

Public-Private Partnership Projects and Digital Innovation within the Framework of Local Development in the Tunisian Territory

Bahri Cyrine, Laabidi Mzali Yosra

LARIME Laboratory, FSEG Tunis, Tunis, Tunisia

Email: cyrine.bahri@gmail.com, mzaliyosra@gmail.com

How to cite this paper: Cyrine, B., & Yosra, L. M. (2024). Public-Private Partnership Projects and Digital Innovation within the Framework of Local Development in the Tunisian Territory. *Open Journal of Business and Management*, 12, 4139-4154.

<https://doi.org/10.4236/ojbm.2024.126208>

Received: September 20, 2024

Accepted: November 8, 2024

Published: November 11, 2024

Copyright © 2024 by author(s) and Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

The potential for local development lies in its ability to improve the living standards of territories and make their economies more attractive to foreign investments. However, to achieve this goal, it is necessary to implement a set of tools that encompass managerial, relational, and legislative aspects. These tools are closely linked to innovation and the ability of local authorities to leverage technologies, particularly Information and Communication Technologies (ICT). Digitalization promotes the territory's image both locally and internationally, simplifies procedures, and strengthens social cohesion. Today, digital technology holds a central place in the transformation strategy of the Tunisian Administration. Various initiatives are being launched to realize this strategy. These initiatives aim to bring the administration closer to citizens, promote the transparency of administrative procedures, and combat corruption. Our study focuses on analyzing the relationship between digital innovation and local development, as well as the impact of this relationship on the territory. To do this, theoretical proposals related to this topic have been formulated. The results of our research show that there are several obstacles hindering the functioning of these "PPP" based on digital innovation. Nevertheless, the effective management of digital resources has a significant impact on local and territorial development, particularly in the Tunisian context. The conclusions are more meaningful in terms of development mode, given the context of our research, which focuses on a state undergoing renewal.

Keywords

Digital Transformation, Innovation, Local Development, Public-Private Partnership

1. Introduction

Nowadays, faced with various challenges, the territory is at the heart of every

development strategy. Indeed, it represents the focus of public action, a domain where institutional and non-institutional policymakers, as well as development practitioners, contribute. The territory has always attracted the interest of researchers across various disciplines (geographers, sociologists, economists, legal scholars, etc.). An attractive region necessitates the mobilization of diverse actors and collective intelligence, which implies cooperation and negotiation among multiple stakeholders.

The objective is to highlight the specific attributes that enhance the attractiveness of a given territory, particularly by implementing authentic projects (Meyer et al., 2012). The need for establishing an Adapted Territorial Intelligence Process (PITA) has become an international imperative, especially in Tunisia, where the concept of territorial development has significantly evolved in recent years (Meyer et al., 2018a, 2018b). The “Jasmine Revolution” of 2011 had a considerable impact on Tunisian territory, particularly due to the pressure of new economic, social, and environmental challenges, and to meet the expectations of the citizens who drove the revolution. More specifically, territorial development requires clear strategies supported by various systems of practice and management within frameworks of communication, information transfer, knowledge capitalization, and dissemination (Haddad, 2010).

In a “new Tunisia,” the product of a heavy legacy, this emerging development culture can only seek greater support and the adoption of a common language and precise communication framework (Haddad, 2010). Furthermore, local and territorial development is closely tied to digital innovations and technological advancements, which play a crucial role in the transformation and growth of regions (Liefoghe and Leducq, 2017). Digitalization enhances the image of the territory both internally and externally, simplifies processes, and strengthens social cohesion. Its impact is vital in promoting local development, especially in attracting investments and facilitating project realization (El Filali and El Moujadidi, 2022).

Literature and studies such as those by Nooteboom (2000), Suire and Vicente (2008), and Torre (2014) have identified the role of digital technology in the relationship between territory and innovation, particularly in its ability to simplify access to essential resources. Additionally, digital innovations are crucial for fostering territorial development by enhancing connectivity, creativity, resource efficiency, and service improvement, all of which contribute to creating dynamic and resilient local economies.

The questions related to this topic span several disciplines, notably management sciences, social sciences, and humanities. These include public administration (how to build or promote territorial networks?), strategy (the relationships between businesses and territories?), entrepreneurship (how to revitalize and operate within territories?), and organization (what governance? which actors interact?). How are the communication tools for territorial intelligence chosen to keep pace with technological advances that support local development?

Through this research, we aim to answer a set of specific questions related to

this subject: How can digital innovation be defined? What are the uses of digitalization in territorial development projects? What are the key success factors of digitalization, the potential obstacles, and its impact on rapidly growing territories?

To address these questions, we will first define the aspects of digitalization in the first section. Then, we will examine the impact of digital implementation on local development within the Tunisian territorial context in the second section. To better understand the concept of digital innovation in the context of territorial development, we have focused our work on understanding how socially and societally innovative projects function within the ICT sector.

Although widely discussed in Western literature, this topic remains relatively unexplored in Tunisia, which is why it is essential to approach and better understand it.

2. Digitalization and Local Development: A New Approach to Enhancing Territories

The world is undergoing significant change due to the rise of digital technologies. These advancements are transforming all sectors of society, from businesses to public administration, and even citizens. Throughout this section, we will explore the concept of digitalization, drawing on previous research by experts, and highlight its importance, particularly in relation to local development. We will also discuss the applications of digital strategy in promoting development.

2.1. Digitalization: Definitions and Challenges

Studies on the economic and social impacts of digitization date back to the 1980s and continue to this day (Van Kruining, 2017). The advent of computers in the 1980s, followed by the expansion of the internet in the 2000s, and the development of information and communication technologies (ICT), gradually integrated technology into all aspects of society, particularly within businesses. These companies seek to expand globally, adopt online presences, establish extensive IT infrastructures, and invest in new communication tools to facilitate remote work for their employees worldwide (Orlikowski & Scott, 2008).

The evolution of mobile technologies (4G and cloud computing), the emergence of new devices, connected objects, the rise of social media, big data management, as well as the growth of collaborative platforms, all signify the current peak of digital transformation (Barlatier, 2016). In fact, due to their ubiquity and versatility, information and communication technologies (ICT) are considered both key elements of innovation and tools to activate essential internal resources or mobilize external resources in favor of innovation (Cardona et al., 2013; Nambisan, 2013).

Numerous studies demonstrate a tangible link between the use or investment in information and communication technologies (ICT) and positive innovation outcomes. This was also identified in the works of Kleis et al. (2012), where digital-

related definitions were categorized into three main types:

- **Technological identification:** This indicates that technological transformation relies on the use of new information and communication technologies (ICT), such as social networks and mobile technology (Fitzgerald et al., 2013). It also enables the creation of added value from digital capital (McDonald & Rowsell-Jones, 2012).
- **Organizational identification:** This refers to the idea that promoting digital adoption requires a process of organizational change or the emergence of new business models (Ross et al., 2016). This type of change necessitates new investments to engage digital customers at every stage of the relationship lifecycle and to enhance their experiences (Solis et al., 2014). Its adoption can lead to a radical transformation in organizational performance (Westerman et al., 2011).
- **Social identification:** The social influence of digital technology manifests in its significant impact on various aspects of human life (Matt et al., 2015). This impact also extends to political, commercial, and social domains (Collin et al., 2015).

Several tools have been mentioned in relation to digitalization, such as mobile technologies, also referred to as “human-machine interaction” (Bucki, 2016), or social networks that enable the exchange of information and knowledge (Schlesinger & Doyle, 2014), as well as cloud computing, which represents the hardware and systems providing services within data centers (Armbrust et al., 2010).

At this stage, we can formulate the following proposition derived from the literature:

P1: Digitalization has become essential for ensuring the quality of services in local authorities. Its adoption facilitates the realization of their strategy, leading to beneficial changes in their organizations, resulting in substantial savings in time and money.

2.2. Local Development: A Lever for Territorial Attractiveness

Each area or territory has its own unique appeal. Some countries, particularly developing ones, are disadvantaged in terms of geographical location and cultural, social, tourist, and economic environment, with a limited level of competitiveness. This raises several questions, notably: how can certain specific resources be enhanced? How can their potential for geographic development be measured? Tunisia’s location on the southern shore of the Mediterranean provides numerous examples of sandy coastlines bordering cities and tourist areas, and the consequences of the accelerated and sometimes hasty occupation of these coasts (Chebil et al., 2018). This competitive advantage must be taken into consideration. In what ways and under what conditions can companies establish collective intersectoral evaluation methods? How can we ensure the participation of a broad range of local actors? As a mobilizing factor for territorial exchanges, should we also identify and measure the sense of belonging of these actors to their territories?

All these questions are currently being raised within the framework of several social programs involving multinational companies, such as Orange's engagement with civil society and the state. This helps consolidate knowledge in public and territorial exchanges in particularly threatened, disadvantaged, and vulnerable areas, allowing decision-makers to benefit from the results by implementing them in various fields. This involves the engagement of private companies in driving change with a focus on development.

Our research is part of an in-depth study of several public-private partnership projects adopted by Orange Tunisia in collaboration with various ministries. The goal is to generate interest in the role of public-private actors and territorial intelligence tools (IT) in favor of local development and to understand its impact.

The transition to a knowledge-based intangible economy makes information a crucial strategic lever, if not a lever of competitiveness. Moreover, in the face of the vast information brought by ICTs, mastering it becomes imperative.

Due to the many divergences that have emerged and been publicly discussed since 2011, Tunisia has recognized the need for a new model and a different development mechanism. Despite various policies aimed at opening up vulnerable and threatened areas, territorial imbalances not only deepen regional inequalities but also exacerbate the population's sense of injustice.

Local development represents an opportunity for territories to emerge and become autonomous, enabling them to overcome the internal and external challenges they face. It is also considered an essential imperative for any region, involving a specific organizational strategy (Greffé, 2002).

The diversification and enrichment of economic and social activities in a territory result from the mobilization and coordination of its resources and energies. Local development is a process that has emerged in marginalized territories, focusing on a collective drive to implement collaborative projects in a given growing area.

The key principles of this development are based on (El Filali and El Moujadidi, 2022):

- **Social and Solidarity Economy:** Social relations and traditional economic models have been profoundly transformed by the digital revolution (Mandel, 2017). This new economic era seeks to move away from a market driven by individualism and competition, favoring values such as well-being, collective prosperity, ecology, cooperation, and strengthening social ties (Masset & Luyckx, 2016). This collaborative culture is a broad and evolving concept that encompasses collaborative consumption, participatory production, crowdfunding, as well as collaborative lifestyles (Evrux et al., 2014). However, this collaboration can only be justified through constant information exchange between stakeholders and effective communication. Moreover, this interaction can only be achieved using advanced communication channels that facilitate both formal and informal dialogue. Indeed, the perceived benefits of the digital realm are numerous, manifesting in technological advancements that allow

small businesses and startups to grow on a large scale and compete with global companies. For example, companies like Uber and Airbnb are experiencing impressive growth (Mandel, 2017).

- **Territorial Governance:** This concept encompasses all the best management practices at the territorial level, enabling the design of an effective local development strategy through sound decision-making. Territorial governance integrates tools for the participation of all stakeholders in the development of decisions that meet the constraints and expectations of each concerned party.
- **Cultural Dimension:** The contribution of culture to local development is essential. It promotes investment attraction and stimulates the improvement of the local economy. Furthermore, it plays a crucial role in social cohesion and the preservation of local heritage. Sometimes, it also acts as a catalyst to boost interactions between actors and strengthen the individual's bond with their territory through resource sharing.

In summary, local development aims to strengthen social interaction by encouraging dialogue among the involved actors, allowing each party to express its opinions and debate territorial issues in their entirety. Ultimately, it relies on coherent strategies targeting social, cultural, and economic domains.

This goal leads to the preservation of social peace and the enrichment of development projects through the diversity of opinions, which enhances the quality of the results obtained. It also promotes strengthening the partnership between the public and private sectors, allowing for economies of scale and synergistic risk management. This partnership also offers the possibility of involving all actors in the process, benefiting from the private sector's project management expertise, and ultimately mobilizing maximum resources for the effective execution of the planned programs.

In this regard, we propose the following propositions.

P2: The use of digital resources variably influences companies' innovation capacity, depending on their geographical location and the collaboration between the public and private sectors.

2.3. The Effects of Digitalization of Local Authorities on Local Development

Today, the transition to digitalization in public administrations is recognized as a major transformation in service delivery, enhancing the competitiveness of the public sector. Beyond procedural improvements, this evolution has also contributed to the better quality of life for local residents. These changes have had a positive impact on economic and social indicators, paving the way for ambitious community development opportunities.

According to El Filali and El Moujadidi (2022), this transformation manifests in several ways:

- **Financial Support for Projects:** The digitalization of local authorities can positively impact project financing by providing advanced technologies that

attract investors, such as crowdfunding or participatory funding. These methods enable local authorities to realize projects without necessarily contributing financially, representing significant budgetary savings. This is particularly important given that local authority budgets typically fall short of covering all expenses related to operations, equipment, and investments. Additionally, public-private partnerships represent a collaboration between the public and private sectors, resulting in a win-win situation for the parties involved. In European countries, there is a new legal form known as “mission-driven” companies, which focus on social and societal goals. This legal form has also been approved in Tunisia and is currently being implemented.

- **Enhancing the Image of Territories:** This evolution aims to position the territory on the national and international tourism map by highlighting its assets, culture, local production, etc. This contributes to creating development opportunities, promoting the emergence of local professions, and generating revenue, thereby adding value. In summary, digital tools support territorial marketing primarily through social media.
- **Improving Project Visibility:** By making local development projects public on local authority platforms with all necessary information, it becomes easier to involve more stakeholders, enhance transparency, and ensure accountability.
- **Optimizing Social Indicators:** This transformation can help reduce illiteracy rates, promote knowledge dissemination, and support educational programs. Furthermore, it can play a role in reducing social vulnerability by fostering learning and professional integration for young people.

We have concluded that digitalization plays a positive role in improving the effectiveness of local development projects and contributes favorably to social, economic, and cultural aspects at the territorial level.

In the next section, we will examine the current state of digital transformation within local authorities and companies involved in innovative public-private partnership projects.

3. The Impact of Digital Innovation and Public-Private Partnerships in the ICT Sector on Local Development

Digital technology has a significant impact on territorial development. However, in Tunisia, local authorities still face the challenge of widespread digital adoption and the digitization of procedures. Despite this, we see that the General Directorate of Territorial Administration is launching digital services aimed at bringing administration closer to citizens and increasing the attractiveness of territories. Research widely highlights the role of information and communication technologies (ICT) in process innovation, as they lead to organizational transformation (Brynjolfsson and Hitt, 2000; Brynjolfsson and Saunders, 2010). In summary, these studies converge on the idea that digital technology enhances the innovation capacity of businesses, including multinationals. This stimulation is evident in various innovation contexts, such as the development of new products or the adoption of new processes, using a range of technologies, whether general or

specifically dedicated to innovation.

This leads us to the following proposition:

P3: The digitalization of processes and the use of digital resources positively contribute to enhancing the innovation capacity of businesses within territorial projects.

Firstly, we will discuss the various innovative platforms that have been established or are currently being implemented by the multinational company Orange Tunisia in collaboration with ministries in public-private partnership projects.

3.1. Advances in Digitalization within Local Authorities in Tunisia: An Overview of the Current Situation

Currently, local authorities in Tunisia are undergoing a digitization process aligned with the national digital transformation strategy. Tunisia joined the Open Government Partnership (OGP) initiative in 2014 and is now engaged in its third national action plan, covering the period from 2018 to 2020 (OECD, 2020). This plan revolves around four main areas: strengthening the right to information and promoting the openness of public data, encouraging transparency in the management of natural resources, promoting integrity, participatory approaches, and local governance, and improving the quality of public services. The use of information and communication technologies (ICT) to enhance citizen participation, also known as E-participation, is one of the levers that could strengthen overall citizen engagement. To this end, the Tunisian government has launched three E-participation platforms: e-people.tn, e-participation.tn, and legislation.tn. Concurrently, other initiatives have been launched by civil society (OECD, 2020).

Tunisia's goal was to create an environment conducive to citizen participation to promote participatory democracy, highlighting actions to support this strategy, including:

- Establishing an institutional framework to support E-participation
- Developing a communication and training program
- Designing a local E-participation support program
- Creating an electronic platform to manage complaints and report cases of corruption
- Establishing an e-petition service
- Developing an online service for requesting access to public information

Moreover, Tunisia has committed to creating mechanisms to foster dialogue and interaction with the demands and concerns of young people, enabling them to monitor their implementation in public policies. Additionally, multinational companies like Orange Tunisia are making substantial efforts in digital transformation to support local authorities through innovative PPP projects in the ICT sector.

3.2. The Impact of Digitalization on Territorial Development in Tunisia and Its Alignment with Business Management Practices

Studies in the field of innovation geography highlight persistent territorial

disparities in innovation capacity. Typically, businesses located in urban areas with diverse sectoral structures are more inclined to innovate. Key factors supporting this include local knowledge externalities from both private and public research, the availability of public and private service infrastructures, the geographic concentration of human capital and its limited mobility (Almeida & Kogut, 1999), as well as increased collaborations and face-to-face interactions (Breschi & Lissoni, 2009). Furthermore, individuals integrated into a social environment, such as a region, often express attachment and solidarity towards their area. This involvement should act as a driver for job creation and serve as a mediation and proximity point between businesses and other institutional entities (Chabaud & Maurand-Valet, 2016). However, previous studies by de Allefres (2007) and Kunnen & Bosma (2006) have shown that adopting standardized development policies, which overlook cultural specifics, is perceived as a threat to local identity. Setting identical objectives, developing similar strategies, implementing analogous actions, and promoting a uniform culture often lead to policy failure and public dissatisfaction. As highlighted by Bertacchini (2010), cultural characteristics such as regional attachment, population needs, and their interaction within territorial intelligence are crucial at the regional level.

In the next section, we will discuss the chosen methodology to address our research question and present the survey framework used.

4. Methodology

In our study, we chose an interpretivist paradigm following an abductive reasoning approach. The implementation of projects involving diverse actors with varying perspectives on multiple human, social, and economic issues within the territory prompts us to consider what shapes these viewpoints, the tools for reflection, and the capacity for observation. The goal is to observe the boundaries of our collective action ecosystem to act more effectively.

The choice of the interpretivist perspective for this research is not entirely absolute. This decision arises from the progression of various theoretical, methodological, and empirical questions. The social reality explored in our study does not have a tangible existence; rather, it derives from the subjective and intersubjective experiences of the actors involved in the territorial context. At this stage, it is impossible to directly establish the link between these two concepts until we identify the elements of each concept that will allow us to chart the path to deduce their relationship.

Given the specificity of our research and the objectives pursued, we employed an exploratory study using two data collection tools to investigate the target area. Consequently, we began with the Delphi method, followed by ten semi-structured interviews with project leaders from both the public and private sectors, as well as other experts involved in partnerships operating in Tunisia. Our focus was on innovative projects within the ICT sector for this survey. The Delphi study was conducted in three stages. First, we selected open-ended questions from the literature

review to generate proposals on our topic. Affirmative statements were used to encourage reactive expert feedback. In the second stage, two experts were selected based on their relevance, time, and willingness. One was a 57-year-old man with government experience in governance and anti-corruption, and the other a 55-year-old woman managing CSR projects in a multinational. Lastly, interviews were sent to the experts for review, followed by two-hour discussions to assess key scenarios and consensus levels.

4.1. Presentation of the Studied Projects

It seemed valuable to study innovation projects and understand the perceptions of project initiators regarding this phenomenon to address our propositions derived from the literature.

4.1.1. Project 1: MOOC Project

Orange leveraged its technological and innovative expertise to support digital access for all through the MOOC project. This partnership involved Orange Tunisia, supported by the Orange Foundation, as well as a public university and a private university. The project resulted in the creation of a platform for Tunisian students aiming to improve their French language skills, not only in Francophone Africa but also in other regions, to obtain language certification. The project was so successful that Orange decided to launch a second session of the MOOC.

4.1.2. Project 2: Village Program

The “Villages” Program is an initiative focused on sustainable and comprehensive local development, implemented with the support of the Orange Foundation in collaboration with civil society and local authorities. Its aim is to significantly improve the quality of life for residents of a village with three to five thousand people, focusing on the specific needs of young children and women. This includes promoting access to education, basic healthcare, water, as well as digital access and economic empowerment for women in the village, while ensuring access to energy.

5. Analysis and Interpretation on Results

In exploring public-private partnership (PPP) projects that leverage digital innovations in the field of information and communication technologies, and in order to identify key elements contributing to their success, particularly in the Tunisian context, a thorough analysis of the collected data is essential. This analysis will specifically include thematic analysis of the data, with a focus on content analysis to provide an objective and reliable account of the statements made by the interviewees. The results have been presented using a combination of semi-structured interviews, focus groups, and participant observation.

In the following sections, we analyze and interpret the study’s results, theme by theme.

5.1. Digitalization as a Strategic Lever for Optimizing Local Government Services

After interviewing stakeholders involved in the studied projects from both the public and private sectors, it is evident that digitalization is a crucial factor in advancing territorial progress. Digital transformation has become unavoidable for several reasons, particularly due to the rise of citizen connectivity. Public sector experts have identified numerous benefits of digitalization for residents and local governments, including reducing ecological footprints, providing open data resources, stimulating territorial development, promoting economic growth, and improving the fluidity of information exchange.

These insights are supported by the significant growth of digital platforms in Tunisia in recent years. The country has experienced notable progress in the digital domain, including increased online services in various sectors such as e-commerce, online government services, digital finance, and social communication platforms. Initiatives have been launched to encourage innovation in the digital field, fostering the emergence of technology startups and strengthening Tunisia's digital ecosystem.

Respondents agree that digital tools facilitate interaction between citizens and local governments by promoting more transparent and open governance. Moreover, digitalization has led to improved data management, resulting in a wealth of actionable information. This in-depth analysis enables valuable lessons to be drawn for optimizing public policies, anticipating citizen needs, and making informed decisions based on solid data. Another identified factor from the interviews is the optimization of public services. Digital transformation enhances public service management by making it more efficient, accessible, and tailored to individual needs. Examples include online payments, completing administrative procedures, real-time tracking of requests, and receiving instant notifications. This approach enhances user satisfaction while reducing processing times. In several sectors, such as education and cultural events, most operations are conducted online. One respondent noted that "all these platforms have doubled in recent years due to the global health crisis (COVID-19)" and the rise of telecommuting. Additionally, the modernization of work through automation and robotization in production processes aligns with [Bos's \(2018\)](#) research.

These observations align with previous studies, such as [Meiouet \(2021\)](#), which demonstrate that digital transformation is seen as a real catalyst for change and progress, providing equitable access to essential needs like education, health, and administrative services, while promoting economic and financial integration of rural and disadvantaged populations. Furthermore, particularly in the Tunisian context, successive governments since the revolution have recognized the benefits of this innovative development approach, which stands out from gradual changes and encourages constructive creation ([Ben Lahouel, 2019](#)).

P1: Digitalization has become essential for ensuring the quality of local government services. Its adoption facilitates the achievement of these entities' strategies, leading to beneficial changes in their organizations, resulting in

substantial time and cost savings.

5.2. Influence of Digitalization on Innovation Based on Geolocation and Public-Private Collaboration

The objective of this study is to understand the impact of digital transformation on innovation in PPP projects and its influence on territories. It also aims to identify key success factors for digitalization, potential obstacles, and implications for expanding territories. Empirical observations have shown that digital transformation relies on various distinct but interdependent factors, and their absence can pose challenges. Furthermore, two individuals from the private sector highlighted the intention of leaders to invest in digital transformation, noting that this approach is linked to management style within the company. Specifically, it involves management based on mutual trust between leaders and their collaborators, as well as trust in technology. Another aspect discussed in the interviews with Orange Tunisia was the shift in entrepreneurial culture, based on establishing best practices and making sound decisions to enhance employee efficiency. However, public sector views diverge from those of the private sector. Respondents indicated that inherent obstacles to applying digital innovation include budget constraints, which are considered the main barrier, and the challenges associated with recruiting specialized skills on a case-by-case basis in certain fields. Additionally, local population needs vary significantly from one region to another due to various economic, social, and geographical factors. Respondents noted that the ecosystem is distinguished primarily by the diversity of stakeholders involved (institutions, private companies, and users) and the sectors concerned (tourism, education, transport, etc.). It was also highlighted that innovation does not depend on the geographical location of the company, whether evaluating ICT resources by the variety of tools used or by internal IT skills. The inseparable link between digitalization and innovation was unanimously supported by all respondents, demonstrating that digitalization has been used to foster innovation and respond more efficiently to needs. This involves implementing new digital practices that add value and improve how the company manages its activities. This aligns with [Denervaud et al.'s \(2014\)](#) work, which suggests that these two concepts, though currently not widely associated, share striking similarities and are based on three essential phases of any innovation process: observation and definition, careful examination of experience; imagination: creativity and design thinking; and prototyping and testing. Our second proposition also aligns with the literature, reflecting the contradictory opinions identified between public and private sectors.

P2: The use of digital resources influences the capacity for innovation in companies in varied ways, depending on their geographical location and the collaboration between the public and private sectors.

5.3. Productive Impact of Digitalization on Cohesion and Innovation in Territorial Projects of Companies

At this stage of the analysis, we identified that the common ground among

respondents is that digitalization can have a significant impact on cohesion and innovation in territorial projects by improving communication, optimizing processes, enabling data collection and analysis, and fostering open innovation. Emerging trends in digital innovation in Tunisia include the development of technology startups, promotion of digital entrepreneurship, creation of innovation hubs and research centers, digitalization of public services, growth of e-commerce and mobile payments, and integration of digital technologies in traditional sectors such as agriculture and tourism.

Orange Tunisia, in addition to its numerous PPP projects for local development, has engaged with the United Nations Development Programme (UNDP) on January 13, 2022, through a cooperation agreement aimed at strengthening their partnership to promote more sustainable and inclusive socioeconomic development. This involves implementing a joint action plan with the goal of enhancing the local entrepreneurial ecosystem throughout the year, particularly in the regions of Gabès, Médenine, Tataouine, Gafsa, Tozeur, and Kébili. Each partner will contribute their expertise and mobilize their resources and programs, such as the Orange Digital Center ecosystem, Digital Houses, the UNDP Entrepreneurship for Development project, and the UNDP Tunisia Accelerator Lab.

Indeed, digitalization is not just about adopting tools and technologies; it represents a revolution in business and operational models, based on a shared and coherent vision. Despite the challenges in implementing such management processes and anchoring a digital and innovation-based policy according to the studied projects, it is essential for the community (local population and territorial actors) to fully support the state's overall digitalization strategy and mobilize the necessary resources for its implementation. The success of such a national strategy will have positive effects on the entire territory.

Thus, our third and final proposition aligns with the literature:

P3: Digitalization of processes and the use of digital resources positively contribute to enhancing the innovation capacity of companies within territorial projects.

To summarize our main findings, we concluded that while there are several obstacles hindering the operation of these “PPP” based on digital innovation, effective management of digital resources has a significant impact on local and territorial development, particularly in the Tunisian context.

6. Conclusion

Theoretical analyses of digitalization reveal that there are various definitions and approaches associated with this concept. Researchers have emphasized the importance of digitalization and its significant influence on society as a whole, as well as on individual users, by reducing transaction and waiting costs while enabling time savings. Digitalization is not limited to a single organization; its application can encompass various entities, whether public or private, for-profit or non-profit. In the public sector, the use of digital tools is a key element for the

success of any administration, requiring strong commitment from leaders to bring administrative services closer to users. This commitment must be realized through a progressive strategy for integrating digital technology into administrative procedures, promoting administrative applications, reducing processing times, and simplifying access. Implementing this strategy necessitates adequate mobilization of resources. Our research results have validated our three theoretical propositions, which address both the implementation of digital innovations in Tunisian companies within PPP projects and their impacts on local territorial development. However, these results do have limitations, particularly regarding our measure of innovation. While it allows for the consideration of innovative behaviors in SMEs on a large scale, it does not provide an indicator of the intensity of this innovation. It would be valuable to continue this research by analyzing innovative behaviors in SMEs. This involves refining our measure of innovation to possibly provide a more nuanced view of certain results and adopting an approach focused on accessibility and mobilization of available resources, as suggested by some experts. This aligns with insights from literature by authors such as [Shearmur \(2011\)](#) and [Massard and Mehier \(2010\)](#).

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- Almeida, P., & Kogut, B. (1999). Localization of Knowledge and the Mobility of Engineers in Regional Networks. *Management Science*, 45, 905-917. <https://doi.org/10.1287/mnsc.45.7.905>
- Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A. et al. (2010). A View of Cloud Computing. *Communications of the ACM*, 53, 50-58. <https://doi.org/10.1145/1721654.1721672>
- Barlattier, P. (2016). Management de l'innovation et nouvelle ère numérique. *Revue Française de Gestion*, 42, 55-63. <https://doi.org/10.3166/rfg.2016.00009>
- Ben Lahouel, B. (2019). Tunisie digitale 2020. In *Comment accompagner la transformation digitale des entreprises en Afrique, Questions de Management* (p. 204, n° 18).
- Bertacchini, Y. (2010). Intelligence territoriale: Constat, recherche, applications. *International Journal of Information Sciences for Decision Making*, 35, 32.
- Bos, C. (2018). *La transformation digitale, vers un management stratégique augmenté?* Céline Bos, Ea Conseil & formation, DIF 2018.
- Breschi, S., & Lissoni, F. (2009). Mobility of Skilled Workers and Co-Invention Networks: An Anatomy of Localized Knowledge Flows. *Journal of Economic Geography*, 9, 439-468. <https://doi.org/10.1093/jeg/lbp008>
- Brynjolfsson, E., & Hitt, L. M. (2000). Beyond Computation: Information Technology, Organizational Transformation and Business Performance. *Journal of Economic Perspectives*, 14, 23-48. <https://doi.org/10.1257/jep.14.4.23>
- Brynjolfsson, E., & Saunders, A. (2010). *Wired for Innovation: How Information Technology Is Reshaping the Economy*. The MIT Press. <https://doi.org/10.7551/mitpress/8484.001.0001>

- Bucki, J. (2016). *Definition and Explanation of Mobile Computing*.
<https://www.liveabout.com/definition-of-mobile-computing-2533640>
- Cardona, M., Kretschmer, T., & Strobel, T. (2013). ICT and Productivity: Conclusions from the Empirical Literature. *Information Economics and Policy*, 25, 109-125.
<https://doi.org/10.1016/j.infoecopol.2012.12.002>
- Chabaud, D., & Maurand-Valet, A. (2016). Territoire, gouvernance et acteurs: 10 ans après les pôles de compétitivité. *Gestion 2000*, 33, 5-14.
<https://doi.org/10.3917/g2000.332.0005>
- Chebil, A., Kahil, T., & Oueslati, B. (2018). Policy Measures for Reducing Aquifer Depletion in a Context of Climate Change: The Case of the Coastal Area of Cap-Bon. *New Medit, A Mediterranean Journal of Economics, Agriculture and Environment*, 17, 33-44.
<https://doi.org/10.30682/nm1804c>
- Collin, J., Hiekkanen, K., Korhonen, J. J. et al. (2015). *It Leadership in Transition—The Impact of Digitalization of Finnish Organizations*.
<https://urn.fi/URN:ISBN:978-952-60-6243-3>
- de Allefres, M. (2007). Le militant du développement territorial. *Pour*, No. 193, 81-156.
- Denervaud, I., Dupuis, M., & Courcelle Labrousse, S. (2014). Innovation et digital: Une convergence inéluctable. *L'Expansion Management Review*, 153, 96-106.
<https://doi.org/10.3917/emr.153.0096>
- El Filali, A., & El Moujadidi, N. (2022). La digitalisation et le développement local dans le contexte territorial marocain: État des lieux et Perspectives. *Revue Internationale des Sciences de Gestion*, 5, 793-818.
- Evroux, A. F., Jacquemin, M., de Mentque, Q., Rodet, F., & Thocquenne, B. (2014). *L'Economie collaborative: Nouveau vecteur d'influence et de reconquête du pouvoir*. Groupe ESLS-CA.
- Fitzgerald et al. (2013). Embracing Digital Technology, MIT Sloan Management. *Review*, 1-12.
- Grefre, X. (2002). *Le développement local*. L'aube. Editions de l'Aube.
- Haddad, S. (2010). Institutions et politiques publiques de soutien du système d'innovation de Tunisie. État des lieux. *Innovations*, 33, 137-156.
<https://doi.org/10.3917/inno.033.0137>
- Kleis, L., Chwelos, P., Ramirez, R. V., & Cockburn, I. (2012). Information Technology and Intangible Output: The Impact of IT Investment on Innovation Productivity. *Information Systems Research*, 23, 42-59. <https://doi.org/10.1287/isre.1100.0338>
- Kunnen, S., & Bosma, A. (2006). Le développement de l'identité: Un processus relationnel et dynamique. *L'Orientation Scolaire en Professionnelle: Bulletin*, 35, 183-203.
- Liefoghe, C., & Leducq, D. (2017). *Révolution numérique et développement des territoires nouveaux outils, nouvelles pratiques, nouveaux lieux*. Territoire en mouvement, revue de géographie et d'aménagement.
- Mandel, M. (2017). *The Economic Impact of Data: Why Data Is Not Oil*. PPI Radically Pragmatic.
- Massard, N., & Mehier, C. (2010). Proximity and Innovation through an 'Accessibility to Knowledge' Lens. *Regional Studies*, 43, 77-88.
<https://doi.org/10.1080/00343400701808881>
- Masset, D., & Luyckx, E. (2016). *L'économie collaborative: Une alternative au modèle de la compétition*.
- Matt, C., Hess, T., & Benlian, A. (2015). Digital Transformation Strategies. *Business &*

- Information Systems Engineering*, 57, 339-343.
<https://doi.org/10.1007/s12599-015-0401-5>
- McDonald, C., & Rowsell-Jones, A. (2012). *The Digital Edge*. Gartner.
- Meiouet, H. (2021). *Le Maroc sur la voie de la transition numérique: Enjeux, risques et opportunités*.
- Meyer, K. D., Saletore, Y., Zumbo, P., Elemento, O., Mason, C. E., & Jaffrey, S. R. (2012). Comprehensive Analysis of mRNA Methylation Reveals Enrichment in 3'UTRs and Near Stop Codons. *Cell*, 149, 1635-1646. <https://doi.org/10.1016/j.cell.2012.05.003>
- Meyer, E. C., Walser, R., Hermann, B., La Bash, H., DeBeer, B. B., Morissette, S. B. et al. (2018a). Acceptance and Commitment Therapy for Co-Occurring Posttraumatic Stress Disorder and Alcohol Use Disorders in Veterans: Pilot Treatment Outcomes. *Journal of Traumatic Stress*, 31, 781-789. <https://doi.org/10.1002/jts.22322>
- Meyer, V., Haddad, M., Mzioudet Faillon, B., Ben Slymen, S., & Tlig, F. (2018b). Intelligence territoriale en Tunisie: Sachants et/ou acteurs. *Revue française des sciences de l'information et de la communication*, 13.
- Nambisan, S. (2013). Information Technology and Product/Service Innovation: A Brief Assessment and Some Suggestions for Future Research. *Journal of the Association for Information Systems*, 14, 215-226. <https://doi.org/10.17705/1jais.00327>
- Nooteboom, B. (2000). Learning by Interaction: Absorptive Capacity, Cognitive Distance and Governance. *Journal of Management and Governance*, 4, 69-92. <https://doi.org/10.1023/a:1009941416749>
- OECD (2020). *Évaluation des plateformes numériques de participations citoyennes en Tunisie*.
- Orlikowski, W. J., & Scott, S. V. (2008). 10 Sociomateriality: Challenging the Separation of Technology, Work and Organization. *Academy of Management Annals*, 2, 433-474. <https://doi.org/10.5465/19416520802211644>
- Ross, J. W., Sebastian, I., Beath, C. et al. (2016). *Designing and Executing Digital Strategies*. CIS 2016 Proceedings.
- Schlesinger, P., & Doyle, G. (2014). From Organizational Crisis to Multi-Platform Salvation? Creative Destruction and the Recomposition of News Media. *Journalism*, 16, 305-323. <https://doi.org/10.1177/1464884914530223>
- Shearmur, R. (2011). Innovation, Regions and Proximity: From Neo-Regionalism to Spatial Analysis. *Regional Studies*, 45, 1225-1243. <https://doi.org/10.1080/00343404.2010.484416>
- Solis, B., Lieb, R., & Szymanski, J. (2014). *State of Digital Transformation*. Altimeter Group.
- Suire, R., & Vicente, J. (2008). Théorie économique des clusters et management des réseaux. *Revue française de gestion*, 34, 119-136. <https://doi.org/10.3166/rfg.184.119-136>
- Torre, A. (2014). Relations de proximité et comportements d'innovation des entreprises des clusters. Le cas du cluster de l'optique en Île-de-France. *Revue française de gestion*, 40, 49-80. <https://doi.org/10.3166/rfg.242.49-80>
- Van Kruining, I. (2017). The Dis-App-Earance of HRM: Impact of Digitization on the HRM Profession. In T. Bondarouk, H. J. M. Ruël, & E. Parry (Ed.), *Electronic HRM in the Smart Era* (pp. 311-337). Emerald Publishing Limited. <https://doi.org/10.1108/978-1-78714-315-920161012>
- Westerman, G. et al. (2011). *Digital Transformation: A Roadmap for Billion-Dollar Organization*. The MIT Center for Digital Business and Capgemini Consulting.