

industries such as inventory management to locate, sort and direct items. The only problem facing airports and airlines is the funding of this new system in the wake of the global crisis, the decline in global air traffic and airline losses. In the end, however, any investment in baggage insurance would have a very good positive financial impact and would reassure travelers and exempt airlines in exorbitant compensation.

To conclude, technology advances change our lifestyles and with them our work and personal time are being affected. Airports and professionals must work together, in order to find balance and learn how to take advantage of the new technological tools, without letting these to affect their lives.

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CAN THE BANK ADAPT TO NEW TECHNOLOGIES? CASE STUDY: BANKS IN COTE D'IVOIRE CAN ADAPT TO HIGHTECHNOLOGIES

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Over the last 20 years, traditional banks have had to rethink how they operate in the face of digital transformation.

The digital revolution has transformed the banking sector. Over the last twenty years, traditional banks have had to rethink how they operate and their services to meet the new competition of online and mobile banks [1].

They must now face an unprecedented transformation of the financial sector with the advent of FinTech, these innovative start-ups using new technologies in the service of finance.

Côte d'Ivoire, the most powerful economy of the 8 countries of the West African Economic and Monetary Union (WAEMU) region has managed to recover its economy since 2012. With a banking rate not exceeding 20%, the Ivorian banking sector still has a bright future ahead of it, especially with efforts on financial inclusion and the new orientation towards SME financing. This is reflected in a GDP over the period 2012-2018 of 8.6% [2]. The scope and magnitude of technological change in the financial industry is unprecedented. Banks in Côte d'Ivoire can adapt to new technologies and follow this trend?

Many financial institutions have already tackled the digital shift, especially in terms of customer experience, and of course mobile banking. But new technologies are not limited to these few innovations!

Banking sector in Ivory Coast

The Ivorian banking sector is highly fragmented. Nevertheless, it is dominated by large banks, the majority of which are not made up of subsidiaries of international and regional banking groups. The configuration of the Ivorian banking system as at 31 December 2006 presented 18 banks and 2 financial institutions [2].

The Ivorian banking system is oligopolistic. The banking activity is concentrated at the level of 5 banks which hold 75% of outstanding loans (SGBCI, BICICI, BNI, SIB, BIAO).

There are:

7 large banks with a balance sheet greater than 100 billion (SGBCI, BICICI, BNI, BIAO-CI, SIB, CITIBANK, ECOBANK);

3 medium-sized banks with a balance between 50 and 100 billion (SCB-CI, BACI, BOA-CI);

7 small banks with a balance sheet of less than 50 billion (BHCI, COBACI, COFIPA, OMNIFINANCE, VERSUS BANK, BFA, BRS-CI).

Its structure is as follows:

4 general-purpose banks with dense network (BIAO-CI, SGBCI, BICICI, SIB);

5 small-scale general-purpose banks (BOA-CI, BACI, COBACI, ECOBANK, SCB-CI);

4 general purpose banks without networks (COFIPA, CITIBANK, OMNIFINANCE, VERSUS BANK);

4 specialized area banks (BHCI, BNI, BFA, BRS-CI).[2]

Explanations

Can the banking industry track emerging technologies?

In terms of the digital transformation of the banking sector, the ability to take advantage of new technologies is an important factor in ensuring their growth and survival. Indeed, PricewaterhouseCoopers (PwC) argues in a study published annually [1] that there is a direct correlation between the digital Intelligence Quotient (IQ) and financial performance. According to global figures, organizations with stronger digital IQs benefit from better positioning and are likely to achieve stronger financial performance.

The problem is that the digitization of the banking sector is happening at a faster pace than most of these organizations can handle.

In 2007, PwC first measured an organization's ability to exploit and leverage technology. According to this study, digital IQ (or digital maturity) has declined over the last 10 years in all industries.

The challenge is that the powerful new tools continue to spread in the market, even if Ivorian banking institutions are struggling to digest the fundamental technologies such as cloud, mobile and analytics that depend on the success of new generation banks.

In other words, the emergence of technologies seems for the moment faster than the ability of Ivorian banks to absorb them. And this despite the interest and willingness of financial institutions to do it.

The solution: combining technologies

On the one hand, Ivoirian banks need to develop a rigorous approach to better adopt emerging technologies. But investing in innovative tools that promote communication and sharing is no longer enough. You must also know how to master these technologies and combine them. Pwc for example advances some essential levers like:

- The extension of the Internet to objects (Internet of Things or IoT),
- artificial intelligence (AI),
- The robotics,
- 3D printing,
- Virtual reality,
- And information storage and transmission technology (Blockchain).

For example, banking professionals can use their clients' data and link that to advanced analytics and IoT. This could allow direct payment of smart home devices.[1]

Similarly, the extensive use of intelligent chatbot tools and virtual reality devices could significantly improve interactions between Ivoirian banking institutions and their customers.

The digital world that upsets the customer relationship by allowing it to have a wider range of services;

- APIs [1] which, installed on smartphones, can in a short term replace the physical agencies;
- Morphological recognition methods, ie all these new algorithms that allow with a degree of reliability close to 100% to ensure that the person "at the end of the line" is the one who declares the to be;
- blockchain technology, which ensures the authenticity of data and transactions without going through a trusted third party;
- artificial intelligence, which makes it possible to replace man in the simplest decisions, and tomorrow the most complex ones;

- the use of Big Data which, through the analysis of personal data, makes it possible to offer customers or prospects the product adapted to their needs or expectations;

- cryptology, which guarantees the reliability of information.

And information storage and transmission technology (Blockchain).

For example, banking professionals can use their clients' data and link that to advanced analytics and IoT. This could allow direct payment of smart home devices.

Faced with the emergence of new technologies, banks have made an important finding: today, digital is no longer just a question of technology. It is also important to increase the role of human factors, that of ways of thinking and to improve ways of working. It is through this combined human and digital approach that banks will be able to adapt to new technologies.

The major challenge for Ivorian banks over the next four years is to comply with the new innovative rules of the banking sector which aim to strengthen the resilience of the banking sector.

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THE TECHNOLOGICAL ROLL OF SILICON METAL PRODUCTION

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The silicon metal is one of the most abundant elements in the earth's crust and one of the most important for many industries. The use of silicon in the technologic world have been increasing gradually, since this element has become the base raw material for many products that today are essential for everyday life and for the technological advancement.

The silicon metal can be found and marketed in a variety of ways. Each purification method and raw material used generates a different final product, with different composition and utility. In industry silicon is marketed mainly in three molecular compositions, namely crystalline, polycrystalline and monocrystalline.

The silicon production cycle for the solar and electronics industry is usually not done since the exploration of raw element. Monocrystalline silicon companies generally buy polycrystalline silicon as a raw material and then market it to the solar and electronics industries.

Silicon production begins with its exploitation in crude form. Silicon is excavated and extracted from the ground in the form of quartz crystals, known as rock crystals, or even in the form of sand. [1] The sand used in these processes basically consists of silicon dioxide. When found in the form of quartz crystals, the