The Role of Financial Technology in the Development of Insurance Sector Services: A Case Study of the Algerian Company B-Link Solution

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Abstract:

Amid rapid digital transformation, financial technology (FinTech) and insurance technology (InsurTech) are expanding quickly because of their role in improving financial and insurance services. This study examines InsurTech as an outgrowth of FinTech in the insurance sector and highlights major technological innovations, new business models, and their impact on the global insurance market, with particular focus on the Algerian company B-Link Solution. Using a descriptive analytical approach, the study finds that modern technologies have improved service quality and introduced customer centered business models that strengthen the competitiveness of emerging firms. The case of B-Link Solution illustrates the successful application of FinTech in insurance through innovative solutions that meet changing market needs. The study also stresses the need to adapt regulatory and legal frameworks, encourage partnerships between traditional insurers and InsurTech firms, and invest in qualified human resources to lead this transformation.

Keywords: *Financial technology, insurance technology, insurance sector, customers, insurance services, business models, B-Link Solution Company.*

JEL Classification Codes : *G22, O33, M15, L86*

Résumé :

Dans un contexte de transformation numérique rapide, la technologie financière (FinTech) et la technologie de l'assurance (InsurTech) connaissent une forte expansion en raison de leur rôle dans l'amélioration des services financiers et assurantiels. Cette étude examine l'InsurTech comme prolongement de la FinTech dans le secteur des assurances et met en évidence les principales innovations technologiques, les nouveaux modèles d'affaires et leur impact sur le marché mondial de l'assurance, en mettant l'accent sur l'entreprise algérienne B-Link Solution. En adoptant une approche descriptive et analytique, l'étude montre que les technologies modernes ont amélioré la qualité des services et introduit des modèles d'affaires centrés sur le client, renforçant ainsi la compétitivité des entreprises émergentes. Le cas de B-Link Solution illustre l'application réussie de la FinTech dans l'assurance. L'étude souligne également la nécessité d'adapter les cadres réglementaires et juridiques, d'encourager les partenariats entre assureurs traditionnels et entreprises InsurTech, et d'investir dans des ressources humaines qualifiées.

Mots-clés : *Technologie financière, technologie de l'assurance, secteur des assurances, clients, services d'assurance, modèles d'affaires, entreprise B-Link Solution.*

JEL Classification Codes : *G22, O33, M15, L86*

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I. Introduction

In recent years, the world has witnessed a comprehensive digital revolution, as technology has emerged and brought about a radical transformation affecting all sectors, especially institutions that have shifted from a traditional model to a more flexible and efficient one. As a result, competition among institutions has evolved into technological and innovative competition.

Many studies have indicated that the insurance industry has lagged behind in digital transformation because of its conservative nature. Nevertheless, the sector has undergone profound changes as a result of the rapid development of financial technology, which has produced innovative digital business models aimed at simplifying insurance operations and making them more efficient and user friendly. This development has given rise to a new term known as insurance technology, or InsurTech. With the growing expectations of customers and the challenges of the competitive environment, insurance institutions have had to adapt to this new reality. This has been accompanied by the emergence of startups in the field of insurance technology, which have given insurance business a new face by providing innovative approaches and digital tools that drive the industry toward change. In this context, some Algerian startups have begun to enter this field, including B-Link Solution, one of the leading initiatives in insurance technology in Algeria.

I.1 Research Problem

Despite the increasing global spread of InsurTech applications, their actual contribution to the development of the insurance sector in developing countries, especially in the Algerian context, remains limited from an applied research perspective. In this context, and based on the above, the following main research problem is raised: **What is the role of financial technology in developing the insurance sector through the Algerian company B-Link Solution?** This main question gives rise to the following sub questions:

- How do the adopted business models contribute to the development of the insurance sector?
- What opportunities are available to the insurance sector under the new orientation toward insurance technology?
- What role has B-Link Solution played in supporting new financial products in Algeria?

I.2 Research Hypotheses

In order to answer the previous questions, the following hypotheses were formulated:

- The use of financial technology contributes to improving the quality of insurance services by accelerating procedures, reducing operating costs, and increasing customer satisfaction.

- Insurance companies can gain a position in the market and overcome the challenges they face by adopting modern technological techniques under the new orientation toward insurance technology.
- B-Link Solution plays an effective role in digitization and development of the Algerian insurance sector through its innovative solutions.

I.3 Objectives of the Study

This study was conducted in order to achieve the following objectives:

- To cover the basic concepts related to insurance technology as one of the latest innovations in financial technology.
- To identify the most important new techniques and business models in InsurTech and their impact on the insurance sector.
- To review the latest developments taking place in the global insurance technology market.
- To highlight the experience of B-Link Solution and present the most important digital solutions it offers in the Algerian insurance sector.
- To propose recommendations for generalizing the application of insurance technology in the Algerian market.

I.4 Importance of the Study

The importance of this topic stems from the significance of financial technology as a scientific contribution to the Algerian insurance sector, which seeks to keep pace with developments in light of global competition and the rapid spread of technological progress. Therefore, Algerian insurance companies have become interested in adopting and applying insurance technology in order to transform traditional methods and develop the insurance sector toward an efficient, more competitive, and more innovative global insurance market.

I.5 Research Methodology

In order to achieve the objectives of the study, the descriptive analytical method was adopted through the description and analysis of data related to financial technology in the field of insurance and its various aspects, as well as by reviewing the most important developments and monitoring recent changes in order to highlight the current state of insurance technology in the world. In the applied part of the study, B-Link Solution was examined as a leading model of InsurTech companies in the Algerian insurance sector, relying primarily on data synthesized from the company's official website and an online interview tool.

I.6 Previous Studies:

- **A study by Wahiba Abdelrahim** (2018), an article entitled “Insurance Technology as the Future of the Insurance Industry.” This study aimed to identify insurance technology as a new activity that has begun to be practiced by entrepreneurs and startups in the insurance sector. Debate has arisen around this sector, which is witnessing the emergence of a new competitor, as well as around

the reactions to this development, while also shedding light on the experience of ZhongAn, the leading Chinese company in the field of insurance technology. The study concluded that insurance technology is undergoing real and serious development across the world through its attraction of venture capital and the interest of customers eager for technology. As for the insurance sector, it is certain to witness future changes, to confront its competitors, the most important of which are cooperation and partnership between both sides.

- A study by Cheraka Sabrina (2021),an article entitled "Insurance Technology: A New Direction for an Advanced and Technologically Transforming Insurance Industry – A Case Study of the American Company Lemonade." This study aimed to examine the new direction of the insurance industry in light of the opportunities provided by InsurTech solutions and applications, as well as the benefits achieved through possible partnership projects, while referring to the experience of the American company Lemonade and analyzing the factors behind its success. The study concluded that partnership between traditional insurance companies and InsurTech companies is important for developing the industry and accelerating its technological transformation, in addition to changing the marketing approach by focusing on the customers and their needs.

- A study by Meriem Said (2022), an article entitled "Insurance Technology and Its Role in Modernizing and Developing the Insurance Sector – Presentation of the Experience of the American Company Oscar." The study aimed to identify InsurTech, its technological innovations, and its importance in developing the insurance sector, while highlighting Oscar as a leading experience in this field. The study relied on descriptive and analytical methods, and ultimately concluded that dependence on emerging technologies such as artificial intelligence and machine learning in the insurance industry can create and introduce new business models that go beyond the traditional boundaries of the sector and change its fundamental components. The company Oscar demonstrated this within only a few years of the start of its activity through its philosophy based on providing innovative approaches that differ from traditional insurance practices.

I.7 Study Structure:

In order to cover the various aspects of the topic under examination, the study was divided into three main sections:

- **Section One:** The theoretical framework of FinTech and InsurTech.
- **Section Two:** The state of InsurTech in the global insurance market.
- **Section Three:** Presentation of the experience of the Algerian company B-Link Solution in the field of insurance technology.
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II. The Theoretical Framework of Financial Technology and Insurance Technology

Insurance technology (InsurTech) is considered a branch of financial technology (FinTech). It has recently emerged and spread through startups that have taken advantage of the rapid developments in this field, which has led to the creation of new insurance tools and flexible business models capable of meeting customer needs and facilitating access to products at lower cost. This has contributed to the spread of FinTech and InsurTech in various countries around the world, making them an essential requirement for success and continuity.

II. 1 The Nature of Financial Technology

II. 1.1 Definition of Financial Technology (FinTech):

The term financial technology (FinTech) consists of two words: financial services and technology-based solutions. It has been translated as computer programs and other technologies used to support financial and banking services (Nicoletti, 2017, p. 12).

The International Chamber of Commerce defines it as "the term used to describe any technology that provides financial services through software, such as online banking, mobile banking, or even cryptocurrencies. It represents many different technologies, but the main objective is to change the way consumers and businesses access their financial resources and compete with financial services" (Zayekh & Younsi, 2022, p. 749).

The Financial Stability Board defines it as "technology-enabled financial innovation that could result in new business models, applications, processes, or products with a material effect on financial markets and institutions and on the provision of financial services" (Financial Stability Board, 2022).

According to the definition of the Digital Research Institute in the Polish capital, Dublin, financial technology is "modern technological inventions and innovations in the financial sector, including a set of digital programs used to simplify and improve financial operations for banks, such as transaction management, and financial services such as money transfers, currency exchange, and the calculation of interest and expected investment returns, making transactions faster, more efficient, and more secure" (Qimash, 2024, p. 05).

II.1.2 Characteristics of Financial Technology:

Financial technology provides risk financing for smaller innovative companies, and it also maintains fairness and trustworthiness in financial transactions. It has positive characteristics that distinguish them from traditional financial services (Ben Alqama & Sayhi, 2018).

- **Accessibility for all users:** Financial technology targets all social classes and groups and continuously enhances capabilities through partnerships or by redesigning products intended for low-income customers.

- **Flexibility and affordability:** Financial technology has made available many flexible programs and offerings at low cost to suit customers with different needs on a daily, weekly, or even monthly basis.
- **Customer focus:** Financial technology companies focus on user demands and therefore design simple and easy products.
- **Data policy:** This policy can improve the products and services in order to design suitable, easy to use services that are close to the user, thus allowing business owners to make better decisions and seize opportunities.

II. 1.3 Financial Technology Sectors

With the development of digitization in the banking sector, some startups have grown all over the world, such as Alibaba, Amazon, and Google. Although the common perception is that the business models of FinTech companies are centered on payment and lending services, they also include personal financial advisory services, crowdfunding, virtual currencies, InsurTech, RegTech, big data, and security. The first wave relied on payments and lending solutions, while crowdfunding platforms, P2P lending networks, and payment solutions such as PayPal depended on the major trends of the emerging internet economy. More recently, however, the sectors of the second wave have grown, indicating a shift in financial technology toward international money transfer, wealth management, and insurance. Meanwhile, blockchain is still in its early stages and is likely to play a pivotal role that goes beyond finance (Wamda & Payfort, 2025 , p. 10).

***II.2* The Nature of Insurance Technology**

II.2.1 The Emergence and Definition of Insurance Technology

A. The Emergence of Insurance Technology:

The use of technology in the insurance sector is not new. However, the term InsurTech first appeared in 2010, when artificial intelligence applications were used in negotiations with intermediaries and in supporting insurance companies in designing insurance policies that meet the needs of policyholders. The term became a key concept in 2015, when the first global InsurTech accelerator, Startupbootcamp, was launched in London. Since 2016, global interest in insurance technology by specialists, consultants, and investors in the insurance field has increased irreversibly, leading to the creation of unprecedented new business models in the insurance sector (Hebbash & Karouani, 2019, p. 57).

From that point onward, InsurTech became one of the newest major emerging sectors that witnessed effective integration of technology into the insurance sector, as well as into the management of regulatory processes involved in the financial services sector. Although insurance companies were slow to adopt modern technology, they began taking their first steps toward change and technological transformation with the emergence of startups in the

insurance field aimed at developing this industry through innovation and digitization (Cheraka, 2021, p. 19).

B. Definition of Insurance Technology, InsurTech:

This term is composed of the words insurance and technology, which were merged to form the term InsurTech. It is an expression inspired by the word FinTech, which means financial technology (Said, 2022, p. 66).

Many specialized bodies have worked to establish a clear and comprehensive definition. According to the report prepared by the International Association of Insurance Supervisors, insurance technology represents "a branch of financial technology specific to insurance, referring to a variety of emerging technologies and innovative business models that modernize insurance business" (IAIS, 2017, p. 09).

The OECD also defined it as "a term used to describe new technologies with the potential to bring innovation to the insurance sector and to affect the regulatory practices of the insurance market" (OECD, 2017, p. 07).

Based on the above, it can be said that insurance technology is a branch of financial technology used to describe innovations and new technologies employed in insurance operations, thereby improving the quality and speed of services and helping to modernize and reshape the insurance sector.

II.2.1 Insurance Technology Companies (Said, 2022, pp. 66-67)**:**

These are companies operating in the insurance sector that rely on new technologies to introduce innovations leading to the emergence of new models and products. They are often small, newly established startups that combine insurance with modern technology and rely on their expertise in digital technology to capture market shares in segments targeted by traditional insurance companies. They are divided into three main categories:

- **Providers:** They offer specialized services to traditional insurance companies at every stage of the value chain.
- **Distributors:** These are companies that help traditional insurance companies sell their insurance products online.
- **Full stack carriers:** These are companies that work to introduce and provide new business models in the insurance sector.

These startups are based on the following (Hebbash & Karouani, 2019, p. 58):

- Improving and strengthening the relationship with the customer by personalizing customer interaction through communication tools.
- Reducing costs and the resulting decline in premium values.
- Exploiting data circulated on the internet, such as big data, connected devices, and home automation.
- Managing claims, underwriting, and insurance contracts by the internet.

- Personalization, the role of artificial intelligence, and the introduction of new services for the insured.

According to the Q2 2017 report on insurance technology issued by Venture Scanner, the main sectors of these companies are (Cheraka, 2021, p. 21):

- Motor insurance: 130 startups with total funding of 6.6 billion dollars.
- Health and travel insurance: 132 startups with total funding of 9.3 billion dollars.
- Life, home, property, and casualty insurance: 114 startups with total funding of 6.9 billion dollars.

II.2.3 The Difference Between the Work of Insurance Technology Companies and Traditional Insurance Companies:

This can be summarized in the following table:

Table (01): The difference between the work of InsurTech companies and traditional insurance companies

	Traditional Insurance	Insurance Technology
Customer position	Operational efficiency comes before the customer	The customer comes before operational efficiency
Claims settlement	Slow routine procedures	Fast settlement
Data	Important and supportive in decision making	Nothing can be done without it
Source of data	Reports prepared by specialized companies	Smart devices used by customers themselves, such as smartwatches and smart bands
Automation and digitization	Heavy reliance on the human element	Reliance on automated systems and electronic applications
Pricing	Standardized	Smart, accurate, and fair

Source: (Hijrioua, 2024, p. 21)

II.3. The Insurance Sector Under the Shift Toward Insurance Technology

II.3.1 Adopted Technologies:

Startups in the field of insurance technology rely on a set of new technologies and technological tools to introduce innovation. The most important of these technologies are the following:

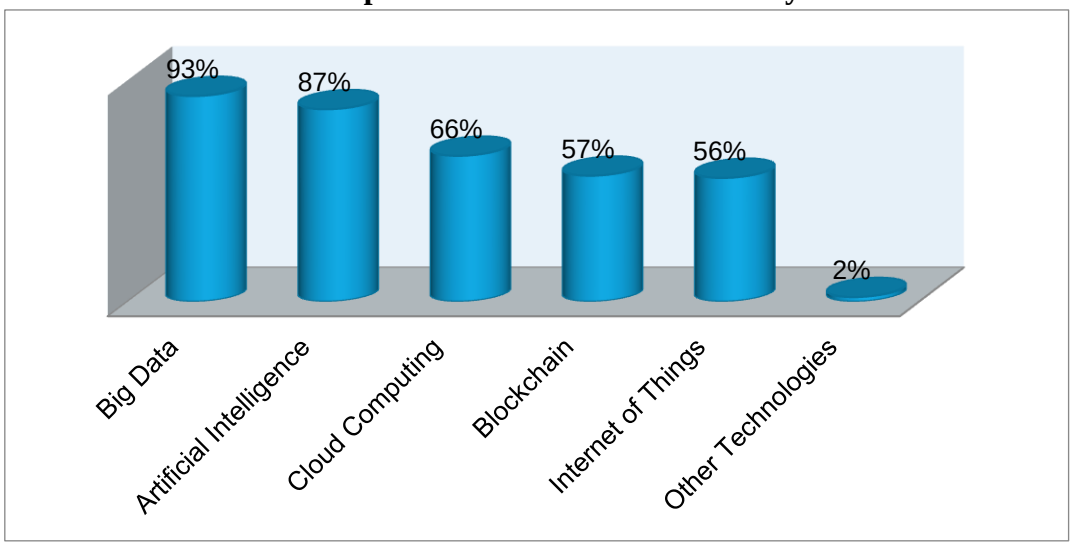
- **Big data and data analytics:** This refers to a massive amount of data with different patterns that accumulates at very high speed and in real time, making it difficult to process through traditional systems and requiring advanced levels of algorithms and sophisticated processing. In the insurance market, it is associated with processes such as risk management, pricing, cross selling, claim prediction, and fraud detection.
- **Smart contracts:** These are self-executing contracts programmed within a decentralized distribution network that regulate the relationship between the seller and the buyer. They are written using encrypted codes and can be

carried out automatically, thus replacing traditional legal contracts and contributing to reducing contract related costs. They were first used in 2014 for long term life insurance contracts (Maazouz, 2022, pp. 294–296).

- **Internet of Things, IOT:** It is a global infrastructure for the information society that enables providing services through the physical and actual interconnection of things, based on advanced, interoperable information and communication technology. Machines, household appliances, cars, and others can be connected by assigning them an address on the Internet network. (AbdelRahim, 2019, p. 469)
- **Blockchain technology:** This allows insurance companies to exchange data with customers, pay claims, and conclude smart contracts automatically and quickly without the need for the intervention of a central authority, which in turn enhances trust among the parties involved.
- **Cloud technology:** Cloud computing allows insurance companies to transfer their functions to external platforms managed through the internet and easily accessible, which can achieve several advantages such as maintaining resource consistency and reducing costs.
- **Artificial intelligence, AI:** This refers to the use of complex algorithms to analyze data and robots to interact with customers, price products, and automate claims processing. AI is also used in detecting fraud, predictive analytics, and making the underwriting process more efficient through automated chat programs (Derradji & Metarref, 2023, p. 283).

A survey was conducted on the technologies with the greatest impact on the future of the insurance technology industry.

Fig. (01): Insurance technology tools with the greatest impact on the future development of the insurance industry



Source: (Zhong An Fintech Institute & KPMG CHINA Insurance Service, 2019, p. 57)

These results are consistent with the reality of insurance technology. Big data is the oldest and most established technology in use, while artificial intelligence has been experiencing major growth in recent years.

II.3.2 Emerging Business Models:

The use of modern tools and technologies in the insurance sector has led to the emergence of new business models aimed at attracting the largest possible number of customers, including the following (Said, 2022, pp. 66-67):

- **Peer to peer insurance, P2P:** The basic idea is that a group of people with similar thinking and shared interests organize their insurance process together by pooling their capital and managing themselves through an automated system in order to reduce costs, increase transparency, and share risks without relying on a traditional insurance company. In some cases, unused amounts are refunded or donated to charitable causes in a way that closely resembles Islamic insurance, or Takaful.
- **On demand insurance:** This business model provides instant insurance offers through mobile applications or digital platforms to cover risks faced by the customer during selected periods at any time and place he wants, usually for the short term, such as travel policies, electronic devices, and other insurance policies related to temporary events. Therefore, the pricing of these products is linked to the actual time of their use.
- **Usage based insurance:** This is a new business model introduced by car insurance companies. It closely links driving behavior to car insurance premium prices based on usage habits, as sensors help assess how safe the driver is and adjust the insurance premium accordingly.
- **Comprehensive risk insurance:** This is a business model based on covering various types of risks included in one insurance contract and for one premium. This program helps reduce various operating and marketing costs, as well as reduce insurance premiums compared to a series of separate contracts for each risk.
- **Micro-insurance:** This model is designed to protect low income individuals against specific risks in exchange for regular premium payments that correspond to the likelihood and cost of the risks involved. Protection under this model is provided particularly for low value assets and compensation related to illness, accidents, or death.

II.3.3 Advantages Achieved by Insurance Technology:

Insurance technology affects the entire insurance value chain, from marketing to distribution, product design, underwriting, claims, and balance sheet management. It appears across all lines of personal and commercial insurance, including property, casualty, life, and health insurance (Qimash, 2024, p. 42). InsurTech provides many advantages, the most important of which are:

- **The possibility of improving quality:** InsurTech makes it possible to improve specific stages of the value creation process, whether inside or outside the company. It also enables the company to focus on core competencies and delegate other tasks to specialized partners, thereby fostering innovation in the delivery of products, services, and new ideas.
- **Reducing market costs:** InsurTech relies on selling without resorting to intermediaries, and allows insurance companies to reduce their operating costs, build low-cost distribution networks, facilitates market entry and increases competition. Prices can also be determined more accurately and fairly, which may reduce insurance premiums for consumers.
- **Digitization of distribution:** Customers now expect to communicate with their insurance companies at any time, in any place, and in whatever way they prefer by taking advantage of online interaction with customers from the beginning of contract subscription until the submission of claims. This helps improve the mental image of the insurance company among customers and gain their loyalty (Aboubeker & Rivard, 2002, pp. 08-10).
- **Ensuring customer access to innovative products:** Through removing regulatory barriers that hinder innovation, facilitating a data driven financial sector, and supporting broader adoption of new technologies.
- **Reducing risks:** big data and complex risk modeling allows insurance companies to conduct more accurate risk assessments during underwriting, meet the needs of policyholders, and provide them with better advice for avoiding losses (Yaacoubi & Khalifa, 2024, p. 08).

III. The State of Insurance Technology in the Global Insurance Market:

The insurance technology industry has flourished in most parts of the world over the past years. The use of modern technologies and the enormous growth opportunities they bring to markets has led both insurance companies and investment capital owners to invest billions of dollars in the field of InsurTech.

III.1 Global Investment in Insurance Technology (Funding Volume and Number of InsurTech Deals):

InsurTech has experienced remarkable growth at the global level since 2012, and interest in it increased beginning in 2014, when 300 startups in this field were attracted and received nearly 800 million dollars. The reason for this rise is the future profits that can be achieved. The year 2015 was identified as a strong launching point, as it witnessed a continuous increase in attracting capital. More than 1,300 startups worldwide worked on designing technological applications for the insurance sector in order to reach customers who had been unable to access traditional insurance services (Maazouz, 2022, p. 296). From the figure (02), we observe an upward trend in global investment in InsurTech. It moved from being relatively weak in 2012, with funding volume estimated at

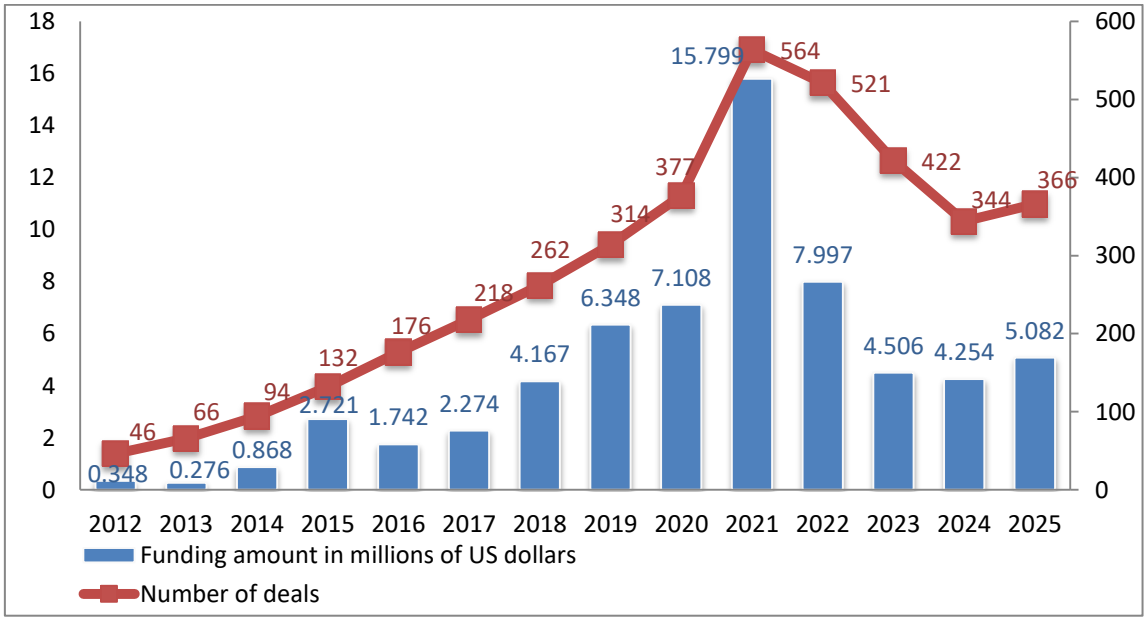
0.348 billion dollars and 46 deals concluded, and gradually rose to eight times that level, reaching 2.721 billion dollars in 2015, which reflects the increasing dynamism of this sector and its ability to attract investors.

The insurance industry found itself at a critical turning point with the growing spread of InsurTech companies, which targeted a global industry valued in the trillions of dollars. Once the Covid 19 pandemic struck in late 2019, it became clear that these startups would reach their peak. Funding continued to rise and reached 6.34 billion dollars after 314 deals were concluded. The growth rate then increased from 52 % in 2019 to 120 % in 2021, and funding peaked at more than 15 billion dollars due to the increase in the number of deals to 564 deals and more than 2,000 startups worldwide in the insurance sector. This was largely due to the decisions applied regarding quarantine and the closure of many traditional institutions. Many customers turn toward a remote and contact free digital experience. This feature made InsurTech the only refuge during the crisis. This pushed traditional companies to leap toward investment in technology, either by creating their own systems or by contracting with InsurTech companies in order to keep pace with developments and benefit from this funding.

Despite this strong rise, funding volume declined by 49 % in 2022. Even so, levels remained higher than those recorded before the pandemic. Activity continued to decline until 2025, when a notable recovery was witnessed, as investment rose by 19.5 % annually to reach 5.08 billion US dollars, recording the first increase since 2021. The main reason was the growth in the number of deals by 6.4 %, from 344 in 2024 to 366 in 2025. Although this was a modest increase, it reversed the steady decline observed since the peak of 2021.

This is illustrated in the following figure:

Fig. (02): Development in the number of deals and funding volume in the field of insurance technology worldwide from 2012 to 2025



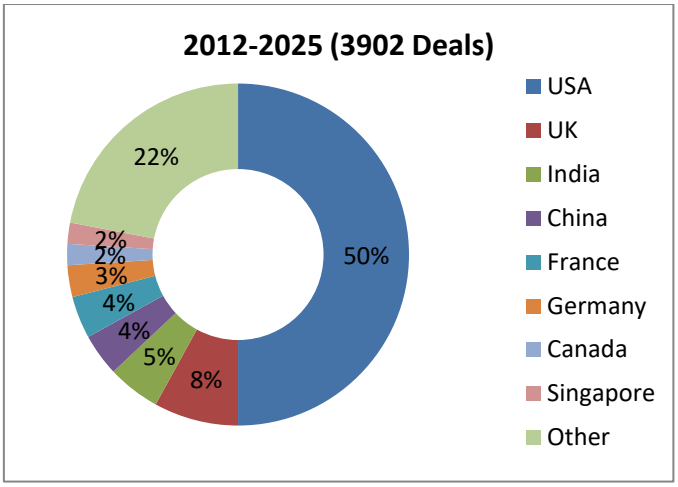
Source: Prepared by the researchers based on: (CB Insights, 2021, pp. 08-11) (Gallagher & Insights, 2026, p. 11)

Insurance technology achieved unprecedented development during these years, as it passed a critical funding stage in 2025. This rapid investment had never been seen before. Estimates indicate that major technology companies invested more than one trillion US dollars in data centers and other infrastructure, with a focus on artificial intelligence, which turned the period into a golden age of technology (Gallagher & Insights, 2026, p. 11).

III.2 The Distribution of Insurance Technology Around the World:

It can be observed that InsurTech activity at the global level has been largely concentrated in five countries from 2012 to the present day. The US holds the lion's share, accounting for 50 % of the sector, and is considered one of the countries with the highest number of InsurTech transactions, having concluded around 1,951 deals during this period. This is because many successful startups in this field originated in USA, including Lemonade, Oscar, Doma Holdings, and Duck Creek Technologies. The UK comes in second place with 8 % and 312 deals, followed by India with 5 % and 195 deals, then China and France with 4 % and 156 deals each. This shows that InsurTech is more strongly concentrated in the US, while its activity has begun to spread at lower rates in countries in Europe and Asia. The following figure illustrates this:

Fig. (03): Insurance technology deals worldwide by target country



Source: Prepared by the researchers based on: (Gallagher & Insights, 2026, p. 64)

IV. Presentation of the Experience of the Algerian Company B-Link Solution in the Field of Insurance Technology

There are no precise figures indicating the number of InsurTech companies in the Algerian insurance sector, but local reports point to a number of startups and projects under development that represent a real opportunity to develop the sector and accelerate the digital transformation of the Algerian insurance market. In this section, the experience of B-Link Solution will be discussed as a model in the field of insurance technology in Algeria.

IV.1 Introduction to B-Link Solution

B-Link Solution is a leading Algerian startup in insurance technology and digital transformation. It specializes in the modeling, deployment, and marketing of advanced software solutions, combining advanced business strategy with information technology expertise. It aims to revolutionize the Algerian insurance market by offering innovative insurance products and integrated solutions that are fast and easy to use, while supporting the digital transformation strategies of insurance companies. The company adopts the slogan of honesty, integrity, fairness in dealings, and responsibility in order to achieve transparency, enhance operational efficiency, and ensure the rapid publication of new developments.

B-Link Solution relies in its technical offerings on a comprehensive Enterprise Resource Planning system for insurance, ERP Insurance, in addition to mobile applications, web platforms, and the use of advanced data analytics.

Its technological infrastructure is based on a set of highly efficient **tools** and **programming languages**, including Oracle Database, Java EE, CSS, HTML, Angular, Spring, Red Hat, Flutter, and Bootstrap 4 (B-Link Solution, 2025).

B-Link Solution was founded on 21 April 2021 on the initiative of the co-founder and chief executive officer, Fouad Boughida, with a capital of 1,000,000 DA and a workforce of 11 employees. Within a short period of time, only seven months, it began providing its digital products to private insurance companies and quickly established its position as a leading company in the local market. It relied on the advanced technical expertise of a team of engineers with more than 25 years of experience in the insurance sector, a customer focused approach.

The company is considered a successful model of Algerian innovation in the field of digital insurance. It rapidly emerged as a key player in the digital transformation of the insurance sector and seeks to expand its activity regionally and internationally, which makes it the first choice in this field in Algeria. (Sidham, 2025)

IV.2 Digital Solutions Offered by B-Link Solution

B-Link Solution relies on an integrated insurance ERP system and a set of electronic platforms and specialized portals that support all aspects of insurance company management, from underwriting and claims to customer management, data handling, and analytics (B-Link Solution, 2025).

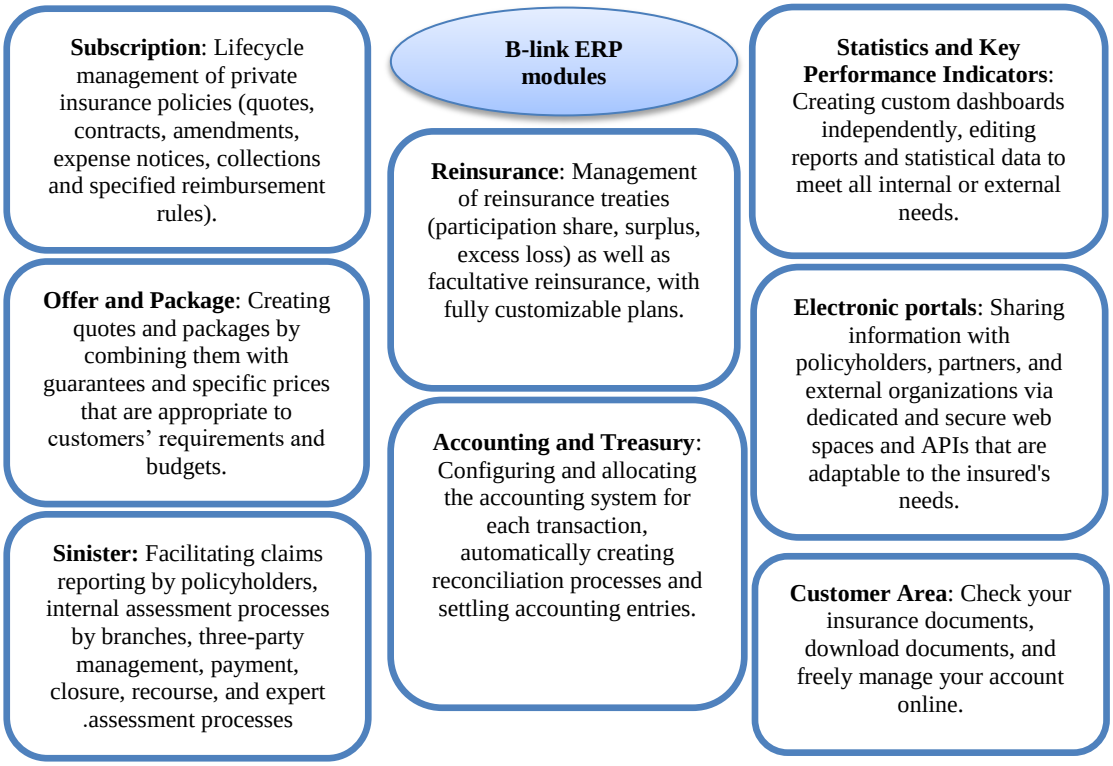
IV.2.1 Ultimate ERP Insurance System

This is an information system designed to coordinate all resources, information, and activities required to complete operational procedures, such as accounting and human resources within the institution. The ERP system is easy to use and is not limited by the restrictions imposed by old insurance software, as it allows to carry out procedures and tasks within seconds and with ease.

B-Link Solution provides integrated management to accelerate the growth of clients' businesses through a comprehensive and integrated ERP system that manages all insurance company operations from beginning to end, including production, claims financing, reinsurance, human resources, and customer relationship management. This system is designed for property insurance, health insurance, life insurance, and damage insurance. The ERP system brings together all user structures within a single system and interface. The insurance ERP modules have evolved to become more powerful and flexible so that they can adapt to all insurance company management methods, whether fully centralized, hybrid, or integrated. This allows them to support projects by following the highest standards, maintaining service level agreements, and providing continuous support to ensure the ease of use required by users on a daily basis.

The ERP modules provide a wide range of powerful features with several functions, as illustrated in the following figure:

Fig. (04): B-Link ERP Modules



Source: Prepared by the researchers based on: (B-Link Solution, 2025)

IV.2.2 Customized Digital Solutions and Platforms for Insurance

These are integrated and advanced digital platforms through which customized services can be provided to meet the needs of each client individually. They work on developing digital environments to simplify operations and automate tasks. They can also increase sales and gain loyal customers through secure self-service digital portals for selling insurance products, renewals, claim submissions, transforming agent operations into digital processes, improving the

efficiency of administrative operations, and managing insurance documents in one place. These platforms include the following:

- **E-SANTE:** A digital platform specialized in the health field that aims to facilitate medical work and provide services to citizens and professionals online, such as managing insurance documents and group insurance policies, managing employee movements and the addition or removal of members, and monitoring claims submitted by all insured parties. This platform provides services for both doctors and the insured.

Table (02): B-Link Third Party Administrator Tools

E-TPA (Doctors)	E-TPA (Insured Person)
- Monitoring vouchers and payments;	- Exemption from upfront fees;
- Real time support;	- Online tracking and complaints;
- Patient attraction.	- Simulation and coverage schedule;
	- Geolocation of contracted doctors.

Source: Prepared by the researchers based on: (B-Link Solution, 2025)

- **E-EXPERT:** A module specifically designed to manage and supervise the work of assessment experts in insurance companies. This platform provides rapid assistance and support and offers several services for the insured, including multi-channel communication, real time disaster monitoring, around the clock assistance throughout the week, and searching for the nearest repair centers and workshops through geolocation.
- **E-TRAVEL:** A specialized platform for managing travel agency contracts related to subscriptions to individual and collective insurance contracts, managing and monitoring of dues, amendments, balance. This platform often includes tools for contract creation, electronic signature, secure storage, and providing detailed reports and analytics on contracts.
- **B-Link CRM Solutions, Customer Relationship Management and Sales Force:** An integrated management tool with highly advanced features designed specifically for sales representatives and special needs of brokers and insurance companies. It is a customer centered tool that meets all requirements and helps manage operations, events, goals, dynamic document, and reporting. CRM solutions make it possible to track policyholders, obtain accurate forecasts, and focus on closing deals.
- **Third-Party Payment Administrator, TPA Platforms:** B-Link Solution has developed TPA platforms, such as Tiers-Payant Platform, which was developed for IPA, Inter Partner Assistance, a subsidiary of AXA Algeria. TPA tools are available for doctors (TPA Tools MED+), as well as tools for experts (TPA Tools EXPERT+).

IV.2.3 B-Link Mobile Applications:

The company provides fully customized web and mobile applications. These applications make it possible to manage insurance documents, underwriting operations, claims, and many other services smoothly through smartphones. They combine simplicity and performance in order to cover the entire insurance value chain and meet functional needs. In addition, the company develops software solutions designed specifically for insurance companies and provides consulting services and information technology solutions.

IV.2.4 B-Link Bank Account Reconciliation:

B-Link provides services to users such as matching SATIM files and multiple ATM files at the same time, key performance indicator and dashboards settings, analysis and review of reconciliation results, linking of data sources such as DABS, SATIM, and CBS, uploading and processing multiple files, and adjusting error codes for different types of automated teller machines.

IV.2.5 Employee Support and Human Resources Solutions at B-Link:

The company meets all the needs of human resources and payroll managers through the Payroll BLINK HR solution, which operates entirely on the web and does not require any installation on users' devices. This allows them to prepare payroll statements and declarations easily and quickly. It also enables them to create a complete payroll system that can be adjusted according to employment contracts, collective agreements, in accordance with the applicable Algerian regulations. In addition, the employee unit allows them to participate in the company's human resources management, access their personal spaces whether in the office or while traveling, review leave balances, submit absence or leave requests, and download certificates and payroll statements.

IV.3 Achievements Attained:

The company intends to benefit from this market by providing solutions specifically designed to meet the needs of all Algerian companies, both private and public, thereby contributing to the creation of hundreds of job opportunities for young people and planning to bring about a qualitative transformation in the insurance sector in Algeria. This is done by aligning the sector with the best international standards through 100 % Algerian expertise and management. Within a short period, the innovative company proved its merit. In only three years, it became the main supplier for insurance and assistance companies in Algeria, which saved more than five million dollars in transfers to the public treasury in a software and support market estimated at more than thirty million dollars (Ait Akli, 2024).

IV.3.1 Main Partnerships:

The company has distinguished itself through its flexibility, as it cooperates with major insurance companies in Algeria. Today, its solutions are used by five major insurance companies in this sector.

- **2006:** Participation in launching the first central ERP system in Algeria for TRUST Assurance.
- **2010:** Design and implementation of the IRIS ERP system for property and casualty insurance for Alliances Assurance.
- **2017:** Design of the life insurance ERP system for Macir Vie.
- **May 2021:** Signing of a contract with Alliances Assurance to design a new ERP system and digitize its activities . (Slideshare, 2025, p. 3)
- **Launch of the ERP system for El Djazair Takaful:** In December 2022, B-Link Solution team implemented the ERP system for the first Takaful insurance agency affiliated with El Djazair General Takaful, which is the first fully web-based Takaful solution for property and liability coverage. The company launched its Dommage ERP system for damage management for El Djazair Général Takaful, then, for personal insurance for El Djazair El Moutahida Takaful. Both solutions operate on a SaaS model, featuring local deployment and entirely Algerian engineering, with local addition and entirely Algerian engineering, without foreign currency transfers.
- The company had previously delivered an external payment solution for IPA, a subsidiary of AXA Algeria (Laouli, 2022).

IV.3.2 International Orientation:

B-Link Solution aims for international expansion, and it has previously participated in events such as GITEX in Dubai, a leading advanced technology exhibition in the Middle East, Africa, and Asia, and the Web Summit in Doha.

A. **VivaTech Paris Exhibition**: **B-Link Solution achieves major success in its first participation:** The VivaTech Paris trade fair is the largest event for startups in Europe. It was held from 22 to 25 May 2024 in Paris and brought together startups, technology leaders, industrialists, major companies, investors, and public bodies. This event represented an opportunity for B-Link Solution to showcase Algerian expertise in modern technologies as an innovative company and a leader in the local market in the field of digital insurance solutions. This participation was successful and crowned by the signing of contracts with foreign entities, as the company signed its first two international contracts with two companies from the Middle East:

- **A contract with UDENZ** to manage clinics using the company's TPA TOOLS platform for the settlement of third-party healthcare costs.
- **A contract with C2S** to create the first InsurTech company using the company's AMENI digital insurance platform.

During this event, the Algerian representative presented **three innovative solutions** in the field of insurance and third-party payment, including:

- **BLINK INSURANCE:** An ERP system for property and life insurance that manages all insurance company operations with high efficiency. Whether the client is an insurance company, a cooperative, an InsurTech, or a broker, BLINK INSURANCE solutions address all the challenges of this sector.
- **BLINK AMENI:** A platform that makes it possible to create a fully digital insurance company or delivery service through a single internet channel, benefiting from the added value provided by integrated digital systems.
- **BLINK TPA TOOLS:** A platform that manages third-party payments for damages, car assistance, glass breakage, and for healthcare, and also manages the reimbursement of medical expenses (Ait Akli, 2024).

B. Algerian technology B-Link Solution makes its way to Slovenia: The Algerian startup B-Link Solution, achieved a new international expansion through its participation within the official delegation accompanying the President of the Republic during his visit to Ljubljana, Slovenia, in May 2025. This participation strengthened its exchanges with local technology counterparts and reflects a broader new dynamism based on consolidating digital sovereignty and integrating into European innovation networks.

- **B-Link Solution combines expertise with international knowledge:** The discussions focused specifically on the digitization of services, system compatibility, and skills transfer, benefiting from Slovenia's strong industrial ecosystem and tradition of innovation. This dialogue aims to integrate international knowledge and expertise and to reflect jointly on shared challenges to build solutions to meet long term customer needs.
- **Regional ambition and European prospects:** B-Link Solution no longer sees itself merely as a local supplier, but as a competitive regional player capable of strengthening the image of the creative Algerian digital sector and building new technological alliances. This vision received a promising response in Slovenia, which reinforces Algeria's position among innovative countries. Behind these exchanges, a digital ecosystem is emerging that supports Algerian entrepreneurs and opens prospects for technological integration in the heart of Europe, with focus on emancipatory innovation and global competitiveness (Sidham, 2025).

IV.4.Presentation and Analysis of the Field Interview :

IV.4.1 Interview Methodology:

An online interview was conducted with the CEO of B-Link Solution. He was chosen by purposive sampling due to his expertise in InsurTech and the various technical and organizational aspect within the company. Despite being a single interview, it provided accurate and in-depth qualitative data that serves the study's objectives.

IV.4.2 Presentation of the Interview and its Results:

We will present interview questions and the answers in brief, highlighting their main focus, As explained in the following table:

Table (03): Presentation of the Interview Content

Questions	Answers	Main Focus
1. What is the nature of the company's activity, and what are the most important digital solutions and services it offers?	-B-link Solution is a digital publishing and integration company, providing customized solutions for insurance and third-party payment sector in the health, automotive and home assistance fields.	Digital solutions and services
2. Does the company offer direct services to the client (B2C)?	-No, this is not our strategy at the moment, we focus solely on business-to-business (B2B) transactions.	
3. Is the company 100% local, and are its human resources qualified to design new innovations and models?	-Yes, it is 100% local, and all employees, from the manager to the engineers, are graduates of Algerian universities over the country.	Technical and human Capabilities
4. Does the company have the necessary infrastructure and technological equipment?	-We have made substantial investment using our own resources in computer hardware, servers, GPUs, etc.	
5. Which insurance companies and institutions do you deal with?	-Macir Vie, El Moutahiha Takaful, Djazair Takaful, Alliance Insurance, CIAR for Damage Insurance, ATA, IPA, Bridge Assist for Third-Party Payment.	Strategic partnerships
6. How do the company's solutions contribute to improving the quality of insurance services, and what is their impact on the customers?	-Our solutions enable insurance companies to simplify their operations, reduce costs, and expedite procedures through advanced data analytics, thereby improving the customer experience.	The impact in the insurance sector
7. What is the company's progress and success rate since its establishment in 2021?	-The company records a strong growth rate exceeding 35% annually.	Growth performance
8. How much interaction has the company received, and what is your position in the local market and perhaps global one?	-The reception is still mixed. It's easier for us in the private sector, but we face difficulties in obtaining new market share in the public sector.	Market position
9. What are the main obstacles and challenges you face?	-Foreign competition, weak awareness among citizens and the lack of trust of major public companies in local products.	challenges and obstacles
10. What is your vision for the future of InsurTech in the	-We are technically ready and have the capabilities to develop the Algerian	future prospects

Algerian market?	insurance sector through an integrated digital approach and AI technologies. While supporting InsurTech start-ups.	

Source: Prepared by the researchers based on the interview

IV.4.3Analysis of Interview Results:

The interview findings highlight the position of B-Link Solution company as technological enabler supporting Insurtech in Algerian insurance sector through a B2B model. They also reflect strong local technical and human capabilities that foster innovation and development of digital solutions.

The results further indicate the company's integration into the professional ecosystem through partnerships with market actors, reinforcing its role in improving the efficiency and quality of insurance services.

Despite its notable growth, the company faces significant challenges related to foreign competition and limited trust in local solutions. Meanwhile, future orientations suggest promising prospects driven by digitalization and AI to advance the sector and strengthen the innovation environment.

V. Conclusion

Financial technology represents a strategic option for modernizing the Algerian insurance sector. It has moved beyond the automation of traditional processes to a set of advanced innovations that include mobile applications, artificial intelligence supported underwriting, smart contracts through blockchain technology, and big data analytics. The experience of B-Link Solution has demonstrated the effectiveness of this direction through innovative digital solutions, such as electronic platforms for contract management and remote insurance services, which have achieved speed in processing, flexibility, accuracy, cost reduction, and greater customer satisfaction.

Main Findings of the Study:

- InsurTech enhances service quality, efficiency, faster procedures, and lower costs, driving modernization the sector and increases customer satisfaction.
- Adopting modern Technology by startups, like B-Link Solution, expands insurance coverage through innovative business models. This gradually transforms the insurance sector from a traditional product-focused model to an innovative customer-centric model, emphasizing prediction and preventing risks to enhance competitiveness.
- Although InsurTech companies are viewed as competitors to traditional ones, the field of cooperation and partnership between them opens broad prospects for joint growth and for gaining a distinguished market position.
- The use of InsurTech has led to significant growth and expansion in the global insurance market, along with increased funding directed toward InsurTech companies, which reflects its broad economic impact.

- B-Link Solution has proven its leadership in the field of InsurTech in Algeria through its innovative solutions, including integrated ERP systems, and its effective role as a driver of sector development.
- B-Link Solution faces challenges, most notably foreign competition and lack of trust in local startups by large public companies and Algerian citizens.

Despite these achievements, Algeria's insurance digital transformation still requires strong institutional and regulatory support, including the strengthening of cybersecurity, data sharing, and human resources training in order to ensure a sustainable environment for innovation.

Recommendations

- Updating the regulatory and legal frameworks in Algeria so that they keep pace with the rapid developments in the field of insurance technology.
- Investing in secure digital infrastructure for internet and mobile services in order to accelerate comprehensive digital transformation and reduce the digital gap in financial and insurance fields.
- Encouraging partnerships between banks and FinTech companies, such as Open Banking and APIs, in order to provide technological capabilities and global expertise for insurance companies.
- Opening the way for startups in insurance technology, such as B-Link Solution, and strengthening cooperation with traditional insurance companies in order to enhance their role in developing the insurance sector.
- Building a digital culture based on creativity and innovation among employees and motivating them to embrace change to modern technology.
- Promoting cooperation between companies, universities, and government institutions in order to train specialized human resources, while encouraging research and development.
- Launching awareness campaigns to enhance users' trust in digital solutions.

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