

An Exploratory Study: Digital Start-ups Post-Coronavirus Vision in the Era of Accelerated Digitalization

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Abstract

The COVID-19 crisis has accelerated digital transformation in all sectors of activity, and several digital start-ups have witnessed an increase in their revenues as a result.

Our study aims to explore the post-COVID-19 vision of digital start-ups in Morocco, which have become significant contributors to the national economy. We conducted an exploratory study with four digital start-ups to gain insights into their perspectives.

To accomplish this, we adopted the multiple case study method as part of an exploratory qualitative study. As a key finding of our study, start-ups emphasized the importance of rethinking their management and solutions by developing a genuine prevention strategy. The crisis has therefore helped to increase innovation and the development of products and services within start-ups.

Keywords : Start-ups, post-coronavirus vision, digital acceleration

Introduction

As was the case during the first industrial revolutions, digitalization is unfolding imperceptibly (Varenne, 2020). It emerged in the early 2000s with the development of Web 2.0 and the use of networks by the general public, including email, social networks, instant messaging, and e-commerce (Patel and McCarthy, 2000). The rise of networks has brought forth new ecosystems and novel approaches to conducting business activities (Bensaid, W., Azdimousa, H., 2019), opening up new opportunities.

The digitization process has undergone an unprecedented acceleration in recent years, particularly in light of the COVID-19 crisis. This rapid advancement of digitalization has had a direct impact on both the national and international economy. In the realm of entrepreneurship, numerous digital start-ups have experienced exponential revenue growth amid this crisis. Morocco, with its thriving ecosystem of digital start-ups, represents a significant strategic asset due to its capacity to seize post-pandemic opportunities. Consequently, the World Bank's report on the economic situation in Morocco emphasizes the country's exceptional ability to leverage the crisis and transform it into an opportunity by initiating an ambitious program of transformative reforms.

Considering the limited research and studies on the post-coronavirus vision of the start-up ecosystem, it is essential to examine the vision of Moroccan start-ups during the crisis and their outlook for the post-crisis period. Therefore, our research aims to explore the post-crisis vision of Moroccan start-ups, taking into account the accelerated digitalization that Morocco has undergone during this challenging period. Consequently, the objective of this paper is to address the following research question: “What is the post-coronavirus vision of Moroccan start-ups in a context of accelerated digitalization ? ”

To address this question, the paper is structured as follows. First, we will set out the theoretical corpus of our study. We begin with the concept of digitalization. We will then highlight the results of scientific research into digital entrepreneurship and digital start-ups. Part of the theoretical corpus will of course be devoted to highlighting the results of previous research on trends and opportunities in the post-crisis period. We will then develop our methodology. Finally, we present and discuss the main findings of our research.

1. Theoretical Corpus

1.1. Digitalization

Digitization is the utilization of digital or IT technologies to transform existing business processes. It involves adopting technological tools that modernize traditional paper-based or analog procedures into digital formats (Bloomberg, 2018, Brennen & Kreiss, 2016). Sussan et al. (2017) and Tilson et al. (2010) describe digitalization as a socio-technological process of applying digitization techniques to broader social and institutional contexts that render the infrastructures of digital technologies (Bican,Brem, 2020, Sussan, 2017, Tilson, D et al. 2010).Within the context of digitization, information technology plays a vital role in seizing new business opportunities and transforming current business activities, such as human resources management. Digitization serves as a crucial component in introducing innovative, value-creating management strategies that lead to the adoption of new business models (Verhoef et al., 2019). The technological and digital revolution, marked by the increased use of electronic devices, and technologically advanced software, has allowed companies to perform increasingly renovated activities (Lupton, 2020; Vural 2020). This leads companies to improve their business models by integrating innovation and digitalization (Adomako, 2021).

1.2. Digital entrepreneurship

According to various researchers, digital entrepreneurship is a process that facilitates a number of favorable economic changes such as growth, job creation and innovation (Zhao, Collier, 2016) is currently entering a new phase, marked by accelerated developpement.

As a result, a new wave of companies and entrepreneurs has surfaced to capitalize on the opportunities presented by digital technology, while meeting the demands of a new, post-modern generation of consumers, attracted by innovation and involved in new technologies. All participants in this ecosystem, including investors, business angels, incubators and start-ups, view the entry barriers in the realm of digital entrepreneurship as opportunities rather than barriers (Topol, 2011).

Numerous entrepreneurship researchers have dedicated their scientific research to the creation and advancement of predictive models for growth and performance. These models have a significant impact on the likelihood of success and/or survival of digital start-ups, as they categorize them based on various combinations of environmental, organizational, and individual factors (Lasch, Le Roy, Yami, 2005).

1.3. Digital start-ups

The end of the 20th century witnessed a transition from a managerial economy to an entrepreneurial one, where startups are emerging as key players in the entrepreneurial ecosystem. Entrepreneurship is defined as the process of identifying and capitalizing on lucrative opportunities (Shane and Venkataraman, 2000). Once these opportunities are identified, entrepreneurs must seize them to establish new businesses or start-ups.

Sarasvathy (2001) posits, through his theory of effectuation, that successful entrepreneurs are those who act based on the means at their disposal rather than predefined objectives. Entrepreneurial bricolage (Baker and Nelson 2005) aligns with the same principle as effectuation theory. According to Baker and Nelson 2005, entrepreneurs operate in resource-constrained environments, necessitating the utilization of available resources to address new challenges and seize emerging opportunities. These approaches including effectuation and entrepreneurial bricolage, are commonly employed by digital startups. Fisher (2012) further supports this notion, stating that entrepreneurial bricolage with effectuation logic effectively describes and explains the behaviors exhibited by entrepreneurs in the creation and development of startups (Fisher, 2012).

According to Rode and Vallaster (2005), start-ups are temporary organizations without an established legal and economic structure in the marketplace. Ries (2011) defines a startup as a human institution operating in an environment marked by high levels of uncertainty, with the objective of designing and creating a new product or service. Ruzzier and Ruzzier (2015), highlight that a start-up comprises a team of individuals working toward a shared goal of developing a new and significant product or service. This team is motivated by a future vision and the potential for rapid growth, fostering an environment of excitement and passion. They work in uncertain conditions, facing a high risk of failure.

1.4. Post-crisis trends and opportunities: Previous research

widely recognized that crises can create new opportunities. Crises often stimulate innovation and the development of innovative products and services (Brem et al., 2020; Irvine and Anderson, 2004). In the short term, investment prospects have emerged as a result of the COVID-19 pandemic. These opportunities manifest in the development of hygiene, telework and other digital solutions that enable the continuation of economic activities. However, the long term consequences of the pandemic are yet to be fully revealed or anticipated. It is expected

that broader business opportunities will arise in the future. The existing literature on entrepreneurship affirms that failure and uncertainty are inherent aspects of the journey for start-ups (Ucbasaran et al., 2013; Mandl et al., 2016). This health crisis has acted as an accelerator, expediting the pace of digitalization (Bradley et al., 2020). Nevertheless, in an uncertain context with unpredictable consequences, companies are urged to remain vigilant and exercise increased caution (Joo et al., 2019).

2. Methodology

In light of conducting research on a novel and emerging issue, we have employed a qualitative and exploratory approach. The selected methodology for this study is the multiple-case method (Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Yin, 1992). This method aims to understand a phenomenon in depth, rather than to generalize the results (Bardin 2007).

Adopting an exploratory qualitative approach was not arbitrary but based on strong justifications. Qualitative research is especially valuable in the context of rapid response research (Finlay et al., 2002). Furthermore, qualitative research appears to dominate the entrepreneurial research landscape during times of crisis (e.g., Buchanan & Denyer, 2013; Linnenluecke, 2017).

In our study, we focused on digital startups operating within the Marrakech-Safi region.

The selection of these start-ups was guided by several criteria aimed at ensuring a homogeneous sample. The following selection criteria were taken into consideration :

- Incubation : The chosen start-ups have all undergone incubator programs ;
- Digital solution/product: These start-ups offer digital services or solutions ;
- Financial stability during the crisis: The selected start-ups had the ability to maintain their performance and productivity even during the challenging period of confinement caused by the crisis.

The study of startups that have undergone incubation or participated in an incubation program necessitates a complementary study involving the support structure. The decision to include an interview with a support structure was made subsequent to conducting interviews with the startups themselves. Since the support structures are integral parts of the ecosystem, it is important to understand their own vision and role. The selection of this specific incubation structure, which was also the subject of a separate qualitative study, was driven by its dynamic programs and support mechanisms provided to startups and young companies during the

confinement period.

To ensure effective collection of primary data, we conducted two semi-structured interviews: the first with the targeted startups and the second with the president of the incubation structure. Semi-structured interview guides were used while interviewing the founders of startups and the president of the incubation structure in question.

The interviews were conducted using the Google Teams platform and the WhatsApp application. The duration of the interviews ranged from 40 minutes to 1 hour and 15 minutes. All interviews were recorded and subsequently transcribed manually. The analysis phase of the collected data involved the manual processing of our dataset, utilizing content analysis with a specific focus on thematic analysis. Content analysis is an interpretative approach that seeks to strike a balance between objectivity and subjectivity, aiming to provide insights and answers to our initial research questions (Bardin, 2007).

3. Results and Discussion

Before embarking on the exploratory phase of our research, it was crucial to establish a solid theoretical foundation. The primary objective of this study is to explore the vision of digital startups, and the insights gained from the interview with the incubation structure will be used to substantiate the study's conclusions. This phase has yielded substantial results that accurately reflect the reality of Moroccan startups. In this section, we will discuss the results thematically to emphasize the key ideas and findings. The main findings of our study are outlined as follows:

- **Digital acceleration has acted as a catalyst for innovation and simplification of work processes**

The insights gathered from the interviews with the startups affirm that digital acceleration will play a vital role in driving post-pandemic development. According to the four interviewed startups, digital acceleration will enhance their relationships with external partners, simplify the process of filing tax returns online, and significantly save time. The acceleration of digitalization resulting from the health crisis has already proven to be a catalyst for innovation. Interviewee 2 from start-up B provides further confirmation, stating, "*The crisis acted as a catalyst for innovation within our company, as evidenced by the development of our platform during this period. The platform allows our customers to autonomously design and develop their own websites from the comfort of their homes.*" (Interviewee 2, start-up B).

- **Digital start-ups' post-pandemic strategy places greater emphasis on risk awareness and involvement in planning**

Enhancing risk awareness and implementing emergency and crisis action plans have emerged as key focal points for digital startups' post-pandemic strategies. The surveyed startups exhibit a lack of comprehensive, long-term visibility regarding their future, which aligns with findings in the existing scientific literature. Uncertainty and failure are acknowledged as inherent aspects of the entrepreneurial journey and daily life for entrepreneurs (Ucbasaran et al., 2013; Mandl et al., 2016), and the recognition of risks during a crisis is not always straightforward (Muñoz et al., 2019).

Startups indicate a lack of visibility regarding the trajectory of their business, particularly in the post-COVID era. Interviewees emphasize that their response and future plans are contingent upon governmental decisions and the establishment of a legal framework. As highlighted by the co-founder of startup 3: "*We currently lack visibility on how the promotional activities for the solution we plan to launch between the end of July and the beginning of August will unfold. We have several options for the post-COVID context, both face-to-face and online, but our decision will depend on government measures and the legal framework that will be put in place.*" (Interviewee 3, start-up C).

- **The covid-19 crisis and digitalization are leading start-ups to rethink their activities in the future**

The literature supports the notion that crises can serve as catalysts for innovation and the development of alternative products and services within companies (Brem et al., 2020; Irvine and Anderson, 2004). The analysis of our interviewees' comments further reinforces this perspective. For instance, start-up A plans to expand its business in the future by incorporating traditional activities such as social network management into its core operations. The co-founder of start-up A highlights this intention: "*Yes, we're considering expanding our business in the future and exploring the addition of traditional activities like social network management to our core business.*" (Interviewee 1, startup A).

On the other hand, start-up B intends to reorient its business model, emphasizing a commitment to creating impact rather than solely focusing on generating profits. The interviewee from start-up B states: "*Yes, perhaps a reorientation, pivoting towards another business model. We are a*

startup dedicated to making a positive impact, not solely driven by financial gains."(Interviewee 2, startup B).

In contrast, start-ups C and D plan to concentrate on their core activities. The interviewee from start-up C highlights their approach: "No, on the contrary, COVID-19 has reinforced our focus on our core business and has made us more credible in the solutions we offer." (Interviewee 3, start-up D).

• **Exploring the Potential of Telecommuting as an Alternative to office work**

All four interviewed startups agree on the effectiveness of telecommuting and express their willingness to consider replacing in-person work with remote work. However, they also emphasize the importance of human contact and its impact on their relationships. The incubator structure corroborates these findings by affirming the effectiveness of remote coaching. They further highlight the successful support and monitoring provided to startups that had to adapt their business models during the crisis. Remote support emerges as a viable alternative to face-to-face coaching for Moroccan support structures in the future.

During our interview with the founder of start-up 2, he emphasized the lasting reality of telecommuting, stating that it cannot be phased out immediately after the confinement period. The resumption of work has been smooth, with their incubator taking necessary measures to ensure an optimal transition. Additionally, they found that working with self-employed contractors, rather than recruiting employees, may prove to be more efficient in the future.

Conclusion

The Covid-19 crisis has led to a significant increase in digitization, technology advancement, and innovation. This transformative period has greatly influenced the strategic vision and forecasts of various actors in the digital entrepreneurship ecosystem. This study has provided an overview of the post-crisis vision of key players in Morocco's digital entrepreneurship landscape, particularly digital startups, considering the impact of the pandemic-driven digital transformation.

Through the exploratory phase and thematic analysis of interviews, this study has yielded valuable insights and significant contributions to address our initial research problem. The main findings can be summarized as follows:

- Digital acceleration has acted as a catalyst for innovation and the simplification of work processes.
- Post-pandemic strategies of digital startups emphasize the importance of risk awareness and active involvement in planning.
- The Covid-19 crisis and digitalization have prompted startups to reevaluate their future activities.
- The potential of telecommuting as an alternative to traditional office work has been explored and recognized.

These findings serve as a foundation and starting point for further comprehensive studies, expanding the sample size and geographical scope of analysis. Future research may consider a broader range of actors and regions to gain a more comprehensive understanding of the digital entrepreneurship ecosystem.

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Table 1: Description of target sample

Interviewee	Fonction	Start-up	Creation date	Region	Activity
1	Co-founder	A	2020	Marrakech-Safi	Corporate services
2	Founder	B	2018	Marrakech-Safi	Digital marketing
3	Co-founder	C	2019	Marrakech-Safi	Research and consulting
4	Co-founder	D	2019	Marrakech-Safi	Corporate services

Source : Authors

Table 2: Representative quotes

Themes	Representative quotes
Planned actions after the crisis	<p>“Being more sensitive to this type of crisis, we have learned a valuable lesson from COVID. We understand the need to incorporate such crises into our future action plans. We have thoroughly reconsidered the tools, human resources, and financial aspects we work with, with the aim of optimizing resources in the future” (interviewee 2, start-up B).</p> <p>“We are developing intelligent systems to help our customers understand the importance and role of our products. During the COVID-19 period, both online and offline marketing strategies played a crucial role in mitigating the negative effects of the crisis. After the crisis, we plan to continue focusing on online sales, particularly in the European market (interviewee 4, start-up D).</p>
Accelerated digitalization as a growth driver post-crisis	<p>“As a digital start-up, digitalization has always played a significant role in our activities. Digital technologies constitute</p>



	<p>80% of our company's identity. However, it is important to note that digitalization will have an even greater presence in managing our customer relationships after the crisis” (interviewee 3, start-up C).</p> <p>“Not real leverage, but I'd say extreme leverage” (interviewee 2, start-up B).</p>
<p>Is digital acceleration a temporary or permanent acceleration ?</p>	<p>“I can see that this digital acceleration is not temporary, as Morocco was already committed to the digitization process before the health crisis. This digitalization process will need to continue because it allows for time savings and the reduction of various additional costs” (interviewee 1, start-up A).</p> <p>“When we talk about digital acceleration, we usually refer to sectors that have not been heavily impacted by digitalization. Sectors such as hospitality, artisans, and others will likely experience a more noticeable acceleration in their digital transformation. However, for digital startups like us, it will be more of a continuation of our ongoing digital journey rather than a sudden acceleration” (interviewee 3, start-up C).</p>
<p>Sustaining the accelerated pace of digitalization</p>	<p>“To sustain this digital acceleration, it is crucial for the government to place trust in startups, youth, Moroccan products, and Moroccan innovation. Trusting innovative startups is the key to driving a successful digital transformation in Morocco” (interviewee 2, start-up B).</p> <p>“The key to sustaining the accelerated process of digitalization is our recognition that this situation will persist, necessitating our adaptation. We must cultivate habits that will gradually become the new normal through repetition. Leveraging digital tools and</p>



	resources becomes essential as we navigate this digital era” (interviewee 3, start-up C).
Future reorientation or expansion of the business	“ Yes, we're planning to expand our business in the future, we're thinking of adding traditional activities such as social network management to our core business" (interviewee 1. Start-up A). “Yes, maybe a reorientation, maybe pivoting to another business model. We're a startup that's committed to creating impact, not just generating money” (interviewee 2. Start-up B).

Source: Semi-structured interviews