Entrepreneurial Orientation, Dynamic Capabilities, and Business Processes Performance: Evidence from Egyptian SMEs.

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Abstract

This study investigated the mediating role of Dynamic Capabilities (DC) in the relationship between Entrepreneurial Orientation (EO) and Business Process Performance (BPP). Moreover, it investigates the moderating role of strategy type in the EO-DC-BPP relationship. A quantitative paradigm was followed using SEM-PLS methodology to analyze data from 179 SMEs operating in food production in Egypt. The study found a strong and positive mediating effect of DC on the EO-BPP relationship.

1. Introduction

The performance of small and medium companies (SMEs) is often regarded as a crucial driving factor behind both developed and developing country economic growth. In developing countries, micro, small, and medium-sized firms (SMEs) have traditionally been seen as a driving force for long-term economic growth and employment creation (Zaazou & Salman Abdou, 2021). Around 2.5 million SMEs operate in Egypt, accounting for 75 percent of the total workforce and 99 percent of non-agricultural private sector companies (Abdelkareem, 2020; Anter & Elnagy, 2019). Despite their importance, they are still facing several problems related to poor performance, low entrepreneurial spirit, and, weak execution of firm strategy (AlQershi, 2021; Chakraborty et al., 2019; Isichei et al., 2020). SMEs performance at the domestic level is very poor in Egypt; Only 2% of total SMEs are achieving EGP 20 million and EGP 50 million sales (Accelerate consulting and development, 2014). Moreover, SMEs have gotten insufficient attention in Egypt, particularly when it comes to addressing their poor performance in comparison to other developing countries (Abdelkareem, 2020; Abu Hatab et al., 2021). As a result, the poor performance of Egypt's SMEs is a major issue that should concern practitioners and policymakers alike, as well as academic scholars who can undertake research that can help the case.

Small and medium sized businesses usually suffer from a prolonged problem of survival (Abdelkareem, 2020; Z. Li & Johansen, 2021). The lack of adequate resources hinders the ability of SMEs to secure higher level of flexibility which erode their ability to survive and grow (Okpara, 2011). Understanding the factors that could play a role in SMEs survival is a major issue that should be explored and investigated. One of the most prominent solution of this problem might be the adoption of Entrepreneurship orientation strategy. Entrepreneurial orientation is a strategic tool that could help SMEs to improve their performance (Abatecola & Uli, 2016; Al-Awlaqi et al., 2021). in Egypt, SMEs have gotten insufficient attention, particularly when it comes to addressing their Entrepreneurial orientation in comparison to other developing countries (central bank of Egypt, 2010). According to Accelerate Consulting Development (ACD) report (2014), SMEs in Egypt are hampered by a slew of issues related to the effort to keep their company afloat. Owners rarely have time to consider how new ideas or technology could improve their company' efficiency.

Due to the lack of resource abundance, EO is considered as the only strategic option available for SMEs to follow (Al-Awlaqi et al., 2021). Previous literature has investigated thoroughly the impact of EO on the performance and survival of firms. However, the empirical evidences related to EO-performance

relationship was inconsistence (Alarape, 2013; Cannavale et al., 2020; Galbreath et al., 2020; Hughes & Morgan, 2007; Kollmann & Stöckmann, 2014; Y. H. Li et al., 2009; Monteiro et al., 2019; Semrau et al., 2016; Silahtaroğlu & Alayoglu, 2016; Wiklund & Shepherd, 2005; Shaker A Zahra & Garvis, 2000). The inconsistency of the magnitude and direction of the effect of EO on businesses performance shows clearly that previous literature could be missing the impact of some interfering variables. Although, the impact of these interfering variable could alternate the EO-performance relationship, previous literature has lacked the interest to investigate such important issue (Li et al., 2009; Sousa et al., 2008; Wiklund & Shepherd, 2005). There was a little effort has been done to examine the mediating impact of potential confounding variables on the EO-performance relationship. Therefore, this study comes to fill this and investigate the effect of an important interfering variable on the EO-performance relationship.

To secure more survival rate and higher performance, SMEs should be able to manoeuvre in order to deal with its surrounding environment. Dynamic capabilities reflect the way that the organization fellows to integrate its resources and competences to deal with the fast-changing environment. Thus, organizations need the DC to get the best of EO and utilise the new opportunities that in turn enhances performance. The literature emphasized that not all strategy types have the same influence in performance (Walker, 2013). In summary, Dynamic capabilities were selected as one of the most important potential mediating variables that could considerably affect the EO-performance relationship.

For SMEs in developing countries, EO is still a vital and worthwhile endeavour (Wales et al., 2021). However, the lack of understanding of the nature of EO and its results in terms of business performance in emerging economies must be taken into account further (Shan et al., 2016). While multiple studies have found favourable associations between EO and business success in the developed countries, the penchant for taking risks as a byproduct of EO has resulted in a number of exceptions to these findings, thereby contradicting the anticipated association between EO and performance (Galbreath et al., 2020; Escamilla-Fajardo et al., 2021). As a result, in order to have a better understanding of the problem, the purposes of this research are to study the relationship between entrepreneurial orientation and firm business performance in the Egyptian context, to investigate the mediating role of Dynamic Capabilities (DC) in EO-performance relationship, and to examine the moderating effect of firm strategy type in such relationship. This research enriches the literature by investigating the mediating role of DC in EO-performance relationship, particularly business process performance (BPP).

For the purpose of this research, the paper has divided into four parts. First, the introduction was followed by theoretical foundation and hypotheses development. Then, research methodology, methods, and data analyses were presented. Third, research findings have been discussed. Finally, the paper concluded with implication, limitations, and suggestions for further research.

2. Theoretical Foundation

2.1 Conceptualization of Entrepreneurial Orientation EO

Entrepreneurial Orientation (EO) is a universally usable and applicable concept which describes a firm strategic orientation regarding the strategy-making process (Al-Awlaqi et al., 2021). EO has been conceptualized to include five dimensions proactiveness, risk-taking, innovativeness, competitive aggressiveness, and autonomy (Lumpkin & Dess, 1996; Saha et al., 2017). They believe that EO is decision-making styles, processes, and methods. Since then, researches have frequently ought to manifest that EO is beneficial for firms' performance (Wahyuni & Sara, 2020; Wilson et al., 2020).

According to resource advantages theory, EO can be seen as a resource that encourage a firm to surpass its competitors and yield a competitive position (Anwar & Shah, 2021). The entrepreneurial oriented firms have the tendency to discover future opportunities (Donbesuur et al., 2020), and they are able to adapt with the challenging environment (Lumpkin & Dess, 1996). Therefore, By establishing a conceptual framework of EO–performance, studying potential moderators, and investigating the dimensions of the hypothesized relationship between EO and business processes performance, a cumulative body of information is forming to comprehend this relationship (Shan et al., 2016).

While many scholarly attempts have been done to describe the EO-performance relationship, the findings report inconsistent results. However, the literature can be divided into three streams. First, investigations that support a positive impact of EO on firm performance with respect to the different types of performance (Ireland et al., 2003; Kollmann & Stöckmann, 2014; Y. H. Li et al., 2009; Monteiro et al., 2019; Semrau et al., 2016; Wiklund & Shepherd, 2003, 2005; Zahra, 1991; Zahra & Covin, 1995; Zahra & Garvis, 2000). Second, studies the cut off the EO-performance relationship or even report a negative impact (Covin, J.G. and Slevin, 1991; Morgan & Strong, 2003; Smart & Conant, 1994). Third, researches that prove a positive relationship for some of the EO's dimensions and decline the positive effect for other dimensions; in other words, researches that partially emphasize the EO-performance relationship (Hughes & Morgan, 2007; Lumpkin & Dess, 1996).

2.2 The nature of Dynamic Capabilities (DC)

The term of Dynamic Capabilities (DC) is described as a firm ability to integrate, develop, and configure all organizational resources to cope with the external challenging environment. DC view has emerged in strategic management field mainly to help firms understand the need of adoption to cope with dynamic environment (Haim Faridian & Neubaum, 2021). However, the Resource Based View (RBV) theory highlighted that capabilities are substantial for the organizational success, sustainability, and survival (Freeman et al., 2021). According to RBV, creating distinctive pool of resources is the only way to build and maintain the competitive advantages (Campbell & Kubickova, 2020). However, having the resources would not contribute to the success without the capabilities that refer to the firm's competences to combine these resources whether tangible or intangible and make best use of it (Lu et al., 2010). While, RBV emphasized the importance of strategic resources that help companies to build their competitive advantages, recent studies put more emphasize on intangible resources which deemed more relevant and strategically important for the performance (Abu Bakar & Ahmad, 2010; Khan et al., 2019; Monteiro et al., 2017; O. Rua et al., 2018; O. L. Rua, 2018).

DC refer to a firm's ability to integrate the available resources with respect of the external environmental challenges to sustain future success (Haarhaus & Liening, 2020). Zahra et al., (2006), noted that the use of DC is fundamental to exploiting future opportunities. Thus, DC not only have direct effect of the organizational performance, but also have indirect effect on building more operational resources (Bocken & Geradts, 2020; Helfat & Peteraf, 2015; Mikalef et al., 2020). In a fragile and emerging context such as Egypt, this feature could be given DC a main role in helping small business to secure higher rate of business growth and survival (Weaven et al., 2021). Moreover, it can play a role on explaining the relationship between EO and business performance.

3. Hypotheses Development

3.1 The mediating effect of dynamic capabilities

Previous literature showed inconsistency and discrepancy in the impact of EO on businesses performance. Although previous literature has examined EO-performance relationship, little attention has been given to the interfering variables that could affect this relationship. For instance, the mediating role of environment (Zahra & Garvis, 2000); technology (Knight, 2000); market and industry (Lohrke & Franklin, 2015); competitive strategy (Bell et al., 2004; Hernández-Perlines et al., 2016); societal culture (Semrau et al., 2016); knowledge creation process (Li et al., 2009) were investigated. However, none of the studies attempt to investigate the mediating role of dynamic capabilities on EO-performance relationship.

Dynamic capabilities are an essential factor that could affect businesses' strategic orientation especially the small and medium sized businesses. Dynamic capabilities found to have positive and direct impact on EO and export performance of small businesses (Monteiro et al., 2017). Previous literature recommended further studies to explain anomalies in the EO-performance relationship (Hughes & Morgan, 2007). Dynamic capabilities is an important potential factor that could play a mediating role on the relationship between EO and business performance.

To demonstrate, Robb et al., (2020), found a positive impact of EO on export performance in a group of South African SMEs. A moderating role of three types of capabilities (market, institutional, and rational) was investigated. While market and institutional capabilities moderate such a relationship, the role of rational capabilities was insignificant. Furthermore, a study on small businesses in Portugal showed a positive direct effect of EO on DC as well as a significant effect of DC on a firm's competitive advantages (Correia et al., 2021). Although some intention was given to the role of DC and its positive consequences, nothing has been done to understand this mediating role of DC particularly, in emerging market with a high level of SMEs failure rate such as the Egyptian economy.

Therefore, it is postulated that:

H 1: DC mediates the relationship between EO and BBP.

3.2 The Moderating Role of Firm Strategy

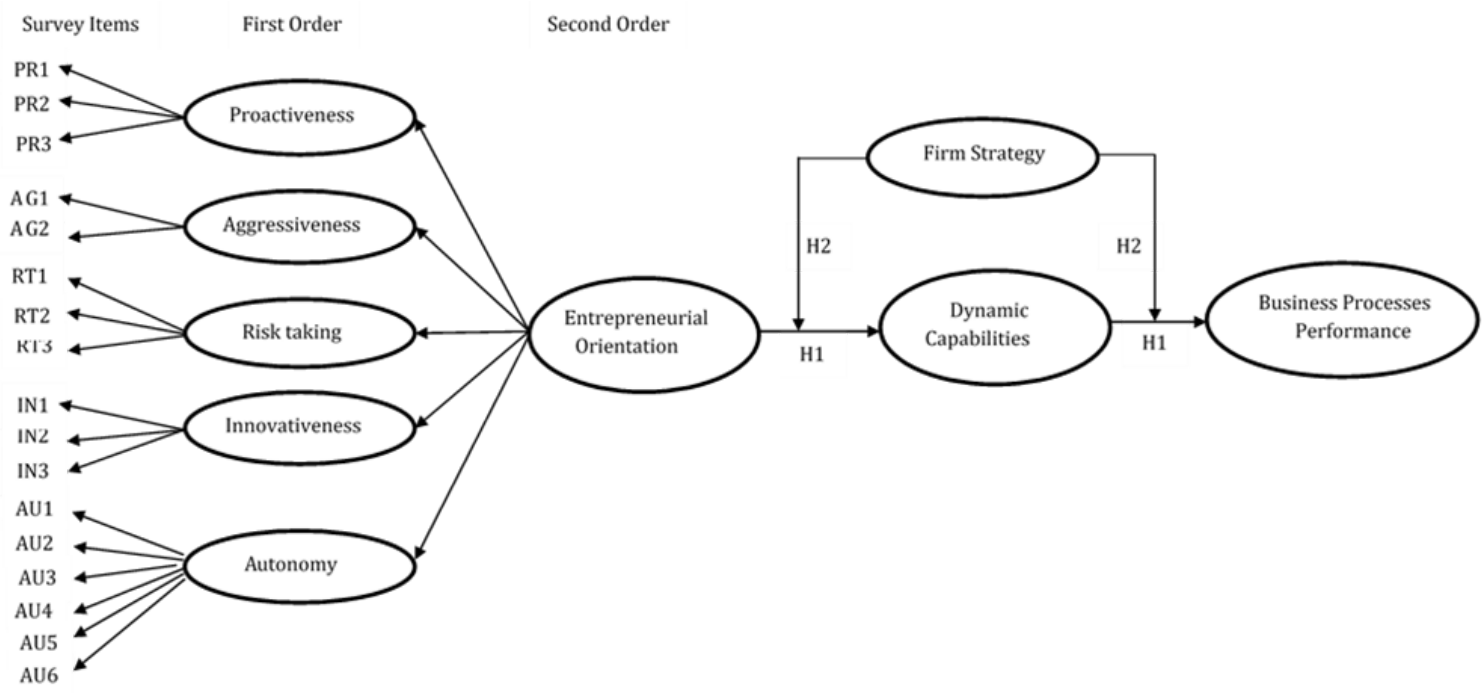
Firm strategy defines how the firm creates and sustains the competitive advantages. Miles et al. (1978), typology is one of the main frameworks that has be used to examine the impact of strategy on performance in a various domains (Lin et al., 2020; Setijadi Lumbantoruan et al., 2020).

The framework identified four strategy types. Prospectors who are seeking innovativeness and exploiting new opportunities whether in new markets or in current markets by introducing new products or services. Analysers tend to prefer waiting for better second opportunity (Hawrysz, 2020). Analysers seek to be innovative and opportunity driven but more cautiously and selectively than prospectors. According to Miles et al. (1978), analysers are “unique combination of the prospector and defender types” (p. 68). Defenders on the other hand focus more on market segment. They try to keep and maintain their niche secure and stable as much as they can (Hawrysz, 2020). Reactors are short-term driven. They maintain lowest entrepreneurial behaviour levels (Slater & Narver, 1995; Wang, 2008).

Miles and Snow strategy types are summarising the way in which busnesses deal with the environment and react to three critical problems and solutions namely: entrepreneurial, engineering, and administrative (Walker, 2013). The entrepreneurial problem seeks to use innovative solutions to close the gabs and exploit opportunities in a manner that help superior performance. Proactive firms have a more proactive way of dealing with the dynamic environment than other strategy types. They always scan and develop markets and products to explore and exploit new opportunities (Miles et al., 1978; Onwe et al., 2020). Moreover, prospectors demonstrate higher EO than other firms (Wang, 2008). However, not all types of strategy are associated with superior performance and effectiveness (Walker, 2013). In summary, firm strategy could play a moderating role that could strengthen EO-performance relationship (Shan et al., 2016).

From the previous discussion, it is postulated that:

H 2: strategy type moderates the EO–DC-BPP relationship; prospector firms are likely to enhance EO–DC-BPP relationship than other strategy types.



4. Research Methods

4.1 Sample and data collection

A survey questionnaire was used in the current study. The target population was small and medium-sized enterprises registered at industrial development authority in Egypt. 2024 SMEs were registered in the food industry in October 2020. We contacted the firms that clearly stated email addresses. 1615 emails were sent with two rounds following up emails during October, November, and December 2020. 179 usable responses were valid that yielding a response rate of 11%. A non-response bias was tested using the Kolmogorov-Smirnov test (Ryans, 1974) following (Côrte-Real et al., 2017; Ebrahim et al., 2021) comparing the potential deviation between the early survey respondents and late respondents. No statistical differences ($p > 0.05$) were found between the first wave respondents and the second wave respondents (see Table 2). The sample characteristics, however, is shown in Table 2.

Table 1
Nonresponse bias test

Constructs	Full sample N = 179		Early respondents N = 97		Late respondents N = 82		Kolmogorov-Smirnov test
	Mean	SD	Mean	SD	Mean	SD	p- Value
EO	4.7	0.93	4.8	0.87	4.6	0.99	0.31
DC	5.8	0.85	5.7	0.90	5.9	0.79	0.67
FS	6.0	0.92	6.0	0.82	6.0	1.01	0.19
BPP	5.1	1.13	4.9	1.23	5.3	1.03	0.74

Table 2
Sample's characteristics

Characteristics		n	%
Respondent position	CEO	113	63
	Middle manager	49	27
	other	17	10
Gender	Male	160	89
	Female	19	11
Firm age	< 5 years	39	22
	5–10	61	34
	11–15	28	16
	15–20	40	22
	> 20	11	6
Number of employees	< 10	9	5
	11–50	88	49
	51–100	72	40
	101–150	6	4
	> 150	4	2
N =		179	100

4.2 Measures

The research is composed of four main constructs and demographic variables. The constructs were measured using a 7-point Likert scale (1- strongly disagree to 7- strongly agree). The constructs' measures are shown in Table 2.

The independent variable is entrepreneurial orientation. the variable was coined to involve three dimensions: proactiveness (3 items), risk-taking (3 items), and innovation (3 items) (Covin & Miller, 2014; Miller, 1983; Naman & Slevin, 1993; Rostain, 2021). However, the study measures this variable using (Lumpkin & Dess, 1996) five-dimension scale. (Lumpkin & Dess, 1996) have added two more dimensions (aggressiveness (2 items) and autonomy (6 items)) to the seminal work of (Miller, 1983) to be more comprehensive scale. Therefore, the multidimensional construct used for this study consist of five dimensions and 17 items.

The dependent variable is business processes performance. The study measures this variable using a 5-items scale drawn from the literature (Aydiner et al., 2019; Elbashir et al., 2008; J. Luo et al., 2012; Mahmood & Soon, 1991; Mclaren et al., 2011; Mithas et al., 2011).

The mediator variable is dynamic capabilities. The study measures dynamic capabilities using (Sher & Lee, 2004) scale. The scale comprises 10 items and developed from previous studies (Bierly & Chakrabarti, 1996; Eisenhardt & Martin, 2000; Y. Luo, 2000; D.J Teece, 2007; David J. Teece et al., 2009).

The moderator variable is strategy type. Firms were asked to indicate their strategy typology following (Miles et al., 1978) and.(Snow & Hrebiniak, 1980) Surveyors were asked to choose only one of the strategy typologies (prospectors, analyzers, defenders, and reactors) that most closely describes their organization.

5. Data Analysis And Results

5.1 Measurement model

In order to assess the outer model, the parameters associated with the measurement model are calculated. The entrepreneurial orientation is a second-order hierarchal construct with 5 first-order constructs and 17 survey items. Therefore, internal consistency, indicator’s reliability, construct reliability, convergent validity, and discriminant validity are evaluated. As seen in table 3, Cronbach's alpha exceeds 0.70 for all constructs, which establishes the internal consistency. All items' loadings were above 0.701 which maintains good indicator’s reliability. Composite reliability (CR) was used to assess construct reliability where all constructs have composite reliability above 0.73. Regarding convergent validity, the average variance extracted (AVE) was computed. As the role of thumb indicates that AVEs should be higher than 0.50, the research constructs meet the criteria. To ensure discriminant validity, the Fornell-Larcker criterion was used and reported in Table 4. the square root of the AVEs in the diagonals should be greater than correlations with other constructs (Fornell & Larcker, 1981). Overall, the model has good internal consistency, indicator’s reliability, construct reliability, convergent validity, and discriminant validity.

Table 3: assessment of the measurement model

Constructs	Loading	Mean	SD
EO - Proactiveness (α = 0.90, CR = 0.89, AVE = 0.71)		4.28	1.32
PR1	0.902		
PR2	0.704		
PR3	0.779		1.13
EO- Aggressiveness (α = 0.89, CR = 0.96, AVE = 0.79)		5.12	
AG1	0.701		1.16
AG2	0.790		
EO- Risk-taking (α = 0.87, CR = 0.75, AVE = 0.59)		4.79	
RT1			
RT2	0.994		1.27
RT3	0.983		
EO- innovativeness (α = 0.76, CR = 0.88, AVE = 0.63)	0.777	5.03	
IN1			1.16
IN2	0.791		
IN3	0.765		
EO- autonomy (α = 0.92, CR = 0.98, AVE = 0.71)	0.811	5.15	
AU1			
AU2	0.711		1.06
AU3	0.797		
AU4	0.962		
AU5	0.799		
AU6	0.881		
	0.801		
Dynamic capabilities (α = 0.87, CR = 0.88, AVE = 0.84)		5.82	
DC1	0.734		
DC2	0.899		
DC3	0.884		1.56
DC4	0.734		

DC5	0.989	
DC6	0.824	
DC7	0.734	
DC8	0.849	
DC9	0.974	
DC10	0.734	
Business Process performance (α = 0.94, CR = 0.73, AVE = 0.79)		5.14
BPP1	0.789	
BPP2	0.774	
BPP3	0.834	
BPP4	0.989	
BPP5	0.774	

Table 4: Inter-correlations of the first-order latent constructs

	Constructs	1	2	3	4	5	6	7
1	PR	**0.92**						
2	AG	0.71	**0.89**					
3	RT	0.45	0.38	**0.93**				
4	IN	0.49	0.76	0.41	**0.95**			
5	AU	0.82	0.34	0.62	0.91	**0.87**		
6	DC	0.57	0.68	0.74	0.89	0.37	**0.91**	
7	BPP	0.69	0.57	0.39	0.82	0.54	0.79	**0.98**

5.2 Structural model

To test the inner model, Smart PLS 3.0 was used. PLS-SEM with nonparametric bootstrapping and 5000 re-sampling to obtain the standard errors of the estimates was applied (Hair et al., 2017). The structural model was assessed using a coefficient of determination (R^2 value), predictive relevance Q^2 value, effect

size (f^2 value), and the goodness of fit $GoF = \sqrt{\left(\bar{R}^2 + \bar{AVE}\right)}$. R^2 for all independent variables (DC= 0.51 & BPP= 0.67) which is large enough to consider the model validity (Ebrahim et al., 2021). Similarly, the predictive relevance Q2 value of all independent variables (DC = 0.39 & BPP = 0.49) were above zero. Effect size (f2) values, however, are small. furthermore, the goodness of fit of the model was estimated, and it was above 0.36 as suggested by (Wetzels et al., 2009). Furthermore, GFI and CFI 0.914 and 0.937 respectively. Finally, the SRMR value for this model equals 0.038.

5.3 The Mediating Effect of DC

The first research hypothesis of this research postulates a mediating effect of Dynamic Capabilities (DC) in the impact of Entrepreneurial Orientation (EO) on Business Process Performance (BPP). EO has a positive impact on DC that, in turn, has a positive impact on BBP. In this research, the magnitude of the mediation effect between EO (independent variable) and BPP (dependent variable) mediated by DC (mediator) is the product of the standardized paths between independent and mediator, and between mediator and dependent. The statistical analysis results have supported H1 as shown in Table 5. The direct path of EO on BPP was significant (β = 0.141; t = 2.632; P ≤ 0.01). the path of DC on BPP was also significant. Furthermore, the indirect effect was also significant (β = 0.098; t = 3.918; P 0.01).

Table 5: Mediation analysis

EO ⟶ DC ⟶ BPP	Direct effect	Indirect effect	Total effect
Path coefficient	0.141	0.098	0.239
t- value	2.632	3.918	5.041
p- value	0.011	0.009	0.000
VAF	54.91%		
Interpretation	Partial mediation		
Conclusion	H1 supported		

Note: 20% ≤ VAF ≥ 80% show partial mediation.

5.4 The Moderating Effect of Strategy Type

The second research hypothesis of this research postulates a moderating effect of Firm Strategy (FS) in the impact of Entrepreneurial Orientation (EO) on Business Process Performance (BPP) through Dynamic Capabilities (DC). According to the survey results, the respondents' firms' strategy types were prospector (n = 66), analyzer (n = 60), defender (n = 36), and reactor (n = 17). To investigate the proposed hypothesis, the strength of the hypothesized EO–DC–BPP relationship was compared between the prospectors and the analyzers as well as between the defender and the reactor. According to (Doty et al., 1993), prospector

firms and analyzer firms are very close strategies but distinct entrepreneurial strategies from each other. Similarly, defenders and reactors are very close strategies but distinct. However, the sample size of the defenders (n = 36) and reactors (n = 17) was insufficient to run the structural equation modelling. According to (Tabachnick and Fidell, 2001), the minimum number of observations to run the SEM is from 100 to150.

Therefore, using multigroup analysis, the hypothesized EO-DC-BPP relationship were submitted for the prospectors' type and the analyzers type. Paths of EO-DC and DC-BPP were permitted to variegate freely across groups. As is shown in table 6, there was a significant difference between prospectors and analyzers in the EO-DC-BPP relationship ($\Delta X^2 = 5.264$; $\Delta df = 2$; P ▯ 0.01). Hence, H_2 has been supported confirming that strategy type moderates the EO-DC-BPP relationship. More specifically, the relationship between EO-DC and DC-BPP was stronger for the prospectors (β = 0.323.) and (β = 0.278) than analysers (β = 212) and (β = 0.190) (see table 7).

Table 6: Multigroup analysis

	X^2	df	ΔX^2	p-value
EO ⟶ DC ⟶ BPP (prospectors)	139.675	76	---	0.012
EO ⟶ DC ⟶ BPP (analyzers)	134.411	78	---	0.000
Difference between groups (ΔX^2 & Δdf)	------	------	5.264 (2)	0.003

Note: The total sample size is 126, (66) prospectors & (60) analyzers.

Table 7: Direct loading for prospectors and analyzers

	Prospectors	Analyzers
EO ⟶ DC	0.323	0.212
DC ⟶ BPP	0.278	0.190

6. Discussion

This study aims to investigate how dynamic capabilities act as a mediator in the EO-performance relationship and how the strength of the relationship differs according to different strategic typologies. A structural model has been built and validated before running a statistical test and examines the two pre-sited hypotheses to reveal the following:

The first hypothesis H_1 has been supported. Dynamic capabilities play a mediating role in EO-performance relationship. In other words, firms adapt the EO not only need resources, competencies, or even normal capabilities but also need capabilities that are dynamic to contribute to the performance.

This result, however, is consistent with operationalized functions of DC as it senses and shape opportunities as well as threats (Teece, 2007). Similarly, this research' outcome has been confirmed by (Wang, 2008; Zahra et al., 2006) as they emphasize DC as a key concept and central for EO; however, sustainability and superior performance are of the main consequences of adapting DC.

The empirical investigation has supported H_2 as well. Firm strategy type moderates EO-performance relationship. Specifically, EO-DC-BPP relationship is stronger for prospector firms than analyzers. According to (Wang, 2008), the impact of EO in performance is stronger in firms that adapt prospector strategy than firms adapt analyser strategy. Our result is inconsistent with (Miles et al., 1978) theory of entrepreneurial problem as prospector firms adapt advanced level of environmental scanning and they are able to exploit new opportunities and develop new markets. Furthermore, prospectors are able to achieve most of the positive outcomes of the EO than other strategy typologies (Hambrick, 2003).

7. Implications

7.1 Theoretical implications

This study provides a set of theoretically based contributions. Firstly, it complements the EO literature by providing new insight to conceptualize EO as a composite construct consist of five first-order variables. according to (Hughes & Morgan, 2007), the tendency of the literature has conceptualized EO to be three dimensions commonly proactiveness, innovativeness, and risk-taking.

Secondly, this contribution puts emphasis on BPP as a dependent variable which has had lower interest by the entrepreneurial researchers. However, Business process performance is a more comprehensive and multi-disciplinary variable that reflects the effectiveness of all organizational resources, operations, and capabilities(Aydiner et al., 2019).

Thirdly, while the research not investigating the direct effects of EO-DC, DC-BPP, and EO-BPP, the research provides new insight by investigating the mediating role of DC in the EO-BPP relationship. Finally, the study explains the strength of the EO-DC-BPP relationship according to the different strategy prospectors.

7.2 Managerial implications

From a practical point of view, our insight is to directing managers to develop a managerial vision in thinking about the importance of entrepreneurial orientation. Moreover, the research findings emphasize the mediating role of dynamic capabilities in the EO-BPP relationship. Managers are advised not only to encourage the entrepreneurial orientation but also, they need to build capabilities that are dynamics. The use of DC is fundamental in exploiting future opportunities. Thus, DC not only have a direct effect on the organizational performance but also have an indirect effect on building more operational resources (Borch & Madsen, 2007; Helfat & Peteraf, 2015; Helfat & Winter, 2011)

8. Limitations And Future Research

This research does not exist without its limitations. This research, however, was examined the mediating effect of DC in the EO-BPP relationship. Further research could investigate the mediating effect of other related variables such as business analytics and big data capabilities. Furthermore, the research focus on the impact of EO in BPP, other research, however, could adapt other dependent variables such as sustainability, firm growth rate, and innovativeness. One of the methodological limitations of this study is using SEM-PLS methodology and collecting cross-sectional quantitative data. Future research could adopt qualitative data analysis techniques and collecting data through face-to-face interviews. Another limitation of this research is the empirical part as it has been applied in Egyptian SMEs using a self-reported questionnaire. Future research could duplicate the same study in other geographical domains.

Declarations

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Authors' contributions

Corresponding author (problem identification, arranging and collecting data, interpretation, analysis and writing) and the Co-authors (developing the manuscript). All authors read and approved the final manuscript.

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Availability of data and materials

Data will be available on request.

Declarations Competing interests

The authors declare that they have no competing interests

References

1. Abatecola, G., & Uli, V. (2016). Entrepreneurial competences, liability of newness and infant survival: Evidence from the service industry. *Journal of Management Development*, 35(9), 1082–1097. https://doi.org/10.1108/JMD-09-2014-0094
2. Abdelkareem, R. (2020). *Triple bottom line mission and Financial Performance in Egyptian SMEs: The role of CSR ".* PhD. thesis, Bangor University, UK

3. Abu Bakar, L. J., & Ahmad, H. (2010). Assessing the relationship between firm resources and product innovation performance: A resource-based view. *Business Process Management Journal*, 16(3), 420–435. https://doi.org/10.1108/14637151011049430
4. Abu Hatab, A., Lagerkvist, C. J., & Esmat, A. (2021). Risk perception and determinants in small- and medium-sized agri-food enterprises amidst the COVID-19 pandemic: Evidence from Egypt. *Agribusiness*, 37(1), 187–212. https://doi.org/10.1002/agr.21676
5. Al-Awlaqi, M. A., Aamer, A. M., & Habtoor, N. (2021). The effect of entrepreneurship training on entrepreneurial orientation: Evidence from a regression discontinuity design on micro-sized businesses. *International Journal of Management Education*, 19(1), 0–1. https://doi.org/10.1016/j.ijme.2018.11.003
6. Alarape, A. A. (2013). Entrepreneurial orientation and the growth performance of small andmedium enterprises in Southwestern Nigeria. *Journal of Small Business & Entrepreneurship*, 26(6), 553–577. https://doi.org/10.1080/08276331.2014.892308
7. AlQershi, N. (2021). Strategic thinking, strategic planning, strategic innovation and the performance of SMEs: The mediating role of human capital. *Management Science Letters*, 11, 1003–1012. https://doi.org/10.5267/j.msl.2020.9.042
8. Anter, M., & Elnagy, S. A. (2019). Evaluate of The Small Tourism Business Performance On Economic Growth In Egypt. *Minia Journal of Tourism and Hospitality Research MJTHR*, 7(1), 23–41. https://doi.org/10.21608/mjthr.2019.139597
9. Anwar, M., & Shah, S. Z. A. (2021). Entrepreneurial orientation and generic competitive strategies for emerging SMEs: Financial and nonfinancial performance perspective. *Journal of Public Affairs*, 21(1), https://doi.org/10.1002/pa.2125
10. Aydiner, A. S., Tatoglu, E., Bayraktar, E., Zaim, S., & Delen, D. (2019). Business analytics and firm performance: The mediating role of business process performance. *Journal of Business Research*, *96*(November 2018), 228–237. https://doi.org/10.1016/j.jbusres.2018.11.028
11. Bell, J., Crick, D., & Young, S. (2004). Small firm internationalization and business strategy: An exploratory study of “knowledge intensive” and “traditional” manufacturing firms in the UK. *International Small Business Journal*, 22(1), 23–56. https://doi.org/10.1177/0266242604039479
12. Bierly, P. E., & Chakrabarti, A. K. (1996). Technological learning, strategic flexibility, and new product development in the pharmaceutical industry. *IEEE Transactions on Engineering Management*, 43(4), 368–380. https://doi.org/10.1109/17.543979
13. Bocken, N. M. P., & Geradts, T. H. J. (2020). Barriers and drivers to sustainable business model innovation: Organization design and dynamic capabilities. *Long Range Planning*, 53(4), 101950. https://doi.org/10.1016/j.lrp.2019.101950
14. Borch, O. J., & Madsen, E. L. (2007). Dynamic capabilities facilitating innovative strategies in SMEs. *International Journal of Technoentrepreneurship*, 1(1), 109–125. https://doi.org/10.1504/IJTE.2007.014731

15. Campbell, J. M., & Kubickova, M. (2020). Agritourism microbusinesses within a developing country economy: A resource-based view. *Journal of Destination Marketing and Management*, 17(June), 100460. https://doi.org/10.1016/j.jdmm.2020.100460
16. Cannavale, C., Nadali, Z., I., & Esempio, A. (2020). Entrepreneurial orientation and firm performance in a sanctioned economy – does the CEO play a role? *Journal of Small Business and Enterprise Development*, 27(6), 1005–1027. https://doi.org/10.1108/JSBED-11-2019-0366
17. Chakraborty, A., Mutingi, M., & Vashishth, A. (2019). Quality management practices in SMEs: a comparative study between India and Namibia. *Benchmarking*, 26(5), 1499–1516. https://doi.org/10.1108/BIJ-08-2017-0210
18. Correia, R. J., Teixeira, M. S., & Dias, J. G. (2021). Dynamic capabilities: antecedents and implications for firms' performance. *International Journal of Productivity and Performance Management*, *ahead-of-p*(ahead-of-print). https://doi.org/10.1108/ijppm-12-2019-0587
19. Côrte-Real, N., Oliveira, T., & Ruivo, P. (2017). Assessing business value of Big Data Analytics in European firms. *Journal of Business Research*, 70, 379–390. https://doi.org/10.1016/j.jbusres.2016.08.011
20. Covin, J. G., & Slevin, D. P. (1991). A conceptual model of entrepreneurship as firm behavior. *Entrepreneurship Theory and Practice*, 1(16), 7–26
21. Covin, J. G., & Miller, D. (2014). International Entrepreneurial Orientation: Conceptual Considerations, Research Themes, Measurement Issues, and Future Research Directions. *Entrepreneurship: Theory and Practice*, 38(1), 11–44. https://doi.org/10.1111/etap.12027
22. Donbesuur, F., Boso, N., & Hultman, M. (2020). The effect of entrepreneurial orientation on new venture performance: Contingency roles of entrepreneurial actions. *Journal of Business Research*, 118(June), 150–161. https://doi.org/10.1016/j.jbusres.2020.06.042
23. Doty, D. H., Glick, W., Huber, G., Glick, George, P., & Huber (1993).Academy of Management Journal, 36(6),1196–1250
24. Ebrahim, R., Afify, W., & Abdelkareem, R. (2021). Integrating student engagement with the DeLone & McLean model to assess the effectiveness of Online Learning System during COVID-19 pandemic. *Scientific Journal for Financial and Commercial Studies and Researches (SJFCSR)*, 2(1), 384–424. https://doi.org/10.21608/cfdj.2020.129339
25. Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, 21(10–11), 1105–1121. https://doi.org/10.1002/1097-0266(200010/11)21:10/11<1105::AID-SMJ133>3.0.CO;2-E
26. Elbashir, M. Z., Collier, P. A., & Davern, M. J. (2008). Measuring the effects of business intelligence systems: The relationship between business process and organizational performance. *International Journal of Accounting Information Systems*, 9(3), 135–153. https://doi.org/10.1016/j.accinf.2008.03.001
27. Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1), 39.

https://doi.org/10.2307/3151312

28. Freeman, R. E., Dmytriyev, S. D., & Phillips, R. A. (2021). Stakeholder Theory and the Resource-Based View of the Firm. *Journal of Management*, XX(X), 1–14. https://doi.org/10.1177/0149206321993576
29. Galbreath, J., Lucianetti, L., Thomas, B., & Tisch, D. (2020). Entrepreneurial orientation and firm performance in Italian firms: The moderating role of competitive strategy. *International Journal of Entrepreneurial Behaviour and Research*, 26(4), 629–646. https://doi.org/10.1108/IJEBR-07-2019-0457
30. Haarhaus, T., & Liening, A. (2020). Building dynamic capabilities to cope with environmental uncertainty: The role of strategic foresight. *Technological Forecasting and Social Change*, 155(April), 120033. https://doi.org/10.1016/j.techfore.2020.120033
31. Haim Faridian, P., & Neubaum, D. O. (2021). Ambidexterity in the age of asset sharing: Development of dynamic capabilities in open source ecosystems. *Technovation*, *99*(April 2020), 102125. https://doi.org/10.1016/j.technovation.2020.102125
32. Hair, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2017). *Advanced issues in partial least squares structural equation modeling*. saGe publications
33. Hambrick, D. C. (2003). On the staying power of defenders, analyzers and prospectors. *Academy of Management Executive*, 17(4), 115–118. https://doi.org/10.5465/AME.2003.11851883
34. Hawrysz, L. (2020). Strategic Orientation and Effects of E-Administration: Findings from the Miles and Snow Framework. *Administrative Sciences*, 10(2), 35. https://doi.org/10.3390/admsci10020035
35. Helfat, C. E., & Peteraf, M. A. (2015). Managerial cognitive capabilities and the microfoundations of dynamic capabilities. *Strategic Management Journal*, 36(6), 831–850. https://doi.org/10.1002/smj
36. Helfat, C. E., & Winter, S. G. (2011). Untangling dynamic and operational capabilities: Strategy for the (n) ever changing world. *Strategic Management Journal*, 32(11), 1243–1250. https://doi.org/10.1002/smj
37. Hernández-Perlines, F., Moreno-García, J., & Yañez-Araque, B. (2016). The mediating role of competitive strategy in international entrepreneurial orientation. *Journal of Business Research*, 69(11), 5383–5389. https://doi.org/10.1016/j.jbusres.2016.04.142
38. Hughes, M., & Morgan, R. E. (2007). Deconstructing the relationship between entrepreneurial orientation and business performance at the embryonic stage of firm growth. *Industrial Marketing Management*, 36(5), 651–661. https://doi.org/10.1016/j.indmarman.2006.04.003
39. Ireland, R. D., Hitt, M. A., & Sirmon, D. G. (2003). A model of strategic enterpreneurship: The construct and its dimensions. *Journal of Management*, 29(6), 963–989. https://doi.org/10.1016/S0149-2063(03)00086-2
40. Isichei, E. E., Agbaeze, E., K., & Odiba, M. O. (2020). Entrepreneurial orientation and performance in SMEs: The mediating role of structural infrastructure capability. *International Journal of Emerging Markets*, 15(6), 1219–1241. https://doi.org/10.1108/IJOEM-08-2019-0671

41. Khan, K. U., Xuehe, Z., Atlas, F., & Khan, F. (2019). The impact of dominant logic and competitive intensity on SMEs performance: A case from China. *Journal of Innovation and Knowledge*, 4(1), 1–11. https://doi.org/10.1016/j.jik.2018.10.001
42. Knight, G. (2000). Entrepreneurship and marketing strategy: The SME under globalization. *Journal of International Marketing*, 8(2), 12–32. https://doi.org/10.1509/jimk.8.2.12.19620
43. Kollmann, T., & Stöckmann, C. (2014). Filling the entrepreneurial orientation-performance gap: The mediating effects of exploratory and exploitative innovations. *Entrepreneurship: Theory and Practice*, 38(5), 1001–1026. https://doi.org/10.1111/j.1540-6520.2012.00530.x
44. Li, Y. H., Huang, J. W., & Tsai, M. T. (2009). Entrepreneurial orientation and firm performance: The role of knowledge creation process. *Industrial Marketing Management*, 38(4), 440–449. https://doi.org/10.1016/j.indmarman.2008.02.004
45. Li, Z., & Johansen, D. (2021). Does family involvement help small migrant businesses survive? A closer examination of family in migrant entrepreneurship. *Journal of Enterprising Communities*. https://doi.org/10.1108/JEC-03-2020-0031
46. Lin, C., Chiu, Y. W., Chen, W. C., & Ting, S. F. (2020). Exploring differences in competitive performance based on Miles and Snow's strategy typology for the semiconductor industry. *Industrial Management and Data Systems*, 120(6), 1125–1148. https://doi.org/10.1108/IMDS-10-2019-0547
47. Lohrke, F. T., & Franklin, G. M. (2015). Top Management International Orientation and Small Business Exporting Performance: The Moderating Roles of Export Market & Industry Factors. *Journal of Small Business Strategy*, 10(1), 13–24
48. Lu, Y., Zhou, L., Bruton, G., & Li, W. (2010). Capabilities as a mediator linking resources and the international performance of entrepreneurial firms in an emerging economy. *Journal of International Business Studies*, 41(3), 419–436. https://doi.org/10.1057/jibs.2009.73
49. Lumpkin, G. T., Dess, G. G. Clarifying the Entrepreneurial Orientation Construct and Linking It to Performance Author (s): G. T, Lumpkin, & Gregory, G. (1996).. Dess Published by : Academy of Management Stable URL : http://www.jstor.com/stable/258632 REFERENCES Linked references are ava. *Academy of Management Review*, *21*(1), 135–172
50. Luo, J., Fan, M., & Zhang, H. (2012). Information technology and organizational capabilities: A longitudinal study of the apparel industry. *Decision Support Systems*, 53(1), 186–194. https://doi.org/10.1016/j.dss.2012.01.003
51. Luo, Y. (2000). Dynamic capabilities in international expansion. *Journal of World Business*, 35(4), 355–378. https://doi.org/10.1016/S1090-9516(00)00043-2
52. Mahmood, M. A., & Soon, S. K. (1991). A Comprehensive Model for Measuring the Potential Impact of Information Technology on Organizational Strategic Variables. *Decision Sciences*, 22(4), 869–897. https://doi.org/10.1111/j.1540-5915.1991.tb00368.x
53. Mclaren, T. S., Head, M. M., Yufe, Y., & Chan, Y. E. (2011). A multilevel model for measuring fit between a firm's competitive strategies and information system cap- abilities. *MIS Quarterly*, 35(4), 909–929

54. Mikalef, P., Pappas, I. O., Krogstie, J., & Pavlou, P. A. (2020). Big data and business analytics: A research agenda for realizing business value. *Information and Management*, 57(1), https://doi.org/10.1016/j.im.2019.103237
55. Miles, R. E., Snow, C. C., Meyer, A. D., & Coleman, H. J. (1978). Organizational Strategy, Structure, and Process The Academy of Management Review Organizational Strategy, Structure, and Process1. *Source: The Academy of Management Review*, 3(3), 546–562
56. Miller, D. (1983). The Correlates of Entrepreneurship in Three Types of Firms. *Management Science*, 29(7), 770–791. https://doi.org/10.1287/mnsc.29.7.770
57. Mithas, S., Ramasubbu, N., & Sambamurthy, V. (2011). How information management capability influences firm performance. *MIS Quarterly: Management Information Systems*, 35(1), 237–256. https://doi.org/10.2307/23043496
58. Monteiro, A. P., Soares, A. M., & Rua, O. L. (2017). Linking intangible resources and export performance: The role of entrepreneurial orientation and dynamic capabilities. *Baltic Journal of Management*, 12(3), 329–347. https://doi.org/10.1108/BJM-05-2016-0097
59. Monteiro, A. P., Soares, A. M., & Rua, O. L. (2019). Linking intangible resources and entrepreneurial orientation to export performance: The mediating effect of dynamic capabilities. *Journal of Innovation and Knowledge*, 4(3), 179–187. https://doi.org/10.1016/j.jik.2019.04.001
60. Morgan, R. E., & Strong, C. A. (2003). Business performance and dimensions of strategic orientation. *Journal of Business Research*, 56(3), 163–176. https://doi.org/10.1016/S0148-2963(01)00218-1
61. Naman, J. L., & Slevin, D. P. (1993). Entrepreneurship and the Concept of Fit: A Model and Empirical Tests. *Strategic Management Journal*, 14(2), 137–153
62. Okpara, J. O. (2011). Factors constraining the growth and survival of SMEs in Nigeria: Implications for poverty alleviation. *Management Research Review*, 34(2), 156–171. https://doi.org/10.1108/01409171111102786
63. Onwe, C. C., Ogbo, A., & Ameh, A. A. (2020). Entrepreneurial orientation and small firm performance: the moderating role of environmental hostility. *Entrepreneurial Business and Economics Review*, 8(4), 67–84. https://doi.org/10.15678/EBER.2020.080404
64. Escamilla-Fajardo, P., Núñez-Pomar&, & Calabuig, F. (2021). Does size matter? Entrepreneurial orientation and performance in Spanish sports clubs. *Entrepreneurship and Innovation in Sports Organizations*, 1–19
65. Robb, C., Kim, E., & Lee, J. (2020). *Entrepreneurial Orientation and Export Performance of Emerging Market SMEs: The Moderating Role of Dynamic Capabilities in South Africa *. 12*(October 2019), 15–29
66. Rostain, M. (2021). The impact of organizational culture on entrepreneurial orientation: A meta-analysis. *Journal of Business Venturing Insights*, 15(March), e00234. https://doi.org/10.1016/j.jbvi.2021.e00234
67. Rua, O., França, A., & Fernández Ortiz, R. (2018). Key drivers of SMEs export performance: the mediating effect of competitive advantage. *Journal of Knowledge Management*, 22(2), 257–279.

https://doi.org/10.1108/JKM-07-2017-0267

68. Rua, O. L. (2018). From intangible resources to export performance: Exploring the mediating effect of absorptive capabilities and innovation. *Review of International Business and Strategy*, 28(3–4), 373–394. https://doi.org/10.1108/RIBS-02-2018-0012
69. Ryans, A. B. (1974). Estimating Consumer Preferences for a New Durable Brand in an Established Product Class. *Journal of Marketing Research*, 11(4), 434. https://doi.org/10.2307/3151290
70. Saha, K., Kumar, R., Dutta, S. K., & Dutta, T. (2017). A content adequate five-dimensional Entrepreneurial Orientation scale. *Journal of Business Venturing Insights*, 8(June), 41–49. https://doi.org/10.1016/j.jbvi.2017.05.006
71. Semrau, T., Ambos, T., & Kraus, S. (2016). Entrepreneurial orientation and SME performance across societal cultures: An international study. *Journal of Business Research*, 69(5), 1928–1932. https://doi.org/10.1016/j.jbusres.2015.10.082
72. Setijadi Lumbantoruan, R., Nazaruddin, & Pujangkoro, S. (2020). Analysis of small and medium enterprises (SMEs) strategy using miles and snow typology: A literature review. *IOP Conference Series: Materials Science and Engineering*, *1003*(1). https://doi.org/10.1088/1757-899X/1003/1/012120
73. Shan, P., Song, M., & Ju, X. (2016). Entrepreneurial orientation and performance: Is innovation speed a missing link? *Journal of Business Research*, 69(2), 683–690. https://doi.org/10.1016/j.jbusres.2015.08.032
74. Sher, P. J., & Lee, V. C. (2004). Information technology as a facilitator for enhancing dynamic capabilities through knowledge management. *Information and Management*, 41(8), 933–945. https://doi.org/10.1016/j.im.2003.06.004
75. Silahtaroğlu, G., & Alayoglu, N. (2016). An Empirical Study Based on Interviews with Executives in Various Sectors. *Procedia - Social and Behavioral Sciences*, 235(October), 208–215. https://doi.org/10.1016/j.sbspro.2016.11.016. Using or Not Using Business Intelligence and Big Data for Strategic Management:
76. Slater, S. F., & Narver, J. C. (1995). Market Orientation and the Learning Organization. *Journal of Marketing*, 59(3), 63–74. https://doi.org/10.1515/cks-2016-0005
77. Smart, D. T., & Conant, J. S. (1994). Entrepreneurial orientation, distinctive marketing competencies and organizational performance.Journal of Applied Business Research, *10*(3)
78. Snow, C. C., & Hrebiniak, L. G. (1980). Strategy, Distinctive Competence, and Organizational Performance Author (s): Charles C. Snow and Lawrence G. Hrebiniak Published by : Sage Publications. *Inc. on behalf of the Johnson Graduate School of Management, Cornell University Stable URL* :, 25(2), 317–336
79. Sousa, C. M. P., Martínez-López, F. J., & Coelho, F. (2008). The determinants of export performance: A review of the research in the literature between 1998 and 2005. *International Journal of Management Reviews*, 10(4), 343–374. https://doi.org/10.1111/j.1468-2370.2008.00232.x

80. Tabachnick, B. G., & Fidell, L. S. (2001). *SAS for windows workbook for Tabachnick and Fidell using multivariate statistics*. Allyn and Bacon
81. Teece, D. J. (2007). Technology and export behavior. *Strategic Management Journal*, 28(13), 1319–1350
82. Teece, D. J., Pisano, G., & Shuen, A. (2009). Dynamic capabilities and strategic management. *Knowledge and Strategy*, *18*(April 1991), 77–116. https://doi.org/10.1093/0199248540.003.0013
83. Wahyuni, N. M., & Sara, I. M. (2020). The effect of entrepreneurial orientation variables on business performance in the SME industry context. *Journal of Workplace Learning*, 32(1), 35–62. https://doi.org/10.1108/JWL-03-2019-0033
84. Wales, W. J., Corbett, A. C., Marino, L. D., & Kreiser, P. M. (2021). *The Future of Entrepreneurial Orientation (EO) Research*. *22*, 1–16. https://doi.org/10.1108/s1074-754020210000022001
85. Walker, R. M. (2013). Strategic management and performance in public organizations: Findings from the miles and snow framework. *Public Administration Review*, 73(5), 675–685. https://doi.org/10.1111/puar.12073
86. Wang, C. L. (2008). Entrepreneurial Orientation, Learning Orientation, and Firm Performance. *Entrepreneurship Theory and Practice*, 32(4), 635–657
87. Weaven, S., Quach, S., Thaichon, P., Frazer, L., Billot, K., & Grace, D. (2021). Surviving an economic downturn: Dynamic capabilities of SMEs. *Journal of Business Research*, 128(February), 109–123. https://doi.org/10.1016/j.jbusres.2021.02.009
88. Wetzels, G., Odekerken-Schröder, G., & van Oppen, C. (2009). Using PLS Path Modeling for Assessing Hierarchical Construct Models: Guidelines and Empirical Illustration. *MIS Quarterly*, 33(1), 177–195
89. Wiklund, J., & Shepherd, D. (2003). Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses. *Strategic Management Journal*, 24(13), 1307–1314. https://doi.org/10.1002/smj.360
90. Wiklund, J., & Shepherd, D. (2005). Entrepreneurial orientation and small business performance: A configurational approach. *Journal of Business Venturing*, 20(1), 71–91. https://doi.org/10.1016/j.jbusvent.2004.01.001
91. Wilson, G. A., Perepelkin, J., Zhang, D., & Di (2020). The roles of diversification and specialization strategies in the entrepreneurial orientation and performance relationship. *Journal of Small Business & Entrepreneurship*, 32(5), 457–476. https://doi.org/10.1080/08276331.2019.1646532
92. Zaazou, Z. A., & Salman Abdou, D. (2021). Egyptian small and medium sized enterprises' battle against COVID-19 pandemic: March – July 2020. *Journal of Humanities and Applied Social Sciences*, *ahead-of-p*(ahead-of-print). https://doi.org/10.1108/jhass-09-2020-0161
93. Zahra, S. A. (1991). Predictors and Financial Outcomes of Corporate Entrepreneurship: An Exploratory Study. *Journal of Business Venturing*, 6(4), 259–285
94. Zahra, S. A., & Covin, J. G. (1995). Contextual influences on the corporate entrepreneurship-performance relationship: A longitudinal analysis. *Journal of Business Venturing*, 10(1), 43–58. https://doi.org/10.1016/0883-9026(94)00004-E

95. Zahra, S. A., Sapienza, H. J., & Davidsson, P. (2006). Entrepreneurship and dynamic capabilities: A review, model and research agenda. *Journal of Management Studies*, 43(4), 917–955. https://doi.org/10.1111/j.1467-6486.2006.00616.x
96. Zahra, S. A., & Garvis, D. M. (2000). International corporate entrepreneurship and firm performance. *Journal of Business Venturing*, 15(5–6), 469–492. https://doi.org/10.1016/s0883-9026(99)00036-1