

The Reality of adopting Digital Transformation by a Sample of Life and Health Insurance Companies in Algeria

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Abstract:

This research aims to shed light on the current reality of adopting digital transformation by a sample of life and health insurance companies in Algeria and to determine the extent to which various digital applications have been exploited by analyzing the latest digital products and services that have been launched, whether through official digital platforms or through official reports issued by the company. It was concluded that the Algerian insurance companies were significantly able to embrace digital transformation and some of its technologies. It is recommended to develop IT infrastructure to accommodate the application of digital technologies.

Keywords: Digital Transformation, Digital Technologies, Insurance Companies, Life and Health Insurance.

JEL Classification : O33, G22.

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1. Introduction:

Today, the world is entering a new era marked by an innovation wave, a tech disruption, and a digital shift, experiencing a further future with just one click, tracking well-being from a watch, shopping to fingerprints via smartphone, virtualizing meetings through a laptop, and more. And even more than just being technology a part of daily routines, it spread as well to other life spheres, attesting to an ecosystem full of technological changes, accelerations, and several developments in various fields. Since then, digital transformation has emerged an absolute requirement for entire governments, institutions, and companies in many domains as well as in economics.

Thus, the fact that the insurance sector is one of the most significant economic sectors, and that the insurance companies, by the nature of their activities, are full of challenges, and with the digital developments, this sector did not find a way other than following or joining the race of technology and digitization. This positive impact encouraged insurance companies to move forward, transforming from the traditional business policy to the modern technical electronic business policy, resulting in facilitating individual lives, improving life quality, and creating a lifestyle without fearing to take risks.

1.1 Research Problem:

In view of this context, the study's problem was formulated through the following main question:

To what extent are life and health insurance companies in Algeria adopting digital technologies?

1.2 Research Hypothesis:

In order to answer on the problematic, a principal hypothesis was formulated as follows:

Algerian life and health insurance companies were able to invest and to exploit, then to provide some digital product and services.

1.3 Research Objectives:

The study attempts to determine the extent to which life and health insurance companies in Algeria are moving towards digital adoption and the extent to which they are gradually relying on digital technologies, whether in offering their services or supplying their products, thus identifying the reality of the insurance companies shift towards digital transformation by identifying the most relevant digital initiatives that have already been undertaken by them.

1.4 Research Methodology:

To achieve the research objective, the methodology adopted combines descriptive and analytical approaches. first of all, through documentary research different digital terms have been defined, and digital advantages have been distinguished. Besides, via websites exploration, life and health insurance products and services were examined, analyzed, and interpreted.

2. Literature reviews:

The study entitled: Digital Transformation in the Insurance Sector in Light of the COVID-19 Pandemic: A Case Study of Insurance Companies and the Social Insurance in Algeria, by Zedourkeb Faouzia and Zedourkeb Mounir (2021), examines the impact of the covid-19 pandemic on accelerating digital transformation of the insurance sector in Algeria. The study adopted a descriptive-analytical approach, based on an analysis of the realities and procedures of Algerian insurance companies during the pandemic. It concluded that the health crisis served as a strong catalyst for investing in digital solutions to ensure business continuity and to improve performance. Finally, it recommended establishing a comprehensive national strategy to consolidate digital transformation in the insurance and social insurance sector¹.

The study “Requirements for Digital Transformation in the Algerian Insurance Sector” by Cherage Sabrina (2021) evaluates the necessary factors for a successful digital transformation in insurance companies. particularly after the decision to allow electronic insurance in 2016, the study concluded that the digital experience is still in early stages, despite the efforts made by some insurance companies like Alliance insurance, due to the lack of suitable digital infrastructure, weak internet connectivity, and outdated sector laws. It emphasized the need to update the legislative framework and adopt modern working methods based on digital technologies to improve communication with customers and achieve requirements for effective digital transformation².

The article by Jorge Oliveira e Sà, Claus Kaldeich, and Maria Jaoa Silva (2024) studies the role that digital transformation plays in insurance companies through a qualitative case study of Portuguese insurance companies, using insurance and pension funds supervisory authority. At first, it explores the shift from traditional to digital, then examines customer-centric models by integrating digital channels and technologies. As a result, digital transformation requires structural and cultural changes to enhance customer understanding, responsiveness, and operational efficiency, which means a successful digital transformation in insurance companies relies on adaptation among the internal and external insurance company environments³.

The studies above agree that digital transformation is still in early stages in the insurance sector because of weak infrastructure, lack of expertise, and outdated legislation. they also emphasize the importance of adopting digital strategies and employing modern technologies such as electronic platforms to improve interaction with customers and enhance the competitiveness of insurance companies.

3. Digital Transformation in Insurance Companies Theoretical Background:

This section defines fundamental theoretical aspects about digital transformation and its technology applications within insurance companies and reviews the most stimulating digital advantages for insurance businesses.

3.1 Defining Digital Transformation in Insurance Companies:

Digital Transformation can be defined as radical improvements in the performance, productivity, and market share of companies, more specifically, transformation in internal processes, customer relationships, and the value of proposals realized due to the

implementation of digital technologies, such as data tools, social networks, and mobile devices⁴.

While digital transformation in insurance companies can be defined as the fact of using powerful processors and software in the form of devices to supply insurance products and services that are utterly digitalized, so as to achieve expeditiously security⁵.

Furthermore, digital transformation in insurance companies is a strategic approach intended to comprise cultural, organizational, and operational change in stages, in all functions, and on each level of the company⁶

The process of digital transformation in insurance companies pass by three essential phases distinguishing the enablement phase, where the entire technology systems are been evaluated to be replaced or integrated with the new solution, Afterward comes the digital optimization phase, which represents the process of using digital technology to improve operational processes or business models in order to improve procedures, insurers' and clients' experiences⁷, Finally the digital transformation phase, is when the company reaches a complete transformation of businesses, and access to an open and dynamic environment between stakeholders through platform model⁸.

Throughout the previous definitions, it is concluded that digital transformation in insurance is to resort to implementing digital technologies into all functions of insurance businesses, in furtherance of delivering products and services that meet customer needs in a demanding digital environment.

3.2 Digital Transformation benefits for insurance companies:

Digital transformation offers for insurance companies in general, and for insurance policyholders in specific, a plethora of benefits.

3.2.1 Benefits for the insurer: Mentionable:

- Reduce paper documents, per contra increasing electronic transactions;
- Fraud detection and risk mitigation: digitalization processes reduce risks, prevent, and detect more fraud, without disrupting company activity;
- Visual inspection during the claims process, make uncommon features possible to be identified, or even more make comparisons practicability with similar objects via various sources;
- Growth rate in gross national products because of legislative environment improvement, and level of premiums or investments increment in the insurance sector;
- Openness to rural areas, as well as to local and global markets, through direct contact;
- Saving costs and maximize profits⁹;
- Diversify distribution channels, and providing streamlined, personalized policies;
- Increase operation efficiency, and claims efficient processing;
- decision-making driven by data utilization;
- Rapid response to market changes;
- Enhanced customer experience, also interacting with more customer¹⁰.

3.2.2 Benefits for the insured: Remarkable¹¹:

- Obtaining insurance products at competitive prices;
- The ability to compare offers and choose the best;
- The ability to purchase, renew and process claims digitally;
- Communicating and interacting with the company like after sales service.

4. Digital Applications in insurance companies:

In the current competitive market, insurance companies find themselves opting for adopting emerging digital technologies to maintain their continuity.

4.1 Digital data storage technologies:

Data technologies have a vital role in managing large data volumes that businesses witness in the digital era. And they are:

4.1.1 Cloud Computing:

Cloud computing is an internet on-demand pool of hardware and software resources that facilitates for users a manifold integrated computer service through a simple programming interface, including data storage units, backup copies, self-synchronization, processing capabilities, task scheduling, push email, and remote printing.

4.1.2 Blockchain:

Blockchain is a decentralized digital ledger where financial transactions are registered by allowing digital information distribution without being copied or modified. currently it provides other potential uses, not just digital currency e.g., Bitcoin¹², whereas in insurance, blockchain technology offers opportunities such as big data management, security, and smart contracts¹³.

4.2 Digital technologies for data acquisition and analysis:

Digital technologies for data acquisition and analysis play a foundational function in driving efficiency, mentioning¹⁴:

4.2.1 Big Data:

Big data is a type of dataset characterized by volume, velocity, variety, veracity, and value, which allows immense structured, semi-structured, and unstructured data to be collected, processed, and analyzed. In insurance companies, big data is used for underwriting and pricing, customer segmentation and targeting, fraud detection, and so forth.

4.2.2 Artificial Intelligence:

Artificial Intelligence is defined as an intelligent machine or computer that has the capacity to act as humans and function cognitively, in the manner of reasoning, learning, solving problems, making smart decisions. It is divided into two subcategories: machine learning and deep learning. Artificial Intelligence is commonly used by insurance companies as digital assistants and advisors, chatbots, cross- and up-selling recommendations, and many more.

4.2.3 Internet of things:

The Internet of Things represents the connectivity of wearables, sensors, and home devices with the internet; by way of illustration, it helps the insured to detect loss by sending digital notifications and gives automatic assistance services.

4.3 Digital sales and communication technologies:

Digital sales and communication technologies enable companies to drive sales growth, the most frequent ones are¹⁵:

4.3.1 Smartphones and Applications:

Mobile devices and applications make the interaction between insurers and policyholders possible; therefore, insurance contract parts may exceptionally access to manage policies and claims.

4.3.2 Site webs:

Almost all insurance companies present their products, services, activities, contact details, and other diverse information on their websites, and several of them offer online subscription and claim reporting.

4.3.3 Social networks:

In the interest of conveying insurance companies' values and sharing insurers' daily activities with the public, plus facilitating communication with clients, it has been resorted to social platforms like Facebook.

4.3.4 Videos and platforms:

Insurers use platforms like YouTube to present their products and services and sales materials to prospects in the form of videos or through video calls via FaceTime or Skype.

4.3.5 Chatbots and Robot advisors:

Chatbots are software that use artificial intelligence to answer clients FAQs, advise, and provide support, while robot advisors are used for automated asset and transaction management. Both may be presented on insurance companies' websites or mobile applications.

5. Algerian insurance companies' trend towards digital transformation:

In 2023, the Algerian insurance market included 25 companies, classified into public, private, and joint companies, in total 12 of which are property insurance companies, while 8 of them are for life and health insurance; the rest are specialized, reinsurance, and takaful companies¹⁶.

In this section, three of Algerian's life and health insurance companies are presented: Caarama Insurance, Macir Vie, and Amana Insurance; their digital strategy is identified, and their innovations in the insurance sector are analyzed.

5.1 Caarama:

Caarama Insurance is a joint-stock company with one billion DZD in share capital and 1,868 revenues in 2019. It was initially 100% subsidiary of an Algerian non-life insurance and reinsurance company called CAAR in 2011, and then the Algerian bank Crédit Populaire d'Algérie CPA became one of its shareholders with 15% of its capital.

The company is positioned as one of the major players in the Algerian life insurance market, with 304 points of sale and about 217 staff members, and a multifarious range of insurance products and services, covering all branches of life insurance including, Accident Hayati, collectives DJEMAATNA, credits MOUKATARIDH, individual travel insurance MOUSSAFER, travel assistance and assistance abroad, individual health insurance SIHATI.

Caarama has launched some digital services and products, and it is willing to launch others in the near future¹⁷:

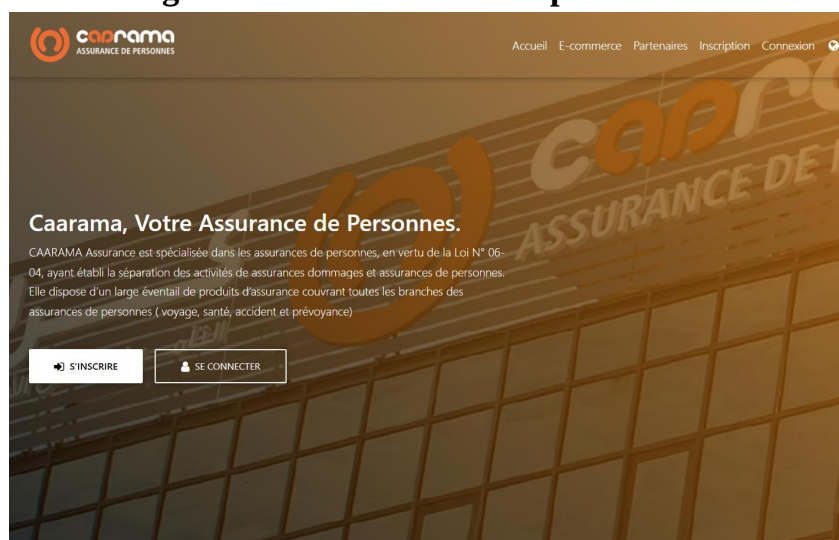
➤ **Social Networking:**

Caarama insurance has 26k followers on Facebook with around 25k likes on its posts and 5k followers on LinkedIn, while on Instagram, YouTube, and X, it hasn't passed 1k yet. It also has a profile on Flickr and an email address on its website for visitors' preoccupations.

➤ **Subscribe online:**

Caarama offers a client space for MOUSSAFER, as it shows Fig.1., and soon SIHATI, an online subscription that allows its clients to access, manage, validate, and modify their policies, in addition to making electronic payments via their CIB or Edahabia card.

Fig.1. Online Travel Subscription Portal



Source: From Caarama Website.

➤ **Report a claim:**

Caarama provides an online service where its clients can report their claims on its website by filling in a form with their policy information.

➤ **Live Chat:**

Caarama delivers Tawk.to, which is a free live chat software between the company agents and its clients and is considered a support for them.

5.2 Macir Vie :

Macir Vie was founded in 2011 to become one of the largest private insurance companies on the Algerian health and life insurance market, and one of the top five leading companies in certain lines of guarantees, for instance travel insurance, also, the first private insurance company in Algeria certified ISO 9001 by BUREAU VERITAS. The company has constituted 285 sales points over 51 wilaya, with nearly 600 dynamic, competent, young employees, it was able to collaborate with large corporate clients from different industries and sectors namely Danone, Dar AlDawa, and Siemens for energy, it had achieved

approximately 1.6 billion DZD as revenue for 2019 fiscal year, after realizing 9.7 million DZD in 2012, which is an augmentation of about 57% in 7 years¹⁸.

Macir vie offers a large range of insurance products and services, including MyMacir Travel, Accidents Protection, School, Credit, and MyMacir Hadj and Omra destined for individuals, and MyMacir Travel, Group, credits for professionals. Eventually, Macir Vie aims to achieve digital transformation of its services, innovation was always its fundamental value, it attaches a real importance to digital innovations, by offering an optimal digital management, and be committed to improving proximity to clients, and making their products available all the time, and accessible from any place on their website¹⁹, as illustrated below in Fig.2.

Fig.2. Macir Vie Website



Source: From Macir Vie Website.

Macir Vie has substantially initiated some innovative initiatives as a part of the digital transformation journey that the entire insurance sector is living²⁰:

➤ **Social Platforms:**

Early 2025, Macir Vie has reached 1.49k subscribers on YouTube, 260k likes on Facebook, and 9k followers on LinkedIn, besides being active on Instagram, TikTok, and X, even more providing communication channels via phone-calls, emails, mobile applications, and websites, which conveys 24/7 interaction with clients on all platforms, made the company build one of the largest communities in the insurance industry.

➤ **Online Subscription:**

MyMacir Travel provides on its website an online direct subscription, with simplifying payment into just with bank card, as well offering a permanent discount of 15%, and round the clock WhatsApp assistance in case of rapid intervention of an accident.

➤ **Simulation:**

Macir Vie afford a simulation for MyMacir Travel and MyMacir Vie on its website, in purpose evaluating and comparing guarantees according to clients' budgets needs and expectations.

➤ **MyMacir Pass:**

Macir vie has launched a dematerialized assistance card downloadable from client personal space on its website.

➤ **Chat with Hayat:**

Hayat is an intelligent Personal assistant, available 24/7 to give Macir Vie products and services information, assistance with a service request, and advice, it respond to all visitors queries accurately.

➤ **E-Health and E-Adherent:**

E-Health and E-Adherent are platforms that were developed by dint of constructing a centralized information system with Macir Vie ERP software in an effort to simplify and facilitate access to its products and accelerate policy, claims, and reimbursement management.

5.3 Amana Insurance:

Amana Insurance Ex SAPS was founded attributable to a strategic partnership between national and international companies in insurance and banking. In 2008, two major insurance companies, MACIF and SAA, decided to create a joint subsidiary. Later, two major bankers, BADR and BDL, joined. In 2011, Amana began its insurance activities in mutual health, travel and life. And in 2022, Amana achieved a revenue of 2,124 million DA; in 2023, 2,134 million DA, an increase of 9%.

Amana has, contemporarily, 140 collaborators, 1,000 points of sale, and about 400,000 clients across Algeria. It offers diversified products and services for both individuals and professionals, for individuals: travel, health and retirement, family pack, and credits, and for professionals: collective health, accidents, and pack SME.

The company is progressively approaching the digitalization of some of its services and products²¹:

➤ **Amana on Social Networks:**

At present, Amana has about 40k followers on Facebook with nearly 40k Likes on their Facebook posts, 8k on LinkedIn, and 2.5k on Instagram, besides their “contact us via form” and “to be called” services on their website; both of them require filling in contact details.

➤ **Amana Online:**

Amana provides for its clients four online portals to subscribe online, report their claims, keep track of their contracts, and follow their refunds status. It occurs in online insurance Space, member profiles, business profiles, and retirement savings profiles.

➤ **My Amana App:**

My Amana, as shown by Fig.3., is an accessible application on the Play Store and App Store that supplies health policyholders' space to manage, mainly their refunds.

Fig.3. My Amana App on Play Store



Source: From Play Store.

➤ **E-payment:**

Amana gives three payment options to their clients: the first one is to pay with a CIB card or Edahabia, the second is to pay on delivery, and the last is with an Amana card, which is a promotional card with discount coupon codes for online subscription.

6. Findings and Discussion:

The presented research demonstrates that Algerian life and health insurance companies were significantly able to invest and to exploit, then to provide some digital products and services.

Consequently, this section summarizes the next key findings:

- ✓ Caarama, Macir Vie, and Amana: each of them has created a website of its own, where they present basically their company profiles, their insights, their contact information, their offerings, and other essential pages;
- ✓ Caarama, Macir Vie, and Amana Insurance have differently built communities on digital channels, where they can share their contents, advertise their businesses, and interact with their existing clients or their potential customers;
- ✓ Caarama, Macir Vie, and Amana were able to provide individualized-service web browsers, through digital portals for their clients' needs;
- ✓ Caarama, Macir Vie, and Amana were able to offer a direct purchase of insurance policies on their internet sites;
- ✓ Caarama, Macir Vie, and Amana have made digital claims submission available on their platforms;
- ✓ Caarama and Amana have integrated electronic payment into their activities;
- ✓ Macir Vie had adopted a simulation tool that is price-evaluating the insurance policy for customers;
- ✓ Caarama, and Macir vie have implemented chatbots into their websites for 24/7 clients' personalized assistance and support;
- ✓ Amana Insurance was able to design an application customized for its clients' requirements.

7. Conclusion:

In conclusion, the purpose of this research was to comprehend the limit to which life and health insurance companies in Algeria have embraced digital transformation by recognizing digital products and services that have been adopted. The results lead to:

- ✓ Life and health insurance companies in Algeria were remarkably able to invest in digital transformation.
- ✓ Life and health insurance companies in Algeria were indicatively able to implement digital technologies.
- ✓ Algerian insurance companies were able to apply some of the digital technologies in their core activities.
- ✓ Most Algerian insurance companies have digitized and digitalized their activities to a limited extent.
- ✓ Most Algerian insurance companies have incompletely incorporated digital transformation into the whole entity.
- ✓ Most Algerian insurance companies initiate their digital strategy with customer portals and e-Marketing.
- ✓ The majority of Algerian insurance companies offer the same digital services, each one in its way, such as online claiming.
- ✓ Algerian insurance companies are making efforts to keep pace with the digital revolution that the sector is witnessing.
- ✓ Most Algerian insurance companies have digital platforms that contribute primarily to the customer requirements of their companies.
- ✓ Life and health insurance companies in Algeria are making customer experience better through omnichannel products and services.
- ✓ Life and health Algerian insurance companies are the first to have embarked on digital transformation practices.

Recommendations:

The research outcomes can suggest the subsequent recommendations:

- ✓ The necessity of investing in more advanced infrastructure that is compatible with the latest technologies.
- ✓ The need of adopting other digital technologies that support insurance companies' activities, both internal and external, beyond online underwriting.
- ✓ The importance of investing in human capital, particularly among the technology generations.
- ✓ The prerequisite of providing a digital environment among employees to promote a digital culture within the company.
- ✓ The requirement for government to enact new laws to regulate electronic transactions and ensure compliance in the insurance sector.

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