



Entrepreneurship Organizations and Digital Transformation in Algeria- Towards Keeping Pace with Digital Developments-

TOUHAMI Mohamed Redha*

University Mohamed El bachir El ibrahimi
of Bordj Bou Arreridj (Algeria)
mohamedredha.touhami@univ-bba.dz

KETTAF Reazki

Mohamed Lamine Debaghine University,
Setif 2 (Algeria)
r.kettaf@univ-setif2.dz
Laboratory of Algerian Contemporary
Society (Algeria)

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Abstract:

In a world witnessing rapid social, technological, and economic developments, keeping pace with emerging trends is crucial to serve vital sectors. The digital revolution and the shift of global economies towards investing in and benefiting from it to qualify their organizations and confront competitive forces are challenging. Digitization has fostered a culture of innovative projects, entrepreneurship, and emerging institutions founded on modern technology, opening new horizons for absorbing qualified human resources, reducing unemployment, improving the quality and diversification of services.

This article addresses entrepreneurship in light of digital transformation in Algeria and emphasizes the need for organizations and entrepreneurs to keep up with these developments.

Keywords: Organizations; Entrepreneurship; Digital Transformation; Keeping Pace with Challenges; Development.

Introduction:

In light of the new global changes brought about by economic developments, entrepreneurship and diversification have become fundamental features of contemporary economies. Entrepreneurship is considered one of the important and promising fields in the economies of countries, contributing significantly to economic development and driving growth, along with the creation of multiple job opportunities, absorbing

* TOUHAMI Mohamed Redha



unemployment, and encouraging creativity and innovation by transforming ideas into real development projects that align with rapid changes and societal needs. These have become essential requirements for achieving the competitiveness of entrepreneurial organizations, which in turn play an important role in solving many economic and social problems. This is due to their characteristics and advantages that enable them to adapt quickly to their environment, keep pace with rapid transformations, and respond to market needs. This has led to significant interest in them in recent times, especially with the global trend towards the digitalization of the economy, which has increased in importance following the series of unprecedented changes and challenges the world faced during the COVID-19 pandemic. This pandemic had a significant impact on various economic and social fields, disrupting the course of life and halting all sectors, exacerbating the problem. This directed the world's attention towards relying on information technology to overcome this crisis, leading to a shift in the nature of transactions, both economic and otherwise. As a result of these transformations and changes, the concept of digital entrepreneurship emerged, integrating digitalization and entrepreneurship. In this context, all products and services were digitalized, which in turn changed the methods of communication between entrepreneurs and beneficiaries through the global network and digital technologies.

Digital entrepreneurship has become a fundamental approach for individuals to realize their ideas and innovations and achieve excellence. Organizations also benefit from these technologies by digitalizing all their operations, including communication, and providing services efficiently, with high quality and low costs, in addition to their ability to market easily. All of this aims to improve and sustain the organization's performance and its ability to create and acquire a unique competitive advantage, which sets it apart from other organizations and serves as a weapon enabling it to enter the arena of competition and succeed

in its markets, achieving profitability, growth, and expansion, which is the goal of establishing this organization.

Algeria, like all countries, has focused on the subject of entrepreneurship and digitalization to improve and develop its services and align them with current technological conditions and changes in institutions. This is to ensure that its digital infrastructure adapts to this new type of business.

This leads us to the following question: What is the social responsibility of business organizations in the context of digitalization?

SECTION I: ENTREPRENEURSHIP

1. The Concept of Entrepreneurship:

Entrepreneurship has become a fundamental characteristic of the economies of industrial and developing countries. Technological development, the expansion of communications, the increase in knowledge, and the transition to an interconnected digital economy have all contributed to enhancing the capabilities of entrepreneurial ideas. The following will present some concepts related to entrepreneurship:

The term entrepreneurship has been defined as: "A set of activities that focus on attention, providing opportunities, and meeting needs and desires through innovation and the establishment of enterprises". (Al-Shamimari & Al Mubirak, 2019, p. 13)

Entrepreneurship is also defined as: "The process of utilizing a wide range of skills to achieve added value in a specific field of human activity, resulting in increased income or greater independence, in addition to the sense of pride resulting from the creative effort". (Al-Shamimari & Al Mubirak, 2019, p. 24)

It is also defined as: "Special situations that create economic and social wealth, characterized by a high degree of uncertainty, in which individuals enter the realm of developing behaviours that rely primarily on accepting change and risk together, taking initiative, and working individually". (Abbasi Yassali, 2018, p. 29)



From the previous definitions, we conclude that entrepreneurship is a process based on managing, organizing, and developing a project in a new and innovative way to bring about positive change in society, with the aim of achieving profit despite risks and ventures, driven by an individual's desire.

2. Characteristics of Entrepreneurship:

Many researchers and thinkers have pointed to several characteristics or distinctive features of entrepreneurship. Some of the most prominent of these characteristics include:

- Entrepreneurship is considered one of the inputs of the decision-making process related to the optimal use of available financial and material resources to produce a new product or provide a new service, in addition to developing new methods for operations.

- Entrepreneurship is a set of administrative skills based on individual initiative with the aim of optimal use of available resources, characterized by a degree of risk.

- Entrepreneurship means the optimal use of available resources to implement new ideas in institutions, which are adequately planned.

- Entrepreneurship is the productive centre for goods and services, resulting from individual decisions aimed at achieving profit from the appropriate economic activity.

In addition to other characteristics, which are:

- It is a process that arises from human choice and will.
- It involves a degree of discontinuity.
- It involves a degree of changing conditions.
- It is a dynamic process.
- It is largely self-directed. (Al-Zu'aimi, 2016, p. 38)

3. Types of Entrepreneurship:

The multiplicity of characteristics of entrepreneurship has significantly contributed to the diversity of classifications of entrepreneurship. These types will be classified as follows:

3.1. Type by Scope:

We find local entrepreneurship, which is practiced within national borders, and international entrepreneurship, which means exploiting and seizing opportunities outside international borders, related to: (economic development, cultural environment, technology...etc.).

3.2. Type by Responsibility:

Individual entrepreneurship expresses the efforts of individuals who work outside the scope of existing organizations, while organizational entrepreneurship (practicing business within an existing organization based on the organization's resources, dealing with the internal resources it possesses).

3.3. Type by Adoption:

It is divided into three types:

- **Innovative Research Businesses:** The entrepreneur transfers a new idea into a new product and builds a new activity in the business world.

- **Innovative Businesses Developed from Available Ideas, Information, and Technology:** The entrepreneur establishes businesses based on available ideas, information, and technology.

- **Ownership of Innovative Businesses:** It is considered the least common type of entrepreneurship, where a person buys an institution or owns workers. The need for innovation is less in this situation, but they will bear the risks and seize opportunities. (Alali & Alali, 2021, p. 46)

4. Stages of Entrepreneurship:

The effectiveness of emerging projects or institutions and the efficient performance of operations within the project or institution are linked to going through specific stages that always aim to achieve high indicators in terms of productivity, service delivery, and profit generation.

Entrepreneurship can go through five stages, as follows:

4.1. Stage 1: Project/Company Establishment:

This stage includes researching and devising the appropriate idea from the many ideas that come to mind when we want to



establish our own projects, transforming it into a project, and designing and testing the prototype.

4.2. Stage 2: Finding an Investor and Funding:

Most projects and companies in the world of entrepreneurship need support in the form of investment and funding so that the company or project can provide more services and target a new and large segment of users, and to develop the project. This step requires study and deliberation before taking it, considering it is one of the risk-taking steps in entrepreneurship.

4.3. Stage 3: Starting Work:

If the prototype is successful and the project idea test is passed, the transition to providing the services offered by the project comes. Here comes another challenge, which is the transition to a larger segment of users. Continuous work and maintaining a steady pace are necessary for the project owner to evaluate performance, service, and customer satisfaction.

4.4. Stage 4: Seeking Profits:

The process of seeking profits is continuous and repetitive and may vary from one project to another, depending on the entrepreneur's ability to find new and innovative profit models. This stage is characterized by finding a profit model, which may come late, and this is normal. However, the problem may be that it never comes, as in the Arab world, where there are entrepreneurs who do not earn any profits and have not even thought about a profit model.

4.5. Stage 5: Expansion and Growth:

The essence of entrepreneurship is that there is growth and expansion of projects. What distinguishes entrepreneurship is the ability of projects to continue and grow, and they may fail if this is not given due attention in light of intense competition and the production of more projects producing the same services and products. (Al-Zu'aimi, 2016, p. 54)

5. Difficulties Facing Entrepreneurship:

Despite the fact that entrepreneurship allows individuals to own a project that offers many advantages and opportunities,

there are potential challenges in this field, which can be summarized as follows: (Al-Shamimari & Al Mubirak, 2019, pp. 17-18)

- **Income Instability:** Establishing a project does not necessarily guarantee sufficient income. Some projects earn only marginally, especially at the beginning of the project and with the pressure of financial obligations.

- **Risk:** The failure rate of projects is very high. According to statistics in America, 35% of establishments fail within the first two years, while 54% fail within the next four years. Therefore, it is important for the entrepreneur to consider questions about the worst-case scenarios if the project fails and the possibility of failure.

- **Suffering from Work Pressure:** Owning a project is a great gain on the one hand, but on the other hand, it is hard and exhausting work because the entrepreneur invests a large part of their money in exchange for giving up a fixed and guaranteed income, or mortgages everything they own.

- **Frustration:** Establishing a pioneering project requires great sacrifice and long patience. To achieve success, the entrepreneur must overcome many obstacles and difficulties. Therefore, feeling frustrated is expected because results do not come quickly.

- **Long Working Hours:** Any investment requires serious and long working hours. Consequently, spending time on the project will be long, which makes the entrepreneur exhausted.

There are also other difficulties that hinder entrepreneurial work, which we will highlight below: (Al-Zaarir & Ghassan, 2019, p. 199)

- **Lack of Funding:** Despite the noticeable growth in investments, the amounts invested, especially in small and medium enterprises, are relatively low compared to large enterprises. Therefore, there are significant difficulties in attracting investment and obtaining the necessary funding.



- The absence of a system of cohesion and coordination: Entrepreneurship faces many gaps, requiring entrepreneurs and their institutions to face unexpected difficulties.
- The existence of some legislative systems far removed from supporting businesses.
- Choosing an inappropriate idea for the project: This is due to individuals entering the field of entrepreneurship without a clear idea or a detailed plan.

SECTION II: DIGITALIZATION

1. The Concept of Digitalization:

Digitalization is defined as a sophisticated copying process that enables the transformation of a document, regardless of its type or medium, into a digital series. The technical work is accompanied by intellectual and clerical work for indexing, scheduling, and representing the content of the digitized text. (Dalhoumi, 2001, p. 72).

It is the process of converting data into a digital format for processing by a computer. In the context of information systems, digitalization usually refers to the conversion of printed texts or images, whether photographic or maps, into binary signals, using a type of scanner that allows the result to be displayed on a computer screen. (Ferah, 2005, p. 38)

There is a fundamental difference between the nature of the information that was processed by computers in the early days of information technology and what the vast majority of people deal with and process using their computers today. Initially, the use of information technology aimed to process data and analyze numbers by computers for the purposes of storing and processing huge amounts of digital data, whether this data is obtained through data collection or through daily transactions. Digital data processing and its great importance still exist today, but it relies on various aspects of life. (Mackenzie, 2011, p. 184)

It is an electronic process for producing electronic or digital codes, whether from a document or any physical object or from

analog electronic signals. (Dakhfi, Farazi, & Shabouna, 2021, p. 302).

2. Reasons for the Shift to Digitalization:

- The accelerating pace of technological progress and the associated knowledge revolution.

- The development of computers and their applications: Computer applications have drawn attention to the possibility of using them in the field of management, considering that it only costs to upload some decisions, laws, files, and transactions to the information network, and then develop a specific program that allows them to be processed electronically by individuals and institutions.

- The development of communications: Electronic communications have undergone a tremendous leap, making everything that government administration needs readily available at a low cost and less effort, after it used to require spending a lot of money, time, and effort to send or implement information. This positively affects the performance of administrations and their governments, in addition to enabling the administration to communicate directly with its reviewers, creating a state of trust between the applicant and the administration.

- Increasing expectations and pressure from citizens on the administration to obtain better and faster services: In light of the increasing awareness of every citizen of their right to access information and know the mechanisms of political and administrative decision-making, the administration seeks to gain speed and take advantage of technical applications to eliminate the causes of the slowness of the administrative process and liberate it from the routine of manual transactions, to find innovative solutions that save time and facilitate decision-making and the completion of administrative transactions.

- The demand for efficiency in providing new and developed public services: By focusing on improving individuals' experiences in dealing with the administration when submitting



requests to obtain a public service. This is done by tightening control and raising efficiency through mechanisms to reduce errors, improve income, and reduce bureaucracy, which effectively leads to reducing the time required to enable employees to acquire new administrative skills that improve the quality and level of administrative performance.

- **Driving the wheel of economic development:** Countries that aspire to economic development must have an incentive to implement the administrative digitalization project, especially if they wish to attract foreign capital for investment or improve their economic, political, and international image in front of potential investors. This type of administration actually improves the infrastructure for providing public services, making it easier for it later to commit to making the necessary changes to enter the knowledge economy. (Yatouji, 2015, pp. 9-11)

3. Requirements of Digitalization:

Among the requirements of digitalization are the following:

- **First: Qualified Human Resources:** The digitalization process is not carried out by individual efforts, but rather by the concerted efforts of many people responsible within information institutions, as well as employees of various departments within the institution that is carrying out the digitalization process, who are qualified and possess high skills and competencies, which is a contributing factor in the successful completion of digitalization projects with high quality.

- **Second: Financial Resources:** The digitalization project requires financial resources to purchase digitalization equipment, maintain this equipment, and all that the digitalization project requires.

- **Third: Equipment and Devices:** It is obvious that one of the most important basic requirements for digitalization projects is the equipment and devices necessary to carry out the digitalization process. These equipment and devices include:

- **Scanners:** The scanner (digital imaging device) is considered the basis of the digitalization process and is one of the computer

peripherals. It scans various types of written, printed, photographed, and handwritten information in the document and enters it into the computer's memory or other electronic media.

- **Computers:** The digitalization process cannot be carried out without computers with specifications suitable for the digitalization process. The type of computers required to be purchased depends on the tasks required to be accomplished using those computers. It is very important that the computers used in the digitalization process have modern and high specifications and capabilities.

- **Software:** The digitalization process needs some important software that must be provided and used in order for the digitalization process to take place.

- **Software for processing texts and words:** This software allows creating, formatting, and editing texts.

- **Optical Character Recognition (OCR) software:** This is used when converting images into text.

- **File transfer software:** This is used to upload files and projects to the internet for display. (Al-Khath'ami, 2011, pp. 26-27)

4. Stages of Digitalization:

The digitalization process goes through several stages:

- **Preparation Stage:** Good preparation is necessary for digitalization projects in libraries and information institutions to define a general strategy for the digitalization process, represented in three main points: first, developing a digitalization plan; second, preparing a feasibility study; and third, learning from previous experiences and adhering to standardized criteria.

- **Selection Stage:** One of the initial questions that must be answered before starting digitalization projects is what are the priorities and bases on which the information sources to be digitized will be selected. The answer is determined by a number of factors that control the selection criteria and priorities, which vary depending on the type of institution and its communities. Among the selection priorities, we mention:



- The information institution's ownership of intellectual property rights to the sources selected for digitalization.
- Making content available and digitizing it is one of the priorities of its selection to avoid falling into legal problems.
- Copyright expiration on the information sources selected for digitalization.
- Project budget.
 - **Preparation Stage:** The stage of preparing the information that will be selected for digitalization includes a number of elements as follows:
 - Withdrawing the information source from the shelves.
 - Checking copies to exclude duplicates.
 - Assigning a serial number for tracking.
 - Separating the information sources that will be retained from those discarded after the digitalization process.
 - Maintaining damaged information sources in preparation for their digitalization.
 - **Digital Transformation Stage:** The selection and preparation stage is followed by the digital transformation stage.
 - **Digital Storage and Preservation Stage:** The digital storage and preservation stage is an important stage because it is the basis for search, exploitation, and information exchange operations. Therefore, it is unreasonable to use a digital system without thinking about a storage and preservation system. Its importance lies in ensuring the use and availability of digitized information sources in the long term, because the rates of development of hardware, software, and file formats lead to an increased probability of the inability to read the digitized content, unlike the preservation and storage of printed sources, which does not exceed the physical entity of the medium.
 - **Organizing Digitized Information Sources Stage:** The process of organizing digitized information sources, represented by a number of digital objects scattered on secondary storage media, is vital and important, as the user cannot access its content except through organization. These collections are organized

either physically, which library system programs can recognize and manage, or logically, which allows the user to visualize them.

- **Search and Retrieval Stage:** The real challenge of a library's digitalization project lies in designing tools that allow searching its outputs and provide the possibility of retrieving from them, as the digitized content is dynamic content and not just a machine-readable alternative to its printed counterpart. The availability of a digital alternative in the form of non-searchable images may partially suit the needs of some beneficiaries, but not all, as some naturally prefer browsing the digital text, which requires developing search and retrieval mechanisms. The library must use the appropriate metadata plan.

- **Digital Content Management Stage:** Content management is a part of the digitalization project related to updating, strengthening, developing, modifying, preserving, and monitoring changes occurring to a certain amount of content over time. This process is managed by a specialized content management support system that performs several tasks, including: ease of publishing on the internet, reducing content management problems, system security, indexing using metadata, difficulty of tampering with digital assets, continuous availability throughout the day, and achieving the highest level of cooperation between libraries.

- **Availability Stage:** The different forms of making digitized information sources available in libraries enable the library to obtain a profitable and material return that helps it complete the transformation or continuous renewal processes in the hardware and software used, and also helps it expand its services to attract the largest possible number of visitors and users in addition to its regular visitors. (Yaqoub & Ferah, 2024, pp. 29-31)

5. Factors for the Success of Digitalization:

Those responsible in governmental or private institutions and establishments who wish to move to administrative digitalization



must take into account several factors to achieve success in the institution, the most important of which are:

- Achieving electronic documentation of various administrative transactions, and eliminating paper archives that are susceptible to damage and forgery, clarity of strategic vision and comprehensive understanding of the concept of administrative digitalization from planning, implementation, production, and operation, and continuous development of work procedures and trying to clarify them to employees for the possibility of understanding and comprehending their objectives with emphasis on documenting them.
- Improving the level of service performance and reducing administrative complexities, reducing costs, and achieving the principle of administrative transparency, training, qualification, and securing the training needs of all employees.
- Each according to their specialization and ensuring the confidentiality of information for beneficiaries, learning from previous experiences and not repeating mistakes, and continuous updating of information technology for beneficiaries (Dhaif Allah, 2023, p. 9).

SECTION III: ENTREPRENEURIAL VENTURES IN DIGITALIZATION

1. Prominent Digital Entrepreneurial Organizations in Algeria:

The emergence of entrepreneurial organizations in Algeria has multiplied in recent times, especially with technological development. We present the most important and prominent digital entrepreneurial organizations in Algeria that have achieved a degree of success in the digital field:

1.1. Yassir Company:

Yassir is an innovative transportation service, used via smartphone anywhere and anytime. It allows everyone to book a driver and travel safely. Yassir was founded on the idea that when people are treated better, they provide better service (happy driver, happy rider). The company was founded in 2017 by

Algerian engineers Nouredine Tayebi and Mehdi Yettou and is considered a role model in the field of emerging entrepreneurial organizations in Algeria, especially in the technological field, due to its continuous growth. It is based on several principles, namely:

- Service is always available.
- Offering the best price.
- Providing quality service.
- Ease of use. (Abd Al-Karim & Ben Tsouri, 2023, p. 354)

2. Siamois-QCM Company:

It is the first Algerian electronic platform aimed at medical students preparing to take the specialization exam. It was created on June 12, 2017. It allows students to save time, effort, and money by providing more than 50,000 questions and medical cases classified by source, specialization, and degree of difficulty. The platform also enables them to add their notes and classify questions and cases, providing them with analytical data on their performance. It is the only one of its kind in Algeria, making it an innovative idea.

3. Global Opportunities Company:

It is the first Algerian electronic platform to acquire opportunities available to young people. It was created on April 11, 2019, in Blida. The platform provides low-cost opportunities in addition to searching for academic and professional content important for continuous self-development, as well as providing opportunities to gain useful international experience and global opportunities to achieve their dreams. It is a promising site as it provides job opportunities from various global and local companies and organizations in various disciplines. (Jebbari & Jebbari, 2022, p. 600).

4. Batolis Company:

It is a 100% Algerian company, created in 2015 by Sarlmams Bros (Jebbari & Jebbari, 2022, p. 600). It is a rising site for shopping and buying in Algeria and the first competitor to the French site Jumia. Its advantages include providing payment via



Visa cards and delivery through various organizations. (Messani, 2023, p. 100)

5. Noor Est Express Company: A Case Study

5.1. Introduction to the Company:

This company was founded in 2018 through a partnership agreement between experienced shareholders, but it is currently owned by Mr. Mohamed Amine Azzouk under the supervision of the General Manager, Mr. Kamal Saggari. Its headquarters are located in the city of Ouled Moussa, which is administratively part of the state of Boumerdès. It employs about 500 workers.

It is defined as a company specializing in the transportation and delivery of goods and parcels from one area to another in record time through its use of land routes. It operates throughout the national territory through its distribution in 58 offices in the country. Its slogan is "Speed, Honesty, Credibility."

Noor Est Express Company has contracts with many companies, most notably:

- Venus
- Haylla
- Arvea
- Yasara Market
- Four Shop
- Jumia

5.2. Services Provided:

Noor Est Express Company provides a range of services, namely:

- Delivery service for goods, products, and parcels from the seller to the consumer, where Noor Est Express Company acts as an intermediary between them.
- Noor Est Express Company provides a logistical program called "echotrak," which enables the customer or any user to track the parcel and obtain exclusive information.
- This company provides storage, packaging, and shipping services.

- It provides an electronic website with a data form that facilitates communication with the company.
- Marketing service directed to companies (B2B), represented in marketing the products of the companies it contracts with.
- Marketing service directed to individuals (B2C), represented in informing end consumers about the product and service. (Bouldroua & Batih, 2024, pp. 81, 82)

Results of the Interview with Ms. Kamelia Ouarrab, Head of the Returns Department at Noor Est Express Company:

We concluded:

- The spread of Noor Est Express Company in most states of the country helps it achieve more profits.
- The study showed that Noor Est Express Company is active on all its platforms, whether electronic or social media, and works to respond to its customers 24 hours a day.
- This company strives to gain new customers and achieve their loyalty through several methods, the most important of which are: reducing the prices of its services, providing free offers, and improving the quality of services provided to them.
- Noor Est Express Company always seeks to achieve a competitive price advantage in providing its services, in addition to focusing on a cost leadership strategy, which enables it to gain new market shares.
- The study showed that digital entrepreneurship contributes to achieving a competitive advantage for this company by saving time for the customer. That is, through their request for a specific product from the internet, this company delivers it at the specified time without the customer traveling from one place to another to obtain it, simply by filling out a form with their personal information and mentioning the product they want to purchase. This also contributes to reducing transportation costs for the customer. The company also benefits from digital entrepreneurship by connecting with the largest number of customers at the same time.



- Digital entrepreneurship helps increase the company's flexibility by enabling customers to cancel their orders simply by entering the company's website and cancelling the order. (Bouldroua & Batih, 2024, p. 88)

Conclusion:

Through this, we can say that it has become necessary to transition from traditional entrepreneurship to digital entrepreneurship, due to its significant importance in supporting economic development and creating added value, through the creation of various opportunities for entrepreneurs to establish and innovate new businesses based on creativity, relying on digital technologies and information and communication systems, and entering the business world, and forming a scope for competition by acquiring a competitive advantage that is difficult for competitors to imitate, as obtaining it requires the existence of digital technologies and developed technology that contribute to increasing the efficiency and effectiveness of quality, creativity, and flexibility in addition to providing services quickly and in the shortest time by facilitating its operations. This leads to gaining customer trust and loyalty, in addition to providing the product or service at the lowest costs. All of this contributes to obtaining the advantage that the organization seeks to achieve.

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