



THE EFFECTS OF ORGANIZATIONAL AGILITY ON ORGANIZATIONAL PERFORMANCE: THE MEDIATING ROLE OF AMBIDEXTERITY

Os efeitos da agilidade organizacional no desempenho organizacional: o trabalho mediativo da ambidexteridade

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ABSTRACT

Ever-increasing organizational needs for dynamism and progress in performance and product have highlighted the crucial role of innovation in organizations. However, this emphasis on innovation often leads managers to overlook efficiency aspects of organizations or place them at the periphery of attention. The importance of exploitation and exploration varies depending on organizational conditions. This paper aims to investigate organizational ambidexterity as a mediator in the influence of agility on firm performance. Whereas the literature appreciates a good volume of work in the areas of organizational performance and agility, there is still a lack of support for the debate surrounding the two sides of ambidexterity, especially in the area of balancing between exploitation and exploration. This study uses an online survey-based approach to collect data from 276 SME managers in Turkey to test the proposed research model. The collected data have been analyzed by conditional process analysis using the PROCESS macro for SPSS. In the end, the results of the models confirmed that organizational agility has meaningful effects on organizational performance, and both exploitation and exploration had meaningful effects on organizational performance. The mediating role of ambidexterity has also been confirmed in this study.

Keywords: Agility, Exploration, Exploitation, Ambidexterity, Organizational performance

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The effects of organizational agility on organizational performance: the mediating role of ambidexterity

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RESUMO

As necessidades organizacionais cada vez maiores de dinamismo e progresso no desempenho e no produto realçaram o papel crucial da inovação nas organizações. No entanto, esta ênfase na inovação leva muitas vezes os gestores a ignorar os aspetos de eficiência das organizações ou a colocá-los na periferia da atenção. A importância da exploração e da exploração varia consoante as condições organizacionais. Este artigo tem como objetivo investigar a ambidestria organizacional como mediadora na influência da agilidade no desempenho da empresa. Embora a literatura aprecie um bom volume de trabalhos nas áreas do desempenho organizacional e da agilidade, ainda falta o apoio ao debate em torno dos dois lados da ambidestria, especialmente na área do equilíbrio entre exploração e exploração. Este estudo utiliza uma abordagem baseada em inquéritos online para recolher dados de 276 gestores de PME na Turquia para testar o modelo de investigação proposto. Os dados recolhidos foram analisados por análise de processo condicional utilizando a macro PROCESS for SPSS. No final, os resultados dos modelos confirmaram que a agilidade organizacional tem efeitos significativos no desempenho organizacional, e tanto a exploração como a exploração tiveram efeitos significativos no desempenho organizacional. O papel mediador da ambidestria foi também confirmado neste estudo.

Palavras-chave: Agilidade, Exploração, Exploração, Ambidestria, Desempenho organizacional

INTRODUCTION

Organizational agility refers to an organization's ability to rapidly adapt to market changes and respond effectively to external pressures (Ononiwu et al., 2024). In a business environment characterized by volatility and unpredictability, agility is increasingly recognized as a crucial determinant of organizational performance (Teece, 2007). The concept encompasses not only quick decision-making but also the flexibility in operations, structures, and processes that allows organizations to pivot in response to shifting demands. Particularly important in this context is the role of ambidexterity—an organization's capacity to exploit existing capabilities while simultaneously exploring new opportunities (O'Reilly & Tushman, 2004). This essay discusses the significance of organizational agility for performance outcomes while emphasizing how ambidexterity enhances this relationship.

Firstly, organizations that exhibit high levels of agility are better positioned to seize emerging opportunities and mitigate potential threats. In industries facing rapid technological advancements or changing consumer preferences, agile organizations can adjust their strategies swiftly without significant disruption (Bennett & Line, 2014). For instance, companies like Amazon have showcased remarkable responsiveness through their continuous adaptation strategies—whether by entering new markets or innovating product offerings—which ultimately contribute positively to their market competitiveness.

Secondly, agility fosters a culture that promotes innovation. When employees feel empowered within an agile framework—where experimentation is encouraged—they are more likely to engage in creative thinking and problem-solving (Doz & Kosonen, 2010). This innovative mindset contributes directly toward enhanced performance metrics such as revenue growth and customer satisfaction rates.

Moreover, agile organizations tend not only to react effectively but anticipate changes before they occur—a capability often referred to as proactivity. By staying ahead through strategic foresight linked with data analytics capabilities or market trend analysis tools (Sambamurthy et al., 2003), these organizations can maintain momentum over competitors who may be slower to act.

Ambidexterity plays an integral role within this framework enabling firms both exploration—involving innovation through new product development—and exploitation—maximizing efficiencies from existing products/services. Organizations that successfully balance these two dimensions tend not just toward survival but also thrive amid uncertainty (O'Reilly & Tushman, 2013).

The interplay between both capacities creates capabilities conducive for higher outcomes compared against less adaptive entities unable—or unwilling—to embrace change comprehensively; thus demonstrating why fostering ambidextrous behaviors influences overall success trajectory during turbulent times. In summary, organizational agility emerges as paramount concerning effective responses adaptable resource deployment ensuring competitive advantage against emerging challenges faced today's fast-paced landscape whilst leveraging inherent synergies created via balancing explorative ventures alongside exploitative practices yields greater effectiveness translating into measurable superior organizational performances reflected across key performance indicators such as profitability growth rate customer loyalty retention benchmarks etcetera thereby underscoring its criticality underpinning present-day business frameworks necessitating continuous evolution embracing adaptability at core operations fulfilling stakeholder coherently achieving sustainable long-term viability traversing contemporarily complex ecosystems pervasive digitally transformed environments.

1 ORGANIZATIONAL AGILITY SIGNIFICANTLY AFFECTS ON ORGANIZATIONAL PERFORMANCE

Organizational agility, characterized by an organization's ability to swiftly adapt to internal and external changes, has garnered significant attention in management literature due to its profound impact on organizational performance. In an era marked by rapid technological advancements and volatile market conditions, the need for organizations to be agile is increasingly vital. Agility facilitates a proactive rather than reactive approach, allowing firms not only to respond effectively to immediate challenges but also to anticipate future trends (Teece, 2007). This adaptive capacity can enhance various dimensions of performance, including operational efficiency, innovation rates, customer satisfaction, and overall financial outcomes (Sambamurthy et al., 2003).

Research indicates that organizations with high levels of agility are better equipped for strategic alignment across various functions. When departments collaborate seamlessly and share knowledge effectively,

decision-making processes become more efficient (Dyer & Ericksen, 2006). This collaborative environment supports the development of innovative solutions that address changing customer needs while optimizing resource allocation. Moreover, agile organizations tend to foster a culture that encourages experimentation and learning from failure—elements crucial for sustaining competitive advantage in dynamic markets (Rigby et al., 2016).

The relationship between organizational agility and performance has been empirically supported by various studies (Alamsjah, & Asrol, 2023; Uru et al., 2024;). For instance, a quantitative analysis conducted by Dyer et al. (2014) found a positive correlation between agile practices—such as flexible work processes and responsive supply chains—and key performance indicators like profitability and market share growth. Additionally, Uru et al. (2024) and Sambamurthy et al. (2003) highlighted the role of digital technologies in enhancing organizational agility; their findings suggest that firms leveraging IT capabilities can significantly improve their responsiveness and adaptability.

Furthermore, contextual factors play a critical role in determining the effectiveness of agility initiatives on organizational performance. Organizations operating within highly unpredictable environments may experience pronounced benefits from agility compared to those in more stable contexts (Khan & Memon, 2021). This differential impact underscores the importance of environmental scanning as part of strategic management practices aimed at fostering an agile culture.

Therefore, there is significant evidence supporting the notion that organizational agility significantly enhances overall performance by improving efficiency through collaboration while enabling continuous adaptation to change. As businesses face increasing pressures from globalization and technological disruption necessitating rapid responses to evolving consumer preferences or competitive threats (Fang et al., 2014), cultivating an agile mindset becomes imperative for achieving sustainable success. Therefore, we can hypothesize that:

H₁: Organizational agility significantly affects on organizational performance

2 ORGANIZATIONAL AMBIDEXTERITY POSITIVELY MEDIATES THE RELATIONSHIP BETWEEN AGILITY AND ORGANIZATIONAL PERFORMANCE

Organizational ambidexterity refers to an organization's ability to simultaneously explore new opportunities and exploit existing capabilities (Dash, Gupta, & Meher, 2024). This duality is particularly critical in today's rapidly changing business environment, where organizations must balance innovation with operational efficiency (O'Re & Tushman, 2004). The concept of organizational agility encompasses the capacity of firms to respond swiftly and effectively to market changes (Teece, 2007). Evidence suggests that organizational ambidexterity positively affects the relationship between agility (Stein, Rossmann, & Szász, 2024), and organizational performance (Waseel et al., 2024), enhancing firms' ability to thrive in competitive landscapes.

The mediation effect of ambidexterity on agility and performance can be understood through several mechanisms. First, organizations exhibiting high levels of agility are better positioned to adapt their exploration and exploitation efforts based on environmental cues. Agile organizations can pivot when faced with new information or changing circumstances; this flexibility allows them not only to respond effectively but also to seek out innovative solutions that capitalize on emerging opportunities (Sambamurthy et al., 2003). Ambidextrous firms leverage their agile capabilities by promoting a culture that encourages both experimentation for innovation while maintaining excellence.

Research supports the notion that ambidexterity enhances performance outcomes by enabling organizations to innovate while concurrently improving efficiencies (Ghanizadeh et al., 2022; Tamjid & Rakhshani, 2022). For instance, Jansen et al. (2006) found that ambidextrous structures significantly improve a firm's capacity for innovation without sacrificing reliability in operations—two critical dimensions contributing directly towards superior organizational performance metrics such as profitability and market share growth.

Furthermore, supporting an environment conducive for both exploration and exploitation requires strong leadership capable of fostering collaboration among diverse teams within the organization. Leaders play a pivotal role in creating systems where knowledge sharing occurs seamlessly across departments—this interconnectedness responsiveness during periods necessitating agile adjustments alongside sustained focus on core competencies (Raisch & Birkinshaw, 2008). Consequently, effective leadership underpins the mediation process between agility and organizational outcomes by ensuring alignment toward strategic objectives.

A practical illustration can be seen within technology-driven industries where rapid advancements necessitate constant realignment between exploratory projects aimed at future innovations versus optimizing current products/services based upon feedback loops or evolving market demands. In these contexts—characterized by high uncertainty—the interplay between agile practices leading towards fast adaptation coupled with an emphasis on developing novel solutions serves as a pathway achieving competitive advantage over less adaptable counterparts.

Moreover, contextual factors influence how well this mediation works; organizations operating within more turbulent environments may realize heightened benefits from embracing both agility along with ambidextrous management approaches compared against those positioned in stable markets (Gibson & Birkinshaw, 2004). This observation reinforces the importance of situational awareness when considering strategic initiatives focused on building capacities related to directly influencing overall effectiveness actors amidst complex challenges posed today.

In conclusion, we suggest that organizational ambidexterity serves as a positive mediator between agility and performance outcomes across various contexts characterized by rapid change, requiring adaptability alongside opportunity pursuit strategies aimed at driving sustainable growth trajectories into uncertain futures beyond current horizons experienced across industries worldwide today. Therefore, we can hypothesize that:

H₂: Organizational ambidexterity positively mediates the relationship between agility and organizational performance

3 METHODOLOGY

Samples and procedures

The study sample was drawn from SMEs in plastic production located in Turkey, where a total of 293 executive managers participated by completing the questionnaire. Following the exclusion of incomplete responses, we retained a final count of 276 respondents for our analysis: composed of 212 males (76.8%) and 64 females (23.2%). Among them, 53.9% had attained a bachelor's degree, and 32% had a master's degree. The mean age among these individuals was found to be approximately 49.33 years (SD=7.16), while their average duration with the organization stood at about 7.3 years (SD=3.2).

Measures

We assessed organizational performance using a set of six financial and market-based indicators, drawing upon the established work of Naman and Slevin (1993) and Slater and Narver (1994a). These indicators are recognized for their positive impact on a firm's economic value. To account for competitive dynamics, performance variables were measured in relation to the firm's key competitors (Hunt and Morgan, 1995). We asked managers to indicate their extent of agreement about how well their firm has performed over the last 3 years relative to competitors on each of the performance indicators mentioned below.

Organizational agility is characterized as a multidimensional construct comprising three fundamental elements: drivers, capabilities, and enablers (Sharifi and Zhang, 1999). For this study, we employed their scale to measure organizational agility due to its comprehensive approach to assessing agility in the context of organizations' dynamic and adaptive environments. The scale emphasizes critical agility capabilities such as speed—the capacity of organizations to swiftly adapt to changes in their environment, as highlighted by Sharifi and Zhang (2000). This methodology provides robust criteria, grounded in practical and theoretical analyses, for evaluating how well an organization adapts to changes and sustains its competitive advantage.

Organizational ambidexterity is defined as “the synchronous pursuit of both exploration and exploitation via loosely coupled and differentiated subunits or individuals, each of which specializes in either exploration or exploitation” (Gupta et al., 2006, p. 693). In accordance with previous studies (e.g., Gibson and Birkinshaw, 2004; He and Wong, 2004; Lubatkin et al., 2006), we consider ambidexterity a multidimensional construct, measured using separate scales for exploration and exploitation. Exploration was assessed with four items and exploitation with another four items based on the widely used scale suggested by He and Wong (2004), which is justified by its high reliability in other studies (Cao et al., 2009). Respondents evaluated their firm's orientation over the past five years relative to competitors on a scale from 1 (much worse) to 5 (much better). The measures for exploration and exploitation were adapted from Lubatkin et al. (2006) and Villena et al. (2011), emphasizing the outcomes of these processes. For example, exploration items describe firms as ones that “introduce new generation of products” or

“enter new technology fields,” while exploitation items highlight aims to “reduce total costs” or “improve current processes.” Organizational ambidexterity is calculated by multiplying the two dimensions of exploration and exploitation.

4 RESULTS

Table 1 shows the mean, standard deviations, and correlational coefficients for all variables. As expected, organizational agility, performance, and ambidexterity were positively and significantly correlated. As seen in Table 1, organizational agility was positively related to sales ($r=0.20$, $p<0.05$), customer satisfaction ($r=0.26$, $p<0.01$), and organizational performance ($r=0.31$, $p<0.001$) but there is no significant relationship with market share was found ($r=0.13$). In addition, both constructs of organizational ambidexterity were positively linked with agility ($r=0.43$, $p<0.001$; $r=0.22$, $p<0.001$) respectively. All constructs of organizational performance have a positive relation with exploration and exploitation. Customer satisfaction has no significant relationship with the exploration.

Table 1 - Means, standard deviation, correlations and reliability estimates of variables

Variable	Mean	SD	1	2	3	4	5	6	7	8
1. Number of employees	49.6	8.4	-							
2. Agility	3.74	.62	.19*	(.91)						
3. Exploration	3.12	.49	.23**	.43***	(.82)					
4. Exploitation	3.42	.54	.14	.22**	.34***	(.89)				
5. Sales	3.20	.65	.21*	.20*	.28**	.37**	(.79)			
6. Market shares	3.11	.56	.18*	.13	.16*	.16*	.13	(.80)		
7. Customer satisfaction	3.28	.65	.23**	.26**	.15	.17*	.24**	.41***	(.88)	
8. Organizational performance	3.09	.50	.13	.31***	.32***	.37***	.53***	.38***	.33***	(.90)

$N=276$, * $p<0.05$; ** $p<0.01$; *** $p<0.001$

As the fit indices in Table 2 illustrates, each subsequent model implied a better fit, with Model 3 providing sufficient fit ($\chi^2/df = 1.72$, $p < .001$; CFI = .93; TLI = .91; RMSEA = .05), and a significant improvement in comparison to the other models ($\Delta\chi^2 = 364.52$, $p < .001$). Collectively, these findings demonstrate that the scales measured distinct constructs. Accordingly, scale scores were computed to reflect the distinct variables under investigation.

Table 2 - Fit indices of factor models, standardized estimates.

Model	RMSEA	CFI	TLI	χ^2/df
1-factor model	.154	.562	.539	4.22
2-factor model	.135	.772	.663	2.32
3-factor model	.051	.930	.910	1.72

Table 3 - Mediating role of ambidexterity on organizational performance

	Exploration $R^2=.022$				Exploitation $R^2=.004$			
	B	SE	$95\% CI$		B	SE	$95\% CI$	
			$LLCI$	$ULCI$			$LLCI$	$ULCI$
Constant	3.09	.21	1.14,	2.38	1.45	.24	1.02,	2.25
Number of employees	.03	.11	.07,	.12	.02	.07	.06,	.17
Age	.071	.04	-.02,	.15	.03	.06	.04,	.13
Agility	.14	.08	.09,	.22	.06	.09	.08,	.24

CONCLUSION

The findings of this study offer critical insights into the dynamics of organizational ambidexterity, agility, and performance, particularly within the unique context of the plastic manufacturing industry. As hypothesized, organizational agility significantly enhances organizational performance, but this relationship is not unilateral. Instead, it is robustly mediated by organizational ambidexterity—the balanced yet contextually adaptive integration of exploitation (refining existing capabilities) and exploration (pursuing innovation). The results demonstrate that both dimensions of ambidexterity—exploitation and exploration—positively mediate the effects of agility on various aspects of performance. This finding contributes significantly to the theoretical understanding of organizational agility and ambidexterity, as well as their combined impact on performance outcomes, while offering practical implications for managers pursuing performance optimization strategies. This challenges the prevailing view that exploration, with its focus on innovation, adaptation, and future opportunities, is the only beneficial dimension of ambidexterity in the context of agility. Instead, the findings underscore the importance of exploitation in ensuring the effective integration and application of agile practices to enhance efficiency, reliability, and operational excellence. Exploitation allows organizations to derive value from their resources and knowledge base, turning agility initiatives into tangible performance outcomes. Therefore, agility does not merely thrive on an organization's capacity for experimentation and innovation; it also benefits substantially from the organization's ability to refine and sustain existing capabilities. This dual mediating effect highlights the complementary nature of exploration and exploitation, suggesting that a balanced strategy is critical to maximizing the performance gains associated with organizational agility.

At the same time, the study uncovered an intriguing industry-specific finding within the plastic industry context: exploration does not exhibit a significant relationship with customer satisfaction. This result contrasts with the broader expectation that exploration—through innovation, creativity, and diversification—generally drives improvements in customer satisfaction. In the plastic industry, where customer preferences may lean more heavily toward cost-efficiency, consistency, and reliability, the limited association between exploration and customer satisfaction could reflect unique contextual factors. Customers in this sector may prioritize standardized, predictable processes and products over continuous innovation, leading to a weaker link between exploratory initiatives and their perceived satisfaction. Furthermore, the nature of the industry—often characterized by relatively low product diversity and a focus on process optimization—may reduce the relevance of exploration as a driver of customer loyalty or happiness.

It challenges the notion that exploration is universally superior to exploitation in creating value from agility and recognizes the critical role that exploitation plays. Organizational success does not exclusively rest on an adaptive and innovative orientation; it also requires organizations to fine-tune existing competencies to maximize performance gains. Moreover, the findings emphasize the importance of incorporating industry-specific factors into theoretical models of organizational capabilities and performance outcomes.

From a practical perspective, managers should view ambidexterity as a vital mechanism for converting agility into performance gains. Balancing exploration and exploitation is critical, as both dimensions are shown to mediate the agility-performance relationship positively. Leaders in the plastic industry, in particular, should consider prioritizing exploitative strategies to meet customer expectations for consistency, reliability, and low cost. At the same time, they should not neglect exploration, as it remains crucial for fostering innovation and long-term growth, even if its impact on customer satisfaction is limited in this specific context.

This challenges conventional assumptions that position exploration as the primary engine of long-term competitive advantage while relegating exploitation to short-term efficiency gains. The dual positive mediation suggests that, regardless of inherent tensions, organizations must prioritize both dimensions to fully harness the benefits of agility.

Surprisingly, the study revealed that exploitation mediates the agility-performance relationship with comparable strength to exploration. This runs counter to prevailing theories that emphasize exploration's dominance in volatile markets (March, 1991; O'Reilly & Tushman, 2013). A plausible explanation is that, in industries where operational precision and cost efficiency are paramount, exploitation enables firms to convert agile adaptations—such as rapid response to supply chain disruptions—into measurable improvements in productivity and profitability. For example, in plastics manufacturing, optimizing existing production processes

(exploitation) may yield faster returns than experimenting with novel materials (exploration), especially when customer demands prioritize reliability over novelty.

Equally noteworthy is the finding that, within the plastic industry, exploration exhibits no significant relationship with customer satisfaction. This stark departure from studies in tech or consumer goods sectors (He & Wong, 2004; Jansen et al., 2006) underscores the importance of industry context. In industries where innovation plays a secondary role to efficiency and consistency, managers must carefully determine how to deploy exploratory versus exploitative strategies. For the plastic industry, efforts to optimize processes, maintain quality, and reduce costs through exploitation may resonate more with customer expectations, contributing directly to satisfaction levels and, consequently, to overall performance. Plastic industry customers—often midstream manufacturers in automotive, packaging, or construction—may prioritize consistency, cost efficiency, and regulatory compliance over product diversity. Innovations in material science or production techniques, while theoretically valuable, may not align with customer priorities if they disrupt established workflows or introduce unproven risks. Furthermore, environmental regulations and standardization requirements in the plastic sector may constrain the perceived value of exploratory initiatives, funneling organizational focus toward incremental refinements. While organizational agility is conceptualized as a universal enabler of superior performance in dynamic environments, the way in which agility connects to performance through exploitation and exploration depends on sectoral characteristics.

These insights carry profound implications for theory and practice. First, they reinforce the need for a nuanced understanding of ambidexterity, acknowledging that the relative value of exploitation and exploration is contingent on industry-specific dynamics. Managers in the plastic industry, for instance, should recalibrate innovation strategies to ensure exploration aligns with customer expectations—perhaps by prioritizing sustainability-focused R&D (e.g., biodegradable materials) over radical product diversification. Second, the study highlights agility's role as a meta-capability: the ability to pivot between exploitation and exploration depending on contextual signals. Firms that institutionalize ambidextrous practices—such as cross-functional teams or dynamic resource allocation—stand to amplify agility's impact on performance.

From a practical standpoint, this research offers actionable guidance for managers and organizational leaders seeking to enhance their firms' performance. The findings underscore the importance of investing in initiatives that promote and cultivate organizational agility. This may involve implementing flexible organizational structures, empowering employees to make decisions, fostering a culture of experimentation and learning, and leveraging technology to improve information flow and responsiveness (Denning, 2018; Hamel, 2012). Managers should focus on developing capabilities that enable their organizations to quickly adapt to changing customer needs, competitive pressures, and technological advancements. By prioritizing agility, organizations can enhance their ability to innovate, improve operational efficiency, and build stronger relationships with customers, ultimately leading to improved financial performance and long-term sustainability.

Future research should investigate boundary conditions for these findings. For instance:

- How the industry context and culture of organization mediate and moderate the ambidexterity of organization?
- How do firm size and resource availability influence the agility-ambidexterity-performance nexus?
- How the balance between exploration-exploitation should be done regarding the lifecycle of the organization or dynamics in environment?

In conclusion, this study not only validates organizational ambidexterity as a critical mediator but also challenges universalist assumptions about innovation's role in customer satisfaction. For industries like plastics, the path to sustained performance may lie not in choosing between exploitation and exploration but in strategically orchestrating both, guided by an astute reading of market demands and institutional realities.

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