Digital Applications: True Means of Communication and digital Transformation

Les Applications Numériques: Véritables Moyens de Communication et De Transformation Numérique

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Abstract

Digital applications are powerful means of communication and digital transformation because they enable brands to achieve their overall communication goals. The growth of different techniques has changed the strategies of production, distribution, intermediation and even consumption of products and services. In digital marketing, these digital applications allow brands to engage with a large number of Internet users and promote themselves in a digital environment. The main objective of this article is to explain the link between the management of companies and digital and computer applications in economic and managerial activities, as well as the position of the Algerian system in this context.

Key words: Digital applications, digital transformation, communication, ICT, investment,

Jel Classification : F47, O10, L63, O14, D92.

Résumé

Les applications numériques sont de puissants moyens de communication et de transformation numérique car elles permettent aux marques d'atteindre leurs objectifs de communication globaux. La croissance des différentes techniques ont modifié les stratégies de production, de distribution, d'intermédiation et de même de consommation des produits et des services. En marketing numérique, ces applications numériques permettent aux marques de s'engager auprès d'un grand nombre d'internautes et de se promouvoir dans un environnement numérique. L'objectif principal de cet article est d'expliquer le lien entre le management des entreprises et les applications numériques et informatiques dans les activités économiques et managériales, ainsi que la position du système algérien dans ce contexte.

Mots clés : applications numériques, transformation numérique, communication, TIC, investissement.

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1. INTRODUCTION

1.1. Research Problematic:

Digital applications are powerful means of communication because they enable brands to achieve their overall communication goals. In digital marketing, they allow brands to engage with a large number of Internet users and promote themselves in a digital environment.

1.2. Research Aims:

The main objective of this article is to explain the link between business management and digital and computer applications in economic and managerial activities. In this respect, it is essential to distinguish between the management of the information system and the management information system:

A management information system "SIM" is an information system used for decision-making, coordination, control, analysis and visualization of information in an organization; especially in a company. The study of management information systems or management examines people and technology in an organizational context. In a business context, the ultimate goal of using a management information system is to increase the value and benefits of the business.

Then, *the management of the information system "MSI"* (called in a more restricted sense: management informatics and sometimes performance management) is a management discipline that brings together all the knowledge, techniques and tools that ensure management, and their security, and more generally the organization and protection of the information system.

Indeed, the information system must be organized, finalized, built, animated and controlled, which is a means of optimizing the performance of the company. It is a science in perpetual evolution because of new emerging professions in information systems.

2. Definition and origin of digital applications

2.1. Origin of digital applications

The origins of digital applications can be found in ancient Greece, the Greeks called them aplicatius digitalius. The application software is a computer program, or a combination of several computer programs, developed to perform specific operations such as writing, calculation or otherwise. This is not the same as a system software that only runs application software. Microsoft Office, with all its components, is a good example of application software, while Microsoft Windows is an example of system software running Office.

2.2. Definition of digital applications

Computer applications ... By computer application, we mean "a set of computer elements to automate the execution of a certain number of predetermined and formalized tasks".

As such, E-MEMORAe [**BENAYACHE 05**], or the tool author of templates Scenarios Progetto [**LANDO 04**] are computer applications. Computer applications that use ontologies or, more generally, knowledge, are generally referred to as knowledge-based systems (KBS). In general terms, an SBC consists of a knowledge base, a fact base, and an "inference engine" to infer new knowledge from the initial knowledge of the SBC.

2.3. Digital applications in marketing

Digital applications are powerful means of communication because they enable brands to achieve their overall communication goals. In digital marketing, they allow brands to engage with a large number of Internet users and promote themselves in a digital environment.

3. Types of digital applications

3.1. Digital applications of brand awareness

The brand awareness applications aim to attract a large number of users and increase the number of fans or followers as much as possible. It is important to note that digital applications have a positive influence on business results.

3.2. Digital performance applications

With performance applications, the goals are different. Customers want to increase sales, achieve high ROI, etc.

3.3. Mixed digital applications

Mixed-use digital applications simply have both purposes. Attract users and achieve better business results.

4. Application characteristics

To be successful, digital applications must be designed around a few important features.

- Utility: they must solve the problems of customers or satisfy their needs.
- Compliance with communication strategies: In order for the brand message to be clearly disseminated, digital applications must follow the same communication guidelines as other marketing activities of the company.
- Visual appeal: Users are more likely to use digital apps and interact with them if they feel good. This is why the UX (user experience) and UI (user interface) design principles are taken into account during the development phase.
- Gamification: demanding and rewarding digital applications get the best results because users do their utmost to make the most of it, which is also good for the brand.
- Fun: It's essential that digital apps be entertaining because people usually go online for fun. Fun apps result in greater user engagement and an intense viral effect of the app.

5. Issues of "information management[i] »

In order to better satisfy the organization, it is important to create a coherent and agile Information System (IS) to integrate the new needs of the company. But the management of information systems must also make it possible to take advantage of new technologies. It is based on the following points:

5.1. Security of information systems.

The security of information systems is a major issue for IS management. Indeed, the reduction of vulnerabilities induced by the human factor and the own security of the IS are major factors that the Director of Information Systems (CIO) must take into account.

5.2. The care of the human and social aspects

IS management also raises questions about ethics and social impact. Indeed, some standards protect employees of the company, especially regarding the protection of privacy and intellectual property.

5.3. Taking charge of legal and tax aspects

The information system must not violate these ethical standards in order to avoid any legal repression, taking into consideration the legal and fiscal constraints related to the computerization of their information systems. This requires setting up an organizational policy within the information system to protect data as well as information flows.

6. Management and digital applications: What relationships?

Digital applications have participated in the digital transformation. The growth of different techniques has changed the strategies of production, distribution, intermediation and even consumption of products and services.

This means that internal IT will have to abandon the development of software and module tests and play the role of technology and services broker. [***Prashant Kelker, 2018***] proposed the five rules of engagement for the future of application management as follows:

✓ **Translating business needs into business opportunities:** To do this, IT needs to move from a deep understanding of technology to an in-depth understanding of the business to learn how to create solutions with technology and technology. Appropriate partnerships. Application managers must be proactive.

✓ **The design of solutions with partners:** The days of decisions "purchase against sale" are completed. Today, the decision is more complex: buy, build, reuse. By doing what is good for a business, the IT department must now play the role of architect of business solutions informed by technology. If IT buyers and sellers believe that this change in core competency is an opportunity, the end result is likely to be better for all parties involved.

✓ **Component selection:** The boundaries between "service" and "product" are blurred, involving multiple IT vendors: those who provide components as services and those who add know-how and skills to their services so that they become products. Organizations need to carefully consider how they can leverage different types of IT vendors and solutions on the market to create and modernize their application environment.

✓ **Creating an initial solution:** Instead of just testing if the software works, it's about testing if that's what the market needs. Rapid deployment allows you to try two variations of the same feature on the market and keep the one that works the best.

✓ **Continuous improvement of managerial decisions:** The success rate of an application depends on the speed at which the company can incorporate features that the user community appreciates and needs, whether internal or external.

7. The digital economy and digital application: a challenge of international competition

The digital economy is an opportunity for emerging countries to redefine their economic growth model. Specifically, the digital economy can play a key role in the expansion and modernization of markets in these countries, by facilitating the collection and

dissemination of information, by improving the management of transactions, development in these countries is partly a result of the poor functioning of the markets.

The challenge for emerging countries such as the Maghreb is to create around digital technologies a growth dynamic, truly autonomous and adapted to the needs of consumers and businesses in these countries, and not just dedicated to outsourcing.

For companies wishing to position themselves in this digital economy, it is also a question of defining specific business models, which take into account production and consumption behaviors specific to emerging countries and which do not seek to simply replicate the models of the economy. Business set up in developed countries (***Raphaël Suire, Thierry Pénard, [2009]***).

In Algeria, investments in the Algerian Internet market are helping to increase wage productivity, which requires the mastery of digitized tools to carry out digitizable activities, so the production process is becoming more capital intensive. Thus, the increase in the use of the Internet recorded by the importance of the number of Internet subscribers relating to private state companies combined, accompanied by diversified Internet offers as needed and quality control.

Telecommunications companies with high levels of organizational capital (high-quality personnel management and decision-making processes) and human capital (skilled labor) that invest in digital technologies.

In addition, soaring prices for digital technologies discourage companies from upgrading their equipment in order to achieve efficiencies and increase their capacity, so the high prices of 4G-compatible smartphones reduce its diffusion. Digitization then causes an acceleration of the growth of the world economy. However, according to his research sources, during the transition to a digital economy, there is a risk of an increase in the asymmetry of skills and long-term unemployment.

To successfully manage the transition to the digitization and generation of Internet networks in Algeria, the economy must have the capacity to adapt; that companies are brought by positive properties of the market to be flexible; that economic gains are widely distributed. In order to solve the imperfections of the "digital" domain, it is essential that "the various Algerian education, apprenticeship and employment programs combine well with the new information and communication technologies. Communication and new business processes ".

In addition, Algeria's commitment to the digitization of the administration prompts us to reflect on the direction of Algerian monetary policy as the economy becomes more focused on digital technologies and services. Indeed, digital technologies influence and

transform the functioning of Algerian telecommunications companies by facilitating tasks that are highly dependent on connectivity, use of information, forecasts and collaboration.

It should be noted in this regard, the opportunities of the Internet Market in Algeria can enrich the new structure of the economy, and this when the productivity gains at the scale of the Algerian economy could be realized that 'At the deployment stage, a stage where new technologies and new business processes are ubiquitous.

8. CONCLUSION

More and more operational activities currently being carried out by humans will be performed electronically. Many of these processes will take the form of digital components that will "speak" to other digital economy processes and will thus continue a constant exchange between several servers and several semi-intelligent nodes that update, search, verify and readjust things, then finally make a return to processes and humans in the physical economy "(***Arthur, 2011, P 3***).

Through these digital transformations, today's consumers are more inconstant than ever and instant gratification is the norm. Whether it's an online sales site that recommends a new product that can be easily purchased at the click of a mouse, a banking application that warns customers of real-time fraud or streaming video that allows you to watch the favorite programs of its users. An optimal digital experience, regardless of the sector, is a key competitive differentiator and now essential to a sustainable success!

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10. Citations

[i] The concept of "Management of Information Systems" appeared in the mid-1960s in the United States and a few years later in France. This notion, however, has evolved considerably until today when it concerns not only IT management and management information systems. The management of the information system is influenced by the research carried out on the structures of the systems, and the conceptualization of the decision support at the computer level. At the management level, it is influenced by the quality management service in companies.