
Organizational Capacity Development and Innovation: The Case of Tunisian High-Tech Companies

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ABSTRACT

Purpose: This article examines the impact of organizational capacity development on the innovation potential of companies.

Design/methodology/approach: Based on a survey conducted with 32 high-tech sector companies, the study highlights that enhancing skills, knowledge, and resources within organizations promotes their ability to innovate. Statistical analysis, carried out using SPSS version 25, confirms a positive correlation between these organizational capacities and company performance.

Findings: This underscores their crucial role in ensuring survival and growth in an ever-evolving economic environment.

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I. INTRODUCTION

Today, in a context where innovation is more accessible than ever, companies must leverage this opportunity to enhance their competitiveness and develop innovative projects, as emphasized by Anthony Scott. Although the concept of innovation is often seen as abstract, its strategic importance for businesses is undeniable. Faced with increased competition, rapidly evolving technologies, and constantly changing markets, innovation is a crucial driver of growth. The survival and development of companies largely depend on their ability to effectively utilize their internal resources, skills, and knowledge.

Organizational capabilities, in particular, play a fundamental role in the success of innovation strategies. These managerial and operational competencies are central to business performance, enabling companies not only to adapt to changes but also to foster creativity and innovation within their internal processes. Moreover, new companies often emerge through innovative approaches that set them apart from competitors; to maintain this advantage, they must continually renew their practices and offerings.

From this perspective, this article aims to assess the impact of organizational capabilities on companies' innovation capacity. Based on an empirical study conducted with Tunisian high-tech companies, this research seeks to answer the following question: **What is the effect of developing organizational capabilities on innovation?** We will first address the theoretical foundations of the link between these two concepts before analyzing the concrete results observed in this study.

A. Literature Review

This literature review is organized around two main themes. The first examines the concept of innovation and the capacity of companies to innovate. The second focuses on organizational capabilities, emphasizing the key theories and components that influence organizational performance.

1. Concept of Innovation

Innovation has long been recognized as a crucial factor for business competitiveness and growth (McAdam & Keogh, 2004; Edwards, 2005). In 2024, research continues to confirm that innovation remains a significant driver of value creation at both microeconomic and macroeconomic levels, playing a key role in helping companies adapt to constantly evolving markets (Dosi et al., 2020). Innovation helps businesses differentiate themselves in a globalized environment, thus creating and maintaining a competitive advantage (Priyono & Hidayat, 2022)

Innovation capacity, defined as the ability to develop new ideas, products, or services, is now viewed as a critical strategic resource for business adaptability and sustainability (Pisano, 2019). It enables organizations to meet market expectations while enhancing their competitiveness through continuous productivity and operational efficiency improvements (Schilling, 2021). This perspective aligns with earlier works that identified innovation as a central pillar of business success (Guan & Ma, 2003).

1) Innovation Typologies

a. Typologies by Innovation Object

Innovation can be classified into various types based on its object and process (OECD, 2005; Christensen et al., 2023). While technological innovation, whether related to products or processes, has traditionally dominated, recent studies highlight growing interest in non-technological innovation, particularly organizational and marketing innovation (Schumpeter, 1942; Dyer et al., 2023). According to the OECD (2005), innovation now includes the implementation of new organizational and commercial methods, reflecting the increased complexity of innovation processes in modern companies (Gawer & Cusumano, 2022).

- 1) **Product Innovation:** This type involves entirely new or improved products and remains a key lever for enhancing sales and profitability (Orfila-Sintes & Mattsson, 2009). The distinction between technologically new and improved products remains relevant in current studies (OECD, 2023).
- 2) **Process Innovation:** Process innovation, which optimizes production or distribution processes, continues to be recognized for its indirect impact on competitiveness by reducing costs and increasing performance (Tidd & Bessant, 2018).
- 3) **Organizational Innovation:** This form involves reorganizing internal practices to increase productivity. In 2024, many authors emphasize its role in improving organizational flexibility, essential in a constantly changing economic environment (Rothaermel, 2022). Organizational innovation also promotes integrating digital technologies into management and production processes, a crucial element for today's industries (OECD, 2023).
- 4) **Marketing Innovation:** Innovations in marketing, often linked to new promotion or distribution methods, have gained importance with digital transformation, influencing digital marketing strategies (Kotler et al., 2022).

b. Typologies by Novelty Degree

Innovations fall into two main categories: incremental and radical innovations. These reflect different degrees of change and impact on organizations (Garcia & Calantone, 2002; O'Sullivan & Dooley, 2020).

- 1) **Incremental Innovation:** This involves continuous, gradual improvements to existing products or processes. While it does not fundamentally transform business practices, it enhances overall long-term performance (Tidd et al., 2022). In a competitive environment, this type of innovation remains crucial for maintaining an edge.
- 2) **Radical Innovation:** By contrast, radical innovation introduces entirely new products or processes capable of disrupting a market (Teece, 2022). Although riskier, these innovations often lead to significant transformations for companies. In 2024, it is estimated that only 10% to 15% of innovations are truly radical (OECD, 2023).

2. Organizational Capabilities

Organizational capabilities are defined as a company's ability to effectively mobilize its human, technological, and physical resources to achieve strategic objectives (Collis, 1994; Grant, 1991). These capabilities include internal skills, established routines (Zollo & Winter, 2002), and the ability to renew and optimize assets to maintain competitiveness (Teece et al., 1997).

In 2024, knowledge management and organizational learning are central elements of these capabilities, facilitating the diffusion of innovations within the company (Nonaka & Takeuchi, 2019). Current researchers emphasize the importance of coordinating these resources to foster a continuous culture of innovation (Pisano, 2022).

Synthesis: The literature review demonstrates that innovation, whether incremental or radical, largely depends on a company's organizational capabilities. These capabilities enable the transformation of ideas and knowledge into new products or processes, thereby enhancing competitiveness. The study of current innovation typologies and components highlights the need for an integrated approach, where technological, organizational, and marketing innovations are interconnected to maximize performance.

B. Impact of Organizational Capacity Development on Innovation Capability

In this section, after examining the concepts of organizational capacity development and innovation capability, along with key components such as skills, knowledge, and resources, we explore their respective impacts on innovation capability. First, we analyze the effect of organizational capacities (OC) on companies' innovation capacity, followed by the impact of skills, knowledge, and resources.

1. Relationship Between Organizational Capacity Development and Innovation Capability

Recent literature emphasizes the central role of innovation in ensuring the competitiveness, growth, and sustainability of businesses (Dyer et al., 2024; Edmondson & Gino, 2023). Innovation has become a crucial lever for gaining competitive advantages and responding to rapidly evolving markets (Teece, Pisano, & Shuen, 1997). Several studies highlight those organizational capacities (OC) play a key role in strengthening companies' innovation capability. For example, Koc (2007) highlighted the importance of OC in fostering innovation, defined as the ability to adopt and effectively implement new ideas, processes, and products (Hurley & Hult, 1998). Human resource management, particularly the diversity of skills and experiences, has a direct impact on the performance and success of innovative projects (Tsai, Moskowitz, & Lee, 2023). Thus, improving organizational capacities is a crucial factor for business competitiveness (Dyer et al., 2024).

2. Effect of Skills on Innovation Capability

The quality of human resources is often identified as a key factor in companies' innovation capability (Freel et al., 2023; Becheikh et al., 2023). Several authors, such as Carrier and Julien (2024), emphasize the role of technical skills (engineers, technicians, designers) in the innovation process. These employees not only generate ideas but also act as catalysts to stimulate creativity within the organization. A highly skilled and diverse workforce enhances innovation capacity, as noted by Romijn and Albaladejo (2023) and Souitaris (2024).

3. Effect of Knowledge on Innovation Capability

The role of knowledge in innovation has been extensively highlighted in contemporary literature (Nonaka & Takeuchi, 2023). Innovation often begins with acquiring and managing new knowledge, allowing companies to better interact with their competitive environment (Chanal, 2024). Companies must not only create knowledge bases but also promote internal dissemination to foster innovation (Perdomo-Ortiz et al., 2024). The process of sharing and exchanging information is also essential for innovation, as it enriches ideas and supports the development of new solutions (Boutelitan & Boder, 2024).

4. Effect of Resources on Innovation Capability

The availability and diversity of resources, whether human, technical, or financial, are essential for supporting innovation (Freel et al., 2024; Huang et al., 2023). Innovation projects, often complex and costly, require sufficient resources to succeed. A company capable of aligning its resources with its innovation strategy is better positioned for success (Doyle, 2024). Indeed, resources such as R&D, as well as marketing and technological skills, play a crucial role in developing new products and services (Landry et al., 2024). Access to diverse resources is therefore a determining factor in the success of innovative projects.

These analyses show that organizational capacities, skills, knowledge, and resources all play critical roles in developing innovation capability, an essential lever for ensuring companies' competitiveness in an ever-evolving economic environment.

II. METHODS

The methodology of this study aims to analyze the impact of organizational capacities on companies' innovation capability. A survey was conducted with 32 companies operating in the high-tech sector in Tunisia, chosen for its technological dynamism, conducive to innovation. Data were collected from mid-level managers,

who play key roles in implementing innovative initiatives. The analysis is based on a set of 25 variables measuring organizational capacities and 13 variables related to innovation.

To collect data, a questionnaire was used due to its ability to generate quantifiable and comparable information within a representative sample. The questions were formulated clearly and concisely, in a closed-ended format, following the methodological standards established by Evrard et al. (2003). Responses were gathered using a five-point Likert scale, ranging from "strongly disagree" to "strongly agree," which facilitated statistical analysis and the identification of key factors for testing hypotheses.

Data processing was conducted using SPSS 25 software, applying two complementary statistical approaches. Initially, an exploratory analysis tested the reliability and validity of the data using Cronbach's Alpha and Principal Component Analysis (PCA). A confirmatory analysis was then performed using the Partial Least Squares (PLS) method version 2.0 to validate the measurement structure and test hypotheses regarding the influence of organizational capacities on innovation. These techniques enabled validation of the theoretical model by analyzing relationships between organizational capacities and innovation capability.

The hypotheses formulated in this research are as follows:

1. H1: Organizational capacities have a positive impact on companies' innovation capability.
2. H2: Leveraging internal competencies significantly contributes to innovation.
3. H3: Knowledge development plays a key role in enhancing innovation.
4. H4: An organizational culture conducive to innovation significantly strengthens companies' innovation capability.

These hypotheses were integrated into a conceptual model designed to explore interactions between the studied variables. This model serves as an analytical framework to understand the effects of organizational capacities on innovation in the high-tech sector

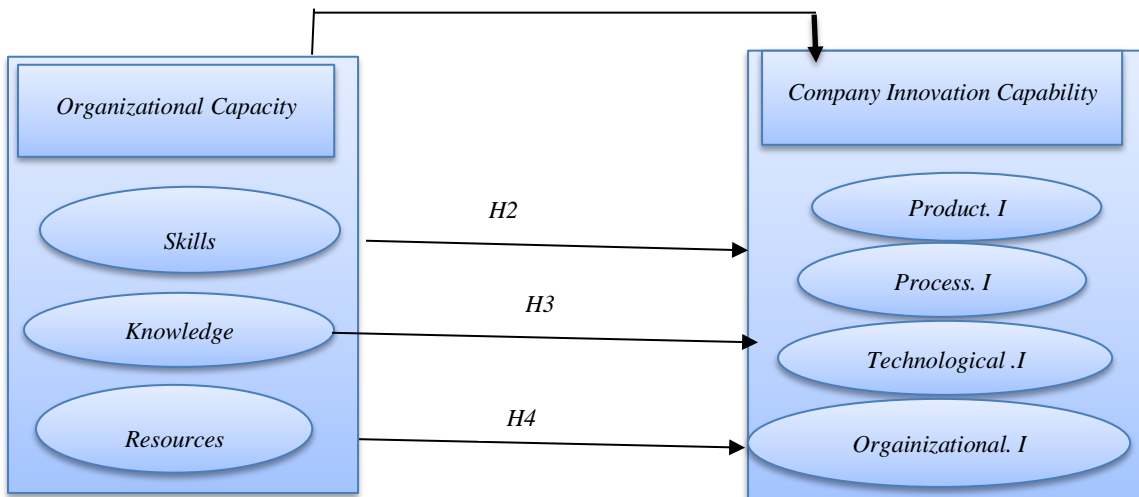


Fig. Theoretical Research Model

A. Characteristics of the Research Sample

In this section, we present the characteristics of the studied sample. To profile the respondents, univariate statistical analyses were conducted, including frequency distributions for each descriptive variable. This approach enabled the categorization of participants based on criteria such as age and gender. The following paragraphs detail these characteristics, addressing the distribution by gender and by the age of respondents.

B. Distribution of Respondents by Gender

The table below shows the distribution of the sample members by gender.

Table 1: Distribution of Respondents by Gender

		<i>Frequency</i>	<i>Percentage</i>	<i>Valid Percentage</i>	<i>Cumulative Percentage</i>
<i>Valid</i>	<i>Male</i>	25	62,5	62,5	62,5
	<i>Female</i>	15	37,5	37,5	100,0
	<i>Total</i>	40	100,0	100,0	

As shown in the table above, more than half of the respondents are male, representing **62.5%** of the sample. In comparison, female respondents constitute approximately one-third of the participants.

These data indicate that the majority of respondents are male, accounting for **62.5%**. The predominance of males among the respondents in this study can be explained by several factors related to the high-tech sector in Tunisia:

- a. Firstly, this sector has traditionally been dominated by a male workforce, which is also observed in other countries. This trend can be attributed to a historically higher representation of men in technical fields such as computer science, engineering, and applied sciences.
- b. Additionally, women are still underrepresented in STEM fields (science, technology, engineering, and mathematics), limiting their presence in companies within this sector. Gender stereotypes also play an important role, as technical professions are often perceived as more suited to men, which influences women's career choices.
- c. Furthermore, men frequently occupy a larger proportion of leadership positions in technology companies. If the sample includes managers or innovation leaders, this could reinforce the observed male predominance.
- d. Finally, certain internal company policies may inadvertently favor a higher male presence due to imbalances in recruitment or promotion processes. Therefore, this disparity reflects not only the current structure of the sector in Tunisia but also broader cultural, educational, and organizational factors.

C. Distribution of Respondents by Age

The following table presents the distribution of respondents according to three age groups: under 30 years old, 30 to 40 years old, and over 40 years old. As indicated in the table, the majority of respondents belong to a relatively older age group. Specifically, 42.5% of respondents are over 40 years old, while those under 40 account for only 37.5% of the sample.

Table 2: Distribution of Respondents by Age

		<i>Frequency</i>	<i>Percentage</i>	<i>Valid Percentage</i>	<i>Cumulative Percentage</i>
<i>Valid</i>	<i>Under 30 years</i>	8	20,0	20,0	20,0
	<i>Between 30 and 40</i>	15	37,5	37,5	57,5
	<i>Over 40 years</i>	17	42,5	42,5	100,0
	<i>Total</i>	40	100,0	100,0	

This distribution can be explained by several factors specific to the high-tech sector in Tunisia.

Firstly, the development of organizational capabilities and innovation often requires significant professional experience, which could explain the strong representation of respondents over 40 years old. These individuals are likely to hold managerial or leadership positions, where their skills and expertise are essential for implementing innovative strategies.

Secondly, companies in the high-tech sector generally value profiles with in-depth knowledge of the field and a strategic vision, often acquired after many years of experience. Additionally, roles related to innovation or organizational decision-making are frequently held by individuals with seniority in the company, which explains their prominent presence among the respondents.

Finally, younger respondents, particularly those under 30 years old, may be underrepresented because they often occupy technical or operational roles with more limited involvement in decision-making processes related to organizational innovation. Therefore, this age distribution reflects the hierarchical structure of the sector and the importance of experience in developing organizational capabilities and fostering innovation.

D. The distribution of the respondent sample according to their experience

The table below presents the distribution of respondents' experience, categorized into three groups: participants with less than 5 years of experience, those with between 5 and 10 years of experience, and those with more than 10 years of experience.

Table 3: Distribution of Respondents by Experience

		<i>Depuis combien de temps travaillez-vous dans cette entreprise</i>			
		<i>Effectifs</i>	<i>%</i>	<i>% valide</i>	<i>% cumulé</i>
<i>Valide</i>	<i>Moins de 5 ans</i>	<i>8</i>	<i>20,0</i>	<i>20,0</i>	<i>20,0</i>
	<i>Entre 5 et 10 ans</i>	<i>14</i>	<i>35,0</i>	<i>35,0</i>	<i>55,0</i>
	<i>Plus de 10 ans</i>	<i>18</i>	<i>45,0</i>	<i>45,0</i>	<i>100,0</i>
<i>Total</i>		<i>40</i>	<i>100,0</i>	<i>100,0</i>	

After presenting the distribution of participants by gender, age, and experience within the company, we can conclude that our sample consists mainly of men, over 40 years old, who have been working in the company for more than 10 years. As shown in the previous table, a significant proportion of respondents (45%) have more than 10 years of professional experience in their company. However, a notable share of participants belongs to categories with shorter tenure, ranging between 20% and 35%.

Analyzing the distribution of participants by gender, age, and tenure reveals that the sample is primarily composed of men over 40 years old with more than 10 years of experience in their company.

These results provide essential insights into understanding the relationship between organizational capabilities and innovation in Tunisian high-tech companies. The fact that 45% of respondents have over 10 years of experience indicates significant internal stability, which can foster the long-term development of organizational capabilities. Experienced employees often play a key role in disseminating knowledge and continuously improving organizational practices.

Furthermore, the notable presence of employees with less than 10 years of tenure (between 20% and 35%) introduces a factor of diversity that should not be overlooked. These newer profiles are likely to bring fresh ideas, contributing to a balance between tradition and innovation.

Additionally, the majority of respondents are men over 40 years old, reflecting the typical demographic structure of companies in this sector in Tunisia. This composition raises interesting questions about the influence of social and cultural factors in developing organizational capabilities. Seniority and experience can offer better mastery of internal processes, while generational diversity might stimulate innovation by incorporating varied approaches. Therefore, these results show that combining experience with diverse profiles can play a crucial role in the adaptability and innovative performance of companies.

III. RESULTS AND DISCUSSION

The results of our study reveal significant correlations between organizational capabilities and various forms of innovation. First, we analyzed the structure of organizational variables using exploratory factor analyses, followed by reliability checks for the measurement scales.

1. Validation of the Organizational Capabilities Measurement Scale

The exploratory factor analysis validated the measurement scale for the explanatory variable "organizational capability," composed of 25 items distributed across three main dimensions: skills, knowledge, and organizational resources. The factorization conditions were met (significant Bartlett's test and KMO = 0.699), justifying the analysis.

- a. Organizational Skills (COMPT): This dimension includes 10 items with excellent internal consistency ($\alpha = 0.942$), measuring the level of organizational skills.
- b. Organizational Knowledge (CONN): Composed of 6 items, this dimension shows satisfactory internal consistency ($\alpha = 0.892$), capturing mastery of organizational knowledge.
- c. Organizational Resources (RESS): This dimension includes 9 items with satisfactory reliability ($\alpha = 0.841$), measuring the importance of available tangible and intangible resources.

These results confirm that the measurement scale for organizational capability is multidimensional and provides a reliable structure for evaluating this key variable.

2. Validation of the Innovation Capability Measurement Scale

The innovation capability measurement scale, consisting of 13 items, was also subjected to exploratory factor analysis. With a total explained variance percentage of 71.43%, the items grouped into four main dimensions after Varimax rotation:

- a. Product Innovation (INNOVPDT): Comprising 5 items, this dimension exhibits excellent internal consistency ($\alpha = 0.929$), measuring product innovation.
- b. Process Innovation (INNOVPRO): This dimension consists of 2 items, with satisfactory internal consistency ($\alpha = 0.825$), measuring innovations in production processes.
- c. Technological Innovation (INNOVTECH): Comprising 3 items, this dimension measures technological innovation with acceptable reliability ($\alpha = 0.608$).
- d. Organizational Innovation (INNOVORG): Although this dimension includes 3 items, it was excluded due to low reliability ($\alpha = -0.253$).

Ultimately, the innovation capability scale is also multidimensional, consisting of 3 dimensions and 10 items, and it presents high reliability for measuring innovation within companies.

3. Confirmatory Factor Analyses and PLS Regressions

Confirmatory factor analyses, conducted using PLS 2.0 software, validated the scale structures and theoretical relationships between organizational variables and innovation capability. PLS regressions, which do not require strict normality conditions, revealed significant correlations between organizational capabilities (skills, knowledge, and resources) and various forms of innovation (product, process, and technology).

The results indicate that developing skills, knowledge, and resources within companies plays a crucial role in enhancing their innovation capability, thereby contributing to their competitiveness in a dynamic environment.

4. Correlations Between Latent Variables

The correlations between latent variables are illustrated in the conceptual model below. This model explores the relationship between factors of organizational capability and innovation capability. Manifest variables (items) such as COMP1, COMP2, COMP3, COMP5, and COMP7 contribute significantly and positively to constructing the latent variable "skills." Conversely, some variables do not have a significant impact on their respective latent variables. For instance, manifest variables RH3, RH5, and RH6 do not contribute significantly to the "human resources" dimension, suggesting that these items may not adequately capture key aspects of this factor or might be redundant with other items.

Regarding the "knowledge" dimension, while most manifest variables have a positive effect, the item CONN4 exhibits a negative influence. This may suggest that this item reflects a weakness or limitation in the transmission or application of knowledge within the organization.

At the level of the dependent variable, which is the company's innovation capability, all latent variables are significant. This indicates that the measured organizational factors have a direct and relevant impact on innovation capability, highlighting the importance of coherent and optimized management of these various dimensions.

The correlations between the latent variables are as follows:

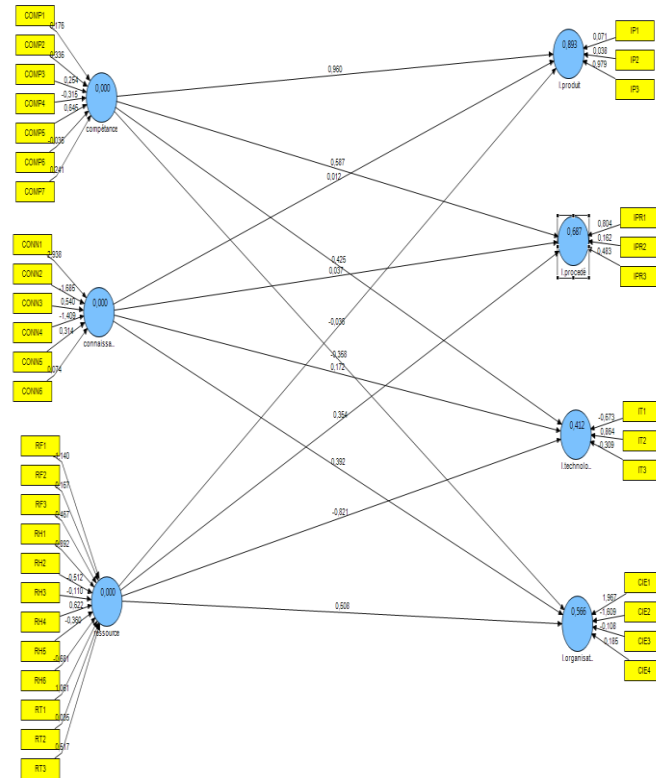


Figure : Results of the Conceptual Model Test on the Relationship Between Organizational Capability and Innovation Capability Using the PLS Method.

The structural model, also known as the inner model, describes the relationships between explanatory latent variables and the latent variables to be explained. The validation of this model relies on two main criteria: the coefficient of determination (R^2) and the significance of regression coefficients, measured using the Student's t-test.

The first criterion to examine is the coefficient of determination (R^2). This coefficient assesses the quality of the inner model, indicating the model's ability to predict endogenous variables. For a model to be considered sufficiently explanatory, the R^2 value must be relatively high. According to W. Chin (1998), an R^2 greater than 0.670 is considered substantial, around 0.333 as moderate, and below 0.19 as weak.

The coefficient of determination (R^2) evaluates the quality of the internal model, specifically the relationships between the latent variables. The significant and positive correlations between all variables of organizational capability and various forms of innovation are as follows: product innovation (0.893), process innovation (0.687), technological innovation (0.412), and organizational innovation (0.566).

A. Results

The growth and sustainability of businesses rely primarily on their resources and their ability to manage them effectively. Among these resources, organizational capabilities—especially in terms of knowledge and expertise—play a fundamental role. Innovation forms a central pillar of competitiveness, requiring companies to innovate continuously to remain viable in a competitive environment. This article examines the impact of developing organizational capabilities on the innovation capacity of companies in the high-tech sector.

Our study is structured into two main sections. The first section outlines the theoretical foundations underpinning our work, focusing on the definition of organizational capabilities and their influence on innovation. The second section presents the data collection methodology and empirical results obtained from questionnaires administered to 40 mid-level managers from 31 companies. Statistical analyses confirm that developing

organizational capabilities positively impacts innovation, particularly in product, procedural, and technological areas.

From a theoretical perspective, this research enriches knowledge about the impact of organizational capabilities by incorporating variables from various management fields. However, our results have certain limitations. The quantitative approach and specific sectoral context introduce biases, suggesting the need for future qualitative research applied to other sectors. Finally, it would be useful to better understand the influence of different types of resources (human, financial, and technological) on a company's innovation capacity.

B. Discussion

1. Examination of Direct Relationships

1) H1: The Positive Impact of Skills on the Firm's Innovation Capability

The acceptance of hypothesis H1.3, which examines the impact of organizational skills on technological innovation, and the rejection of hypotheses H1.1 and H1.2, concerning product innovation and process innovation, respectively, can be explained by several factors specific to the context studied.

Firstly, technological innovation is closely linked to organizational skills because it heavily relies on a company's ability to efficiently manage information, human resources, and internal processes from a technological integration perspective. Tunisian high-tech companies appear to have focused their organizational efforts on acquiring and optimizing new technologies, which would justify the acceptance of H1.3.

In contrast, product innovation, which requires specific research and development skills as well as design capabilities, may exceed the scope of general organizational skills, thus explaining the rejection of H1.1.

Similarly, process innovation, which focuses on improving internal processes, could be hindered by technological or structural constraints, limiting the impact of organizational skills in this area and resulting in the rejection of H1.2.

Finally, the high-tech sector in Tunisia seems to prioritize a strategy focused on technological innovation, mobilizing organizational resources accordingly.

2) H2: The Impact of Knowledge on the Firm's Innovation Capability

The acceptance of hypothesis H2.1, which establishes a link between organizational knowledge and product innovation, can be explained by the fact that high-tech companies often leverage their internal knowledge to develop new products. This knowledge may include market data, customer experiences, or specific expertise. The ability to integrate and utilize this knowledge allows companies to design products better suited to market needs or offer innovative solutions.

Similarly, the acceptance of H2.3, concerning technological innovation, demonstrates that organizational knowledge plays a central role in adopting and enhancing existing technologies or developing new ones. This may include mastery of technological tools, integration of new solutions, or internal expertise in specialized areas. In a technology-intensive sector, organizational knowledge fosters a dynamic and sustained innovation environment.

In contrast, the rejection of hypothesis H2.2, related to the impact of organizational knowledge on process innovation, suggests that this knowledge is not directly applied or utilized to transform internal processes. Process innovation often requires specific approaches to quality management, operational optimization, or automation, which may go beyond general organizational knowledge. Companies may also face structural or cultural barriers that limit their ability to apply this knowledge to process improvements.

How do these dynamics manifest?

Organizational knowledge contributes to product innovation (H2.1) by providing a better understanding of market needs and differentiation opportunities. This knowledge can be structured through internal databases, customer feedback, or accumulated team experiences. Leveraging this knowledge facilitates the creation of new products tailored to technological sector demands.

Regarding technological innovation (H2.3), this knowledge is utilized to identify, adopt, and sometimes develop new technological solutions. It can stem from technological watch, internal expertise, or collaborations with research institutions. The high-tech sector inherently values the ability to transform organizational knowledge into tangible technological innovations.

However, for process innovation (H2.2), simply possessing organizational knowledge is insufficient. Implementing structured processes for continuous improvement or quality management is necessary. The rejection of this hypothesis may indicate a gap in companies' ability to convert this knowledge into concrete actions for processes or a lack of prioritization of process innovation in their overall strategy.

Thus, these results show that organizational knowledge is crucial for certain types of innovation, but its impact heavily depends on how it is utilized within companies.

3) H3: The Impact of Resources on the Firm's Innovation Capability

Analyzing the impact of organizational resources on various forms of innovation (H3.1, H3.2, H3.3) provides insight into the internal dynamics of the studied companies. The positive effect of organizational resources on product innovation (H3.1) may be explained by the ability of these resources to support new product development processes by providing infrastructure, specialized human skills, or appropriate management tools. These resources create an environment conducive to designing innovative solutions aligned with market needs.

For technological innovation (H3.3), organizational resources play a key role in acquiring and integrating new technologies, facilitating access to advanced equipment, or promoting continuous training for technical teams.

Conversely, if the impact of resources on process innovation (H3.2) is less evident or rejected, it may indicate that companies do not effectively mobilize their resources to improve internal processes. Process innovation often requires specific resources dedicated to operational optimization, which may not yet be sufficiently developed or prioritized within these companies.

Thus, the results reveal that the effectiveness of organizational resources depends on each company's innovation strategy and their ability to align these resources with specific innovation objectives.

IV. CONCLUSION

In an economic context marked by increased competition, top-performing companies strive to position themselves strategically while leveraging their resources to enhance efficiency and improve future performance. Innovation, now viewed as an essential lever, is a key factor for survival and differentiation. Simultaneously, developing organizational capabilities represents both a managerial challenge and a fundamental lever for business success and growth.

This article explores the interaction between organizational capabilities—specifically skills, knowledge, and resources—and the innovation capacity of Tunisian high-tech companies. Using a hypothetico-deductive approach, an empirical study was conducted with a representative sample of companies, combining theoretical and practical aspects.

The research results indicate that developing organizational capabilities, particularly in skills and resources, directly promotes innovation and strengthens competitiveness. Companies that leverage these strengths stand out by continuously improving their products, processes, and technologies, thus consolidating their competitive position. Our study also confirms that innovation capacity is closely linked to the quantity and quality of available resources, highlighting the central role of developing organizational capabilities as a driver of innovation, particularly for SMEs.

Practically, this research provides business leaders and stakeholders in the technology sector with valuable insights to foster innovation. It also offers guidance for struggling companies to innovate and adapt to the demands of a constantly evolving global market. The developed typology allows companies to assess their competitive positioning and define more ambitious and innovative strategies.

However, this study has certain limitations. Firstly, it focuses on companies within a specific technology hub, limiting the generalizability of the results. Additionally, although we examined the information and communication technology (ICT) sector as a whole, these conclusions may not apply to other technology sectors.

Methodologically, our sample size remains limited. A study involving a larger and more diverse sample could validate and deepen our conclusions. Furthermore, while the quantitative approach based on a questionnaire is suitable, it has limitations, particularly regarding response reliability, despite face-to-face administration. Finally, although the PLS method is relevant in our context, it could be enhanced with larger samples and more complex research models. Future studies could focus on specific organizational components—such as human, financial, technological, and organizational resources—and their impact on innovation, offering new perspectives and a broader framework for reflection.

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