



Organizational ambidexterity: a strategy for innovation and performance in start-ups (Literature review)

Ambidextrie organisationnelle : une stratégie d'innovation et de performance pour les startups (revue de littérature)

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Abstract: This article explores the concept of organizational ambidexterity, which involves balancing exploitation and exploration to enhance competitiveness and innovation, particularly in startups facing limited resources and an uncertain environment, a methodological approach based on a critical literature review identifies the different types of ambidexterity (structural, contextual, and network) and their impacts, the results highlight practical strategies and managerial implications for adopting and optimizing this duality in various contexts.

Key words: organizational ambidexterity; exploitation and exploration; innovation strategy; start-ups; managerial practices

Résumé : Cet article explore le concept d'ambidextrie organisationnelle, qui consiste à équilibrer exploitation et exploration pour renforcer la compétitivité et l'innovation, notamment dans les startups confrontées à des ressources limitées et un environnement incertain, une approche méthodologique basée sur une revue critique de la littérature identifie les typologies d'ambidextrie (structurelle, contextuelle et de réseau) et leurs impacts, les résultats mettent en lumière des stratégies pratiques et des implications managériales pour adopter et optimiser cette dualité dans des contextes variés.

Mots clés : ambidextrie organisationnelle ; exploitation et exploration ; stratégie d'innovation ; startups ; pratiques managériales



General introduction:

In an ever-changing economic context, marked by disruptive innovation and increased competition, companies - and start-ups in particular - face a major strategic challenge: to reconcile the optimal exploitation of their existing resources with the exploration of new opportunities, this dual imperative, at the heart of the concept of organizational ambidexterity, represents an essential lever for combining performance and innovation. Introduced by Duncan in 1976, this concept has evolved to become a central pillar of management research, highlighting the mechanisms that enable organizations to manage the tensions between these two dimensions, often perceived as contradictory, but in reality complementary. This is particularly critical for start-ups, which are characterized by limited resources, great uncertainty and an ever-changing competitive environment, these young companies must not only effectively exploit their current capabilities to maintain their viability, but also explore innovative avenues to ensure their long-term competitiveness and resilience, this tension raises a key question: how can start-ups integrate organizational ambidexterity as a strategic lever to balance these two imperatives ? To answer this question, this article uses a rigorous methodological approach, including a critical review of the academic literature, to analyze the main theoretical and empirical approaches to organizational ambidexterity, the aim is to identify the conceptual underpinnings, examine the implications for organizational performance, and highlight the typologies of ambidexterity - structural, network and contextual - that offer suitable frameworks for managing the tensions between exploitation and exploration. By combining theoretical and practical perspectives, this article offers an integrated vision of the strategies by which organizational ambidexterity can be applied to the specific context of start-ups, the results highlight concrete practices that enable these companies to combine innovation and stability, while taking into account the constraints inherent in their operations, finally, the paper highlights the managerial and strategic implications of organizational ambidexterity for start-ups, and opens up avenues for future research into its application in a variety of environments.

1. Ambidexterity as a key to performance:

Ambidexterity, a key management concept, refers to an organization's ability to simultaneously exploit contradictory skills and practices, this approach fosters innovation and resilience by enabling a company to effectively combine the exploration of new opportunities with the exploitation of its current resources.

1.1.The exploitation/exploration dilemma :

In today's business world, companies face a dual challenge: maximizing the efficiency of their current resources while innovating for the future, with accelerating product life cycles and increasingly fierce competition, this issue has become central to organizational strategy, and academics have not been left behind, exploring this topic for decades, giving rise to the concept of ambidexterity, (Gupta, Smith, and Shalley 2006) define it as an organization's ability to carry out innovation (exploration) and optimization (exploitation) activities simultaneously, based on specialized but interconnected entities or individuals. Organizational ambidexterity, the pivot between exploiting existing resources and exploring new opportunities, is at the heart of academic and professional debates on organizational effectiveness. Indeed, the balance between these two paradigms seems to be a key element of organizational success in an increasingly volatile business environment (Ghemawat and Costa 1993), initially, the management of this dualism was conceptualized as a continuum where one could opt for a temporal alternation between exploitation and exploration, some managers, following this perspective, would thus alternate between an innovation orientation and a value-for-money approach, however, this view has been challenged by the work of (Duncan 1976) who has identified essential structural components to address this dilemma, he argues that the innovation process, from its emergence to its realization, requires two different organizational structures, in the moments of initiation, an organic structure would be preferable, favoring horizontal and flexible communication, especially in the face of uncertainty as mentioned by Burns and Stalker in 1961 cited by (Farjaudon and Soulerot 2011) , however, for the execution phases, (Duncan 1976) suggests a more mechanistic structure, hierarchically organized and with clearly defined roles, optimal under stable conditions. This structural perspective, highlighted by Duncan, plays a crucial role in managing organizational dualism, Duncan suggests that this management may require a distinction, either sequential or simultaneous, at the organizational level, several studies of organizational design have taken this idea further, proposing hybrid models incorporating

elements of both mechanical and organic structures (Brown and Eisenhardt, 1997; Galunic and Eisenhardt, 2001), however, this vision of a continuum has been challenged by other researchers, (Adler, Goldoftas and Levine 1999), for example, believe that exploration and exploitation should be considered as distinct strategies, but managed jointly to maximize efficiency, as an extension of this thinking, (Tushman and Michael 1997) introduced the concept of ambidextrous organization, where separate business units take charge of exploration and exploitation activities respectively, (Benner and Tushman 2003) reinforced this perspective by emphasizing the importance of structural differentiation within organizations. However, the debate on the optimal way to manage the dilemma between exploitation and exploration remains open, the "continuum" approach, although intuitive and widely discussed (Duncan, 1976; March, 1991), has practical limitations, it is based on the idea that an organization can alternate between optimization and innovation according to its strategic priorities, in environments where innovation cycles are increasingly short, this alternation may prove insufficient to meet market demands, conversely, structural dualism (Duncan, 1976; Tushman and O'Reilly, 1996) proposes a clear separation of operating and exploration activities into separate units, which favors increased specialization and optimal resource allocation, however, this separation can lead to organizational silos, limiting communication and synergy between units, and is often costly, particularly for start-ups with limited resources. Despite its contributions, the concept of organizational ambidexterity also attracts criticism, (Duncan's 1976) structural approach, which proposes adapting structures according to phases of innovation, can be rigid in dynamic environments where agility is crucial, furthermore, the dual vision of ambidexterity, based on temporal balance or alternation, is often criticized for failing to take into account the interdependencies between exploration and exploitation, as these two dimensions are often more intricate in reality, the strict separation of units advocated by (Tushman and Michael 1997) can also hinder collaboration between complementary activities, on the other hand, research by (Adler et al. 1999) challenges these rigid distinctions, pointing out that the most successful companies manage to integrate exploration and exploitation in a fluid, contextual way, without rigid structural separation.

1.2.Ambidexterity: mastering the art of duality:

The definition of ambidexterity is the ability of an organization to combine exploratory and exploitative behaviors in a balanced way, exploratory behaviors are aimed at seeking out new opportunities, innovating and experimenting, while exploitative behaviors consist of leveraging

existing knowledge and skills, improving operational efficiency and optimizing processes. ambidexterity thus enables an organization to adapt to change while remaining competitive in the marketplace, ambidexterity is of crucial importance in today's context for a number of reasons: firstly, it enables organizations to remain relevant and competitive in a constantly changing environment, by enabling them to seize new opportunities and develop new markets; secondly, ambidexterity fosters innovation and creativity by encouraging exploration and experimentation; and thirdly, it enables organizations to cope with uncertainty and risk, by giving them the flexibility they need to adapt quickly to change and manage challenges. The origin of the concept of ambidexterity can be traced back to the groundbreaking work of (Duncan 1976) ; however, it wasn't until the 1990s that a more in-depth study of the concept took place, thanks in particular to the academic work of (Tushman and O'Reilly 1996) , According to their academic work, an ambidextrous organization is described as being able to launch innovative products adapted to emerging markets through experimentation and adaptability, while simultaneously excelling in well-established markets by focusing on efficiency and optimization of existing resources and capabilities, in addition (Gupta, Smith, and Shalley 2006) consider that organizational ambidexterity is characterized by the simultaneous pursuit of exploration and exploitation through specialized sub-units or individuals, each entity being specifically dedicated to exploration or exploitation, this approach enables the organization to effectively balance the need for innovation with the use of existing resources, thereby improving its overall performance and competitive advantage in the marketplace, the research conducted by (Tushman and O'Reilly 1996) and the subsequent contributions of researchers such as (Gupta, Smith, and Shalley 2006) have considerably deepened our understanding of ambidexterity and its strategic implications for organizations seeking to thrive in today's dynamic and competitive business environment, by integrating both exploration and exploitation into their organizational structure, companies can better adapt to changing market conditions, seize new opportunities and sustain their success over the long term, the concept of ambidexterity essentially represents a strategic approach that enables organizations to navigate the complexities of the modern business landscape by effectively balancing the need for innovation and efficiency in their operations, many researchers have proposed definitions for these concepts: "Exploitation concerns the effective use of existing knowledge, while exploration involves the generation of new ideas through experimentation, risk-taking and the exploration of uncharted territory" (Simon and Tellier 2018) , (March 1991) conceptualization further differentiates exploration from exploitation by stating that exploration

encompasses research, variation, risk-taking, experimentation, flexibility, discovery and innovation, while exploitation involves refinement, selection, production, efficiency, implementation and execution As noted (Garcias, Dalmaso, and Sardas 2015) , the literature contains no universally clear and accepted definition of ambidexterity, with some researchers approaching these terms from the point of view of knowledge and skills (March 1991) , while others consider the product/market dimension, such as (He and Wong 2004), (Benner and Tushman 2003) prefer to use "technological trajectories" delimit exploration and exploitation, (Garcias, Dalmaso, and Sardas 2015) conclude that, even if definitions are ambiguous, the key lies in the distinction between the familiar and the new, the known and the unknown. Some researchers, however, express doubts about the notion of exploitation (He and Wong 2004) and (Benner and Tushman 2003) proposing that it may encompass elements of learning and innovation, albeit in varied forms, in line with (Farjaudon and Soulerot 2011) , exploitation and exploration are seen as being associated with immediate goals such as optimization, efficiency, competitiveness and current performance, This does not, however, compromise the ability of operational tactics to facilitate learning mechanisms and stimulate long-term innovation, even if this is not their primary objective, generally speaking, ambidexterity is a concept that denotes an organization's ability to harmonize and reconcile two seemingly contradictory strategies: exploring new opportunities and capitalizing on existing knowledge and skills. This ability has become increasingly crucial in the contemporary landscape characterized by rapid transformation and market instability, where companies are faced with the imperative to adapt quickly while preserving their established businesses. Although the concept of organizational ambidexterity is widely hailed for its relevance in competitive environments, certain limitations and criticisms deserve to be highlighted. Firstly, the idea of a harmonious balance between exploration and exploitation may seem simplistic in the face of the complexity of real organizational dynamics. Indeed, some companies may favour one of these dimensions due to specific constraints, such as lack of resources or short-term strategic priorities, moreover, traditional approaches that strictly separate exploration and exploitation activities into distinct organizational structures, as suggested by (Tushman and O'Reilly 1996), run the risk of creating silos and hindering synergy between these activities, furthermore, the conceptualization proposed by (March 1991), while influential, is sometimes criticized for its generality, failing to take sufficient account of the contextual and cultural variations that influence the effectiveness of ambidextrous strategies, finally, the literature tends to underestimate the practical challenges of implementing ambidexterity, including organizational costs, internal

conflicts and the difficulty of maintaining consistent strategic alignment, these criticisms highlight the need for a more nuanced, contextual approach that incorporates the specificities of each organization and the realities of its competitive environment.

1.3.Ambidexterity and performance:

Performance can be significantly enhanced by ambidexterity, which enables greater flexibility and efficiency in tasks, ambidextrous individuals can distribute the workload more evenly between the two hands, moreover, ambidexterity stimulates coordination and mental agility, contributing to better adaptation and innovation in various situations, this table presents a synthesis of the main findings of several studies on the impact of organizational ambidexterity, of exploration and exploitation on corporate performance, the authors of these studies explored various contexts, from start-ups to multinationals, and examined variables such as initial business models, merger and acquisition phases, dynamic marketing capabilities and innovation, they highlight the importance of the balance between exploration and exploitation, as well as the influence of environmental and organizational contexts on corporate effectiveness and performance.

Authors	Key findings
(Balboni et al. 2019)	The authors studied the impact of initial business model, design changes and contextual ambidexterity on start-up growth performance, they found that initial ambidexterity has a detrimental effect on start-up growth, with efficiency becoming more important after the start-up phase.
(Bauer et al. 2018)	The authors conducted a study of the pre- and post-merger and acquisition (M&A) phases, focusing on the influence of past acquisition experiences, exploration and exploitation as mediators of learning concepts on performance, focusing on the influence of past acquisition experience, exploration and exploitation as mediators of learning concepts on performance, they revealed that a good fit between exploration and exploitation improves M&A performance, while ambidextrous post-merger development has a negative impact, they also

	highlighted the benefits of acquisition experience when a pre-merger strategic adjustment is transferred to post-acquisition activities.
(Buccieri, Javalgi, and Cavusgil 2020)	The authors examined the correlations between international entrepreneurial culture, ambidextrous innovation, dynamic marketing capabilities and their influence on performance at different degrees of environmental dynamism, they suggested that ambidextrous innovation has the potential to improve performance, although the extent of its impact on performance depends on dynamic marketing capabilities.
(Bustinza, Vendrell-Herrero, and Gomes 2020)	An examination of how operations and exploration influence the relationship between product and service innovation and business performance has been analyzed in depth, the launch of economically viable product and service development involves leveraging existing organizational resources and skills, followed by an exploration phase aimed at designing technological advances tailored to the precise requirements of the target market, this sequential process underlines the essential role played by both operations and exploration in driving innovation and, ultimately, impacting a company's overall success in the marketplace.
(Cenamor, Parida, and Wincent 2019)	The impact of digital platforms and networks on the financial performance of small and medium-sized enterprises was investigated in depth in this study, focusing on how the capacity of these digital tools influences the success of SMEs, the authors found that digital platform capacity exerted an indirect but positive effect on SME performance, mainly due to the robustness and efficiency of the network it provides. In addition, the study examined the role of operating and exploration orientations in moderating this relationship between digital capacity and financial performance. Interestingly, while exploitation orientations mitigated the positive impact of digital

	platforms, exploration orientations were shown to enhance it, highlighting the nuanced interaction between digital technologies and entrepreneurial strategies in the SME context.
(Gatti, Volpe, and Vagnani 2015)	The authors researched the impact of levels of interdependence and decomposability within industries on the link between exploration, exploitation and sustainable corporate financial performance, where industries have high interdependence and low decomposability, exploration improves performance, conversely, in industries characterized by low interdependence and high decomposability, continued exploitation proves more beneficial for performance.
(Hahn et al. 2016)	A study of the correlation between ambidexterity and social performance, ambidexterity is an essential precursor to social performance, enabling companies to simultaneously pursue contradictory but interconnected instrumental and moral efforts.
(Herhausen 2016)	He explored the impact of ambidextrous combination and equilibrium on company performance, finding that equilibrium ambidexterity leads to a progressive improvement in performance.
(Ho et Lu 2015)	The study of the influence of marketing operations, marketing exploration and their interaction on sales performance.
(Jancenelle 2019)	He investigated the effects of equilibrium-type ambidexterity on company performance in different industrial contexts.
(Junni, Chang, and Sarala 2020)	The authors investigated the ability of venture capital-backed companies to absorb resources, as well as the impact of an innovation-focused corporate culture as key moderating variables in the correlation between ambidexterity and organizational performance.
(Kang and Kim 2020)	A study of the impact on performance of two different temporal strategies for achieving ambidexterity and the limits they imply.
(Lin and Ho 2016)	The study of the links between organizations and their surrounding context, focusing on the intermediary function of

	ambidexterity in the relationship between institutional influences and environmental effectiveness.
(Luger, Raisch, and Schimmer 2018)	The study of changes in the distribution of resources between exploration and exploitation activities, and the analysis of the impact of these changes on an organization's long-term performance.
(Martin, Javalgi, and Cavusgil 2016)	The authors studied the correlation between marketing capabilities, corporate strategy, competitive positioning, ambidextrous innovation and export performance in developing multinational companies.
(Mathias, Mckenny, and Crook 2017)	They examined the effects of various temporal variables on the correlation between ambidexterity and organizational performance, their research revealed that the beneficial impact of ambidexterity on performance is particularly notable in cases of contextual ambidexterity, well-established companies, fixed operational definitions of ambidexterity and immediate performance outcomes.
(Osiyevskyy, Shirokova, and Ritala 2020)	Researchers examined and compared the unique impacts of exploration and exploitation on the degree and fluctuation of corporate performance in times of economic crisis. Their research revealed that while exploration reduces performance, it increases variability, moreover, in times of severe crisis, exploration is associated with improved performance and variability, conversely, exploitation shows no significant relationship with performance, but is linked to increased variability, in times of severe crisis, exploitation leads to lower performance and variability...

Tableau 1: Summary of Recent Empirical Studies on Organizational Ambidexterity and Its Impacts

Various studies indicate that ambidexterity can have a number of effects on company performance, initially in start-ups, adopting an ambidextrous approach can hamper growth in

the early stages; however, it proves advantageous in the post-start-up phase; in M&A, it is essential to strike an appropriate balance between pre- and post-merger exploration and exploitation, in order to improve overall performance; the integration of ambidextrous innovation with dynamic marketing capabilities leads to a significant improvement in performance, particularly in dynamic and ever-changing environments; emphasis is placed on the importance of a well-structured sequence in the innovation process, emphasizing the need to exploit existing capabilities before exploring new solutions for small and medium-sized enterprises (SMEs), digital capabilities and networks play a central role, requiring a harmonious mix of exploitation and exploration strategies, the unique characteristics of different industries, such as levels of interdependence and decomposability, also influence the effectiveness of ambidextrous strategies, in addition, ambidexterity is essential for achieving social performance goals, enabling companies to successfully navigate between conflicting but interconnected objectives, the merging of exploration and exploitation in marketing can yield diverse results, underlining the importance of prudent management practices, in times of economic recession, exploration generally leads to increased variability in performance, while exploitation can lead to reduced levels of performance and variability, well-established companies, or those that focus on short-term performance gains, tend to benefit more from contextual ambidexterity, in essence, when managed effectively and tailored to a company's specific circumstances, ambidexterity can improve overall performance, nevertheless, meticulous management practices are essential to strike a delicate balance between exploration and exploitation, taking into account both internal and external dynamics to ensure sustainable success.

2. Organizational ambidexterity: typology

Organizational ambidexterity, a key concept in the field of strategic management and innovation, refers to the ability of companies to simultaneously balance two often contradictory imperatives: exploiting current skills and resources to maximize short-term efficiency, and exploring new opportunities to ensure long-term innovation and growth. This duality, inspired by the biological term describing a person's ability to use both hands with equal dexterity, applies to the organizational context to illustrate the need to be both efficient and innovative ,to understand how companies can achieve this balance, it is crucial to examine the different typologies of ambidexterity: structural, network and contextual, these typologies represent

various approaches and structures enabling companies to manage the tensions between exploitation and exploration.

2.1. Structural ambidexterity:

Structural ambidexterity refers to an organization's ability to design and maintain organizational structures that simultaneously support operations and exploration, this involves establishing mechanisms and processes that enable the organization to maintain effective and efficient operations, while also encouraging innovation and adaptability, companies that succeed in developing structural ambidexterity are able to manage paradoxical tensions and integrate flexible, adaptive organizational practices, the concept of striking a balance between exploitation and exploration originally emerged in the field of organizational design, as discussed by (Raisch and Birkinshaw 2008) and (O'Reilly and Tushman 2008) , structural ambidexterity involves the simultaneous coexistence of exploitation and exploration activities, separating them into distinct units, as proposed by (Benner and Tushman 2003) , in their work, (Miles et al. 1978) classified organizations into three types: mechanical, organic and hybrid structures, (Soulerot and Farjaudon 2007) have argued for the mechanical structure to optimize existing resources, while the organic structure facilitates the development of an exploratory strategy, the hybrid structure, conversely, corresponds to ambidexterity by balancing efficiency and seeking out new opportunities, following the example of the "semi-structure" concept introduced by (Brown and Eisenhardt 1997) , these researchers have emphasized the effectiveness of semi-structures through empirical analyses of organizations judged to be highly effective, structural ambidexterity involves the merging of two disparate structures within a single entity, based on their attributes, strategic objectives and pivotal functions (Soulerot and Farjaudon 2007) , operating divisions typically have a large, centralized operating framework, a robust organizational philosophy and strict procedures aimed at maximizing efficiency and minimizing deviation (Benner & Tushman 2003) , in contrast, exploratory divisions are more compact, decentralized, with a flexible culture and procedures that emphasize adaptability and experimentation (Benner & Tushman, 2003). The coexistence of these two differentiated structures highlights the complexity of effectively managing exploitation and exploration within an organization, the complex interplay between these structures underscores the need for strategic alignment, resource allocation and organizational culture to foster a dynamic environment conducive to innovation and efficiency; this duality in organizational design poses challenges in terms of coordination, communication and decision-making, requiring a nuanced

approach to balancing competing priorities and objectives, the implementation of a hybrid structure integrating both operating and exploratory elements, organizations can improve their adaptability, resilience and competitive advantage in a rapidly changing business landscape, the theoretical underpinnings of structural ambidexterity provide valuable insights into how organizations can manage complexity and uncertainty while optimizing their performance and strategic market positioning.

2.2.Network ambidexterity:

Network ambidexterity can be defined as a company's ability to coordinate and manage two types of network, namely the operating network and the exploration network, the operating network focuses on existing processes and activities aimed at maintaining the company's operational performance, while the exploration network focuses on exploring new opportunities, innovating and adapting to market changes; the challenge lies in the ability to manage these two networks simultaneously, balancing resources and priorities. Network ambidexterity plays a crucial role in the success of organizations in a dynamic and complex environment, enabling a company to remain competitive by maintaining both its current performance and its capacity for innovation, network ambidexterity also enables organizations to adapt more rapidly to market changes and seize new opportunities, by developing and exploiting both networks simultaneously, a company can improve its overall performance, increase its competitiveness and strengthen its organizational resilience in the face of future challenges. Ambidexterity can also be seen from an inter-organizational perspective, (Ney et al 2008) pointing out in particular that organizations, recognizing the need to engage in exploratory activities, this specific organizational strategy illustrates the concept known as "networked" ambidexterity put forward by McNamara and Baden-Fuller in 1999, cited by (McNamara and Baden-Fuller 2002) , for example, tasks associated with both exploitation and exploration could be carried out within legally distinct entities, either through partnerships or subcontracting agreements (Parmentier and Mangematin 2009) also note that many companies meet the challenges of implementing an innovation strategy by establishing collaborative links, these relationships enable them to draw on their partner's resources and knowledge, facilitating the realization of innovations, particularly those that go beyond their traditional expertise and field of competence, their research shows how organizations wishing to go beyond their field

of specialization through exploratory innovation call on external partners, Another point to note is the selection of partners according to the nature of the innovation: when it comes to core business innovations, which are generally incremental in nature, long-term relationships based on trust are preferred; key collaborators include suppliers, for example; conversely, innovations involving peripheral products (characterized by radical innovation) elicit the search for partners with specific expertise, as companies wish to access a wider range of specialized skills, several research studies have also examined industrial clusters to explore the concept of inter-organizational ambidexterity as highlighted by (Messeghem and Paradas 2009) , and (Saxenian 1996) , (Ferrary 2008) believes that operating within a cluster involves a division of labor between diverse, interconnected entities that contribute in complementary ways to the innovation process; in such clusters, some organizations specialize in mining activities, while others focus on exploration tasks, creating a balanced ecosystem of expertise, the author argues that the acquisition of new knowledge crucial to radical innovation is more effective within a compact, independent entity such as a start-up, the conditions of autonomy and modest size are identified as essential prerequisites that enable innovative individuals to shape the organizational culture, thus facilitating the generation of new knowledge that is sufficiently solid to move on to the operational phase, According to (Ferrary 2008) , this form of inter-organizational ambidexterity is more promising for improving long-term competitiveness, particularly in highly dynamic environments where change is constant. However, both types of ambidexterity, namely structural ambidexterity and network ambidexterity, are weak and do not effectively facilitate the link between exploitation and exploration activities, these forms can be seen as embodying a management-by-compromise strategy as proposed by (Smith and Lewis 2011) , but their effectiveness seems limited as they do not fully exploit the potential benefits inherent in the paradox, by consequently, the authors suggest that organizations should strive to discover the positive potential that paradoxes hold.

2.3.Contextual ambidexterity :

Contextual ambidexterity, a crucial concept in organizational research, refers to an organization's ability to adapt and respond effectively to the dynamic and ever-changing demands of its external environment, involving the continuous monitoring of market indicators and technological advances, while ensuring stability and consistency in the execution of ongoing business transactions, organizations that actively promote contextual ambidexterity are well placed not only to detect emerging opportunities and potential risks, but also to anticipate

market trends and adjust their strategies and methodologies accordingly in order to remain competitive in the marketplace. In their seminal work at (Brion, Mothe, and Favre-Bonté 2008) put forward the proposition that specific elements embedded in the intra-organizational framework could significantly influence the balance between exploration and exploitation activities within an organization, they expand on this idea by highlighting the considerable impact that the organizational framework can have on an organization's ambidextrous capabilities, Particularly in the field of ambidextrous innovation, the essence of contextual ambidexterity lies in the skilful management of exploitation and exploration activities within the same organizational structure, by aligning performance expectations with incentives to foster a culture of innovation, this approach enables individuals to determine, according to their professional context, whether they should focus on short-term alignment tasks or engage in long-term exploratory activities, as proposed by (Birkinshaw and Gibson 2004) , in their study (Dupouët and Barlatier 2011) postulate that when a hierarchical framework fosters an organizational environment incorporating incentives for both efficiency and creativity, employees tend to organize their work schedules to encompass tasks that emphasize both the discovery of new knowledge and the effective exploitation of existing knowledge, thus, as pointed out (Bartlett and Ghoshal 1994) , the organizational context is primarily shaped by the strategic decisions and management practices implemented by leaders, underscoring the central role played by managers in directing these strategic efforts. Through the implementation of motivational systems, protocols and strategic initiatives, managers improve the organization's ability to operate ambidextrously by carefully managing the balance between exploration and exploitation activities, moreover, a study by (T. Amabile 1996) highlights the significant impact of organizational culture and managerial strategies on individual creativity, thus influencing overall levels of innovation within the organization. Clearly, many factors combine to create an environment that fosters ambidexterity, for example, the study carried out by (Tushman and O'Reilly 1996) shows that, despite the large size of the three companies examined (each with over 350,000 employees), they adhere to a philosophy that prioritizes small-scale operations by promoting collaboration between small, independent teams, an approach that fosters a sense of unity and camaraderie in achieving results. This particular strategic approach encourages the creation of an atmosphere characterized by a willingness to take risks, be accountable and autonomous, yet these companies also take advantage of their size to achieve economies of scale while preserving an environment characterized by tolerance, in particular, leaders who take decisive action are praised, even if such decisions result in setbacks. (T. M. Amabile and

Conti 1999) observed that encouraging risk-taking and effectively managing failures were essential to fostering innovation in an organizational context, while (Tushman and O'Reilly 1996) highlighted the way in which companies restructured their hierarchical structure and decentralized decision-making in a deliberate yet systematic and controlled way, thanks to strict financial supervision, information dissemination and increased individual responsibility, the model fosters trust, supports individuals in their various activities, sets ambitious but achievable goals, defines precise and rigorous regulations governing the entity's functions, and implements mechanisms that encourage creativity, such as idea generation, the allocation of time for implementation, tolerance of failure, and the full involvement of the team in the creative process, in order to cultivate a culture of trust while effectively managing design processes inefficiently, the rigor of these procedures is particularly evident in the description of the various essential stages of the procedure (pre-production, production and testing) on the one hand, and in a sequence of verification measures with quantifiable targets throughout the process, on the other, (Dupouët and Barlatier 2011) show how communities of practice can provide the basis for contextual ambidexterity by creating an atmosphere that integrates excellence, cooperation and knowledge generation by promoting experimentation within the organizational structure, furthermore, the possibility for individuals to participate in multiple communities of practice successively or simultaneously underlines their autonomy in determining how to divide their time between exploration and exploitation. In this way, the individual aspect of contextual ambidexterity is illustrated. However, it is vital to emphasize that only contextual ambidexterity aims to resolve the exploitation/exploitation paradox, whereas structural and network ambidexterity involves the physical segregation of these contradictory elements, as (Grimand, Ewan, and Aurélien 2014) pointed out that in the quest for ambidexterity, it is essential to strike a balance between using existing capabilities and exploring new opportunities, thanks to their in-depth research (Brion, Mothe, and Sabatier 2010) examining the influence of organizational and managerial factors on an organization's ability to operate ambidextrously, they found that structural factors have no direct impact on innovation and suggested that it was more effective to influence behaviors and management practices rather than focus solely on organizational frameworks.

We have seen that organizational ambidexterity, essential in management, enables companies to balance the exploration of new opportunities and the exploitation of existing resources, enabling them to navigate in complex and dynamic environments, conceptualized by Duncan



in 1976, it is based on the structural and contextual adaptation of activities, its impact varies according to industrial contexts and development phases, being beneficial for post-launch start-ups and crucial during mergers and acquisitions. Ambidexterity enhances competitiveness and innovation while optimizing resources, and can be broken down into three typologies: structural (separation of units), network (partnerships) and contextual (integration of activities), adopting these forms enables companies to strengthen their current performance and adaptability, crucial to remaining competitive, but it also highlights the importance of balanced management, particularly for start-ups, where rapid innovation and optimization of operations are vital. This ability to adapt and innovate is particularly relevant in the context of start-ups, where survival and growth depend on their agility and responsiveness to market opportunities, to understand how start-ups manage to maintain this delicate balance, it is essential to examine the specific characteristics of management control within these young companies, which often have to navigate between the need to structure their operations and that of fostering continuous innovation. Although organizational ambidexterity is presented as an essential lever for navigating complex and dynamic environments, several criticisms emerge regarding its implementation and effectiveness, firstly, the physical separation of exploration and exploitation activities, as in structural ambidexterity, can lead to a disconnect between these two dimensions, limiting potential synergies, what's more, while network ambidexterity encourages inter-organizational collaboration, it can also introduce excessive dependencies on external partners, undermining the company's autonomy and resilience, contextual ambidexterity, while more integrative, relies heavily on organizational culture and individual capabilities, making it difficult to standardize and replicate in different contexts, furthermore, start-ups, often characterized by limited resources, can face considerable challenges in effectively balancing innovation and efficiency, not least because of the associated costs and the absence of experienced managerial executives to manage these tensions, finally, the idea of a harmonious balance between exploration and exploitation sometimes seems too idealistic, overlooking the organizational conflicts and trade-offs necessary to prioritize one or the other dimension according to competitive pressures or specific phases of the company's life cycle, these limitations underline the need for more flexible and adaptive approaches that take account of organizational and contextual particularities.

Conclusion and recommendations :

Organizational ambidexterity is emerging as a crucial strategy for companies, particularly SMEs and startups, operating in an economic environment marked by heightened competition and rapid transformation, by balancing the exploitation of existing resources with the exploration of new opportunities, this approach enhances organizational competitiveness, resilience, and agility while responding to the demands of a constantly evolving market, by reconciling innovation and efficiency, ambidexterity enables companies to anticipate market shifts, seize emerging opportunities quickly, and sustain a competitive position over the long term. This article contributes to the literature by providing a refined conceptual framework that explores how SMEs and startups, often constrained by limited resources, can effectively integrate ambidexterity as a strategic lever, the study identifies the three main typologies of ambidexterity—structural, network, and contextual—and examines their distinct impacts on business performance. Structural ambidexterity, which involves physically separating exploitation and exploration activities, ensures efficiency but risks creating organizational silos that hinder collaboration, network ambidexterity facilitates inter-organizational partnerships, giving businesses access to external resources and expertise, though at the risk of dependency, contextual ambidexterity allows for the coexistence of both activities within the same structure, relying on leadership and an adaptive organizational culture, but making implementation complex and highly variable across organizations.

Through an empirical analysis, the study highlights the challenges startups face in implementing ambidextrous strategies, particularly in dynamic and resource-scarce environments. The findings reveal that while ambidexterity is widely recognized for its advantages, its adoption requires adaptation to organizational realities—including available resources, corporate maturity, and managerial culture. To overcome these challenges, SMEs can adopt tailored strategic approaches:

1. **Fostering an Organizational Culture of Innovation:** Encouraging experimentation, calculated risk-taking, and continuous learning is crucial, companies like 3M exemplify this by creating environments where employees can explore new ideas without fear of failure, reinforcing a management culture that views failure as a learning opportunity rather than a setback.
2. **Adapting Ambidextrous Typologies to Business Needs :**



- Structural ambidexterity can be implemented through separate business units dedicated to exploitation and exploration, ensuring operational efficiency without stifling innovation.
 - Network ambidexterity involves forming strategic collaborations with industrial clusters, research institutions, or technology hubs to access external expertise while maintaining strategic control.
 - Contextual ambidexterity requires companies to build agile environments where teams can seamlessly shift between exploration and exploitation activities based on market needs.
3. Leveraging Digital and Technological Tools: Digital platforms and artificial intelligence (AI) technologies are powerful enablers of ambidexterity, these tools optimize business processes and provide predictive analytics to identify emerging opportunities, for instance, startups utilizing cloud-based solutions like Amazon Web Services can experiment with new ideas in real-time, reducing costs while maximizing innovation potential, furthermore, AI-driven insights facilitate inter-organizational collaboration, creating digital ecosystems conducive to innovation and knowledge sharing.
4. Training Managers and Employees in Ambidextrous Behaviors: Raising awareness of the importance of balancing short-term efficiency and long-term innovation is essential. Customized training programs on managing organizational tensions and adapting to change can help employees develop the flexibility needed to navigate between these dual priorities, additionally, monitoring mechanisms such as real-time dashboards allow companies to track the balance between exploration and exploitation, enabling continuous strategic adjustments aligned with performance metrics and market trends.
5. Anticipating Critical Development Phases: SMEs and startups must integrate an ambidextrous strategy from the outset to ensure long-term sustainability, in the early stages, prioritizing exploitation helps stabilize revenues, while at a more advanced stage, a greater focus on exploration becomes essential to maintaining a competitive edge, proactive ambidexterity ensures businesses can successfully navigate critical transitions, such as economic crises, scaling phases, or mergers and acquisitions.

This research also contributes to the managerial field by providing practical recommendations for leaders seeking to adopt ambidextrous structures while mitigating potential challenges, the study highlights that internal and external collaborations, such as partnerships with startups, academic institutions, and research clusters, can help overcome resource constraints while reinforcing the ability to adapt and innovate, the ability to effectively navigate complex environments requires SMEs to integrate ambidexterity as a central component of their strategy, necessitating not only structural and contextual adjustments but also a profound cultural and managerial transformation.

The rapid evolution of digital technologies raises new questions about the role of ambidexterity in digital and AI-driven environments, future research should explore:

- How companies can leverage digital platforms to simultaneously optimize exploitation and exploration.
- The risks of increased reliance on AI in managing organizational tensions and decision-making.
- How startups can form strategic partnerships while maintaining autonomy and a strong identity.

These issues warrant further investigation, as they will provide valuable insights into the mechanisms necessary to harness emerging technologies while managing associated challenges.



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