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Enhancing Organizational Performance Through Agility and Resilience: A Strategic Capability Perspective

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Mohamed K. Haddad [1] , Rasha S. Hassan [1]

1. Management and Organization, The German University in Cairo, Cairo, EGY

Corresponding author: Rasha S. Hassan, rasha.saad@guc.edu.eg

Abstract

This study examines whether the firm's agility and resilience affect different types of organizational performance across various industries. It focuses on Egypt, an emerging economy, to investigate the impact of these strategies on multiple performance dimensions, including financial, innovative, operational, and market performance. By utilizing explanatory causal research, data were collected through an electronic survey targeting a purposive sample of managers from organizations operating across different industries. A quantitative approach was used to collect data from a sample of 50 operating firms. The data were analyzed using the Statistical Package for the Social Sciences, which supported the research hypotheses. Accordingly, organizations prioritizing agility and resilience significantly achieve enhanced organizational performance, particularly in dynamic market conditions. The findings conform with the body of literature and suggest that integrating these strategies into strategic planning, investing in relevant training and technologies, and fostering a culture of adaptability are crucial for maintaining competitive advantage. The study concludes with recommendations for organizational leaders and policymakers to support the adoption of agile and resilient practices and highlights areas for future research, such as industry-specific impacts and longitudinal studies on the long-term benefits of these strategies.

Categories: Innovation Economics, Strategic Operation management
Keywords: agility, resilience, firm performance, emerging economies, organizational innovation

Introduction

In today's rapidly evolving business landscape, organizations are confronted with many challenges, including continuous change, increasingly diversifying needs of customers, and uncertainty in demand (Gligor et al., 2019). Consequently, they are continuously exposed to unexpected disruptions, which can adversely affect performance measures and ultimately result in lost sales and market share (Lotfi and Saghiri, 2018). To attain and maintain a competitive advantage in this dynamic environment, businesses must demonstrate the ability to transform quickly (Adomako et al., 2022). Drawing upon management theories such as the resource-based view and dynamic capabilities theory, organizations need to implement dynamic strategies to mitigate these risks (Barney, 1991), (Barney et al., 2001), and (Teece et al., 2018).

Agility and resilience are among the most frequently cited capabilities in the literature and are recognized as critical strategic competencies in the contemporary global economy (Gligor et al., 2019) and (Gölgeci et al., 2019). These dynamic capabilities enable organizations to respond effectively to environmental changes and adapt structurally through innovation and collaboration with other firms, organizations, and institutions (Kurtz and Varvakis, 2016) and (Teece, 2007). Furthermore, firms with dynamic capabilities tend to achieve a more sustained competitive advantage in volatile markets (Breznik and Lahovnik, 2016).

Despite their importance, few studies have examined the impact of combining various resources and capabilities on organizational performance (Gunasekaran et al., 2017). For instance, it has been argued that deploying such capabilities can significantly contribute to achieving or sustaining competitive advantage (Fainshmidt et al., 2018). Moreover, scholars have emphasized the importance of ambidextrous capabilities, namely, the ability to balance exploration and exploitation, as essential for organizational survival and success, particularly in unstable and complex environments (Gölgeci et al., 2019).

A critical review of the available literature reveals a significant gap in examining the impact of agility and resilience on the various aspects of organizational performance, even more so in the emerging economy context. Most prior research has focused on stable and developed markets, limiting our understanding of how these dynamic capabilities function in less predictable and more volatile contexts. This gap is especially critical, as organizations in developing economies often confront greater challenges, such as currency fluctuations, regulatory instability, and economic shocks, which demand understanding of how to develop and sustain organizational performance under such conditions.

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Thus, this study seeks to address the highlighted gap by examining the impacts of agility and resilience efforts, offering a perspective on how firms can manage uncertainty and retain a competitive edge. Moreover, it contributes to the limited literature concerning the impact of these capabilities on organizational performance within the emerging economies setting, emphasizing the value of holistic strategy and operations philosophies (Gunasekaran et al., 2017). The findings of this study are expected to have practical and theoretical significance.

From an academic perspective, the research contributes to the growing literature on dynamic capabilities by deepening our understanding of how agility and resilience interact to shape firm performance in emerging market contexts (Fainshmidt et al., 2016). In practice, the study provides practical recommendations for enhancing organizational performance by effortless integration and implementation of agility and resilience and thereby ensuring long-term development and sustainability (Teece, 2018) (Wang et al., 2014).

The dynamic capabilities literature has mainly focused on how firms adjust their external and internal abilities to address the rapidly changing environment (Teece, 2018), (Eisenhardt and Martin, 2000), and (Musa and Enggarsyah, 2025). However, despite these studies, there are several theoretical gaps. While existing studies on dynamic capabilities focused mainly on financial performance (Barreto, 2009), few studies have explored the impact of dynamic capabilities on broader organizational performance dimensions, such as innovation, market, operational efficiency, and financial performance. Thus, this study addresses this gap by studying broader organizational performance indicators. Further, while resilience and agility have been acknowledged as dynamic capabilities (Ambrosini and Bowman, 2009), their interaction and role on broader organizational performance indicators are underdeveloped. Therefore, this study aims to examine the extent to which agility and resilience, as distinct dynamic capabilities, affect organizational performance. Moreover, much of the dynamic capabilities literature focuses on developed economies, with little on how dynamic capabilities operate in emerging economies, where limited resources and uncertainty exist. As a result, this study offers a contextualization insight on how agility and resilience operate in uncertainty and limited resources cases.

The related research questions are: “Does a firm's agility impact its different types of organizational performance in various industries within emerging economies?” and “Does a firm's resilience impact its different types of organizational performance in various industries within emerging economies?”

Literature review

Agility

The literature consistently affirms that firm agility is critical to superior competitive advantage and organizational performance (Harvey and Novicevic, 2002) and (Ravichandran, 2018). In an increasingly competitive and fast-changing environment, organizations must develop significantly more adaptable and responsive systems than those currently in place. While environmental change is not new, it is widely acknowledged that the pace and scope of such changes have accelerated in recent years (Holbeche, 2019). Organizational agility is thus regarded as a vital capability for managing unexpected disruptions in dynamic contexts (Felipe et al., 2020) and (Liu and Yang, 2020), enabling firms to preserve their market position while exploring new opportunities (Khan, 2020).

Agility is commonly defined as an organization’s ability to respond rapidly and effectively within a turbulent environment (Bullinger, 1999). It is a strategic response to dynamic markets characterized by continuous self-alignment, self-organization, and self-configuration. Agility is described as the capacity of a firm to thrive in competitive settings marked by unpredictability and constant change (Walter, 2020). Similarly, Liu and Yang (Liu and Yang, 2020) conceptualize agility as detecting environmental shifts and reconfiguring organizational resources efficiently and effectively in response. An agile organization can swiftly react to threats, seize opportunities, and implement lasting changes contributing to a sustained competitive edge (Holbeche, 2019).

Moreover, strategic agility refers to a firm’s capability to continuously adapt its strategic direction in pursuit of long-term competitive advantage. This includes the dimensions of strategic sensitivity, leadership unity, and resource fluidity, key components of the strategic agility framework developed by Doz and Kosonen (Doz and Kosonen, 2010). The framework also considers how firm age and size factors may influence agility outcomes.

Agility can be translated into measurable performance outcomes through several mechanisms. Firstly, agile firms can capture market opportunities earlier than competitors, and thus can introduce new products and reap the profit (Worley and Lawler, 2010). Therefore, agility can significantly impact the financial performance of agile firms. Secondly, agile firms can respond quickly to any changes in the market, enabling the firms to continue their productivity level with less waste and more time efficiency (Mikalef and Pateli, 2017). Thus, agile firms have a significant impact on their operational performance.

Thirdly, agile firms can adapt quickly to the changes in the market and deliver quick and innovative products, affecting their innovative performance significantly (Roberts and Grover, 2012). Finally, agile firms can adapt quickly to customer needs and sustain their market share, leading to a better marketing performance level (Felipe et al., 2020).

Resilience

Resilience is considered a critical dynamic capability that organizations utilize to navigate today's complex business environments (Kurtz and Varvakis, 2016). Firms are increasingly confronted with turbulence, intense competition, and uncertainty, particularly those embedded in interdependent networks of relationships (Yilmaz et al., 2014). It is crucial to achieve decent work (Ghoneim, 2021) as it contributes to a stable and skilled workforce responsible for the firm's resilience. Decent work contributes to firm resilience by creating a stable, professional, and motivated workforce that enables the firm to strengthen its capacity to absorb shocks, adapt, and sustain performance.

In the context of unstable markets, coupled with the risks posed by natural disasters and political unrest, resilience has become indispensable for many organizations. To swiftly restore operations to their original or even improved state following disruptions, firms must develop resilience as a core organizational competence (Lotfi and Saghiri, 2018). This capability enables the development of both organizational competencies and processual resources that help firms withstand adversity. Resilient organizations are better positioned to survive and thrive within their networks, regain pre-crisis performance levels, and effectively manage crises, an essential aspect of long-term organizational sustainability (Kurtz and Varvakis, 2016).

Resilience refers to an organization's capacity to withstand setbacks, endure stress, and rebound from unfavorable events (Yilmaz et al., 2014). Lotfi and Saghiri (Lotfi and Saghiri, 2018) define resilience as "the organization's adaptive capacity to anticipate unforeseen circumstances, react to disruptions, and bounce back by preserving operations at the ideal degree of connectivity and control over structure and function." This encompasses reactive and proactive elements of resilience, underlining the importance of shock absorption, operational continuity, and adaptability in a changing environment.

Organization Performance

Organizational performance is the achievement of organizational goals (Abubakar et al., 2019). It refers to how well a company runs its operations regarding effectiveness and efficiency (Bai et al., 2022). According to Choudhary (Choudhary et al., 2012), organizational performance measures an organization's progress, which shows how well it achieves its goals. However, rather than measuring only financial performance, which can be a narrow indicator of firm effectiveness (Um and Kim, 2019), several indicators such as market, operation, and innovation (Gunday et al., 2011) are used.

Financial Performance

The highest priority for organizations in achieving superior organizational performance is to have higher financial growth performance (Gupta et al., 2020). As the firms' high financial performance is appealing to investors in investment decisions, managers in economic decisions, and creditors in funding decisions, profits are the primary goal of every business, as is shareholder wealth maximization (Bărbuță-Mișu et al., 2019). The importance of financial literacy for financial inclusion contributed to growth and stability (Fahmy and Ghoneim, 2023). It can enhance the firms' efficiency by equipping managers with the knowledge needed for better financial decisions.

Market Performance

Businesses prioritize market performance and operational efficiencies to increase profitability (Gupta et al., 2020). Achieving superior and sustainable market performance depends on quality management practices such as just-in-time and lean manufacturing, promoting a strong brand image. These techniques assist in decreasing waste, increasing product quality, and promoting customer satisfaction, all of which are critical for sustaining a competitive advantage in the marketplace (Morgan and Liker, 2020).

Operational Performance

Operational performance concerns how the firm's operations work to achieve better results while providing services or goods. When the actual value of performance exceeds expectations, the firm's setup is operationally efficient (Gupta et al., 2020). Good supply chain management also allows for identifying and mitigating potential risk factors in the supply chain and operations, as well as reducing errors and rework, resulting in higher efficiency and improved operational performance (Flynn et al., 2010).

Innovative Performance

Innovative performance can be considered the effective application and generation of value from

innovation-generated ideas. It measures a company's success in terms of how many inventions it brings to market, such as how frequently it introduces new goods, devices, or process systems (Hagedoorn and Cloodt, 2003).

Theoretical Framework and Hypothesis Development

The Resource-Based View (RBV) suggests a firm's competitive advantage is derived from its unique resources and capabilities (Barney, 1991). Agility and resilience are crucial for adapting to environmental changes and maintaining this advantage. The Dynamic Capability Theory expands on this, focusing on a firm's ability to integrate and reconfigure its internal and external competencies in response to rapidly changing business environments (Teece et al., 2007).

Agility and Organizational Performance

The organizational benefits of implementing agile strategies are widely recognized in the literature. Strong operational agility equips firms to respond promptly to evolving customer demands by enhancing operational flexibility, reducing costs, and improving customer retention (Mikalef and Pateli, 2017). Moreover, agile organizations possess a broad spectrum of market-response options that can be leveraged to realize various business benefits (Felipe et al., 2020). Agility enables firms to execute business operations efficiently, foster innovation, minimize costs, eliminate inefficiencies, and respond rapidly to market demands (Rafi et al., 2022). For instance, customer agility allows organizations to proactively capitalize on customer-driven opportunities by acting creatively and introducing new products, promotions, or services. This, in turn, enhances profitability, strengthens competitive advantage, and improves market positioning (Roberts and Grover, 2012).

In addition, agility enhances an organization’s capacity to stay informed about technological advancements, fostering a mindset among employees that encourages the adoption of such technologies across production, processes, and services, ultimately leading to improved overall business performance (Eshlaghy et al., 2009), (Felipe et al., 2020), (Rafi et al., 2022), and (Hassan, 2016) and the use of artificial intelligence in human decision-making, hybrid concept (Marzouk et al., 2024). Agility also enables firms to execute internal business processes more efficiently, accurately, and cost-effectively (Rafi et al., 2022). Furthermore, prior research has demonstrated that agility positively impacts financial performance by allowing organizations to respond rapidly to market fluctuations and seize emerging opportunities (Worley and Lawler, 2010). Agility fosters innovation, enhancing operational efficiency and market responsiveness (Lu and Ramamurthy, 2011). Despite these findings, gaps remain in the literature, particularly in understanding the precise mechanisms through which agility influences organizational performance in emerging economies, such as Egypt. Building on the reviewed literature, this study hypothesizes that there is a positive relationship between organizational agility and firm performance. Specifically, it proposes that agility is positively associated with financial, innovative, operational, and market performance outcomes:

H1: A firm's agility has a positive impact on its organizational performance.

H1a: A firm's agility has a positive impact on its financial performance.

H1b: A firm's agility has a positive impact on its innovative performance.

H1c: A firm's agility has a positive impact on its operational performance.

H1d: A firm's agility has a positive impact on its market performance.

Resilience and Organizational Performance

Survival in dynamic and turbulent environments depends on an organization’s ability to adapt by employing proactive and reactive strategies (Teixeira and Werther, 2013) and (Bouchra and Hassan, 2023). The management literature suggests that resilience capacity significantly influences and enhances firm performance under both routine and crisis conditions, as it enables individuals, teams, and organizations to navigate and adapt to uncertainty effectively (Beuren et al., 2022) and (Lotfi and Saghiri, 2018). Firms that construct strategic resilience have a likelihood of attaining a competitive advantage over time (Pratono, 2022).

Resilience allows organizations to respond reactively to shifting market demands and external disruptions, even amid intense competition (Beuren et al., 2022). Developing resilience capabilities can enhance product or service quality, enhance customer needs alignment, and increase operational efficiency, eventually translating into superior organizational performance. Empirical studies have shown that resilience has a notable positive effect on firms’ financial outcomes (Ferreira and Saridakis, 2017), (Zahedi et al., 2022), and (Hassan, 2023). Additionally, operational preparedness, considered a proactive element of resilience, has been found to exert a more substantial influence on financial performance than

reactive responses, highlighting the importance of proactive strategies in building organizational resilience (Li et al., 2017).

Building on the reviewed literature, this study hypothesizes that a firm's resilience positively impacts organizational performance:

H2: A firm's resilience has a positive impact on organizational performance.

H2a: A firm's resilience has a positive impact on its financial performance.

H2b: A firm's resilience has a positive impact on its innovative performance.

H2c: A firm's resilience has a positive impact on its operational performance.

H2d: A firm's resilience has a positive impact on its market performance.

Figure *1* represents conceptual framework.

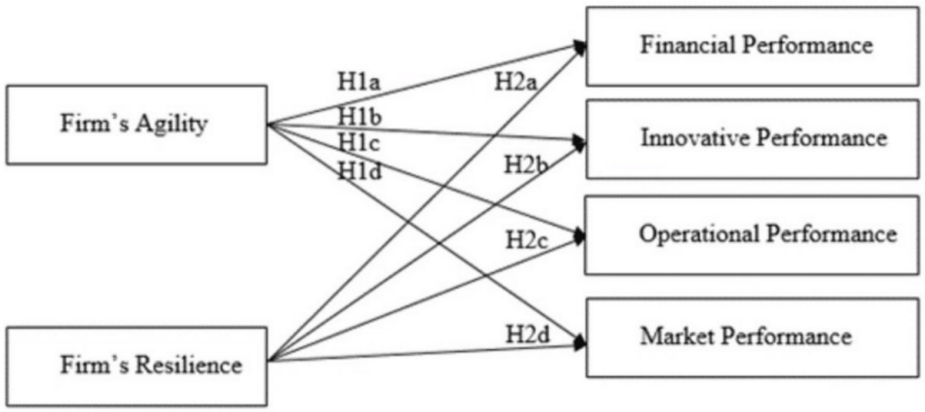

FIGURE 1: Conceptual Framework

Research Method

Data collection and sampling

The present study adopted a quantitative and cross-sectional design to gather primary data from managers in organizations across various industries in Egypt to assess their perspectives on agility, resilience, and performance. Due to the nature of the questions covered in this survey, first-line managers, middle managers, and top-level managers/directors were targeted as they had more reliable and relevant information sources and data. The selection criteria were firms operating across different industries without size or age limitation. The sample design was based on non-probability and purposive sampling techniques. The target size was 80 firms.

The questionnaire was divided into four sections: (see Tables *22*-*25*): section A: demographic characteristics, section B: firm's agility, section C: firm resilience, and finally section D: firm performance. The questionnaire was validated through an expert pre-test based on six in-depth personal interviews with managers before the survey administration. This was an essential step in establishing the validity of the content of the items. While the study used tested scales and constructs to ensure reliability and validity, the pre-tests ensured that the meaning was understood and usable among the target population. The questionnaire was drafted mainly in English, targeting the managers and directors of organizations operating in Egypt across different industries. The survey was sent to participants in various organizations primarily via email, LinkedIn, and professional groups. The survey introduction identified the research objectives; all respondents were assured that the research results would be anonymously presented. The survey added a consent statement for those who volunteered to mark. The respondents were given approximately 1 week to complete the survey adequately and accurately. A reminder was sent after 2 weeks, and another after 4 weeks. As a result, a total of 57 responses were collected. However, seven were excluded as they did not answer the performance section. This step resulted in a total of 50 usable questionnaires. The profile of the respondents and firms are summarized in Table *1*.

Variable	Sample (N = 50)	Percentage
Respondents profile		
Gender		
Male	35	70.0
Female	15	30.0
Age		
20-29	3	6.0
30-39	25	50.0
40-49	17	34.0
50+	5	10.0
Education		
Bachelor	25	50.0
Master	19	38.0
PhD	6	12.0
Work experience		
Less than 7	6	12.0
7-10	7	14.0
11-20	26	52.0
21-30	7	14.0
More than 30	4	8.0
Position		
Manager	19	38.0
Sr. manager	10	20.0
Director	9	18.0
C-level	7	14.0
Owner	5	10.0
Firm age		
Less than 3	5	10.0
3-10	7	14.0
11-20	13	26.0
More than 20	25	50.0
Firm size		
Less than 50	12	24.0
50-500	13	26.0
1001-2500	5	10.0
2501-5000	3	6.0
More than 5000	17	34.0
Firm industry		
Agriculture	1	2.0
Pharmaceuticals	1	2.0

Telecommunications	1	2.0
Tourism	1	2.0
Manufacturing	5	10.0
Digital marketing & ecommerce	1	2.0
Entertainment	1	2.0
Banking	3	6.0
Construction	12	24.0
Education	13	26.0
FMCGs	2	4.0
Health services	3	6.0
Information technology	3	6.0
Oil & gas	3	6.0

TABLE 1: Demographic analysis

Measurement instrument

The firm's agility variable was measured using a scale adapted from Lyn Chan and Muthuveloo (Lyn Chan and Muthuveloo, 2021). One example of the questions asked was "My organization anticipates customers' needs." As for the resilience variable, the scale was adapted from Jia et al. (Jia et al., 2020), with questions such as "Our organization has a strong sense of identity and purpose that can survive anything."

Similarly, four scales were utilized for the organizational performance dependent variable, including financial, innovative, market, and operational factors. The scales used are those adapted by Gunday et al. (Gunday et al., 2011). Most of the measures (questions or statements) took the form of a five-point Likert scale, with 1 indicating very low/not at all, 3 indicating average, and 5 indicating very high/best.

Results

The data gathered were analyzed using the statistical program SPSS 29. Table 2 presents the descriptive analysis. Firm agility has a minimum score of 1.90 and a maximum of 4.8, with a mean of 3.43, indicating that the firms tend to be agile, and the standard deviation is 0.85, meaning that most firms responded close to 3.43. Firm resilience has a minimum score of 1.78 and a maximum of 5, with a mean of 3.46, indicating that the firms tend to be resilient, and the standard deviation is 0.81, meaning that most firms responded close to 3.46. Financial performance has a minimum score of 1.75 and a maximum of 5, with a mean of 3.7, indicating that firms tend to have better financial performance and a standard deviation of 0.7, meaning that most firms responded close to 3.7. Innovation performance has a minimum score of 1.43 and a maximum of 5, with a mean of 3.3, indicating that most firms have better innovation performance and a standard deviation of 0.9, meaning that most firms responded close to 3.3. Operational performance has a minimum of 2 and a maximum of 5, and a mean of 3.5, indicating that most firms are performing better on the operational level. The standard deviation is 0.6, meaning that most of the firms responded close to 3.5. Finally, the market performance has a minimum of 1.67 and a maximum of 5, with a mean of 3.7, indicating that most firms have a better performance level. The standard deviation is 0.8, meaning that most of the firms responded close to 3.7.

Table 2 presents the descriptive analysis to summarize the data points in the dataset.

	N	Minimum	Maximum	Mean	Std. Deviation
Firm agility	50	1.90	4.80	3.4260	.84920
Firm resilience	50	1.78	5.00	3.4622	.80823
Financial performance	50	1.75	5.00	3.7000	.78734
Innovative performance	50	1.43	5.00	3.3429	.91905
Operational performance	50	2.00	5.00	3.5050	.64184
Market performance	50	1.67	5.00	3.6867	.83139

TABLE 2: Descriptive Analysis

Reliability analysis

The reliability analysis examines the scale's internal consistency, ensuring that all its items reliably measure the same underlying attribute (Pallant, 2010). Cronbach's alpha coefficient was employed to evaluate the scale's reliability. Table 3 shows that the reliability test for agility and resilience is .907 and .935, respectively, reflecting an excellent internal consistency. Moreover, the Cronbach's alpha for the financial, innovation, operation, and market performance are .879, .920, .723, and .868, respectively, highlighting a good internal consistency.

Variables	Cronbach's alpha	No. of items
Agility	.907	10
Resilience	.935	9
Financial performance	.879	4
Innovation performance	.920	7
Operation performance	.723	4
Market performance	.868	3

TABLE 3: Reliability Test and Measures

Correlation analysis

The Pearson correlation coefficient was used to examine the strength and direction of the influence of firm agility and resilience on the study's various organizational performance measures (as shown in equations 1 and 2).

Where:

$$r = \frac{\sum(A_i - \bar{A})(P_i - \bar{P})}{\sqrt{\sum(A_i - \bar{A})^2} \cdot \sqrt{\sum(P_i - \bar{P})^2}} \quad \text{.....(1)}$$

A_i = Agility score for firm i.

P_i = Performance score for (financial, innovative, operational, and market performance) for firm i.

$\bar{A}$, P = Means of agility and performance scores.

Where:

$$r = \frac{\sum_{i=1}^{n}(R_i - \overline{R})(P_i - \overline{P})}{\sqrt{\sum_{i=1}^{n}(R_i - \overline{R})^2} \cdot \sqrt{\sum_{i=1}^{n}(P_i - \overline{P})^2}} \quad \text{.....(2)}$$

R_i = Resilience score for firm i.

P_i = Performance score for (financial, innovative, operational, and market performance) for firm i.

$\bar{R}, P$ = Means of Resilience and performance scores.

Table 4 revealed a moderately significant positive correlation between agility and financial performance [r = .479, p = .001]. This suggests that the higher the levels of firm agility, the better its financial performance. Further, the results revealed a strong, significant positive correlation between agility and innovative performance [r = .760, p = .001]. This suggests that high levels of firm agility have increased levels of innovative performance. The results demonstrated a strong, significant positive correlation between firm agility and operational performance [r = .525, p = .001]. This means that high levels of firm agility are linked to high levels of operational performance. Moreover, results showed a strong, significant positive correlation between agility and market performance [r = .529, p = .001]. This indicates that high levels of firm agility are associated with high levels of market performance.

On the other hand, the results of firm resilience on financial performance revealed a strong, significant positive correlation between the two variables [r = .600, p = .001]. This suggests that high levels of firm resilience correlate with high levels of financial performance. It was found that firm resilience and innovative performance have a strong, significant positive correlation [r = .772, p = .001]. This suggests that high levels of firm resilience correlate with high levels of innovative performance. Further, the firm resilience and operational performance relationship showed a significant positive correlation [r = .610, p = .001]. Moreover, the relationship between firm resilience and market performance showed a strong and significant positive correlation [r = .571, p = .001].

	1	2	3	4	5	6
Firm agility	1					
Firm resilience	.824**	1				
Financial performance	.479**	.600**	1			
Innovative performance	.760**	.772**	.609**	1		
Operational performance	.525**	.610**	.558**	.486**	1	
Market performance	.529**	.571**	.755**	.522**	.653**	1

TABLE 4: Correlation Analysis (N = 50)

Regression analysis

Linear regression was used to analyze the impact of independent variables on the dependent variables and to test the research hypotheses. First, to assess how much variance in financial performance is explained by firm agility (see Table 5), the ANOVA Table revealed that the model is significant (p =.001). According to the Model Summary (Table 6), firm agility accounts for 22.9% of the variance in financial performance. The firm's agility variable has a significantly unique impact on financial performance (Beta =.479, p =.001). Hence, H1a is accepted.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.179	.414		5.257	< .001>
Firm agility	.444	.117	.479	3.780	< .001>

a. Dependent variable: financial performance

TABLE 5: Linear Regression Analysis of the Direct Effect of Agility and Financial Performance

Model Summary				
Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
	.479[a]	.229	.213	.69834

a. Predictors: (Constant), firm agility

TABLE 6: Model Summary Agility and Financial Performance

For the variance degree of innovative performance explained by firm agility (see Table *7*), the ANOVA Table results showed that the model is significant (p = .001). Checking the Model Summary in Table *8* revealed that firm agility explains 57.8% of the variance in innovative performance. The firm's agility variable has a significantly unique contribution to innovative performance (Beta = .760, p = .001). Therefore, H1b is accepted.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.523	.358		1.462	.150
Firm agility	.823	.101	.760	8.114	< .001>

a. Dependent variable: innovative performance

TABLE 7: Linear Regression Analysis of the direct effect of Agility and Innovative Performance

Model Summary				
Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
	.760[a]	.578	.570	.60297

a. Predictors: (Constant), firm agility

TABLE 8: Model Summary Agility and Innovative Performance

To assess how much variance in operational performance is explained by firm agility (see Table *9*), the ANOVA Table results showed that the model is significant (p = .001). According to the Model Summary in Table *10*, firm agility accounts for 27.6% of the variance in operational performance. The firm's agility variable makes a significant, unique contribution to operational performance (Beta = .525, p = .001). Hence, H1c is accepted.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.146	.328		6.551	< .001>
Firm agility	.397	.093	.525	4.272	< .001>

a. Dependent variable: operational performance

TABLE 9: Linear Regression Analysis of the Direct Effect of Agility and Operational Performance

Model Summary				
Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
	.525[a]	.276	.260	.55198

a. Predictors: (Constant), firm agility

TABLE 10: Model Summary Agility and Operational Performance

Table *11* shows how much variance in market performance is explained by firm agility. The ANOVA Table results show that the model is significant (p = .001). According to the Model Summary in Table *12*, firm agility accounts for 28.0% of the variance in market performance. The firm's agility variable has a significant unique contribution to market performance (Beta = .529, p = .001). Therefore, H1d is accepted.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.912	.423		4.520	< .001>
Firm agility	.518	.120	.529	4.321	< .001>

a. Dependent variable: market performance

TABLE 11: Linear Regression Analysis of the Direct Effect of Agility and Market Performance

Model Summary				
Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
	.529[a]	.280	.265	.71274

a. Predictors: (Constant), firm agility

TABLE 12: Model Summary Agility and Market Performance

Regarding the resilience and performance variables, and to assess how much variance financial performance explained by firm resilience (see Table *13*), the ANOVA Table results showed that the model is significant (p = .001). Checking the Model Summary, Table *14* showed that 36.0% of the variance in financial performance is explained by firm resilience. The firm resilience variable makes a significant unique contribution to financial performance (Beta = .600, p = .001). Therefore, H2a is accepted.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.676	.400		4.194	< .001>
Firm resilience	.585	.112	.600	5.195	< .001>

a. Dependent variable: financial performance

TABLE 13: Linear Regression Analysis of the Direct Effect of Resilience and Financial Performance

Model Summary				
Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
	.600[a]	.360	.347	.63635

a. Predictors: (Constant), firm resilience

TABLE 14: Model Summary Resilience and Financial Performance

To assess how much variance in innovative performance is explained by firm resilience (see Table *15*), the ANOVA Table results showed that the model is significant (p = .001). The Model Summary in Table *16* revealed that 59.6% of the variance in innovative performance is explained by firm resilience. The firm resilience variable makes a significant unique contribution to innovative performance (Beta = .772, p = .001). Therefore, H2b is accepted.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.304	.371		.821	.416
Firm resilience	.878	.104	.772	8.410	< .001>

a. Dependent variable: innovative performance

TABLE 15: Linear Regression Analysis of the Direct Effect of Resilience and Innovative Performance

Model Summary				
Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
	.772[a]	.596	.587	.59043

a. Predictors: (Constant), firm resilience

TABLE 16: Model Summary Resilience and Innovative Performance

As for operational performance, as shown in Table *17*, and to assess how much variance is explained by firm resilience, the ANOVA Table results showed that the model is significant (p = .001). According to the Model Summary Table, the results showed that 37.2% of the variance in operational performance is explained by firm resilience. The firm resilience variable makes a significant unique contribution to

operational performance (Beta = .610, p = .001), which is shown in Table *18*. Therefore, H2c is accepted..

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.829	.323		5.664	< .001>
Firm resilience	.484	.091	.610	5.328	< .001>

a. Dependent variable: operational performance

TABLE 17: Linear Regression Analysis of the Direct Effect of Resilience and Operational Performance

Model Summary				
Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
	.610[a]	.372	.359	.51407

a. Predictors: (Constant), firm resilience

TABLE 18: Model Summary Resilience and Operational Performance

Lastly, Table *19* presents how much variance market performance is explained by firm resilience, the ANOVA Table results showed that the model is significant (p = .001). According to the Model Summary in Table *20*, results showed that 32.6% of the variance in market performance is explained by firm resilience. The firm resilience variable has a significant unique contribution to market performance (Beta = .571, p = .001). Therefore, H2d is accepted.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.653	.433		3.817	< .001>
Firm resilience	.587	.122	.571	4.817	< .001>

a. Dependent variable: market performance

TABLE 19: Linear Regression Analysis of the Direct Effect of Resilience and Market Performance

Model Summary				
Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
	.571[a]	.326	.312	.68966

a. Predictors: (Constant), firm resilience

TABLE 20: Model Summary Resilience and Market Performance

Discussion

The aim of this study is to examine the impact of a firm's agility and resilience on a firm's performance to

answer the research questions: “Does a firm's agility impact its different types of organizational performance in various industries within emerging economies?” and “Does a firm's resilience impact its different types of organizational performance in various industries within emerging economies?” A systematic data collection and analysis procedure was followed to address this problem. The research findings are depicted in Table *21*.

Hypothesis	Outcome
H1a: A firm's agility has a positive impact on its financial performance.	Supported
H1b: A firm's agility has a positive impact on its innovative performance.	Supported
H1c: A firm's agility has a positive impact on its operational performance.	Supported
H1d: A firm's agility has a positive impact on its market performance.	Supported
H2a: A firm's resilience has a positive impact on its financial performance.	Supported
H2b: A firm's resilience has a positive impact on its innovative performance.	Supported
H2c: A firm's resilience has a positive impact on its operational performance.	Supported
H2d: A firm's resilience has a positive impact on its market performance	Supported

TABLE 21: Summary of Hypothesis

Regression testing for each hypothesis was conducted to better understand the effect of agility and resilience on various aspects of firm performance. Hypothesis H1a was confirmed by the outcomes, indicating a significant positive correlation between financial performance and firm agility. This aligns with existing literature, which emphasizes that agile firms are best positioned to leverage opportunities in emerging markets, being prompt to respond to change, and execute business processes efficiently, contributing to enhanced financial outcomes (Rafi et al., 2022) and (Worley and Lawler, 2010). In emerging markets, where uncertainty is heightened due to regulatory shifts, currency volatility, and fluctuating consumer needs, agility becomes especially vital, particularly in sectors like construction and education, which are sensitive to economic cycles (Felipe et al., 2020) and (Lu and Ramamurthy, 2011).

Hypothesis H1b, concerning innovative performance, was also supported, reinforcing the argument that agility enables firms to adopt new technologies and respond to evolving market demands, thereby fostering innovation (Eshlaghy et al., 2009), (Hassan et al., 2025), (Felipe et al., 2020), and (Rafi et al., 2022). Similarly, H1c was confirmed, indicating that agility improves operational performance by enhancing flexibility, reducing costs, increasing efficiency, and improving customer retention (Holbeche, 2019) and (Mikalef and Pateli, 2017). Lastly, H1d was supported, showing that agile firms are better positioned to respond to market turbulence, seize opportunities, and maintain effective business operations in dynamic environments (Doz and Kosonen, 2010), (Lengnick-Hall and Beck, 2011), and (Worley and Lawler, 2010).

The findings also supported the second set of hypotheses related to organizational resilience. Hypothesis H2a was confirmed, indicating that resilience positively influences financial performance. This aligns with existing literature suggesting that resilient firms maintain financial stability during disruptions, a particularly relevant factor in the Egyptian context, where economic volatility and external shocks are common (Ferreira and Saridakis, 2017), (Lengnick-Hall and Beck, 2005), and (Zahedi et al., 2022).

Hypothesis H2b, concerning innovative performance, was also supported. The results indicate that resilient organizations can sustain innovation programs during turbulence because resilience is a culture of continuous improvement and problem-solving adaptation (Lengnick-Hall et al., 2011). This was confirmed, which stated that resilience ensures high operational performance despite challenging conditions (Beuren et al., 2022) (Lotfi and Saghiri, 2018).

Finally, H2d was supported, confirming that resilient firms are more adept at adjusting to market fluctuations and preserving their competitive position (Lengnick-Hall et al., 2011). The findings reinforce resilience as a critical capability for sustained organizational performance, particularly in turbulent and unpredictable environments. Given that the study was conducted during economic and geopolitical volatility in Egypt, the results further attest to the effectiveness of resilience strategies in sustaining firm stability and long-term performance (Lengnick-Hall and Beck, 2011) (Yilmaz et al., 2014).

Conclusions

Companies today are exposed to constant change and increased volatility in demand, all of which create unexpected challenges to slow down performance. In those difficult dynamic and complex environments, businesses are required to respond quickly and efficiently in an effort to remain current with market share and competitiveness. This study aimed to investigate the effects of firm agility and resilience on different dimensions of organizational performance, including financial, innovative, operational, and market performance.

The results of this study highlight the importance of resilience and agility to leverage and sustain organizational performance. As a result, it is advisable to integrate these competencies into organizational processes to facilitate economic, technological, and environmental developments. However, the research has some limitations that have to be addressed in subsequent research. The use of a non-probability sampling method and a comparably small sample (n = 50) has the risk of compromising the external validity of the results. Future research needs to utilize larger, more diverse samples, examine sector-specific applications, and account for additional contextual factors to derive more specific managerial advice.

Implications for Theory and Practice

The study also provides theoretical and practical implications. The practical implications suggest that managers, particularly those in developing economies, should emphasize the embrace of agile and resilient strategies to enhance the performance of firms as well as maintain a competitive edge. This involves embedding these capabilities into strategic planning processes, ensuring their presence in both day-to-day operations and long-term objectives. Theoretical contributions include providing empirical support for the RBV and Dynamic Capability Theory by demonstrating how agility and resilience positively influence various performance outcomes. This study enriches the existing literature by offering evidence from the underexplored context of emerging markets.

Appendices

Survey

Dear Participant,

We kindly invite you to take part in a research study titled “Enhancing Organizational Performance through Agility and Resilience: A Strategic Capability Perspective.” This study aims to examine the impact of organizational agility and resilience on firm performance.

Your participation is highly valued and will contribute significantly to the advancement of research in this field. The survey is completely anonymous and should take approximately 10-15 minutes to complete. All responses will be treated with strict confidentiality and used solely for academic purposes.

If you have any questions, please get in touch with Associate Professor Rasha Saad Hassan at rasha.saad@guc.edu.eg

Consent Form	Tick the box
I confirm that I have read and understand the participant information regarding this research.	
I understand that my participation in this study is voluntary and that I am free to withdraw at any time, without giving any reason and without penalty.	
I agree that my non-identifiable research data may be stored in the Archives and be used anonymously.	
I am assured that the confidentiality of my data will be upheld through the removal of any personal identifiers.	
I agree to take part in this study.	

TABLE 22: Consent Form

Section A: Demographics	

1.What is your position in your company?
Employee
Manager
Senior Manager
Director
C-level Executive
Other: _____
2.Which industry does your organization belong to?
Agriculture
Banking
Construction
Education
FMCGs
Food & Beverage
Health Services
Information Technology
Oil & Gas
Pharmaceuticals
Telecommunications
Tourism
Transportation
Other: _____
3. Kindly choose how many years your organization has been operating:
Less than 3 years
From 3 to 10 years
From 11 to 20 years
More than 20 years
4. Please select the number of employees in your company:
Less than 50
50-500
501-1000
1001-2500
5. Please select your gender:
Male
Female
6. Please select your age range:
20-29
30-39
40-49
50 and above

7. Please select your education level:
Bachelor's Degree
Master's Degree
Ph.D.
Other: _____
8. Please select how many years of work experience you do have:
Less than 7 years
From 7 to 10 years
From 11 to 20 years
From 21 to 30 years

TABLE 23: Demographics

Section B

Kindly select to what extent you strongly agree/strongly disagree with the following statements regarding your organization.

	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
My organization continuously anticipates customers' needs.					
My organization analyzes market information.					
My organization quickly responds to customers' needs.					
My organization quickly detects changes needed in existing internal processes.					
My organization believes in making quick strategic decisions.					
My organization can make decisions without HQ approval.					
My organization allows every level of managers to make decisions					
My organization quickly implements needed changes.					
My organization quickly allocates sufficient resources.					
My organization is willing to change to adapt to the dynamic business environment.					
My organization created internal awareness for disruptions and made attempts to drive this awareness to our employees.					
My organization analyzed and assessed both probability and impact of potential disruptions.					
My organization improved our disruption prevention capabilities.					
My organization engaged in contingency planning to prepare for potential disruptions.					
My organization can quickly recognize that there is a threatening situation.					
My organization can gather and interpret information of cues to gauge the magnitude, location, and causes of the disruption.					
My organization can quickly identify, formulate, and evaluate a set of possible responses to disruption.					
My organization can quickly organize a formal response team of key personnel, both on-site and at corporate level.					
My organization is very successful at dealing with crises, including addressing public relations issues.					

TABLE 24: Section B

Section C

How would you rate the level of achievement of the following items in your organization in the last three years, compared to the previous years? (scale ranges from "very unsuccessful" to "very successful").

	Very Unsuccessful	Unsuccessful	Similar	Successful	Very Successful
Return on assets (profit/ total assets)					
General profitability of the firm					
Return on sales (profit/total sales)					
Cash flow excluding investments					
Ability to introduce new products and services to the market before competitors					
Percentage of new products in the existing product portfolio					
Number of new product and service projects					
Innovations introduced for work processes and methods					
Quality of new products and services introduced					
Number of innovations under intellectual property protection					
Renewing the administrative system and the mindset in line with firm's environment					
Conformance quality					
Production cost					
Production (volume) flexibility					
Production and delivery speed					
Customer satisfaction					
Market share					

TABLE 25: Section C

Thanks

Additional Information

Author Contributions

All authors have reviewed the final version to be published and agreed to be accountable for all aspects of the work.

Concept and design: Rasha S. Hassan, Mohamed K. Haddad

Acquisition, analysis, or interpretation of data: Rasha S. Hassan, Mohamed K. Haddad

Drafting of the manuscript: Rasha S. Hassan, Mohamed K. Haddad

Critical review of the manuscript for important intellectual content: Rasha S. Hassan, Mohamed K. Haddad

Supervision: Rasha S. Hassan

Disclosures

Human subjects: Consent was obtained or waived by all participants in this study. Faculty of Management Technology Research committee at the German University in Cairo issued approval . The questionnaire and methodology for this study were approved by the Faculty of Management Technology Research committee at the German University in Cairo (Date: February 2025). We obtained informed consent from the participants by enclosing a confirmation question for the consent statement in the research questionnaire. **Animal subjects:** All authors have confirmed that this study did not involve

animal subjects or tissue. **Conflicts of interest:** In compliance with the ICMJE uniform disclosure form, all authors declare the following: **Payment/services info:** All authors have declared that no financial support was received from any organization for the submitted work. **Financial relationships:** All authors have declared that they have no financial relationships at present or within the previous three years with any organizations that might have an interest in the submitted work. **Other relationships:** All authors have declared that there are no other relationships or activities that could appear to have influenced the submitted work.

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