sustenance such as bread, milk, sugar and biscuits (Blanco and Fransoo, 2013). There were previously 110,000 nanostores in Morocco (Kabbassi, 2007), controlling 75% of the retail space by taking advantage of their proximity to customers (Lenartowicz and Balasubramanian, 2009). To be sure, there are very few hypermarkets in the country. The first modern retailer opened its doors only in 1990 in Rabat, the capital city, and there were just 47 others by 2011, and 75 in 2017 (Amine and Lazzaoui, 2011, Boulaksil *et al.*, 2019). In the third sector, service businesses in Morocco provide intangible products in insurance, education, logistics and tourism, to mention a few (Khaoula *et al.*, 2020). Khaoula *et al.*, (2020) add that this sector is the essence of Morocco's productivity fabric because of its major contribution to total value added to the country's GDP. The World Bank (2021a) approximates this to be in the region of US\$54 billion. International tourism particularly stands out in Morocco's service sector (Almeida-García, 2018). There were 13 million visitors in 2019 (Zarhloule, 2020) and receipts from foreign tourists aggregated to 11% of GDP, provided 532,000 direct jobs and accounted for 5% of total employment (El Menyari, 2021).

The current interest in Morocco is informed by four reasons. First, Morocco is Europe's largest trade partner in the Mediterranean (Abouzzohour, 2019). Therefore, its economic performance during and post-COVID has reverberations across the sea as 56% of Moroccan merchandise and 64% of its total exports went to the European Union in 2019 (European Commission, 2021a). Second, researchers contend that, in spite of substantial manufacturing activity and exports, Moroccan firms have a poor record of product innovation (Rachidi and El Mohajir, 2021), and a low propensity for converting technical information (Casadella and Bouacida, 2020). In view of COVID-19, these capabilities are the exact requirement for firms' resilience and recovery. Therefore, this inquiry seeks to understand Morocco's technological quandary. Third, the global confinement induced by COVID-19 means that Morocco's high reliance on tourism income has put its economy at great risk. In just two months at the start of the crisis, the Royal Moroccan Airlines announced losses to the tune of US\$400 million (Zarloule, 2020). Therefore, a broad examination of firms' cash flow in the country is timely. Fourth, COVID-19 infections were noticeably higher in Morocco's industrial clusters which collectively account for 35% of GDP and 49% of employment (Boumahdi *et al.*, 2021). Hence, investigating strategy creation behaviour in Morocco's manufacturing, retail and service contexts will generate crucial insights for business recovery.

Furthermore, this study takes an interest in SMEs because of their importance to Morocco's economic landscape. By population, 98% of Moroccan businesses are SMEs that also generate 43% of the country's employment (Adama *et al.*, 2013). Yet, owing to myriad challenges, the GDP contribution of Moroccan SMEs has been restricted to only 20% (Zizi *et al.*, 2020) even though they account for 40% of the country's production (Hasan and Mohamed, 2015). As El Makrini (2015) suggests, the economic development of Morocco is dependent on the improved performance of its SMEs. To this end, Haddoud *et al.* (2023: 5) intimate that 'Morocco is a fertile ground for uncovering factors that may enhance SMEs' performance. Therefore, the succeeding conceptualisation and analysis are an attempt to grasp some of these factors.

In the next section, the source of data, measures and characteristics of firms in the sample are described.

#### **4. Methodology**

This study takes on a positivist paradigm to complement the numerical data assessed. Hence, a deductive approach is preferred to test the eight hypotheses using cross-sectional evidence from a The World Bank's enterprise survey of Moroccan SMEs. The data, measures and sample characteristics are further described below.

##### *Data and Measures*

Evidence for this study was gathered from the 2020 COVID-19 follow up survey conducted in Morocco by The World Bank (2021b). The data contained an initial panel of 1,096 firms but was subsequently reduced to 528 cases based on two criteria. First, entities with more than 250 employees were excluded due to empirical interest in SMEs<sup>3</sup>. Second, cases with missing data were deleted to avert statistical distortion and estimation bias. This has forestalled one of the demerits of assessing third party data. For measurement, there were eight variables labelled as (1) number of employees with wage cuts (WCUTS), (2) variable operating hours (OPHOURS), (3) deferred payment to suppliers (DEFSUPP), (4) deferred payment to tax authorities (DEFTAX), (5) variable sales performance (SALES), (6) e-commerce intensity (ECOMM), (7) rate of innovation (INNOV) and (8) variable cash flow (CFLOW). The items and scales for these measures are shown in table 1.

Table 1: Measurement Details

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*Sample Characteristics*

The 528 firms in the sample are small manufacturing (39.8% or 201), retail (19.1% or 101) and service (41.1% or 217) businesses. 44.5% of the firms had 1 – 19 employees, followed by 29.1% firms with 20 – 49 employees. 12.2% have 50 – 99 employees, while there are 14.2% with 100 – 250 staff strength. The country-wide representativeness of the data is construed from The World Bank’s (2021c: 1) survey implementation report in which it is stated that the COVID-19 ‘follow-up surveys re-contact all establishments sampled in the standard enterprise survey using stratified random sampling’. Therefore, it is supposed that the 528 firms are spread across nine of Morocco’s twelve regions<sup>4</sup> as per the locations of the regular World Bank enterprise survey.

The next section explains the analytic protocol and presents the results.

**5. Analysis**

The analysis follows a non-linear partial least squares structural equation modelling (PLS-SEM) approach using Kock’s (2019) WarpPLS 7.0 software. This technique is a variance-based protocol that has a higher predictive power than covariance-based structural equation modelling (Hair *et al.*, 2017). WarpPLS is also preferred for examining structural models with binary data (Sajid *et al.*, 2020). Also, to offset issues arising from the prevalence of single items in the structural model, the robust path

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<sup>3</sup> There is no official definition of SMEs in Morocco (Mouhallab and Jianguo, 2016). Therefore the more widely accepted 250 threshold for firm size is adopted.

<sup>4</sup> The regions are Béni Mellal-Khénifra, Casablanca-Settat, Drâa-Tafilalet, Fès-Meknès, Marrakech-Safi, Oriental, Rabat-Salé-Kénitra, Souss-Massa, Tanger-Tétouan-Al Hoceima

analysis algorithm was used to estimate the  $p$ -values and path coefficients as suggested by Haddoud *et al.* (2023).

### *Measurement Model*

Preparatory to path analysis, the reliability and validity of the measures need to be discerned. However, the eight variables in this inquiry are all single item indicators for which estimating discriminant and convergent validity does not apply (Loo, 2002). Nevertheless, multicollinearity must be checked to ensure that the measures in the outer model are not interchangeable. For this purpose, variance inflation factor (VIF) scores are calculated and presented in table 2. All VIF values are considerably lower than the recommended 5 or 3.3 thresholds (Kock, 2015; Hair *et al.*, 2019; Onjewu *et al.*, 2021).

Table 2: Collinearity Diagnostic

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For common method bias, using Harman's single-factor test (Fuller *et al.*, 2016), a single factor extracted only 23.7% of the total variance, much lower than the 50% limit. Therefore, there are no common method concerns.

### *Structural Model and Hypothesis Testing*

In figure 1 below, the inner model associations are observed by interpretation of the path coefficients ( $\beta$ ) and  $p$ -values. The likely occurrence of endogeneity between wage cuts, operation hours and both forms of deferred payment and cash flow was controlled for using the single stochastic variation sharing feature in WarpPLS 7.0. A composite instrumental variable was created to predict cash flow and this returned a  $p$ -value of 0.01. Accordingly, the path coefficients leading to the composite instrument variable were  $\beta = -0.07$  for wage cuts,  $\beta = 0.36$  for operating hours,  $\beta = -0.09$  for deferred payment to suppliers and  $\beta = -0.19$  for deferred taxes. Therefore, the significance of endogeneity in the path model has been controlled for.

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Figure 1. Structural Model

The path analysis results suggest that the four organisational and environmental factors significantly predict sales by 26%, even though only variable operating hours was positive ( $\beta = 0.36^{***}$ ). As

conjectured, the number of employees with reduced wages significantly decreased sales ( $\beta = -0.07^*$ ). Hence, H1 and H2 are accepted. Interestingly, the estimated benefits of deferred payment behaviour to boost sales did not materialise. Both deferred payment to suppliers ( $\beta = -0.10^{**}$ ) and deferred payment to tax authorities ( $\beta = -0.19^{***}$ ) significantly decrease sales. Accordingly, H3 and H4 are rejected. In the next segment of the path model, there is a strong affirmation that crisis time sales positively influence firms' cash flow ( $\beta = 0.69^{***}$ ). This link is further strengthened by the strategy creating behaviours of e-commerce ( $\beta = 0.25^{***}$ ) and innovation ( $\beta = 0.19^{***}$ ). Thus, H5, H6 and H7 are accepted. All said, the path model predicts 38% of the cash flow of firms in the sample.

To account for how the three sectors perform in the path model, a multi group analysis (MGA) was undertaken in WarpPLS 7.0. In advance, using the constrained latent growth with loadings feature (Williams *et al.*, 2009), measurement invariance was checked to ensure that the survey items were not distinctively interpreted by respondents in the three sectors (manufacturers, retailers and services). The *p*-values did not indicate any differences in this regard. Proceeding to the MGA, latent components were created for the manufacturing, retail and service firms in the sample by constraining the indicator variables across the groups. The sectors only showed a significant difference (*p*-value = 0.00) in the moderation of e-commerce on sales and cashflow. The path coefficients indicated that e-commerce was best leveraged by manufacturers and then services, but retailers performed poorly in this regard ( $\beta_{\text{manufacturers}} = 0.41$  vs.  $\beta_{\text{retailers}} = -0.00$  vs.  $\beta_{\text{services}} = 0.10$ ). Owing to the differences being limited to one path, the last hypothesis (that the impact of performance management practices on sales performance and cash flow differs by sector [H8]) is only partially accepted.

Below, table 3 summarises the results of the MGA.

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## 6. Discussion

To reiterate, the results have shown that only owners/managers' strategy creation by varying OPHOURS is effective for increasing sales performance. In contrast, resources conserved from WCUTS and DEFSUPP have the opposite effect by significantly reducing sales. Even so, last gasp ECOMM and INNOV significantly strengthen the link between sales performance and the SMEs' cash flow. Reverting to the TOE framework, these findings are now discussed by describing, in succession, the effect of organisational behaviours (in 6.1), the effect of environmental behaviours (in 6.2), and the moderating effect of technological behaviours (in 6.3).

### 6.1 The Effect of Organisational Factors

Recalling that human resources are organisational assets available to managers for conducting the affairs of the firm (Tornatzky *et al.*, 1990), the negative influence of the number of employees with wage cuts on sales performance can be explained through the wage rigidity effect (Kawaguchi and Ohtake, 2007). Once more, O'Brien's (1989) contention that wage cutting behaviour do not have an adverse effect on productivity has been proven obsolete. In effect, the current evidence corresponds with the argument by Kube *et al.* (2013) that wage cuts erode workers' morale and productivity. It also aligns with the contention by Kaur (2019) that workers perceive wage cuts to be an unfair practice. Nevertheless, it is likely that this result reflects the high representation in the sample of sales personnel (i.e. in the retail and service firms). Hence, in their study of motivation and pay among front-line retail employees, Stringer *et al.* (2011) find that remuneration has a positive influence on intrinsic motivation. Likewise, Bailey and Bernhardt (1997) long observed that, compared to manufacturing, there are many service industries where low-wage business strategies dominate and there has been a noticeable decline in the growth of workers' earnings. More recently, Autor and Reynolds (2020) uphold this view in their reflection on the nature of work during and post COVID-19. They suggest that the intensification of automation in food services, cleaning, security, entertainment, recreation, repair and healthcare has further depressed wages. In Morocco, Haddad *et al.* (2020) estimate that white-collar workers forfeited 30% of their wages while blue-collar workers lost 100% until a proportion was redeemed by the government's income transfer programme. For these reasons, it is deducible that low morale and intrinsic demotivation arising from wage cuts effectively curtail sales performance. However, prior views on the distinctive effect on wages in manufacturing, retail and service firms by Stringer *et al.* (2011), Bailey and Bernhardt (1997) and Autor and Reynolds (2020) are not ratified by the current MGA results. Seemingly, aggregate wage cuts have no significant effect on the sales performance of manufacturers, retailers nor service firms ( $p$ -value = 0.12). For the second organisational factor, variable operating hours, the positive influence on sales performance reflects firms' ability to schedule work and sell more as COVID-19 restrictions allow. Although there is no empirical precedent to liken this evidence to, it echoes the opinion of Wolff *et al.* (2020) that sales can be increased by unrestricted operating hours, regardless of the sector ( $p$ -value = 0.40). This result is especially telling for manufacturing, retail and service establishments that may or may not be deemed essential, and possibly compelled to cease operations during total lockdowns (Allen *et al.*, 2020).

## **6.2 The Effect of Environmental Factors**

Strategy creating environmental behaviours relate to the acquisition and use of resources availed by external parties (Tornatzky *et al.*, 1990). Although it is puzzling that resources retained from delaying payment to suppliers significantly reduce sales performance, this result validates the claim by Eddine *et al.* (2021) that deferred payments can affect the financial performance of the entire supply chain. This is because trade credit threatens suppliers' continuity to the extent that they are unable to sustain inventory delivery to clients (Du *et al.*, 2013). In particular, when retailers exceed their economic order



quantity, this disrupts the interval and frequency of their replenishment schedule (Chen and Kang, 2007), and increases costs through unsold inventory, chasing receivables, late payments and default risks in the long run (Chern *et al.*, 2014; Boden and Paul, 2014). However, in the first instance, deferred payments through trade credit are still crucial for enabling retailers afford and sell inventory to end users (Eddine *et al.*, 2021; Paul *et al.*, 2018). Yet, to do this in a manner that will increase the performance of the entire supply chain, trade credit should be offered and received on account of parties' optimal costs, optimal selling price, optimal production lead time and optimal inventory (Shi *et al.*, 2019). To be sure, in this study, the negative effect of deferred payment to suppliers is not sector specific ( $p$ -value = 0.35). Furthermore, in terms of the negative effect of deferred payment to tax authorities on sales performance, Mirza *et al.* (2021) demonstrated through a stress scenario technique that tax deferrals are insufficient for boosting performance when sales decline by more than 25%. In exports alone, Morocco's foreign sales are estimated to have decreased by 25% (Haddad *et al.*, 2020). Beyond the 25% cut-off, Mirza *et al.* (2021) assert that, in addition to tax deferrals, governments ought to offer hybrid support in the forms of subordinated debt and equity to sustain firms' solvency. Thus, in terms of debt assistance, Bachisse and Mouline (2021) and Boumahdi *et al.* (2021) cite the availability of Moroccan government-backed loans but there is no indication of subordinated equity support. Other support has been in the form of direct cash transfer from the national emergency fund to employees of firms that have incurred a 50% turnover deficit (Ninich *et al.*, 2021). Hence, the negative effect of deferred payment to tax authorities on sales performance attests to Mirza *et al.*'s (2021) reasoning across all three sectors without a significant difference ( $p$ -value = 0.42).

### ***6.3 The Moderating Effect of Technological Factors***

Strategy creating technology behaviours are the technical capabilities pursued by firms to expand productivity (Tornatzky *et al.*, 1990). Starting with e-commerce intensity, there is corroboration that online trading enhances firms' performance (Gunasekaran *et al.*, 2011; Prim and Sa, 2020). Thus, by observing the moderating rather than the direct effect, this study extends the work of Gunasekaran *et al.* (2002) and Falk and Hangsten's (2015) on the relationship between e-commerce and sales, as well as interest from Burinskienė (2011) and Weytjens *et al.* (2019) in the link between e-commerce and cash flow. In Morocco, Abyre *et al.* (2021) have reported the increased adoption of e-commerce for basic transactions by Moroccan firms and consumers alike since the onset of COVID-19. They cite 'the use of e-commerce platforms as a place to buy in order to avoid the risk of contamination' (Abyre *et al.*, 2021: 1280). The determination that e-commerce strengthens the link between sales performance and cash flow upholds Snow's (2004) last gasp notion and the complementary assets view (Teece, 1986). It also affirms Feng *et al.*'s (2012) argument that digitalization has a moderating effect. This result proves that Moroccan SMEs need to develop and maintain e-commerce and innovation capabilities to maximize the benefits that accrue from greater sales performance and cash flow. To compare, there is a sector-specific difference in this area ( $p$ -value = 0.00). Manufacturing SMEs come

first in the use of e-commerce ( $\beta = 0.41$ ), followed by service firms ( $\beta = 0.10$ ). Interestingly, there is no indication of e-commerce intensity among retailers ( $\beta = -0.00$ ). Turning to the rate of innovation, the results do not support the view of Amraoui *et al.* (2019) that there is a lack of innovation among Moroccan firms. Rather, they endorse Amankwah-Amoah's (2021b) 'CoviNovation' thesis of invention emerging from, rooted in and accelerated by COVID-19. The moderating influence in the structural model depicts innovation as an accessory, rather than antecedent, in the relationship between sales performance and cash flow. This finding is supported by an emerging body of work signalling intensifying product innovation in Morocco in the course of the pandemic to meet changing consumer behaviour (Zaoui *et al.*, 2021). In response to Casadella and Bouacida's (2020) claim that there are deficiencies in the knowledge dissemination culture in Morocco, Abbas and Sahar (2021) recently indicated that exchange of knowledge between universities and the private sector to accelerate innovation has intensified since the outbreak of COVID-19. This also evokes the last gasp and complementary assets view discusses by Snow (2004) and Teece (1986) respectively. It also confirms the finding by Yu *et al.* (2019) that innovation is a valid factor for strengthening outcomes in firms' performance. In a final comparison, there are no significant differences in the rate of Moroccan SMEs innovation adoption ( $p$ -value = 0.36).

To close the loop, the next section reflects on the highlights and contributions of this inquiry.

## **7. Conclusion**

To recall, this study sought to investigate whether the strategy creating technological, organisational and environmental behaviours exhibited by firms in response to COVID-19 are sufficient for boosting sales, and in turn enhance cash flow. The ensuing results suggest that the higher the number of workers with reduced wages and the rate of deferred payments, the lower the sales performance. On the other hand, the lengthier the operating hours, then the higher the sales performance. Also, notwithstanding three negative correlations in the path model, it predicted 26% of the sales performance and 38% of the cash flow of Moroccan SMEs' COVID-19 operations. By comparison, strategy creating organisational behaviours partially increase sales performance while environmental behaviours reduce it conclusively. It has also been found that technological behaviours, and digitalization in particular, significantly strengthen the connection between sales performance and cash flow. The paper concludes by reflecting on the theoretical and practical implications arising, on the study's limitations, as well as avenues for further research.

### ***7.1 Theoretical Contribution and Implications***

This study has proven the applicability of the strategy creation view to the entrepreneurial behaviour literature. The conceptualisation, aggregation and testing of these fresh constructs will instigate comparative COVID-19 research in neighbouring countries and contexts farther afield. Attention has

been drawn to the possible sub-optimal receipt of trade credit by way of deferred payments to suppliers. There is room for scholars to espouse the real options theory to explore and explain managers' trade credit behaviour amid the uncertainty of COVID-19. For specificity, the actual extent of sales decline in Morocco's manufacturing, retail and service sectors can be determined to quantify the deficit needing to be offset by deferred payment to tax authorities. The moderating influence of e-commerce and innovation on sales performance and cash flow offers fresh insights into technological factors being accessories and not antecedents. This supports the notion of complementary assets and prompts future studies to consider, in addition to e-commerce and innovation, other strategy creating technological behaviours that enhance the relationship between sales performance and cash flow. Seeing as the variables in the path model increase cash flow by 38%, fresh factors that enhance Moroccan SMEs' performance have been uncovered as stipulated by Haddoud *et al.* (2023). The positive role of variable operating hours alongside the negative influences of deferred payments in relation to sales performance have been demonstrated. Added to this, the reluctance of SMEs' to adopt digital processes as indicated by Nassir *et al.* (2023) is illustrated by the moderating effect of e-commerce and innovation only in the nick of time to improve cash flow. Finally, the findings support the evidence offered by Onjewu *et al.* (2023b) signalling the resilience of Moroccan SMEs in the manufacturing, retail and service sectors that are crucial to the national economy.

## **7.2 Practical Implications**

Four obvious practical implications arise from this study. First, although SME owners/managers may be inclined to cut back or suppress wages during and after the pandemic, the current evidence suggests that this behaviour is short-sighted and detrimental to sales performance. Second, SME owners/managers are encouraged to maximize permitted operating hours during to boost sales. Third, the path analysis revealed that deferred payments to suppliers and tax authorities significantly reduce Moroccan SMEs' sales performance. Thus, where the benefits of these value chain and government concessions reside is somewhat a paradox. Fourth, the lack of e-commerce adoption among Moroccan retailers [ $\beta = -0.00$ ] is intriguing. It is likely that the micro nature and proximity of nanostores to households diminish owners/managers' propensity to explore e-commerce. Nevertheless, the finding warrants stakeholders' attention and further consideration. Overall, these sector-specific insights will aid tailored decision-making and dynamic policy development. To rectify the delayed adoption of digitalization, SME owners/managers are implored to integrate digital processes in pre-sale activities to harness the full potential of digitalization. As stressed by Fitzgerald *et al.* (2014), digitalization also enhances customer experiences and is likely to enhance sales by the same token as it strengthens the relationship between the latter and cash flow. Moroccan SMEs can consider partner and vendor management solutions, customer interface portals and software analytics to boost sales performance in a more proactive manner.

### ***7.3 Limitations and Future Research***

To conclude this inquiry, a number of limitations are acknowledged. First, this inquiry is a single country study which can be expanded to neighbouring countries in the Arab West to improve representativeness. Second, the study did not distinguish between essential and non-essential manufacturing, retail and service firms. It is probable that the effect of aggregate wage cuts and variable operating hours will differ along this categorisation. Third, rather than the working capital approach to cash flow taken in this study, future studies can measure and examine free cash flow as the dependent variable. This will reflect internal finance available after meeting all operational costs which is a stricter but more robust reflection of cashflow/liquidity. Fourth, the data are only cross-sectional, therefore the correlations in the path model are mostly associations and causality should be interpreted with caution. To address this, longitudinal and qualitative studies are welcome. These limitations also beget a future research agenda. To begin with, what is the sales performance of essential versus non-essential manufacturers, retailers and service providers? Future studies can be predicated on this question. Moreover, to advance measurement specificity and avert possible underestimation, future studies can disentangle firms' COVID-19 innovation into new products and new processes. The emerging insights will suffice for added theoretical and empirical understanding. Finally, to further understand the effect of deferred payment to suppliers on sales performance, researchers can control for firms' optimal cost, optimal selling price, optimal production lead time and optimal inventory.

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## List of Tables

Table 1. Measurement Details

<b>Variable</b>	<b>Item</b>	<b>Scale</b>
WCUTS	Since the outbreak of COVID-19, how many permanent full-time employees had their salary, wages, or benefits reduced due to the COVID-19 outbreak?	Continuous
OPHOURS	Comparing this establishment's total hours of operations per week with the same month in 2019, did it increase, remain the same, or decrease?	Multi-point
DEFSUPP	Has this establishment delayed payments due to the COVID-19 outbreak for more than one week to its suppliers?	Yes/No
DEFTAX	Has this establishment delayed payments due to the COVID-19 outbreak for more than one week to the tax authorities?	Yes/No
SALES	Comparing this establishment's sales for the last completed month with the same month in 2019, did sales increase, remain the same, or decrease?	Multi-point
ECOMM	Did this establishment start or increase business activity online in response to the COVID-19 outbreak?	Yes/No
INNOV	Did this establishment introduce new or improved products or services in response to the COVID-19 outbreak?	Yes/No
CFLOW	Since the COVID-19 outbreak, has this establishment's liquidity or cash flow increased, remained the same or decreased?	Multi-point

Table 2. Collinearity Diagnostic

	<i>WCUTS</i>	<i>OPHOURS</i>	<i>DEFSUPP</i>	<i>DEFTAX</i>	<i>SALES</i>	<i>ECOMM</i>	<i>INNOV</i>	<i>CFLOW</i>
<i>VIF</i>	1.027	1.291	1.278	1.357	2.248	1.016	1.553	1.656

Table 3. MGA Results

	Total Sample (n=528)			Manufacturers (n=210)		Retailers (n=101)		Services (n=217)		<i>p</i> -value difference for the three Sectors
	Path Coefficient	<i>p</i> - value	Results	Path Coefficient	Results	Path Coefficient	Results	Path Coefficient	<i>p</i> -value	
<b>Direct and Moderating Effects</b>										
<i>H1</i>										
WCUTS → SALES	-0.07	0.04	Supported	0.88	Not Supported	-0.08	Not Supported	-0.05	Not Supported	0.12
<i>H2</i>										
OPHOURS → SALES	0.36	<0.01	Supported	0.35	Not Supported	0.44	Not Supported	0.29	Not Supported	0.40
<i>H3</i>										
DEFSUPP → SALES	-0.10	0.01	Not Supported	-0.16	Not Supported	-0.09	Not Supported	-0.03	Not Supported	0.35
<i>H4</i>										
DEFTAX → SALES	-0.19	<0.01	Not Supported	-0.20	Not Supported	-0.22	Not Supported	-0.19	Not Supported	0.42
<i>H5</i>										
SALES → CFLOW	0.69	<0.01	Supported	0.82	Not Supported	0.62	Not Supported	0.59	Not Supported	0.34
<i>H6</i>										
ECOMM + SALES → CFLOW	0.25	<0.01	Supported	0.41	Supported	-0.00	Supported	0.10	Supported	0.00
<i>H7</i>										
INNOV + SALES → CFLOW	0.19	<0.01	Supported	0.25	Not Supported	0.02	Not Supported	-0.10	Not Supported	0.36

## List of Figure

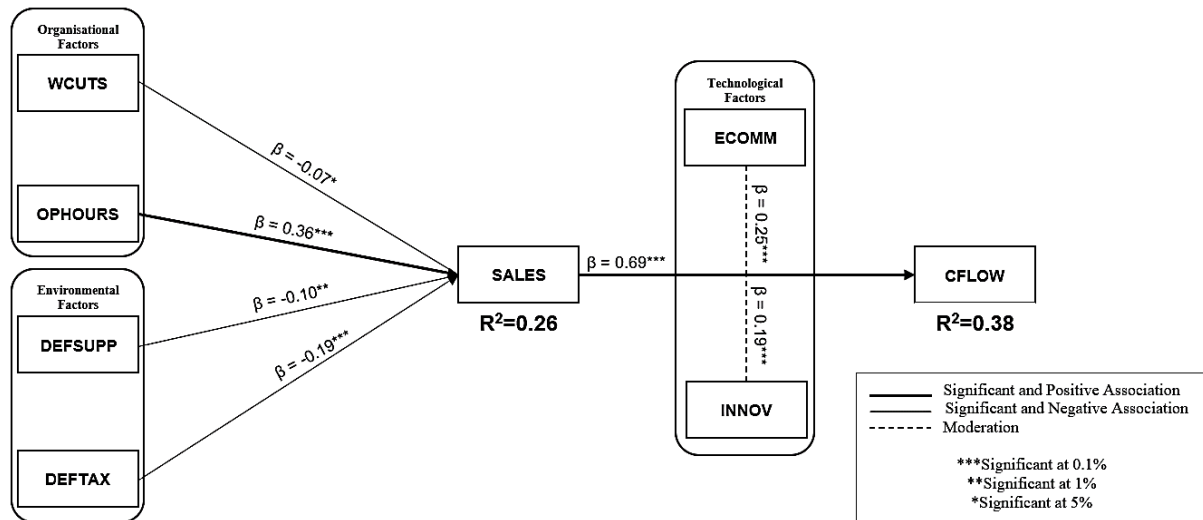


Figure 1. Structural Model