

FACTORS INFLUENCING DIGITAL MATURITY PROGRESSION IN EMERGING MARKETS

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Abstract

The topic of digital maturity has gained significant attention in both academic and practitioners' discourses. Despite this growing attention yet few studies explore the factors that influence digital maturity progression within an emerging setting and identify its contextual nuances. Accordingly, this exploratory qualitative research aims to contribute to the academic discussion about digital maturity in emerging contexts and explore the influencing factors of digital maturity progression with a particular focus on the Algerian market as a case study. Through semi-structured interviews with digital experts, this study identifies several internal and external factors that contribute to the digital evolution of companies. The findings indicate that internally achieving digital maturity is highly dependent to digital leadership, financial resources and digital skills availability, which in emerging economies is critically constrained by brain drain that limits the talent pool necessary for digital advancement. Externally, the study identifies factors such as governmental support and competitive pressure. The study also reveals that customers' digital readiness and digital ecosystem readiness as distinctive characteristics of the emerging context critically influence maturity advancement of the companies.

Keywords: Digital maturity, Internal and external factors, Emerging economies, Maturity advancement.

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1. INTRODUCTION

Digital technologies are transforming the way business organizations operate. Their pervasive potential is driving companies to adopt such innovations and pursuing a transformation journey known as digital transformation. In this regard, the significant investments on digitalization initiatives underscore the paradigm shift and the race toward digital transformation.

As companies have increasingly engaged in digital transformation, the understanding of digital maturity becomes more important than ever. This concept has emerged to describe the digital transformation efforts within an organization in a way that provides insights about the degree to which it integrated digital

technologies into its operations. This provides a more comprehensive overview of the advancements in terms of digital transformation.

Regarding the understanding of the digital phenomenon, a significant gap in literature persists concerning the overdependence on western-centric models and theories which insufficiently address the contextual particularities of emerging markets (Mou et al., 2022). Moreover, while several studies attempt to investigate the digital maturity phenomenon and its different aspects within an emerging setting, yet this area is still considered as under-researched and necessitates more investigations (da Costa, et al., 2022). In fact, in terms of research, the investigations around the topic of digital maturity are mainly dominated by developed western countries (Aliy, et al., 2025). Meanwhile, the contributions of emerging countries particularly in North Africa are lacking. Accordingly, more attention should be attributed to the investigations of digital maturity in emerging countries. Particularly, the uniqueness of each of these economies in terms of structure and strategy motivate the exploration of the mechanisms and dynamics of digital phenomenon in such contexts.

To contribute in filling this gap, this paper therefore aims to provide a context-specific perspective of digital maturity determinants in emerging economies by exploring local factors influencing the progression of Algerian companies towards digital maturity as a case study.

Specifically, the present paper aims to achieve two main objectives:

- Identify contextual influencing factors of digital maturity progression and
- Extend the understanding of the digital phenomenon within emerging settings which helps accelerate its progression.

Accordingly, the research question that guides this investigation is formulated as follows:

What are the factors that influence the companies' progression towards digital maturity?

To reach our research objectives, this paper follows this structure: following this introduction, the second section offers brief overviews on digital maturity and its state within emerging markets. This helps understanding and providing the context to the present research. The third section presents the research methodology of the study, while the last section presents the findings, identifying the factors influencing the progression towards digital maturity in the Algerian organizational context.

2. THEORETICAL BACKGROUND

2.1 Overview of digital maturity

Over the last decade, the topic of digital maturity has gained significant attention among both the academic community and the industry practitioners alike. This growing interest is mostly attributed to the widely

accepted assumption stipulating that the organizations' digital maturity can lead to superior performance and position (Thordsen & Bick, 2023). In this regard, Tan et al. (2025) confirms the positive impact of digital maturity on the firms' performance. Specifically, digital maturity positively influences financial metrics (Westerman, et al., 2012), social performance (Aksoy, et al., 2025) and innovation performance (Krause, et al, 2021).

Regarding the definition of the concept of digital maturity, earlier studies indicate that since digital maturity is closely linked to digital transformation it can be defined accordingly. In this matter, Chanas & Hess (2016) define digital maturity as "the status of a company's digital transformation", to describe the evolution of the efforts made by the organizations in terms of their digital journey. Beyond that, digital maturity concerns the organizational capacity of taking advantage from the potential of digital technologies with the aim of improving its business operations (Viana, et al., 2023) and competing effectively (Kane et al., 2017). This understanding indicates the multi-dimensionality of digital maturity as it spans across various dimensions within the organization from strategy to operations.

In the academic discourse, the most prominent area of research regarding the topic of digital maturity is the establishment of maturity frameworks. In this regard, earlier studies mainly focused on identifying key dimensions that help auditing the state of digital maturity of the organizations including digital strategy, digital skills, culture, leadership and operations and processes (Ka, et al., 2023) through what is known as digital maturity models. In this regard, it is the degree of digitalization of these dimensions across these models that determine the overall maturity score of the organization (e.g. Berghaus and back, 2016).

However, Laouar and Boukerch (2025) argue that despite being helpful to provide a benchmark of existing digital capabilities, such frameworks fail to provide an understanding of how being digitally mature benefits the organization mainly in terms of acquiring a competitive advantage. In this regard, the authors advocate for a shift in focus from the accumulation of digital capabilities for the sake of being digitally mature to the purposeful leveraging of these capabilities as driver for market excellence and competitive advantage (Laouar and Boukerch, 2025).

Achieving digital maturity is depending on several factors. Internally, it necessitates the development of robust technological capabilities that enable organizations to effectively utilize emerging technologies for strategic gains and overall performance improvement (Van Tonder, et al., 2024). However, the path to digital maturity extends beyond organizational borders where external factors frequently add layers of influence, and contribute to the complexity of digital evolution (Omol, et al., 2025).

Following this perspective, there is a commonly accepted belief in the academic literature that digital phenomenon are context-specific (Ladu, et al., 2024). That is, the way by which digital initiatives manifest and the factors influencing their adoption may diverge significantly contingent on the characteristics of the context in which it occurs. In this regard, the understanding of the nature of these mechanisms especially

within the unique context of emerging economies represents an important concern that requires more attention.

2.2 Digital maturity in developing countries

In developing countries, the progression towards digital maturity presents a unique interplay of challenges and opportunities (Kaggwa, et al., 2023). While companies in such contexts are considering digital evolutions as a prominent opportunity to close the gap with their peers in developed countries, yet they are dealing with significant challenges to successfully achieve maturity. These challenges are mostly related to insufficient digital skills, legal complexities, lack of funding, barriers that hinder successful implementation, and a deficiency of context-specific policies (Mohammadi, et al. 2023).

In this context, companies in developing countries usually demonstrate significant heterogeneity in terms of the adoption of digital technologies. In this regard, Torracca et al. (2023) report that there is a prevalence of basic digital technologies within the companies operating in emerging context. The authors explain that while these companies are expecting future digital evolutions, their low level of readiness to such transformation makes this expectation debatable.

Defending the same idea, the research conducted by Da Costa, et al. (2022) concerning SMEs' digital maturity suggests that the majority of these entities demonstrate primitive digital maturity mainly because of insufficiencies in terms of digital capabilities. In contrast, the existence of robust digital strategy drives the digital maturity of the remaining SMEs.

These dynamics indicate the necessity of tailored approaches to address the specificities and requirements of digital transformation in emerging markets (El-Telbany et al., 2020). In this context, it is necessary to identify and understand the factors driving the digital evolutions. In this regard for example, Sayari, et al. (2024) investigate the influence of corporate culture, digital strategy and leadership on the Tunisian companies' digital maturity. In the context of SME's in Kenya, Omol et al. (2025) found that internal factors such as technology, strategy, people, operations, product and organizations have a significant influence of the organizations' digital maturity and this influence is reinforced by the mediation effects of environmental factors such as governmental support, partnerships and loans and grants.

While such studies provide insights about the determinants of digital maturity in emerging contexts, yet the exploration of this topic still represents a fruitful area enabling the discovery of new factors through contextual nuances.

3. METHODOLOGY

This study aims to explore the key factors influencing the evolution of business organizations towards digital maturity with specific focus on the Algerian context. Since the aim of the study is exploratory in nature, the paper adopts a qualitative approach to address the research question. Such approach proves valuable for capturing, understanding lived experiences, and interpreting the participants' perspectives regarding a specific experience or phenomenon (Sigurdardottir and Mork, 2025). Accordingly, it is considered as appropriate to achieve the research objectives.

3.1 Sampling

In this research, a purposeful sampling strategy was used targeting senior digital experts and consultants. Digital experts and digital transformation consultants are particularly selected because of their expert knowledge and concrete expertise views, which allow them to provide relevant insights of digital transformation within organizations (e.g. El Amrani, 2024).

As an initial pool, the research aims for 15 interviews exceeding the minimum recommended sample size of 12 interviews for qualitative research based on thematic analysis (Guest, et al. 2006). The search for participants was mainly through professional network "Linkedin" and professional related events based on predefined criteria. To be eligible for inclusion, participants were required to have active involvement in digital transformation initiatives planning and managing related projects, and/or a strategic digital role (either advisory or organizational) with knowledge and visibility of digital projects.

The interviewing process takes place between December, 2024 and February, 2025 and ends with a final sample of ten (10) respondents when data saturation was achieved. It was determined when no new themes and patterns emerge from the data (Ahmed, 2025).

The table below summarizes the profile of the participants, where their names and exact affiliations are anonymous for confidentiality sakes. The participants are coded from P1 to P10 as follows:

TABLE 1. PARTICIPANTS' PROFILE

Interviewee ID	Position	Background
P1	Digital transformation consultant and CEO	+ 25 years in digital projects
P2	Digital transformation advisor	+ 25 years in digital projects
P3	Digital transformation consultant and CIO of a company in the ICT sector	+ 25 years in digital projects
P4	Digital transformation consultant	+ 25 years in digital projects
P5	Digital transformation consultant	+ 25 years in digital projects
P6	Digital transformation consultant – Fintech	+ 15 years in digital projects
P7	Digital manager – banking sector	+ 7 years in digital projects
P8	CIO – banking sector	+ 3 years in digital projects
P9	CIO – Technology and engineering provider company	+20 years in digital projects
P10	Digital transformation consultant	+10 years in digital projects

Source: Elaborated by the authors.

3.2 Data collection

This qualitative research relies on semi-structured interviews with digital experts as the primary source of information. The interviews last around 45 minutes and were conducted either in-person or via phone calls. Regarding the interview guide, the questions are directly derived from the research question, investigating three main aspects: (1) the state of Algerian companies regarding digital maturity and its characteristics (2) internal factors influencing the progression towards digital maturity and (3) external factors influencing the progression towards digital maturity.

3.3 Data analysis

After proceeding to the transcription and translation of the collected data, the transcripts were subject to thematic analysis following the approach proposed by (Braun and Clarke, 2006). This approach suggests that the identification of patterns necessitates going through six steps:

- Step one - familiarization: this entails the exploration and understanding of the data through reading and re-reading it to understand the main ideas.
- Step two- coding: this concerns the coding of interesting features across the data.
- Step three- searching: this involves grouping the codes into main themes.
- Step four- reviewing: this entails checking how each theme works in relation to its codes and to the broader dataset.
- Step five- defining: refining the specificities of each theme and naming them accordingly.
- Step six- reporting: this entails producing the research report containing key themes with selected examples and connecting them to the research question.

Following these directions, once the interviews have been transcribed, we arranged all the transcripts, along with the notes taken during the interviews in a thematic manner. Given the manageable number of interviews, we conducted the analysis manually first, then with computer-assisted method using the Nvivo software version 15. The software was used to search for verbatim using the “text search” functionality. This approach ensures that all the verbatim related to a certain theme are considered. In addition, the software enables to generate visualizations of the most frequently occurring words, known as “Word Cloud”.

4. RESULTS AND DISCUSSION

The results of the thematic analysis are presented below. In accordance with the objectives of the research, the main themes identified themes are indicated in the following table.

TABLE 2. EMERGED THEMES FROM THEMATIC ANALYSIS

Category	Emerged themes
State of digital maturity	<ul style="list-style-type: none"> • Characteristics of digital technologies adoption
Internal factors influencing digital maturity	<ul style="list-style-type: none"> • Digital leadership • Digital skills • Financial resources
External factors influencing digital maturity	<ul style="list-style-type: none"> • Governmental influence • Competitive pressure • Customers' digital readiness • Digital ecosystem readiness

Source: Elaborated by the authors.

4.1 State of digital maturity within Algerian companies

According to the interviewees, the utilization of digital technologies within Algerian companies is strongly associated to their digital maturity level. While the Algerian business environment exhibits different levels of digital maturity (P5), the majority of Algerian organizations, however, demonstrate lower levels of digital maturity (P1, P3, P4, P5, P6, P9, P10). In this context, the participants outline that the utilization of digital technologies in these organizations can be described as basic. For example, the participants clarify: "Until now, the organizations are in traditional computerization, they are not yet in digitalization" (P1). That is to say, "Most Algerian organizations are still in a phase, if we can say so, of basic use of IT tools" (P6).

Accordingly, the analysis outlines that the adoption of digital initiatives within the majority of Algerian organizations are more likely to be functional rather than transformative in nature (P1, P3, P5, P6, P10). With regard to the objective of this adoption, the organizations in this level aim to achieve gradual improvements in terms of operational efficiency (P1, P3, P4, P5). In this sense, a participant explains: "organizations are much more interested in everything related to increasing operational performance, productivity, saving time, minimizing expenses, etc., which is why they opt for these tools first" (P6).

This suggests that, in the Algerian business environment, organizations tend to prioritize digital initiatives that provide tangible and immediate benefits reflecting their short-term thinking of digital transformation. This aligns with the description of organizations in their early stages of digital maturity as reported in various digital maturity models (e.g. Teichert, 2023).

While this phase can be considered as basic, there are yet some companies that are completely traditional and do not have neither basic digital technologies nor the vision to embrace digital changes (P5).

In contrast, the research participants confirm that there are few organizations that exhibit relatively higher levels of digital maturity, where they provide several examples including the financial sector and some large organizations (P1, P3, P4, P5, P9, P10). In such organizations, the IT infrastructure is well-developed comprising new digital technologies such as data analytics, and artificial intelligence in addition to the fundamental technologies such as robust ERPs, CRMs (P4).

Within this perspective, the analysis reveals that these technologies are adopted and used to support the achievement of business objectives. That is, at this level, the IT and business functions are better aligned and operate in collaboration. This is demonstrated through the following quotations: "Overall, the collaboration is very, very close, I would even say it is a very intimate collaboration where IT today is outside of its support function, it is a business partner so they are really looking to improve the business so they are there to improve the business part "(P7), "here we are in IT-business co-alignment approach; the business function intervenes with its need while IT proposes solutions, new technologies to integrate them in order to satisfy this need, provide solutions" (P8).

These findings point to the evolution of the role of IT, within some organizations, to a more strategic level. In such organizations, IT departments are more engaging in supporting the achievement of the organizations' business objectives rather than operating in isolation. This transition of vision is recognized as a key pattern of relatively higher digital maturity levels within organizations (e.g. Valdez-de-Leon, 2016).

4.2 Internal factors influencing the evolution towards digital maturity

4.2.1 Leadership

All the interviewees recognize the pivotal role of the organization's leadership in enabling and supporting the adoption of digital initiatives. In this context, several perspectives are identified through this analysis:

A general consideration is that the top management must be convinced with the potential of digital technologies and show commitment to embrace digital changes. For example, one of the participants states: "Internally, everything starts with management. If top management is not convinced of the need for digitalization, and beyond that, if it does not encourage digitalization, nothing will happen" (P6).

This underscores the importance of the understanding of the value and strategic benefits of digital initiatives among the organizations' leaders. This is crucial, as their conviction consequently allows them to advocate digital initiatives and encourage the employees to adopt them (P4).

Another point to consider concerns the leaders and top executives' digital knowledge and expertise in dealing with digital technologies. In this regard, the existence of a gap in the digital literacy and key related competencies can drive a high resistance to change; specifically among leaders (P5). This further hinders the implementation of digital projects, which puts the organizations in a stagnation situation where they struggle to progress in the digital maturity level.

Moreover, an element frequently discussed by the research participants concerns the presence of a clear digital vision as a key factor driving digital initiatives. This vision must permeate all the organization's levels, that is, it must be communicated effectively across all the departments in a way that ensures that everyone in the organization is involved, aligned and working to attain the same objective (P1, P5, P6, P7,

P8, P9). Particularly, a participant explains the role of the digital vision in ensuring the alignment of business and IT efforts, stating: “Leadership, if there isn’t a clear vision with pathways that can be achieved, alignment is not possible... The IT managers of organizations today lack visibility because they don’t have this vision created, as they don’t follow a defined strategy” (P1).

While another point to the importance of the strategic communication of this vision and says: “It’s also important to embrace agility and scalability, meaning that information can be scaled at every level. Additionally, we made sure that everyone is involved” (P7).

The following figure provides a visual representation of the vocabulary used by the participants when discussing the role of leadership:



FIGURE 1. WORD CLOUD- LEADERSHIP

Source: Authors using Nvivo 15.

These findings are in agreement with Mugge et al. (2020), who argue that within digitally mature organizations, leaders recognize the beneficial effect of open and transparent communication with their employees in pursuing a successful digital transformation journey. In such organizations, leaders encourage timely and open communication without hierarchical restrictions. Such communication approach helps to maintain the clarity of vision and goals among employees and to eliminate the imbalance between the IT and business departments.

To summarize, the organization’s leadership contributes to the digital journey by defining strategic digital vision, driving and promoting digital change adoption. This leads to a better position with regard to digital maturity.

4.2.2 Human resources and digital skills

The majority of the respondents identify human resources as necessary for a successful digital transformation. They point out that digital transformation is not solely about digital technologies, rather the people who manage, implement and deal with the adopted technologies play an important role in informing and shaping the digital strategies and efforts (P1, P2, P3, P6, P8,P9,P10). That is, it is crucial, before pursuing a digital project, to conduct an internal audit to benchmark the existing capabilities and identify potential gaps in the staff’s digital skills (P1, P2, P9, P10). The following quotation illustrates this idea: “I

must identify my means: do I have the resources to do it? For digitalization, human resources are essential... it is the human factors that are there to support you” (P1).

Digital skilled employees play an important role in facilitating and enabling the adoption and success of digital initiatives (P8), while the lack of knowledge and familiarity with digital technologies and systems among the existing employees (or leaders) can significantly hinder the progress of digital initiatives within the organization (P5).

In this discussion about the role of human resources, an interesting pattern emerges which concerns the availability of skilled digital professionals. In this regard, some participants outline the impact of the “brain drain” phenomenon on the Algerian organizations’ digital projects (P1, P3, P4, P6, P9, P10). They explain that skilled professionals, particularly in the digital field, often leave their local organizations for better opportunities abroad. This talent loss, consequently, creates digital skills shortages which deprives organizations of essential competences to pursuit digital projects and ultimately achieve higher digital maturity levels. This idea is detailed in one’s of the participant claims as follows: “We have this interesting paradox: there exist real and, I would say, excellent talents in the field of digital, but many of them leave abroad. The result? Organizations find themselves in a situation where they must constantly train new teams in digital skills, which can slow down the transformation of the organization” (P6).

As this situation represents a major challenge for organizations to progress in their digital transformation maturity, addressing it through effective retention strategies is essential. In this context, Algerian organizations should create attractive environment for skilled professionals to stay and contribute (P1, P3). For example, a participant suggests: “How do we retain skills? The first thing is the environment. We need to create the right environment to keep talent. When I say environment, I mean the social environment, the work environment, the financial environment, etc.” (P3).

The main vocabulary used by the interviewees is indicated in the word cloud presented below:



FIGURE 2. WORD CLOUD- DIGITAL SKILLS
Source: Authors using Nvivo 15.

These findings align with the current discussions in the literature, where some studies explain that digital technologies necessitate specific skill sets for which the market of proficient individuals is comparatively limited (Wrede, et al. 2020). For that, the organizations offering different opportunities for talent development are more likely to retain their valuable employees and attract top talents from the industry (Kane et al. 2017).

4.2.3 Financial resources

The participants outline the importance of financial resources in supporting digital initiatives and projects. In this context, the adoption of digital technologies requires significant investments particularly in terms of the allocation of sufficient budgets for the acquisition and integration of these technologies and the funding for the employees' training to develop their capabilities to work with the new technologies. Participant (P5), for example, explains this matter as follows: "We cannot talk about digital transformation without budgets. This is very, very important. Software is expensive, and so are integrations, it costs billions" (P5).

Moreover, the cost of digital technologies may hinder the organization from adopting more advanced digital technologies and by consequent its progression toward more digital-integrated solutions and services (P7, P8). In this context, investing in the new technologies is a critical strategic decision. In this sense, the organization has to ensure a return in investment, which may be difficult to achieve particularly in the short term. A participant outlines this perspective stating: "We must not forget that digitalization comes with a cost, and in every company, the budget consideration is always very, very important. Costs sometimes become a challenge because economic prosperity is not constant. So when we invest, the question is: what is the return on investment? And is this return on investment short-term or medium-term?" (P7).

In short, the word cloud presented below summarizes the main words indicated by the interviewees:



FIGURE 3. WORD CLOUD- FINANCIAL RESOURCES

Source: Authors using Nvivo 15.

To summarize, the findings suggest that the financial situation of the organizations represents a critical influencing factor. The investment decisions and budget management rely on cautious consideration of the measurable outcomes of the adopted technologies. Thus, the organizations with relatively limited budgets will be forced to prioritize incremental digital changes, and delay the adoption of advanced technologies which negatively influences their digital maturity progression. These results are in line with Yoon et al.'s (2020) claims regarding the critical role of the technologies' costs in determining their adoption decision. This is particularly observed in SME's, where the availability of sufficient financial resources is considered as one of the main drivers of digital transformation (Broccardo, et al., 2024).

4.3 External factors influencing the evolution towards digital maturity

4.3.1 Governmental influence

Regarding the adoption of digital initiatives within the organizations, the participants highlight the crucial role of the government not solely in supporting the progression toward the digital economy where the organizations are ultimately digitally matures but also in structuring and framing the digital initiatives within the business landscape.

The participants discussed, from different angles, the regulatory aspect and its role in supporting the organization’s digital transformation. The discussion involves the recognition of the government efforts in terms of local regulations such as laws regarding data privacy which ensure a better structuration and protection of the individuals’ data (P7, P10). However, boarder legal gaps regarding the regulations around digital transformation still persist, hindering the adoption of digital initiatives within organizations (P3, P5). For example, a participant confirms: “It’s not enough to say we need to move toward digital transformation; it is necessary to help and support this decision with laws and mechanisms, especially those that enable and facilitate organizations to move toward digital transformation” (P5).

While it is crucial to design an effective legal framework to support the organizations’ digital initiatives, a careful consideration and flexibility in the compliance’s definition is needed. In this context, being “too regulated” (P1) is considered as a challenge for digital transformation. That is, restrictive regulations may lead to the slow progression toward digital maturity (P1, P3, P4, P5). Regarding this issue, it is necessary to establish a balanced legal framework proposing alternatives to support the progress. One participant proposes: “If there are laws designed to penalize imports for example, there must then be laws that maximize the facilitation of equipment manufacturing” (P3).

In this discussion, an interesting pattern emerges considering the government as a force mandating digital transformation for organizations (P5). Through imposing strategic directives (P2, P5), the government influences the organizations’ decisions concerning pursuing digital projects. From another perspective, the supportive role of the government’s incentive measures in promoting the digital projects within the organization is also crucial (P1, P4, P10). Incentive measures such as tax exemption may encourage organizations to plan for digital projects and adopt digital technologies, particularly in challenging economic contexts as in developing countries. The analysis of the responses generates the following word cloud:



FIGURE 4. WORD CLOUD- GOVERNMENTAL INFLUENCE

Source: Authors using Nvivo 15.

In short, the role of government is pivotal in driving the organizations' digital transformation. This influence can be exerted through the establishment of supportive legal framework and incentive mechanisms. These findings align with the existing literature which proposes that positive regulatory environment and the provided incentives encourage the adoption of digital technologies (Hsu et al., 2006; Lutfi, et al., 2022).

4.3.2 Competitive pressure

This study finds evidence that competitive pressure has a significant influence on the adoption of digital initiatives and ultimately their integration as part of the organization's business strategy. The majority of the participants argue that the competitive pressure leads the organizations to adopt digital technologies in order to create new innovative offers, align with the market trends and remain competitive (P3, P4, P5, P6, P7, P9). Demonstrating this idea using the example of financial institutions, a participant declares: "For the financial sector for example, there is competition, as long as there are foreign banks that have entered the Algerian market and they offer online services, so the other banks are obliged to align" (P5).

The following figure presents an illustration of the used vocabulary in this regard:



FIGURE 5. WORD CLOUD - COMPETITIVE PRESSURE

Source: Authors using Nvivo 15.

This suggests that, now, pursuing digital initiatives is more perceived as a response to competitive pressure enabling organizations to retain their market shares and survive in today's business environment. This is consistent with Wu et al.'s (2023) work, arguing that competitive pressure leads to the adoption of digital efforts with the aim to gain superiority against competitors.

4.3.3 Customers' digital readiness

This study reveals that, the customer, as a central focus for the organizations, plays an important role in driving and shaping the organizations' digital initiatives mainly in terms of the creation of their offers, communication methods, etc. Many participants recognized the importance of the customer's digital readiness as a determinant for the evolution of the organizations' digital maturity (P1, P4, P5, P10, P7, P8). In this regard, two main patterns emerge.

In one hand, the changes in the customer behavior and preferences influenced by the digital trends represent a driving force for the organizations' digital initiatives (P7). This creates a growing pressure on the organizations to adapt their business strategies by including digital initiatives to remain relevant (P10).

For example, a participant declares: "Today, digitalization is an absolute necessity because even if organizations do not digitalize, Algerians are digitalizing at a very rapid pace... If we don't adapt, we will be marginalized by society" (P7).

On the other hand, the divergences in the levels of digital readiness and maturity among the customers significantly influence the organizations' decisions about fully digitalizing their offers (P8). In this regard, the organizations are obliged to balance their offerings comprising both digital and traditional services (P7). In this sense, customers' willingness and ability to utilize digital services is critical. Some consumers may not be ready to fully interact with digital platforms, applications, etc, which delays the organizations' transition to digital offerings (P5). That is, as consumers become more digitally mature, organizations face increased pressure to provide integrated digital solutions and change their ways to create value. Regarding this, a participant declares: "The only thing that could put pressure on companies is consumers. If we increase the digital maturity of customers, they can drop people who are old style and not oriented towards digital services" (P1).

This provides support to Kaur et al.'s (2021) proposition that organizations are increasingly aware that investing in digital technologies specifically to build digital offers is not sufficient if the customer is unwilling or hesitant to engage with them.

4.3.4 Digital ecosystem readiness

Regarding the evolution of the organizations' digital maturity, an important pattern emerges concerning the crucial role of the business ecosystem. According to some participants, an integrated digital ecosystem and the availability of the different support services that help the organizations pursuing their digital transformation are vital (P1, P5, P6, P9, P10). In this sense, the fragmentation of digital ecosystem may create barriers and limit the organizations' ability to embrace digital initiatives (P6, P9, P10). The absence of essential services such as electronic signatures, e-payment and other digital enabling services (P1, P5, P9), engenders a missing link disturbing the overall digital journey (P4, P5). A participant explains this idea in the following quotation: "We need services to complete this transformation, so the ecosystem is not fully developed in terms of services. Therefore, the digital transformation of companies is not yet 100% complete... There is some manoeuvring, and a gap in the loop makes it incomplete. As a result, digitalization does not cover the entire journey" (P5).

This confirms that "in reality, organizations cannot digitalize alone" (P10). That is, achieving digital maturity relies heavily on the ecosystem readiness in terms of the availability of critical specialized organisms and partners that support the digital projects within the organizations. This observation can be more apparent

in the developing and emerging countries. The word cloud associated with this factor is presented as follows:



FIGURE 6. WORD CLOUD- DIGITAL ECOSYSTEM READINESS

Source: Authors using Nvivo 15.

These results are consistent with Lustenberger et al.'s (2021) research claiming that the ecosystem readiness is one of the factors explaining the low adoption rates of technologies such as Blockchain within the organizations.

Based on the findings of the qualitative analysis, the synthesized table below provides a concise summary of the main factors influencing the Algerian organizations' evolution toward digital maturity:

TABLE 3. KEY FACTORS INFLUENCING THE PROGRESSION TOWARD DIGITAL MATURITY

Factor category	Factor	Description	Impact on digital maturity
Internal factors	Leadership	Understanding, expertise and commitment to digital transformation and clear articulation, and communication of the digital vision.	Digital leadership fosters the adoption of digital initiatives and enables the evolution toward digital maturity.
	Digital skills	Employees' proficiency with digital technologies.	Digital skilled employees are crucial for the implementation of digital initiatives.
	Financial resources	The ability to fund digital initiatives.	The availability of sufficient financial resources is essential for the adoption of digital technologies and training employees.
External factors	Governmental influence	The establishment of policies and legal frameworks to support digital initiatives	The existence of flexible and supporting policies along with incentives motivates and drives the progression toward digital maturity.
	Competitive pressure	The degree to which competitors are adopting digital initiatives and exhibit digital maturity.	High competitive pressure encourages companies to pursue the path toward digital maturity in order to align with market trends and remain competitive.
	Customer's digital readiness	Customers' willingness and ability to adopt and use digital products and services.	Higher digital readiness among customers empowers the design and implementation of digital strategies leveraging the potential of digital technologies.
	Digital ecosystem readiness	Existence interconnected digital networks that enable shared value creation.	Strong ecosystem readiness accelerates the digital maturity of companies through external collaboration and leveraging external capabilities to rapidly digitalize.

Source: Authors based on the research results.

5. CONCLUSIONS

This paper raises a fundamental concern regarding the factors that influence the evolution of emerging markets' companies toward digital maturity. Through qualitative semi-structured interviews, it delves into the exploration of internal and external factors enabling digital advancements in the context of Algerian companies.

Internally, the study identifies digital leadership, financial resources and digital skills availability as critical for the maturity advancements of the companies with particular attention to digital skills constraints exacerbated by brain drain as a persistent challenge in emerging markets that depletes the digital talent pool essential for transformation.

Externally and along with common factors such as governmental support and competitive pressure, this research identifies customers' digital readiness and digital ecosystem readiness as influencing factors and defining features of digital advancements in emerging markets.

These insights contribute to the academic literature by advancing the understanding of the mechanisms influencing digital phenomenon in emerging settings and providing support to the practitioners through shaping their digital strategies in a way that allows addressing the identified contextual nuances.

Similarly to any other research, this study has some limitations. The study's reliance on ten digital expert interviews, while appropriate for qualitative exploration, limits the generalizability of findings to broader organizational contexts. In this regard, further studies can be conducted with larger sample from different industries. In addition, future studies are encouraged to investigate and compare factors influencing digital maturity across different emerging contexts. This is particularly important as it may capture additional variations and nuances specifically regarding the degree of influence of certain factors compared to the others.

DECLARATION OF COMPETING INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

During the preparation of this work the authors used Quillbot and DeepL in order to assist with rewording, translating and improving the readability of the manuscript. After using this tools, the authors reviewed and edited the content as needed and take full responsibility for the content of the published article.

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