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Entrepreneurial Digital Models Meet Public Practice: A Public Enterprise Case Study

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Abstract. This article explores digital transformation through the lens of disruptive business models by examining how digital technologies are redefining traditional organizational structures and value creation mechanisms. Using a qualitative methodology based on a case study, this research analyzes the transition process to a hybrid business model of a Moroccan public company, through semi-structured interviews with its leaders and key players. The results identify the main challenges (structural, technological) and opportunities (data monetization, platform-based services) associated with the adoption of disruptive digital strategies in the public sector, while highlighting the tension between public service imperatives and the scalable logic of digital technology. The study thus offers valuable insights for policymakers and public managers facing digital disruption in regulated environments.

Keywords: *Digital business models, Disruptive innovation, Digital technologies, Public enterprise.*

1. Introduction

The advent of the digital age has generated a radical transformation of traditional economic paradigms, fundamentally redefining the rules of value creation and capture (Bharadwaj et al., 2013). This technological mutation, described by Schwab (2016) as the "fourth industrial revolution", is characterized by an unprecedented convergence of physical, digital and biological technologies. In this context, disruptive business models are emerging as driving forces capable of reshaping entire industries, often to the detriment of established players (Christensen et al., 2015).

The speed of this transformation is unparalleled in economic history. According to a study by the McKinsey Global Institute (2022), the digital transition is taking place at a rate five times faster than that observed during the Industrial Revolution. This exponential acceleration can be explained by the synergistic combination of several key technologies: artificial intelligence and machine learning (Brynjolfsson & McAfee, 2017), blockchain (Tapscott & Tapscott, 2016), the Internet of Things (Porter & Heppelmann, 2014) and cloud computing (Marston et al., 2011). These technological innovations are creating fertile ground for the emergence of new business models that challenge traditional approaches.

For entrepreneurs, this period of disruption represents both an unprecedented opportunity and a major challenge. On the one hand, barriers to entry are breaking down in many sectors, enabling agile startups to compete with established giants (Downes & Nunes, 2013). On the other hand, increased market volatility and technological complexity are creating a highly uncertain environment. This tension between opportunity and risk raises crucial questions: what are the mechanisms by which disruptive models create value? How can entrepreneurs identify and exploit these opportunities while mitigating the associated risks? What skills and

organizational capabilities are needed to successfully navigate this ever-changing landscape?

This article aims to shed light on these questions by adopting a multidimensional approach. Our analysis is based on a theoretical framework integrating the concepts of disruptive innovation (Christensen, 1997), platformization (Parker et al., 2016) and organizational agility (Tallon & Pinsonneault, 2011). Methodologically, we combine a review of recent academic literature with in-depth analysis of emblematic case study, thereby reconciling theoretical rigor and practical relevance.

The structure of this article reflects this integrative approach. After establishing the theoretical framework, we analyze the main archetypes of disruptive business models, identifying their distinctive features and value-creation mechanisms. We then examine the specific challenges faced by entrepreneurs in adopting these models, before proposing a strategic framework to guide their implementation. Finally, an in-depth analysis of a Moroccan public enterprise case provides a concrete illustration of the dynamics of digital disruption, and offers practical lessons for entrepreneurs.

Our research stands out for its innovative contextual approach, focusing on the Moroccan public sector, an area that has been little explored in the literature on digital disruption. Unlike existing studies, which often focus on developed economies or the private sector, this work reveals the specificities of digital transformation in a regulated environment marked by a strong administrative tradition.

The added value of this article lies in its detailed empirical analysis of the mechanisms of hybridization in a public economic model, documenting in a novel way the coexistence of public service imperatives and disruptive entrepreneurial logic. By identifying concrete levers for action for public actors, this study fills an academic and practical gap in the adaptation of disruptive innovation theories to emerging public organizational contexts.

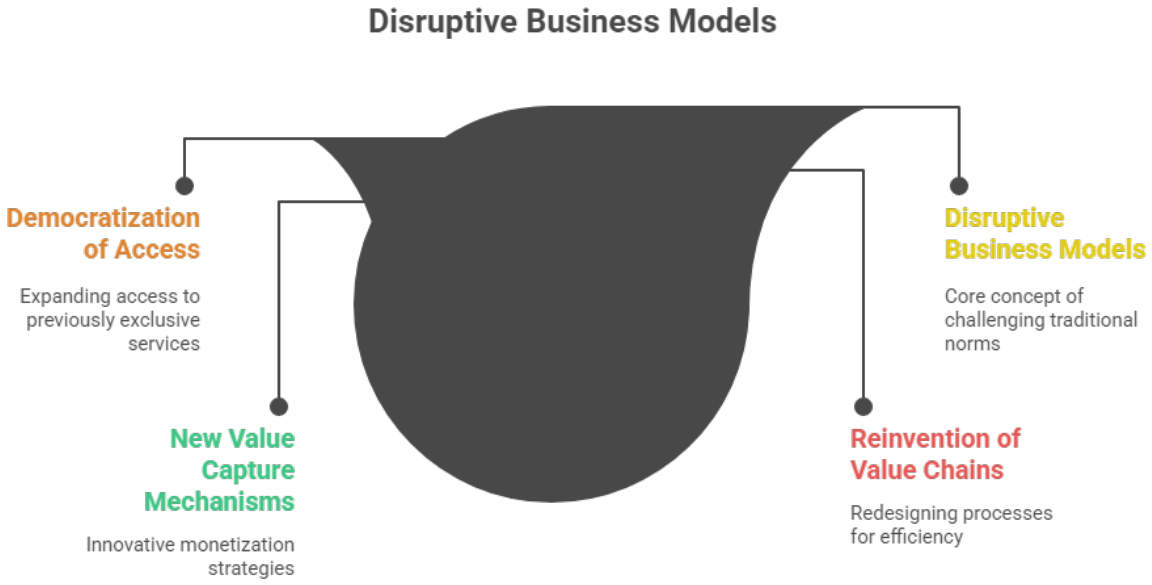
2. Theoretical Framework

a. Conceptualizing disruptive business models

The distinction between traditional and disruptive business models is based on theoretical foundations that are essential to understanding current transformations. The work of Johnson et al (2008) establishes that traditional models generally follow a linear, hierarchical logic of value creation, with well-defined supply, production and distribution processes. Conversely, disruptive models, as demonstrated by Christensen (1997), operate according to a circular, ecosystemic logic that challenges traditional sector boundaries. This fundamental difference explains why many established companies struggle to respond effectively to disruptive new entrants, trapped as they are in their historical organizational structures and processes.

Analysis of disruption mechanisms reveals three main trajectories. The first concerns the democratization of access to goods and services previously reserved for privileged segments of the market. The example of Netflix is particularly illuminating: by offering unlimited access to content for a modest monthly subscription fee, the platform has rendered the traditional video rental model obsolete (McDonald & Smith-Rowsey, 2016). The second trajectory involves a complete reinvention of value chains, as demonstrated by Uber's creation of a peer-to-peer platform that bypasses the traditional cab system (Parker et al., 2016). The third trajectory relies on the invention of new value capture mechanisms, illustrated by the success of freemium models that have enabled companies like Spotify or LinkedIn to conquer massive markets before monetizing their user bases (Cusumano et al., 2019).

Figure 1: Understanding disruptive business models.



Source: authors' conception

b. Theoretical foundations of disruptive innovation

The theory of disruptive innovation, originally formulated by Christensen (1997), has undergone major developments to incorporate the specific features of the contemporary digital economy. The original conceptual framework distinguished between two types of disruption: bottom-up disruption, where initially less efficient but more accessible solutions gradually conquer the market, and disruption through the creation of new markets, which emerges when innovators target consumers previously excluded from the market. These concepts take on a new dimension in the digital context, where barriers to entry collapse and network effects considerably amplify the speed of adoption.

Downes and Nunes' (2013) work on "Big Bang Disruption" sheds crucial light on contemporary dynamics. Their research shows how digital innovations can destroy entire industries in record time, a phenomenon that can be explained by four distinctive features. Firstly, the adoption curve no longer obeys the classic S-shaped diffusion law, but rather follows an exponential trajectory. Secondly, the marginal costs of scalability are becoming virtually nil thanks to cloud infrastructures. Thirdly, network effects are reaching unprecedented intensity, as demonstrated by the case of social platforms. Fourthly, the obsolescence of existing solutions is accelerating radically, sometimes reducing the lifecycle of once-dominant products or services to just a few months.

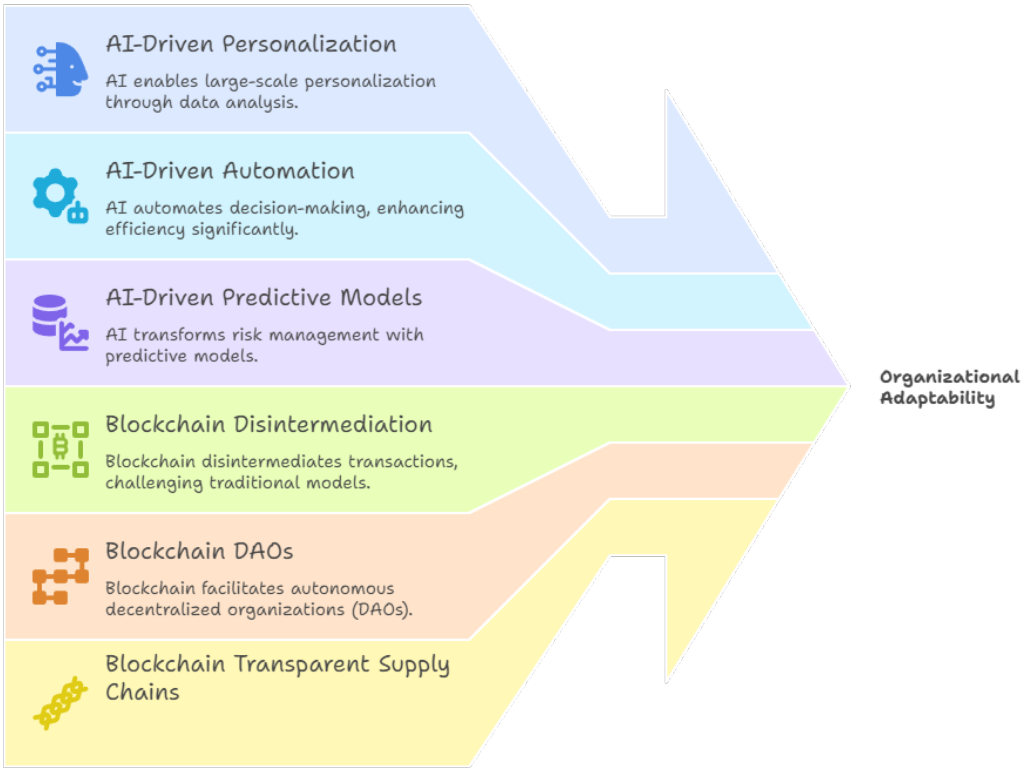
c. The amplifying role of digital technologies

An examination of contemporary disruptions reveals the central role played by certain digital technologies as gas pedals of change. Artificial intelligence, according to analyses by Brynjolfsson and McAfee (2017), acts as a disruption multiplier through three interdependent mechanisms. The first concerns large-scale personalization, made possible by recommendation algorithms that analyze massive volumes of behavioral data. The second mechanism lies in the automation of decision-making processes, enabling levels of efficiency unattainable by human operators. The third mechanism involves the creation of new predictive models that transform

the management of risks and opportunities.

Blockchain, as analyzed by Tapscott and Tapscott (2016), introduces an additional layer of disruption by enabling three major transformations. The first is the radical disintermediation of transactions, calling into question business models based on the intermediary position. The second transformation concerns the emergence of autonomous decentralized organizations (DAOs) that operate without any traditional hierarchical structure. The third is the creation of transparent, unforgeable supply chains, paving the way for new models of distributed trust. These technological innovations combined are creating an environment where, as Gurbaxani and Dunkle (2019) note, the ability to adapt continuously is becoming the core competency of organizations.

Figure 2: Technological disruptions and organizational adaptability.



Source : authors' conception

3. Main disruptive digital business models for entrepreneurs

a. Platform models: the digital intermediation revolution

Platform-based business models represent a fundamental break with traditional value chains, creating connected ecosystems that facilitate exchanges between producers and consumers. As Parker et al. (2016) explain, these platforms generate value not by controlling stocks or physical infrastructures, but by enabling direct interactions between users. Uber and Airbnb illustrate this logic perfectly, having respectively disrupted the transportation and hospitality sectors by exploiting underutilized resources (private cars and private accommodation) via digital intermediation (Sundararajan, 2016). Amazon Marketplace extends this principle to online commerce, offering third-party sellers' access to a global audience without the need for a physical presence.

The disruptive power of these models' rests on two major characteristics. Firstly, their scalability is virtually unlimited, since adding new users generates marginal costs close to zero - a striking contrast with traditional capital-intensive businesses (McAfee & Brynjolfsson, 2017). Secondly, network effects create a virtuous dynamic: the more users a platform has, the more valuable it becomes for each participant, as demonstrated by the exponential growth of LinkedIn, where the value for each member increases with the size of the network (Eisenmann et al., 2006).

However, these models also present specific challenges. Regulation is a recurring obstacle, as evidenced by Uber's legal battles in several countries (Ritter & Schanz, 2018). In addition, competition between platforms can lead to costly subsidy wars, while user trust remains a critical factor - an issue that BlaBlaCar solved by integrating rating and identity verification systems (Choudary, 2015).

b. Freemium and Subscription Models: Monetizing free products

Freemium and subscription models represent a disruptive approach to monetization based on an apparent paradox: offering the essential service for free, while monetizing premium features. This strategy has enabled companies such as Spotify and LinkedIn Premium to capture massive market share before generating stable revenues. The success of Spotify, with its million free users partially converted into million paying subscribers (Spotify Annual Report, 2022), illustrates the power of this model in the digital economy.

The conversion of free users into paying subscribers is based on three key mechanisms. Firstly, the creation of differential value: LinkedIn Premium intelligently exploits the professional need by offering advanced networking and job search tools, such as applicant analysis for recruiters (Gupta & Lehmann, 2005). Secondly, the strategic limitation of free versions: Spotify, for example, limits offline functionality and imposes ads, creating a calculated frustration that drives upgrades (Kumar, 2014). Thirdly, behavioral habituation: the longer a user exploits a free service, the higher the cost of switching and the greater the likelihood of conversion.

However, this model presents major challenges. The average conversion rate in the industry generally doesn't exceed 5-10%, requiring an extremely broad user base to be viable (Parker & Van Alstyne, 2018). Furthermore, the freemium model can create perverse effects: paying users actually subsidize free users, which can lead to tensions in the value proposition. Finally, the rise of data regulations (RGPD) complicates the exploitation of user data as a conversion lever, a mechanism that is nonetheless central for platforms such as LinkedIn (Zuboff, 2019).

Recent developments show an increasing sophistication of these models. Spotify is now testing intermediate levels (such as Spotify HiFi), while LinkedIn is developing sector-based subscriptions (Premium Career vs. Premium Business). This segmentation reflects a finer understanding of conversion triggers, where AI plays an increasing role in predicting which users are willing to pay.

c. The sharing economy and peer-to-peer models: disruptive optimization of resources

The collaborative economy and peer-to-peer (P2P) models represent a profound transformation of traditional resource allocation mechanisms. As demonstrated by the work of Botsman and Rogers (2010) in their seminal What's Mine is Yours, these models are based on a fundamental principle: the valorization of under-utilized assets through digital platforms. BlaBlaCar, Europe's leading car-sharing company with over 90 million users (BlaBlaCar, 2023), is a perfect example of this logic, optimizing the occupancy rate of private vehicles, traditionally below

50% according to a study by ADEME (2022).

The success of these platforms can be explained by several key economic mechanisms. Firstly, as analyzed by Sundararajan (2016) in The Sharing Economy, they create a new form of two-sided market where supply and demand can adjust dynamically. Secondly, they significantly reduce transaction costs, a phenomenon that Zervas and al. (2017) quantified in their study of Airbnb published in the Journal of Marketing Research, showing a 30-50% reduction in costs compared with traditional hotel models.

However, these models are not without their challenges. Frenken and Schor's (2017) research in Environmental Innovation and Societal Transitions highlights three major tensions:

1. Regulation: Conflicts with traditional sectors (e.g. cabs vs. Uber).
2. Quality of service: The inherent heterogeneity of individual services.
3. Macroeconomic effects: the potential casualization of workers

Recent developments show a growing professionalization of these platforms. WeWork, for example, has demonstrated the effectiveness of flexible space utilization models, with occupancy rates in excess of 80% at its most successful sites. At the same time, new forms of circular economy are emerging, combining resource sharing and blockchain, as illustrated by the Share&Charge project for sharing electric charging stations.

d. Blockchain and Decentralized Models: The New Frontier of the Digital Economy

Economic models based on blockchain represent a major disruptive innovation, redefining the fundamental principles of trust and intermediation in economic exchanges. As demonstrated by Tapscott and Tapscott (2016) in their in-depth analysis, this technology introduces a radical paradigm where trust is no longer centralized but distributed through a peer-to-peer network. This transformation is particularly visible in the field of decentralized finance (DeFi), where platforms like Uniswap have made it possible to reach trading volumes exceeding $100 billion by 2021 (CoinGecko, 2022), without the intervention of any traditional financial institution.

The operation of these models is based on several distinctive features that make them engines of disruption. The radical transparency offered by distributed ledgers enables unprecedented auditability of transactions, as analyzed by Catalini and Gans (2019) in their work at MIT. This feature eliminates the information asymmetries that prevailed in traditional systems. At the same time, smart contracts automate the execution of agreements without the need for intermediaries, thereby reducing transaction costs and the risk of non-execution. These technical properties have enabled the emergence of decentralized autonomous organizations (DAOs) that redistribute decision-making power to token holders, creating new governance paradigms as studied by Wright and De Filippi (2015).

The evolution known as “Web3” suggests a deeper integration of these decentralized models in various economic sectors. Applications are emerging in fields as diverse as digital identity (with initiatives such as Sovrin Foundation), copyright management (as demonstrated by the KodakOne platform), and electronic voting systems (like FollowMyVote). These developments suggest that blockchain could ultimately reconfigure not only business models, but also governance structures and social coordination mechanisms, although the pace and scale of this transformation are still the subject of debate among experts.

e. Models based on AI and data mining: Algorithmic personalization as a new business paradigm

The emergence of business models based on artificial intelligence and the exploitation of massive data marks a decisive turning point in the history of digital capitalism. These disruptive approaches, of which Netflix and Tesla are clear archetypes, rely on the systematic exploitation of behavioral data to create virtuous loops of learning and continuous improvement. Netflix's recommendation system, which influences over 80% of subscriber choices according to a study by Gomez-Uribe and Hunt (2015), is a perfect illustration of this ability to transform data into sustainable competitive advantage. In the automotive sector, Tesla has built its entire business model around the data collected by its vehicles, with over million data points analyzed daily per car to perfect its autonomous systems (Tesla AI Day, 2022).

The operation of these models is based on a triple technological and economic dynamic. Firstly, machine learning algorithms can identify correlations invisible to the human eye in masses of heterogeneous data. Netflix, for example, uses many indicators per user to refine its content recommendations. Secondly, the ability to process this information in real time creates unprecedented opportunities for dynamic adjustment of the offering. Finally, as Brynjolfsson (2022) points out, these systems benefit from data network effects: the more they are used, the more data they generate, and the more accurate their predictions become. This dynamic explains why data-driven companies post superior performance, with higher-than-average revenue growth.

However, this algorithmic revolution is not without raising fundamental questions. Zuboff's (2019) work on surveillance capitalism warns of the potential abuses of these models in terms of privacy. On the other hand, research by Mehrabi et al (2021) in ACM Computing Surveys reveals that recommendation systems have unintentional discriminatory biases. Finally, the risk of oligopolistic concentration is highlighted, as the costs of entry into AI are prohibitive for most SMEs.

Current developments point to an increasing sophistication of these models, with the emergence of generative AI and digital twins. Companies like Spotify are already experimenting with hybrid systems combining algorithmic recommendation and AI-assisted creation. In the industrial sector, Siemens is deploying digital twins to continuously optimize its production processes. These innovations herald a new era in which the boundaries between data, algorithms and value creation are gradually blurring, profoundly redefining the rules of economic competition.

4. Methodology

This research is based on a qualitative methodology centered on a single case study, an approach that is particularly well-suited to in-depth analysis of complex phenomena in their real-life context (Yin, 2018). As Creswell and Poth (2018) point out, this method enables us to explore organizational dynamics through a detailed understanding of the perceptions and experiences of the actors involved. In our study, we applied this approach to examine the digital transformation of an (anonymized) Moroccan public enterprise, focusing on the evolution of its business model.

The choice of a single case study is relevant for an in-depth analysis of an exemplary and pioneering case: a Moroccan public company, a pioneer in the launch of disruptive digital service platforms, thus offering a privileged observatory of the tensions between public mandate and economic logic. Its anonymity, an essential condition for access to strategic data

and the frankness of respondents, guarantees ethical rigor. The research is based on 10 semi-structured interviews conducted with a diverse panel comprising several individuals in key roles, enabling a triangulation of perspectives and a robust analysis of organizational dynamics.

The qualitative methodological approach chosen for this study enables us to explore in depth the perceptions, attitudes and experiences of the various players regarding digital business models within the Moroccan public enterprise. According to Creswell and Poth (2018), qualitative research focuses on understanding social phenomena through a holistic perspective, allowing participants to express themselves freely in their context. This approach is particularly suited to studying complex issues.

This methodology is based on several fundamental principles that distinguish it from quantitative approaches. Firstly, it places crucial importance on contextual understanding. This means that researchers strive to understand social phenomena in their natural context, taking into account environmental, cultural and historical influences (Patton, 2015). In the context of our study of digital business in the public enterprise, this means understanding how this transition fits into the specific Moroccan context, with its social and economic particularities.

Secondly, qualitative methodology is characterized by its flexibility (Yin, 2018). Unlike quantitative approaches that use standardized measuring instruments, it enables researchers to adapt to changing situations in the field. Semi-structured interviews, participant observation and documentary analysis are commonly used methods in qualitative research, and can be adjusted according to the specific needs of the study. For our research on digital business models, this flexibility enabled us to gather data tailored to the specificities of each department involved.

Thirdly, qualitative methodology emphasizes subjectivity (Merriam & Tisdell, 2016). It recognizes that individuals have personal perspectives, opinions and experiences that influence their understanding of the world. Consequently, researchers seek to give voice to participants, encouraging them to express themselves freely and valuing their individual viewpoints. In the context of our study, this means seeking to understand how different stakeholders (digital managers, station managers, users, etc.) perceive and experience digital transformation, recognizing that their opinions may vary considerably.

Finally, qualitative methodology places great importance on the construction of meaning (Braun & Clarke, 2006). It recognizes that social reality is complex and multidimensional, and that researchers need to build an understanding of the phenomenon under study by systematically collecting and interpreting data. This often involves the use of qualitative analysis techniques, such as content analysis, thematic analysis or discourse analysis, to tease out meaningful patterns and themes from the data collected.

It should be noted that qualitative methodology encompasses a variety of approaches, each with its own specific techniques and methods. Among the most commonly used qualitative approaches are semi-structured interviews, participant observation, content analysis and discourse analysis.

a. Sample: The final sample comprises the following functions :

Table 1 : Research's simple

Function	Digital business model	Adaptation Strategy	Logistics & Infrastructure	Customer Experience	Competition and alternatives	Digital strategy	Future prospects
Digital Manager	●	●	●	●	●	●	●
IT Manager	○	○	●	○	○	●	●
Station Manager	○	●	○	●	○	○	○
Logistics Consultant	●	○	●	○	●	○	●
UX Designer	○	●	○	●	○	●	○
Security Controller	●	●	●	○	○	●	○
Sales Partnerships	●	○	○	○	●	○	●
Student	○	●	○	●	●	○	○
Maintenance Manager	○	○	●	●	○	○	●
IS Department Manager	●	●	●	●	●	●	●

Source: authors' conception

b. Data Collected

Semi-structured interviews were conducted with representatives of each key function identified following Kvale and Brinkmann's (2009) methodological recommendations for this type of qualitative research. Participants were invited to share their views, experiences and practices regarding digital transformation. The interviews were structured around the seven main themes of the study, but participants were encouraged to express themselves freely. Interviews were conducted face-to-face or by online meeting, according to interviewees' preferences.

Before each interview, an informed consent document was given to each participant. This document clearly stated the purpose of the study, the confidentiality of the information provided, and the fact that the data collected would be used for research purposes only. Participants were also informed that they could withdraw from the study at any time without consequence.

c. Data Analyses

Data processing involved analysis of the qualitative data collected, using content analysis methods. This approach made it possible to extract significant information and generate themes and categories to organize the data. Relevant verbatims were selected to illustrate the results.

Thus, this methodology was designed to guarantee the rigor and reliability of our research, while respecting the confidentiality of the participants. It enabled us to obtain in-depth information on how the Moroccan public enterprise approaches its digital transformation and the initiatives implemented in this context. Significant information was extracted and themes/categories were generated to organize the data. The most representative verbatims were used to illustrate the results.

5. Presentation and discussion of results

a. Presentation of results

In accordance with the ethical requirements of the research, the identity of the public enterprise and the respondents has been anonymized. The results are organized according to the seven themes of the study.

Theme 1: Digital business model

"How does your enterprise generate its digital revenues and how much of this comes from passengers vs. corporate customers? "

The question of digital revenues reveals a well-established multi-channel strategy. The Digital Manager accurately describes the business ecosystem: “Our model is based primarily on online ticketing, complemented by specialized logistics services and strategic partnerships with key players”. This approach is confirmed by the IT Manager, who adds a data dimension: “The analysis of passenger flows enables us not only to optimize our services, but also to create new sources of revenue through public partnerships based on this anonymized data”. However, the Station Manager sheds essential light on the reality on the ground: “In many regions, particularly somewhat rural areas, physical ticket offices continue to account for a substantial proportion of our sales, with users preferring human contact and traditional tickets”. This observation is qualified by the Logistics Consultant, who nevertheless points out: “The e-logistics segment is experiencing remarkable growth, particularly for last-mile delivery services, which opens up interesting prospects for diversification”.

Theme 2: Adaptation strategy

"Why do some Moroccan users still prefer physical ticket offices, and how does your company encourage the adoption of digital (e.g. discount for buying online)?"

Analysis of the barriers to digital adoption reveals complex challenges. The UX Designer identifies a major obstacle: "Many users, particularly the elderly or those with little digital experience, find themselves at a loss when faced with overly complex interfaces and unintuitive customer paths". Faced with this situation, the Digital Manager details the strategy implemented: "We have developed a comprehensive program including in-station training workshops specially designed for seniors, coupled with significant fare incentives for online purchases". The Security Controller adds a crucial dimension: "Transaction security has been reinforced with two-factor authentication, which helps to reassure users reluctant to make online payments". This multi-dimensional approach is completed by the IT Manager, who mentions: "The interactive kiosks with virtual assistance installed in the main stations offer an ideal intermediate solution for gradually guiding users towards the autonomous use of digital channels".

Theme 3: Logistics and infrastructure

"What are the logistical challenges and how does digital help solve them?"

The technical challenges are particularly acute. The Maintenance Manager gives a worrying account of the situation: "Our fleet of equipment, some of which is obsolete, requires constant monitoring and frequent intervention". The solution implemented is described in detail: "The IoT sensors we have deployed enable effective predictive maintenance, anticipating breakdowns before they occur". The IT Manager discusses the digital transition: "Migration to the cloud, while necessary, raises major security issues which require reinforced protocols and substantial investment". The Security Controller completes the picture by stressing vulnerabilities: "Interactive kiosks in stations are potential entry points for cyber-attacks, requiring specific protection measures". These various observations are tempered by the Partnerships Sales Manager, who underlines the advances made possible by "a unified planning tool that optimizes coordination between freight and passenger flows".

Theme 4: Customer experience

"What are the main reasons for complaints and what digital solutions have been implemented?"

Analysis of user feedback reveals priority areas for improvement. The Digital Manager clearly identifies the main sources of dissatisfaction: "The delays are by far the leading cause of complaint, followed by the lack of real-time information and on-board comfort issues". The solution deployed is described in detail: "We implemented a sophisticated chatbot capable of automatically handling refund requests linked to delays, while providing up-to-date information to passengers". The UX Designer addresses another crucial aspect: "The complexity of our current interface puts off many users, which led us to undertake a complete redesign of the mobile application". The Student brings a specific perspective: "Young passengers face particular problems, such as the lack of electrical sockets, which considerably limits their ability to work or play during the journey". Finally, the IS Department Manager mentions the customer relations system: "Our dedicated service remains the preferred channel for handling complex complaints requiring human intervention".

Theme 5: Competition and alternatives

"How does your enterprise differentiate itself from private sector?"

The company's competitive positioning is based on several distinctive assets. The Digital Manager highlights some key arguments: "Our exceptional punctuality rate and flexible subscription formulas are major competitive advantages over other modes of transport". The Partnership Sales Manager completes this analysis: "The unique extent of our national network, particularly its coverage of industrial zones, gives us an unrivalled positioning". However, the student provides an important counterpoint: "For many young people, car-sharing remains a more affordable alternative, despite its lesser reliability and relative discomfort". The Maintenance Manager adds an environmental dimension: "In ecological terms, our services have a much more favorable carbon footprint than road transport, an argument that is becoming increasingly important in the choice of users".

Theme 6: Digital strategy

"What role do the Connect mobile application and social networks play in customer engagement?"

The mobile application and social networks are the pillars of customer engagement. The Digital Manager describes the alert system: "Our personalized notifications inform travelers in real time of disruptions, but also of promotional offers adapted to their travel habits". The IT Manager discusses the technical aspect: "The open API we have developed enables innovative integrations with third-party applications, expanding our digital ecosystem". The Student suggests an interesting development: "The addition of a community forum integrated into the application would encourage exchanges between users and reinforce the feeling of belonging". Partnership Sales demonstrates the strategic use of networks: "Professional platforms like LinkedIn enable us to effectively target potential customers for our freight services, with content tailored to each segment".

Theme 7: Future prospects

"What innovations could strengthen your company and what is your future vision?"

The innovations envisaged outline an ambitious roadmap. The Digital Manager mentions some promising projects: "Biometric payment in stations and timetable optimization using artificial intelligence represent major technological leaps to improve the passenger experience". The IT Manager explores disruptive avenues: "Blockchain technology could revolutionize the traceability of transported goods, offering unprecedented transparency to our freight customers". The IS Manager puts these innovations into a realistic timeframe: "We first need to finalize and stabilize our unified mobile application, which is the essential foundation, before deploying more advanced solutions". The Logistics Consultant insists on one crucial dimension: "All these innovations must be thought out locally, in line with the specificities of our market, rather than simply being imported from foreign models".

b. Results discussion

Analysis of the results reveals a profound transformation of the company's digital business model, which is evolving from a simple digital transposition of traditional services to an integrated ecosystem of value. The business model described by respondents is built around three complementary pillars: direct monetization (online ticketing), data enhancement (anonymized passenger flows), and value-added services (e-logistics). This tripartition clearly illustrates the shift from a classic transactional model to a more holistic approach, where data becomes a strategic asset, as the IT Manager points out: "Our mobility data creates new opportunities for public-private partnerships".

This evolution of the digital business model is not without its tensions. On the one hand, data-driven logic is driving accelerated digitization to capture and monetize more data. On the other hand, the imperatives of inclusion recalled by the Station Manager mean that traditional channels must be maintained. This duality creates a managerial paradox: how to develop a digital business model while preserving the universality of public service? The solution outlined by several respondents involves an intelligent hybridization of channels, where digital does not replace but enhances the existing, as shown by the "hybrid counters" mentioned by the Maintenance Manager.

The study of digital business models also reveals the emergence of new value-creation logics. The Logistics Consultant emphasizes "the growth of e-logistics services", while the Partnerships Sales Representative describes "bundled offers with e-tailers". These elements testify to an extension of the scope of activity beyond transport stricto sensu, towards a platform of mobile services. This evolution towards a platform business model remains incomplete, however, as the UX Designer notes: "Our application is still struggling to create network effects between users".

The transformation illustrates how a public organization can evolve towards a hybrid business model integrating both public service logics and digital value creation mechanisms. In particular, we can observe the emergence of a platform-based model in which the company no longer simply offers transactional services, but gradually develops an ecosystem of interconnected services. This evolution towards a more sophisticated digital business model can be seen in three key dimensions: the monetization of digital data and assets, the development of value-added services, and the creation of strategic partnerships with technology players. These elements outline the contours of a new business model adapted to the specificities of the public sector, combining operational performance with a public service mission.

6. Conclusion

This study shows that public sector organizations can exploit disruptive digital business models to improve their efficiency and value creation, although specific challenges remain. Several key lessons emerge. Firstly, hybridization of models proves essential: the company studied combines platform strategies (mobile applications, data ecosystems) with its public service mission, thus following the open innovation paradigm (Chesbrough, 2010). However, legacy systems and gaps in digital literacy are holding back complete disruption.

Secondly, data is a strategic asset: its monetization (IoT solutions for logistics) mirrors trends seen in the private sector (Teece, 2018). Nevertheless, public companies have to contend with governance trade-offs (Zuiderwijk and al., 2021), particularly in terms of transparency and data protection.

Finally, the balance between disruption and inclusion remains a major challenge. While digital models strengthen competitiveness (dynamic pricing, partnerships), they also run the risk of

accentuating inequalities in access to services. This underscores the need for "inclusive disruption", incorporating mechanisms to guarantee digital accessibility for all users.

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