ISSN: 2597-4750 (PRINTED)

ISSN: 2597-4785 (ONLINE)

## **Relationship Between Absorptive Capacity and Innovation Ambidexterity: Mediating Role of Entrepreneurial Orientation**

Rahma Hamdi, Lamia Ghabi

Management Department, Tunis El-Manar University, Faculty of Economics and Management of Tunis FSEGT Corresponding Author: rahmahamdi483@gmail.com, lamiagharbi63@gmail.com

## **ABSTRACT**

Purpose: The literature in management sciences highlights the importance of entrepreneurial orientation as a lever to enhance productivity, competitiveness, and strengthen the position of companies. Globally, businesses are increasingly investing in developing their innovation capabilities to meet the demands of the digital economy and the "Smart Life" era. In this context, the absorptive capacity for knowledge, as well as the ambidexterity of exploration and exploitation, play crucial roles. However, current research does not yet clearly specify the causal links between these concepts. This study aims to determine how absorptive capacity influences innovation ambidexterity, considering the mediating role of entrepreneurial orientation.

Design/methodology/approach: Based on a positivist epistemological approach, this work relies on a literature review and the results of three exploratory studies. This leads to an explanatory model of the relationships between absorptive capacity and innovation ambidexterity, tested on 258 entrepreneurs and project holders in the ICT sector in Tunisia, operating within a "Smart City".

Findings: The results show that absorptive capacity enhances innovation ambidexterity, with a significant mediating role of entrepreneurial orientation

Paper type: Research paper

Keywords: Absorptive capacity, ambidexterity, innovation exploration, innovation exploitation, entrepreneurial orientation.

Received: July 13th Revised: October 18th Published: November 30th

## I. INTRODUCTION

With the rapid evolution of digital technologies, the rise of the sharing economy, and globalized competition, companies face significant challenges, particularly in terms of innovation and adapting to changing consumer expectations. To meet these demands, they must not only explore new markets but also optimize the life cycles of their products and services.

The Internet of Things (IoT) emerges as a strategic lever to enrich the service offering by connecting physical and virtual objects. This perfectly aligns with the national strategy "Tunisia Digital 2025," which seeks to position Tunisia as a key player in this digital transformation. This plan promotes support for startups and encourages innovation. In this context, innovative entrepreneurship plays a fundamental role, especially in emerging economies, where it becomes a key factor for competitiveness and modernization. The "Startup Act" of 2018 in Tunisia has further consolidated this momentum by providing specific incentives for young companies, thus contributing to the emergence of a dynamic entrepreneurial ecosystem. Nevertheless, challenges remain, such as talent retention and the establishment of adequate infrastructure.

This study examines the relationship between absorptive capacity for knowledge and innovation ambidexterity (exploration and exploitation), highlighting the role of entrepreneurial orientation. This theoretical framework, still underexplored from this perspective, will be applied to the incubators of the "Smart City Elghazala" to better understand the concept of innovation and enrich the literature on entrepreneurial intermediation.

#### A. Literature Review

The literature review reveals a wide diversity of approaches to studying absorptive capacity for knowledge, innovation ambidexterity, and entrepreneurial orientation. This theoretical richness can, however, induce some confusion for researchers, but it also opens interesting perspectives for both theoretical and practical contributions.

## 1. Knowledge absorptive capacity

Absorptive capacity is an essential competence for companies, enabling them to leverage external knowledge to enhance competitiveness. According to Jansen and Data (2010), this capacity relies on two dimensions: exploration and exploitation. Several factors influence this capacity, including motivation, learning style, environment, and prior experiences.

Learning and cognition theories offer various perspectives on absorptive capacity:

- 1. Behavioral Theory: Focuses on rewards and punishments influencing learning.
- 2. Cognitive Theory: Emphasizes internal mental processes such as memory and problem-solving.
- 3. Constructivist Theory: Posits that learners actively construct their knowledge by combining new information with their past experiences.
- 4. Socio-Constructivist Theory: Highlights the importance of social interactions in the learning process.
- 5. Cognitive Load Theory: Explores the impact of cognitive load on working memory in the capacity to assimilate new information.

In short, knowledge absorptive capacity is a complex phenomenon influenced by internal and external factors. It can be optimized through adapted learning methods, allowing companies to better capitalize on their knowledge and innovate effectively.

## 2. Innovation Ambidexterity of Exploration and Exploitation

The literature review on innovation ambidexterity highlights the growing importance of this concept in management research. Innovation ambidexterity refers to the ability of organizations to simultaneously manage two types of activities: exploration, which involves seeking new ideas and opportunities, and exploitation, which focuses on optimizing existing resources and competencies. These two dimensions, although in tension, are crucial for ensuring competitiveness and sustainability in a constantly evolving environment.

## a. Exploration and Exploitation Concepts

Exploration aims to innovate by developing new skills and opening up to new opportunities. It involves risks and experimentation to cope with uncertainty. In contrast, exploitation focuses on improving existing processes, efficiency, and maximizing available resources. These two activities, although contradictory, must be balanced for an organization to adapt to market changes while optimizing its current strengths.

## b. Balance and Management of Tensions

Innovation ambidexterity requires careful management of tensions between these two poles. This dynamic balance is a constant challenge, as it may fluctuate according to market conditions and available resources. Companies must establish organizational structures that reconcile innovation and operational efficiency, while fostering a culture conducive to learning, risk-taking, and collaboration. Leadership plays a crucial role here, guiding the organization towards a vision focused both on short-term results and long-term growth opportunities.

## c. Theoretical Perspectives

Innovation ambidexterity is studied through several theories, offering distinct conceptual frameworks:

- 1. Organizational Ambidexterity Theory: Argues that companies must structure their processes to promote both exploration and exploitation, a condition essential for long-term success.
- 2. Natural Selection Theory: Adapted from biological evolution, it suggests that organizations that balance exploration and exploitation survive and thrive in changing environments.
- 3. Dynamic Capabilities Theory: Emphasizes the need for companies to develop dynamic capabilities to adapt to uncertainty, with ambidexterity being a means of acquiring these capabilities.
- 4. Organizational Learning Theory: Views ambidexterity as a continuous learning process, where the company acquires new skills while optimizing existing resources.
- 5. Resource Management Theory: According to this approach, companies must judiciously allocate their resources between exploration and exploitation to maximize long-term value creation.

These theories provide complementary perspectives on managing innovation ambidexterity. By combining exploration and exploitation, organizations can not only innovate but also improve their operational efficiency, thereby ensuring their success in an increasingly competitive environment. Companies that can maintain this dynamic balance are better positioned to tackle challenges related to innovation and sustainable growth.

(International Journal of Entrepreneurship and Business Development) Volume 07 Number 06 November 2024 This work is licensed under a Creative Commons Attribution- ShareAlike 4.0 International License.

ISSN: 2597-4785 (ONLINE) ISSN: 2597-4750 (PRINTED)

The literature review on innovation ambidexterity highlights several paradigms that provide conceptual frameworks for understanding how organizations manage the tension between exploration (seeking new opportunities) and exploitation (optimizing existing resources). Here is a synthesis of the main paradigms identified:

- 1. Strategic Management Paradigm: This paradigm emphasizes the importance of simultaneously integrating exploration and exploitation into organizational strategies. It focuses on how companies design their business models and management processes to innovate while maintaining operational efficiency.
- 2. Learning Organization Paradigm: This framework emphasizes continuous learning within organizations. It shows that to remain competitive, companies must explore new territories and learn from their experiences to quickly adapt to market changes.
- 3. Dynamic Capabilities Paradigm: This paradigm focuses on managing dynamic capabilities, allowing companies to develop new skills for exploration while leveraging their existing resources for exploitation.
- 4. Organizational Evolution Paradigm: Inspired by biological evolution, this framework explores how organizations evolve in changing environments. It stresses the need to find a balance between exploring new opportunities and exploiting current resources to survive and thrive.
- 5. Resource Management Paradigm: This paradigm examines how organizations allocate their resources between exploration and exploitation. It studies decision-making processes and control mechanisms that maintain an optimal balance between these two activities.

These paradigms provide complementary perspectives on managing innovation ambidexterity. By integrating them, researchers gain a more comprehensive and nuanced understanding of the complex dynamics underlying innovation within organizations.

## 3. Entrepreneurial Orientation

The literature review on entrepreneurial orientation highlights several theories and paradigms that help understand the attitudes, behaviors, and decision-making processes of entrepreneurs in various organizational contexts. Here is a summary of the main points:

## a. Characteristics of Entrepreneurial Orientation

Entrepreneurial orientation (EO) refers to a set of attitudes and behaviors associated with value creation and innovation. It is distinguished by several key characteristics:

- 1. Calculated risk-taking: Entrepreneurs take thoughtful risks, weighing potential benefits against risks.
- 2. Innovation and creativity: Innovation is at the heart of EO, pushing individuals to propose novel solutions, while pushing the limits of the status quo.
- 3. Flexibility and adaptability: EO requires an ability to adapt quickly to market changes and adjust strategies according to circumstances.
- 4. Vision, Perseverance, and Action: Entrepreneurs have a clear vision and are proactive, acting quickly to bring their ideas to fruition while demonstrating perseverance in the face of obstacles.
- 5. Teamwork and Networking: Entrepreneurs know how to surround themselves with collaborators and leverage their networks to foster innovation.

## **b.** Effects of Entrepreneurial Orientation

Studies show that EO has positive effects on organizational performance, particularly by stimulating innovation in complex and competitive environments (Wiklund, 2011). These effects are more pronounced in certain organizations, such as SMEs or young and innovative companies. EO also helps overcome organizational inertia, particularly in large companies, by promoting innovativeness, proactivity, and risk-taking (Covin, 1991).

## c. Theories explaining entrepreneurial orientation

- 1. Effectuation theory (Saras Sarasvathy): Entrepreneurs make decisions in uncertain environments by using available resources flexibly to create new opportunities, rather than following rigid planning.
- 2. Resource-based theory (Jay Barney): Competitive advantage comes from specific, rare and inimitable resources, and EO helps to identify and exploit them in innovative ways.
- 3. Causality theory: Unlike effectuation, this theory emphasizes careful planning and analysis to achieve clearly defined objectives.
- 4. Innovation theory (Joseph Schumpeter): Entrepreneurs are agents of change who introduce new ideas and products, contributing to economic disruptions.
- 5. Entrepreneurial alert theory: Entrepreneurs are particularly sensitive to market opportunities, which they seize before others.
- Proactive Orientation Theory: Entrepreneurs actively influence their environment rather than simply react to

## d. Entrepreneurial Orientation Paradigms

- a. Economic Paradigm: The entrepreneur is seen as an engine of economic growth and wealth creation.
- b. Sociological Paradigm: Entrepreneurship is influenced by the social, cultural, and institutional factors in which entrepreneurs operate.
- c. Psychological Paradigm: This paradigm examines the personality traits, motivation, and cognition of entrepreneurs, such as risk tolerance.
- d. Behavioral Paradigm: It studies the behaviors and coping strategies of entrepreneurs when faced with challenges in their environment.
- e. Cognitive Paradigm: This framework explores how entrepreneurs perceive and interpret opportunities to make informed decisions.

Entrepreneurial orientation, through various theories and paradigms, offers a comprehensive approach to understanding how entrepreneurs create value, innovate, and make decisions. Whether in SMEs, large companies or start-ups, OE is proving to be a key lever for driving growth and performance, and researchers can gain a more nuanced understanding by combining economic, social and behavioural perspectives.

## B. Role of Absorptive Capacity in Supporting Innovation Ambidexterity

## 1. Influence of Absorptive Capacity on Innovation Ambidexterity

Absorptive capacity, defined as the ability to acquire, assimilate, and exploit external knowledge, plays a crucial role in supporting innovation ambidexterity. Innovation ambidexterity refers to an organization's capacity to simultaneously balance the exploration of new ideas and technologies (radical innovation) with the exploitation of its existing resources and processes (incremental innovation). This balance is fundamental for maintaining the long-term competitiveness of businesses.

- 1. Exploration and Knowledge Acquisition: Organizations with high absorptive capacity are able to capture and integrate new external information, thereby facilitating the exploration of new markets and technologies.
- 2. Adaptability to Change: A strong absorptive capacity enhances firms' responsiveness to changes in the environment, thereby strengthening their agility in innovation.
- 3. Exploitation and Integration of Knowledge: The absorption of new knowledge allows for its effective integration into existing processes, thus enhancing operational performance and supporting exploitation activities.
- 4. Culture of Innovation: An organization with developed absorptive capacity is often associated with a culture of continuous learning, valuing collaboration and risk-taking—two essential aspects for fostering ambidexterity.

## 2. Relationship Between Absorptive Capacity and Innovation Ambidexterity

- 1. Increased Exploration: Firms with strong absorptive capacity are better positioned to innovate as they identify and exploit new opportunities from the external environment more quickly.
- 2. Knowledge Management: Ambidexterity, which requires the simultaneous management of exploration and exploitation activities, relies on an organization's ability to absorb, share, and effectively use knowledge.
- 3. Strengthening Exploitation: Effective management of existing knowledge, facilitated by strong absorptive capacity, allows for better utilization of internal resources, thereby reinforcing the balance between innovation and optimization.

## 3. Theories Supporting the Interaction Between Absorptive Capacity and Innovation Ambidexterity

- 1. Organizational Learning Theory: This theory suggests that absorptive capacities enable organizations to learn from their environment, promoting both the exploration of new opportunities and the exploitation of existing knowledge.
- 2. Resource-Based View (RBV): This perspective emphasizes the importance of absorptive capacity as a dynamic resource for creating sustainable competitive advantage. These capacities allow firms to combine new knowledge with their resources to support ambidexterity.
- 3. Organizational Ambidexterity Theory: This theory asserts that firms must manage both exploration and exploitation to remain competitive. Absorptive capacity facilitates this ambidexterity by integrating external knowledge while optimizing internal resources.
- 4. Natural Selection Theory of Organizations: Inspired by biological evolution, this theory illustrates how organizations adapt to changing environments. Organizations capable of absorbing and mobilizing new knowledge are better positioned to survive and thrive in uncertain environments, thus promoting ambidexterity.

The absorptive capacity for knowledge is a key factor in developing innovation ambidexterity. It enables organizations to innovate by exploring new opportunities while effectively exploiting existing resources.

ISSN: 2597-4750 (PRINTED)

ISSN: 2597-4785 (ONLINE)

Management theories, such as organizational learning and ambidexterity, underscore the importance of this capacity in knowledge management and maintaining a sustainable competitive advantage.

## C. Impact Of Entrepreneurial Orientation On Innovation Ambidextrity

Entrepreneurial orientation, characterized by risk-taking, creativity, and opportunity-seeking, has a significant impact on innovation ambidexterity, which involves balancing the exploration of new ideas with the exploitation of existing resources. Here are the main axes of this influence:

## 1. Influence of Entrepreneurial Orientation on Innovation Ambidexterity

- Encouragement of Exploration and Risk-Taking: Entrepreneurial orientation stimulates the exploration of new ideas and opportunities, promoting radical innovation, which is essential for the "exploration" aspect of ambidexterity.
- b. Culture of Innovation: Entrepreneurial organizations cultivate a culture where creativity is valued and failure is viewed as a source of learning, facilitating ambidexterity by encouraging both exploration and exploitation of resources.
- Flexibility and Adaptability: Entrepreneurially oriented companies are more agile in response to market and technological changes, enhancing their ability to reconcile innovation with the optimization of existing processes.
- Long-Term Vision: A long-term entrepreneurial vision encourages investments in continuous innovation, ensuring sustainable development of ambidextrous capabilities.
- Autonomy and Responsibility: Entrepreneurial structures promote autonomy, allowing teams to engage simultaneously in exploration and exploitation activities.

## 2. Theories Explaining the Relationship Between Entrepreneurial Orientation and Innovation **Ambidexterity**

- a. Entrepreneurship Theory: This theory links entrepreneurial orientation to innovation, highlighting that entrepreneurs are change agents, fostering exploration of new opportunities while effectively exploiting existing resources.
- b. Resource and Capability Theory: Entrepreneurial orientation is viewed as an organizational capability that enables the mobilization of necessary resources for innovation, thus supporting ambidexterity.
- Organizational Learning Theory: Entrepreneurial orientation creates an environment of continuous learning, stimulating the exploration of innovative ideas while reinforcing the exploitation of acquired
- d. Organizational Evolution Theory: This approach posits that entrepreneurial orientation helps organizations adapt to market changes, thereby enhancing their capacity to combine exploration and exploitation.

Entrepreneurial orientation promotes innovation ambidexterity by encouraging risk-taking, exploration, adaptability, and long-term vision. Organizations adopting this approach develop a culture of innovation that is essential for balancing the exploration of new opportunities with the optimization of existing resources. Management theories emphasize that this orientation enhances organizations' ability to remain competitive and innovate sustainably.

## II. METHODS

The conceptual framework of this study is based on an in-depth literature review to formulate research hypotheses and propose an innovative conceptual model. This model explores the links between knowledge absorption capacity, entrepreneurial orientation, and innovation ambidexterity.

The formulated hypotheses are as follows:

- H1: Knowledge absorption capacity positively influences innovation ambidexterity.
- H2: Entrepreneurial orientation is positively correlated with innovation ambidexterity.
- H3: Entrepreneurial orientation plays a mediating role in the relationship between knowledge absorption capacity and innovation ambidexterity.

These hypotheses highlight the key role of entrepreneurial orientation as a mediator between knowledge absorption capacity and innovation ambidexterity. This theoretical framework thus allows for the construction of a new conceptual model that connects knowledge absorption capacity to innovation ambidexterity (exploration and exploitation) through entrepreneurial orientation.

The model emphasizes the importance of integrating entrepreneurial orientation as a strategic lever to maximize the impact of knowledge absorption on the capacity of companies to innovate while optimizing their existing resources.

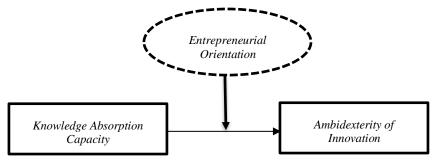


Fig. Conceptual model linking absorptive capacity to exploration and exploitation innovation ambidexterity through entrepreneurial orientation.

The study is based on a conceptual framework aimed at examining the causal relationships between several explanatory variables and innovation ambidexterity (IA). To make these theoretical concepts more concrete and validate the hypotheses through empirical data, the second part of the study adopts a holistic methodological approach, combining qualitative and quantitative methods, with a predominance of quantitative data.

Initially, a qualitative exploratory phase was conducted through interviews with 15 key stakeholders from the "Smart City" innovation ecosystem. These stakeholders included 5 innovation experts, 5 project leaders, and 5 startups/SMEs.

The objective was to gather perceptions on innovation ambidexterity as well as its organizational and relational triggers. The main phase, of an empirical nature, relies on a quantitative survey conducted with 258 innovative companies in Tunisia. A questionnaire was used as a data collection tool, and the variables of the conceptual model were measured using validated instruments from the literature.

To analyze the data, a structural equation modeling method (AMOS) was employed to test the research hypotheses. The first step involved conducting simple regressions with AMOS 25.0, followed by a global test of the model using structural equations. This approach allowed for the validation of the proposed causal relationships in the conceptual model, thereby providing a solid empirical foundation for the study.

In summary, this research is based on a rigorous methodology, combining exploratory qualitative analyses and robust quantitative tests to validate the hypotheses. It contributes to a better understanding of innovation ambidexterity and its determining factors.

## III. RESULTS AND DISCUSSION

The results underscore the importance of intermediaries, such as innovation experts, in facilitating the acquisition and utilization of knowledge, thus validating Hypothesis 1 regarding the positive influence of absorptive capacity (AC) on innovation ambidexterity (IA). They also confirm that AC acts as a catalyst for innovation and corporate performance, particularly by facilitating the combination and transformation of external knowledge into new ideas and innovations.

Furthermore, the analyses show that knowledge assimilation is a key factor in fostering innovation, corroborating the works of Daghfous (2004) and Chauvet (2004), which assert that companies must have mechanisms to learn and exploit knowledge, essential conditions for organizational innovation.

Finally, the results reinforce the idea that ambidexterity is linked to the simultaneous management of exploration and exploitation activities, supported by a strong absorptive capacity. The most competitive companies are those capable of combining these three dimensions to innovate effectively, thereby validating the final hypothesis that AC stimulates innovation ambidexterity.

# 1. Summary of Results on the Mediating Roles of Entrepreneurial Orientation, Innovativeness, Risk-Taking, Proactivity, Autonomy, and Competitive Aggressiveness a. Entrepreneurial Orientation (EO)

The study highlights the complex interaction between absorptive capacity, entrepreneurial orientation, innovativeness, risk-taking, proactivity, autonomy, and competitive aggressiveness. Each of these dimensions plays a key role in the innovation process, enabling Tunisian companies to navigate a constantly evolving

This work is licensed under a Creative Commons Attribution- ShareAlike 4.0 International License.

rnational License.

ISSN: 2597-4785 (ONLINE)

ISSN: 2597-4750 (PRINTED)

environment more effectively. The results emphasize the importance of adopting an integrated approach to foster innovation and ambidexterity within organizations.

The findings highlight the essential role of intermediaries, such as innovation experts, in the acquisition and exploitation of knowledge. This validates Hypothesis 1, which posits a positive influence of absorptive capacity (AC) on innovation ambidexterity (IA). Moreover, it is confirmed that AC acts as a catalyst for innovation and corporate performance by facilitating the transformation of external knowledge into new ideas and innovations.

The analyses also show that knowledge assimilation is a key factor in encouraging innovation. These results corroborate the work of Daghfous (2004) and Chauvet (2004), which state that companies must have learning and knowledge exploitation mechanisms, conditions essential for organizational innovation.

Finally, the results strengthen the idea that ambidexterity relies on the simultaneous management of exploration and exploitation activities, supported by a strong absorptive capacity. The most successful companies are those that manage to combine these three dimensions, thereby validating the hypothesis that AC stimulates innovation ambidexterity.

## 2. Summary of Results: Mediating Roles of Entrepreneurial Orientation, Innovativeness, Risk-Taking, Proactivity, Autonomy, and Competitive Aggressiveness.

1. Entrepreneurial Orientation (EO)

The results show that entrepreneurial orientation serves as a partial mediator between AC and innovation ambidexterity. This means that, while AC directly influences IA, EO enhances this relationship by adding a more agile and adaptable dimension. Tunisian companies must adopt a strong entrepreneurial orientation to navigate the digital economy effectively. Entrepreneurs, being proactive, autonomous, and willing to take risks, stimulate innovation, in line with the work of Huang and Wang (2011).

2. Innovativeness

Innovativeness emerges as another key mediator in the relationship between AC and IA. It reflects an organization's commitment to innovation, which is particularly relevant in a context where Tunisian entrepreneurs face financial and legislative constraints. The results show that exploratory innovations are desired but require a favorable working environment and competent human resources. The importance of creating an environment conducive to innovation is thus highlighted, and companies must adopt a management culture that encourages change and creativity.

3. Risk-Taking

Risk-taking is identified as another crucial mediator, directly influencing companies' ability to innovate. In the face of uncertainties and competitive pressures, Tunisian entrepreneurs must adopt a proactive attitude and be willing to take calculated risks. The results demonstrate that managing risk-taking is essential for maintaining ambidexterity, particularly in an uncertain economic context.

4. Proactivity

Proactivity, defined as the ability to anticipate market needs and innovate accordingly, is also a key factor. Companies that foster a proactive culture, where new ideas can emerge, are better positioned to innovate and adapt to changes. Proactivity is perceived as a crucial driver of EO, enabling companies to outpace competition and respond to new opportunities swiftly and effectively.

5. Autonomy

Autonomy within teams, particularly in research and development departments, proves crucial for stimulating innovation. The results show that employee autonomy fosters both ambidexterity and creativity. Therefore, companies must provide a work environment that allows their employees to freely explore new ideas without being subject to excessive constraints, thereby encouraging experimentation and innovation.

6. Competitive Aggressiveness

Competitive aggressiveness appears as a determining factor in innovation projects. Companies must be ready to respond to the challenges posed by competition while using innovation as a lever for adaptation and learning. The results show that innovation projects must be designed to address competitive pressures while being proactive in introducing new offerings to the market.

In conclusion, this study highlights the complex interaction between absorptive capacity, entrepreneurial orientation, innovativeness, risk-taking, proactivity, autonomy, and competitive aggressiveness. Each of these dimensions plays a fundamental role in the innovation process, enabling Tunisian companies to better navigate a constantly evolving environment. The results illuminate the importance of an integrated approach to stimulate innovation and ambidexterity within organizations.

## IV. CONCLUSION

This article highlights the crucial interconnection between absorptive capacity, innovation ambidexterity, and entrepreneurial orientation within organizations, particularly in the context of Tunisian SMEs operating in the information and communication technology (ICT) sector and startups. Absorptive capacity emerges as a fundamental lever, strengthening entrepreneurial orientation, which in turn promotes both balanced and effective innovation ambidexterity.

The results of this research emphasize the importance of a dynamic corporate culture centered on entrepreneurship to fully exploit the potential for innovation. By integrating this entrepreneurial orientation and adopting a proactive stance, companies can overcome the obstacles encountered when implementing innovative projects. Risk-taking, proactivity, and competitive aggressiveness prove to be essential mediators, facilitating the transformation of acquired knowledge into tangible innovative actions.

It is imperative for sector stakeholders to cultivate a proactive entrepreneurial spirit, supported by skilled human resources, agile collaboration, and a commitment to continuous learning. This involves implementing training and support initiatives for future entrepreneurs, as well as increasing the visibility of success stories in the media.

Finally, this study demonstrates that the synergy between absorptive capacity, entrepreneurial orientation, and innovation ambidexterity is not only essential for the competitiveness of Tunisian SMEs but also for their resilience in the face of the challenges posed by a constantly changing business environment. By adopting a strategy that integrates these dimensions, organizations can not only foster innovation but also ensure their sustainability and success in a dynamic market.

#### REFERENCES

- Aagaard, Peter. (2011). Organizational Ambidexterity: How to be both innovative and efficient in the public sector. Working paper, No: 5/2011 March 2011 CLIPS.
- Aggeri, F., & Labatut, J. (2010). Management through the prism of its instruments. A genealogical analysis of theoretical approaches based on management instruments. Finance Control Strategy, Vol. 13, No. 3, pp. 5-37.
- Albert, P. (2000). The Creation of High Technology Enterprises, in T. Verstraete, *History of Entrepreneurship the Realities of Entrepreneurship*, Management and Society Editions.
- Alipour, Farhad, & Karimi, Roohangiz. (2011). Mediation Role of Innovation and Knowledge Transfer in the Relationship between Learning Organization and Organizational Performance. International Journal of Business and Social Science, Vol. 2 No. 19, pp. 144-147.
- Allard-Poesi, F., & Maréchal, C. (2007). Constructing the research object. In Thiétart, R. A. (Ed.), *Research Methods in Management*, 3rd edition, Dunod.
- Ambrosini, V., Bowman, C., & Collier, N. (2009). Dynamic capabilities: An exploration of how firms renew their resource base. British Journal of Management, Vol. 20, No. S1, pp. S9-S24.
- Andriopoulos, C.-M., & Lewis, M. W. (2009). Exploitation-exploration tensions and organizational ambidexterity: Managing paradoxes of innovation. Organization Science, 20(4): 696-717.
- Angot, J., & Milano, P. (2007). How to link concepts and data? In Raymond-Alain Thiétart (Ed.), *Research Methods in Management*: 173-191. Paris: Dunod.
- Arbussa, A., & Coenders, G. (2007). Innovation activities, use of appropriation instruments, and absorptive capacity: Evidence from Spanish firms. Research Policy, 36: 1545–1558.
- Augier, M., & Teece, D. J. (2009). Dynamic Capabilities and the Role of Managers in Business Strategy and Economic Performance. Organization Science, Vol. 20, No. 2, March–April 2009, pp. 410–421.
- Auguste Merle, St. Clair. (2011). An exploration of factors affecting absorptive capacity of knowledge in an organization in the Caribbean. School of Management Royal Holloway, University of London, Submitted in partial fulfillment of the requirements for the Degree of Doctor of Philosophy.
- Auh, S., & Menguc, B. (2005). Balancing exploration and exploitation: The moderating role of competitive intensity. Journal of Business Research, 58: 1652-1661.
- Birkinshaw, J., & Gupta, K. (2013). Clarifying the Distinctive Contribution of Ambidexterity to the Field of Organization Studies. Academy of Management Perspectives, 27(4): 287-298.
- Birkinshaw, J., Raisch, S., Probst, G., & Tushman, M. (2009). Organizational Ambidexterity: Balancing Exploitation and Exploration for Sustained Performance. Organization Science, 20(4): 685-695.
- Blindenbach-Driessen, F., & Ende, J. (2014). The Locus of Innovation: The Effect of a Separate Innovation Unit on Exploration, Exploitation, and Ambidexterity in Manufacturing and Service Firms. Journal of Product Innovation Management, 31(5), 1089-1105.

- Bohas, A., Faure, S., & de Vaujany, F. X. (2017). Third places, collaborative spaces: laboratories and revealers of new work practices. Research Note No. 2, Research Group on Collaborative Spaces.
- Bonesso, S., Gerli, F., & Scapolan, A. (2014). The individual side of ambidexterity: Do individuals' perceptions match actual behaviors in reconciling the exploration and exploitation trade-off? European Management Journal, Vol. 32, No. 3, pp. 392-405.
- Brion, S., Favre-Bonté, V., & Mothe, C. (2008). What forms of ambidexterity to combine exploitation and exploration innovations? Management International, Vol. 12, No. 3, pp. 29-44.
- Brion, S., Mothe, C., & Sabatier, M. (2010). The Impact of Organizational Context and Competences on Innovation Ambidexterity. International Journal of Innovation Management, 14(2): 151-178.
- Brion, S., Mothe, C., & Sabatier, M. (2008). Ambidexterity at the level of innovation: The predominant impact of management modes on structural separation. French Management Review, 7(187): 177-194.
- Capron, L., & Mitchell, W. (2009). Selection capability: How capability gaps and internal social frictions affect internal and external strategic renewal. Organization Science, 20(2): 294-312.
- Caroline, Julie Ney, Véronique Favre Bonte, Christophe Baret. (2008). Towards a Model for Managing Ambidexterity: Internal Exploitation Innovation and Exploration Cooperation. Organizational Innovation: Current State, State of the Art, January 28, 2008, ESC ST-ETIENNE.
- Chanal, V., & Mothe, C. (2005). How to reconcile exploitation innovation and exploration innovation: a case study in the automotive sector. French Management Review, 31(154): 173-191.
- Chanal, V., & Mothe, C. (2004). What organizational design to combine exploration and exploitation innovation? 13th AIMS conference.
- Chandrasekaran, A., Linderman, K., & Schroeder, R. (2012). Antecedents to ambidexterity competency in high technology organizations. Journal of Operations Management, 30(1): 134-151.
- Cohen, E., & Levinthal, D. (1990). Absorptive capacity: a new perspective on learning and innovation. Technology, organizations, and innovation, Administrative Science Quarterly, Vol. 35, pp. 128-152.
- Cohen, D., & Patrick. (2014). Knowledge communities, BourbaKeM Project Element No. 6.
- Danneels, E. (2002). The dynamics of product innovation and firm competencies. Strategic Management Journal, 23: 1095-1121.
- David, B. (2008). Innovation in the firm: Literature review and proposal of a model. Working Paper 2008-45.
- Day, G. S. (1994). The Capabilities of Market-Driven Organizations. Journal of Marketing, 58(4), pp. 37-52.
- D'Este, P., & Patel, P. (2007). University-industry linkages in the UK: what are the factors that influence the collaboration? Research Policy, 36(9): 1355-1366.
- Doz, Y. L., & Kosonen, M. (2010). Embedding strategic agility: A leadership agenda for accelerating business model renewal. Long Range Planning, 43(2): 370-382.
- Duchek, S. (2014). The evolution of ambidextrous organizations: New perspectives on exploration, exploitation, and performance. International Journal of Innovation Management, 18(4): 1-28.
- Dunk, A. S. (2000). Understanding the role of management controls in enhancing performance. Accounting, Management, and Information Technologies, 10(3): 219-231.
- Egbetokun, A. A., & Adebiyi, A. A. (2010). A model for the interrelationship between absorptive capacity, innovation performance, and knowledge management. African Journal of Business Management, 4(3): 433-439.
- Eiras, M. R., & Matos, J. B. (2010). Technological Innovation, Absorptive Capacity and Innovation Performance. Journal of Business Research, 63(2): 129-136.
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: what are they? Strategic Management Journal, 21(10-11): 1105-1121.
- El-Masry, A. A., & Al-Mahrouqi, F. (2014). The effect of absorptive capacity on innovation performance: the mediating role of organizational culture. Journal of Knowledge Management, 18(3): 556-575.
- Enberg, K., & Taalas, S. (2006). The interplay between organizational design and strategic innovation. European Journal of Innovation Management, 9(3): 263-276.
- Fagerberg, J., & Verspagen, B. (2002). Technology-gaps, innovation-diffusion, and transformation: an evolutionary view. Research Policy, 31(8): 1135-1155.
- Ferlie, E., & Ongaro, E. (2015). Strategic Management in Public Services Organizations. Routledge.
- Fiol, C. M., & Lyles, M. A. (1985). Organizational learning. Academy of Management Review, 10(4): 803-813.
- Foss, N. J., & Saebi, T. (2015). Fifteen Years of Research on Business Model Innovation: How Far Have We Come? Journal of Management, 41(1): 200-227.
- Galunic, C., & Eisenhardt, K. (2001). Complexity and organizational learning: What do we know? International Journal of Organizational Analysis, 9(3): 239-257.
- Garbuio, M., & Lin, N. (2005). Rethinking the role of organizational learning in innovation. Knowledge Management Research & Practice, 3(2): 145-155.

ISSN: 2597-4785 (ONLINE)

ISSN: 2597-4750 (PRINTED)

- Gassmann, O., & Zeschky, M. (2008). Opening up the innovation process: From closed to open innovation. International Journal of Technology Management, 44(1): 1-10.
- Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., & Scott, P. (1994). The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies. Sage Publications.
- Gibbert, M., & Krause, D. (2002). Specialization and trade-offs: how firms can leverage their absorptive capacity. European Management Journal, 20(5): 510-517.
- Goh, S. C. (2002). Managing effective knowledge transfer: An integrative framework and implications for future research. Journal of Knowledge Management, 6(1): 23-30.
- Gupta, A., & Singhal, A. (1993). Managing operational flexibility. Journal of Operations Management, 12(3):
- Gupta, K., & Singhal, A. (2013). Organizational ambidexterity: A review of the literature. *International Journal* of Business and Management Invention, 2(7): 55-61.
- Haeckel, S. H., & Carbone, L. P. (2000). Adaptive enterprise: Creating and leading sense-and-respond organizations. Harvard Business Review Press.
- Hargadon, A., & Sutton, R. I. (1997). Technology brokering and innovation in a product development firm. Administrative Science Quarterly, 42(4): 716-749.
- He, Z., & Wong, P. (2004). Exploration vs. exploitation: An empirical study of the ambidextrous behavior of small and medium-sized enterprises. Research Policy, 33(1): 2-17.
- Hodge, M. (2010). Competitive Advantage, Firm Performance, and the Role of Internal Market Orientation: Evidence from Nigeria. International Journal of Business and Management, 5(11): 50-59.
- Hong, J., & Jeong, H. (2005). A strategic approach to exploring organizational ambidexterity: The impact of organizational culture on ambidextrous behavior. Management Decision, 43(7): 996-1012.
- Huang, K. F. (2012). The relationship between organizational ambidexterity and innovation performance: A study of the textile industry in Taiwan. Journal of Business Economics and Management, 13(1): 149-162.
- Huang, K., & D. H. H. (2006). Dynamic capabilities, organizational learning, and innovation: The case of new product development in Taiwan. International Journal of Technology Management, 34(1-4): 209-222.
- Jansen, J. J. P., Van den Bosch, F. A. J., & Volberda, H. W. (2006). Exploration and exploitation: The roles of the middle manager. Journal of Management Studies, 43(4): 775-802.
- Katila, R., & Ahuja, G. (2002). Something old, something new: A longitudinal study of search behavior and new product introduction. Academy of Management Journal, 45(6): 1183-1194.
- Kim, L. (1997). The dynamics of technological learning in industrial organizations. Organization Science, 8(3): 282-301.
- Knott, A. M. (2008). The role of top management in the generation of dynamic capabilities. Strategic Management Journal, 29(7): 771-788.
- Ko, J., & K. Kim. (2010). Exploratory learning and organizational ambidexterity: A comparative study of hightech SMEs in South Korea. The International Journal of Organizational Innovation, 3(1): 51-70.
- Kwan, S. K., & Chan, A. (2006). A study of the relationships between knowledge management, organizational culture, and organizational performance. International Journal of Knowledge Management, 2(2): 50-62.
- Laursen, K., & Salter, A. (2006). Open for innovation: The role of openness in explaining innovation performance among UK manufacturing firms. Strategic Management Journal, 27: 117-134.
- Lee, C., Lee, K., & Lee, H. (2010). Does a firm's absorptive capacity have a positive effect on its innovation performance? Journal of Business Research, 63(3): 289-297.
- Li, L., & Zhao, Y. (2008). A multi-level perspective on the relationships between organizational culture and performance. Journal of Knowledge Management, 12(5): 1-25.
- Lockett, A., & Wright, M. (2005). Resources, capabilities, and entrepreneurial strategies: A study of UK university spin-offs. International Small Business Journal, 23(5): 407-429.
- March, J. G. (1991). Exploration and exploitation in organizational learning. Organization Science, 2(1): 71-87. Martin, C. (2008). On the role of intermediaries in the exploration-exploitation debate. Journal of Business Research, 61(4): 343-348.
- Matusik, S. F., & Hill, C. W. L. (1998). The utilization of contingent work, knowledge creation, and competitive advantage. Academy of Management Review, 23(4): 680-697.
- McCarthy, A. (2009). Strategic capabilities, environmental dynamism, and innovation performance: An empirical study. International Journal of Management, 26(3): 593-606.
- McCarthy, A., & An, S. (2014). Linking absorptive capacity to performance: An investigation of innovation performance in manufacturing SMEs. International Journal of Production Research, 52(16): 4673-4693.
- Miller, D. J. (2006). The evolution of firm capabilities: When innovation meets organizational learning. Journal of Management Studies, 43(2): 315-339.
- Mintzberg, H. (1979). The Structuring of Organizations: A Synthesis of the Research. Prentice-Hall.

- Moorman, C., & Miner, A. S. (1998). Organizational improvisation and organizational memory. Academy of Management Review, 23(4): 698-723.
- O'Reilly, C. A., & Tushman, M. L. (2004). The ambidextrous organization. Harvard Business Review, 82(4): 74-81.
- O'Connor, G. C., & Rice, M. P. (2013). A systemic approach to creating radical innovation. California Management Review, 55(1): 116-139.
- O'Reilly, C. A., & Tushman, M. L. (2011). Innovation streams and ambidexterity: The role of senior management. Industrial Management & Data Systems, 111(2): 176-192.
- Parboteeah, K. P., & Valakivi, K. (2011). Organizational learning and innovation in emerging markets. *Academy of Management Proceedings*, 1: 1-6.
- Perks, K. J., & Tzokas, N. (2005). The role of relationship management in successful innovation. Journal of Product & Brand Management, 14(1): 54-65.
- Peters, T. J., & Waterman, R. H. (1982). In Search of Excellence: Lessons from America's Best-Run Companies. Harper & Row.
- Ookulangara, S., & Shephard, A. (2013). The role of organizational culture in innovation performance: An empirical investigation of small- and medium-sized enterprises. *International Journal of Innovation Management*, 17(4): 1-22.
- Rainey, H. G., Backoff, R. W., & Levine, C. H. (1976). Comparing public and private organizations. Public Administration Review, 36(2): 233-244.
- Raisch, S., & Birkinshaw, J. (2008). Organizational ambidexterity: Antecedents and outcomes. *Academy of Management Annals*, 2(1): 211-233.
- Rhee, J., Park, T., & Lee, H. (2010). The effects of innovation capability and firm performance: Evidence from Korean manufacturing firms. *Journal of Business Economics and Management*, 11(4): 623-644.
- Rindova, V., & Fombrun, C. (1999). Constructing competitive advantage: The role of firm-specific resources and capabilities. *Strategic Management Journal*, 20(2): 170-184.
- Rindova, V., & K. F. K. (2008). The dynamics of competitive advantage in markets. Journal of Business Research, 61(5): 484-489.
- Rothaermel, F. T., & Deeds, D. L. (2004). Exploration and exploitation alliances in biotechnology: A system of alliances. Strategic Management Journal, 25(3): 201-221.
- Senge, P. M. (1990). The Fifth Discipline: The Art and Practice of the Learning Organization. Doubleday.
- Sinkula, J. M., Baker, W. E., & Noordewier, T. (1997). A framework for market-based organizational learning: Linking values, knowledge, and behavior. Journal of the Academy of Marketing Science, 25(4): 305-318.
- Slater, S. F., & Narver, J. C. (1994). Does competitive environment moderate the market orientation-performance relationship? Journal of Marketing, 58(1): 46-55.
- Smirnova, M., & Koval, D. (2013). The influence of organizational culture on innovation performance: Evidence from an emerging economy. *International Journal of Organizational Innovation*, 5(1): 90-101.
- Sorenson, O. (2000). Letting the wind out of the sails: The impact of environmental dynamism on the performance of service firms. *Organization Science*, 11(5): 592-609.
- Stankiewicz, R. (2005). Technology Transfer and Innovation: The Role of Universities. In *Innovation, Technology* and *Knowledge Management* (pp. 98-115). Palgrave Macmillan.
- Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. Strategic Management Journal, 28(13): 1319-1350.
- Terziovski, M. (2007). The role of innovation in the performance of small to medium-sized enterprises. *International Journal of Technology Management*, 39(1): 98-114.
- Tushman, M. L., & O'Reilly, C. A. (1996). The ambidextrous organization: Managing evolutionary and revolutionary change. California Management Review, 38(4): 8-30.
- Van den Bosch, F. A. J., Volberda, H. W., & Boer, M. (1999). Coevolution of firm absorptive capacity and knowledge: The role of organization structure. Organization Studies, 20(5): 887-916.
- Van der Sijde, P., & W. H. R. (2008). Building innovative capabilities in public organizations. *Public Management Review*, 10(3): 379-397.
- Wiggins, L. L., & Ruefli, T. W. (2005). Competitive advantage: The new competitive advantage. *Strategic Management Journal*, 26(4): 367-372.
- Wu, L. Y. (2010). Innovation in the service industry: The impact of innovation strategy and organizational culture. Journal of Service Science and Management, 3(1): 54-67.
- Zander, U., & Kogut, B. (1995). Knowledge and the evolution of the multinational corporation. Organization Science, 6(3): 376-387.
- Zhang, Y., & Liu, H. (2010). Innovation capability and performance of manufacturing firms: Evidence from China. Journal of Business Research, 63(3): 195-201.