

Economic Diplomacy in the Digital Era: Morocco's Roadmap for Africa

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Abstract

Digitalization is profoundly redefining economic dynamics across Europe, the Mediterranean and Africa, marking an era of unprecedented transformation. In this context, economic diplomacy is emerging as a key instrument to facilitate this digital transition by fostering regional partnerships and innovation, providing challenges and opportunities for countries aiming for long-lasting growth. Morocco has taken on this digital transformation by implementing proactive economic diplomacy to promote inclusive economic development. Morocco is improving its trade relations, attracting foreign investments, and promoting innovation in key sectors by incorporating digital technologies into its economic strategies. This strategy is in line with its overall objectives of enhancing financial inclusivity, promoting business development, and reducing gender disparities. Morocco's digital diplomacy not only reinforces regional partnerships, especially in Africa, but also establishes the country as a pioneer in digital-based development. This article analyzes how Morocco strategically utilizes digitalization in economic diplomacy, emphasizing its ability to advance a more inclusive and resilient economic future. Using this perspective, we investigate how digital resources are being utilized to generate fresh possibilities, promote creativity, and boost Morocco's worldwide economic impact in an increasingly digitalized society.

Keywords: Economy; Digitalization ; Economic Diplomacy; National Growth; Strategy , Morocco

1. The Introduction

The digital transformation is undergoing profound changes in economic, social and environmental terms. It is the combination of technological progress, the creativity of the actors in this field and the appropriation that has been made by a large part of the population. Digital transformation has created disruptions in our social relationships, our ways of producing, consuming and entertaining. Beyond that, it requires a cultural change that encourages institutions and organizations to continually question the status quo by providing themselves with leadership, ambition and great agility in action. This digital revolution is pushing the boundaries between the physical and digital worlds, to the point where tomorrow all productive activities will have a digital component

The world economy is experiencing a significant change due to fast progress in digitalization, automation, and artificial intelligence (AI). In this changing environment, economic diplomacy has become an important tool for countries trying to navigate the challenges of a globalized world. In addition to conventional trade agreements and overseas investments, economic diplomacy now includes a wider range of challenges and opportunities influenced by the digital era. This involves promoting digital skills, improving financial inclusion, tackling labor market disruptions, and advocating for gender equality in an ever more digitized global economy.

In areas such as Europe, the Mediterranean, and Africa, economic diplomacy is crucial in fostering partnerships and promoting sustainable and inclusive growth as digitalization speeds up economic changes. Countries can improve their competitiveness and boost regional cooperation, innovation, and economic development by incorporating digital technologies into their diplomatic strategies. The emergence of AI and automation brings about new job opportunities and private sector expansion, but it also presents difficulties regarding job stability, migration, and the digital gap.

Economic diplomacy is crucial for Morocco, a country positioned at the intersection of Africa, Europe, and the Middle East, to use digitalization effectively for boosting employment and economic growth. The nation is placing more emphasis on improving digital infrastructure, training its workforce, and joining global value chains powered by technological progress in its diplomatic endeavors. Nevertheless, the effectiveness of these initiatives relies on actively collaborating with local and international partners in order to guarantee an equitable distribution of the advantages of digitalization throughout society.

Morocco has implemented several strategies and programmes to accelerate its digital transformation, such as “Maroc Numeric 2013” and “Maroc Digital 2020”, and its emerging "Digital Morocco 2030" strategy, disparities in digital accessibility, innovation infrastructure, and regional integration remain critical challenges. Addressing these issues is imperative for leveraging digitalization to its full potential in economic diplomacy. It has specialized bodies in the field, including the Digital Development Agency (ADD) and the National Commission for the Protection of Personal Data (CNDP). In this context, several initiatives have been launched, including the "Idarati" portal dedicated to administrative procedures, the payment of taxes and taxes online (vignette, IR, IS, VAT, etc.), the single window "PortNet", the monitoring of the RAMEL, the "Chikaya" portal (complaints), the platform "TELMIDTICE" (distance learning), the digital registry office and other initiatives within digital public services.

This research aims to investigate how countries like Morocco can use economic diplomacy and digital transformation to advance inclusive and sustainable growth. This article explores diplomatic efforts to enhance digital skills, and private sector development through a comprehensive analysis.

2. Preliminary Definitions

2.1-Economic Diplomacy:

The definition of economic diplomacy is subjective and challenging to establish, as it varies depending on the countries and individuals involved. Its essence is not determined by specific tools or strategies but rather by the economic issues it aims to address. (Badel, 2006) Economic diplomacy would then be only one way for a State to strengthen its power vis-à-vis other States, using the means of the economy: international trade negotiations, measures to support the international expansion of domestic companies, or conversely, measures to attract foreign investment to the country.

So what does “economic diplomacy” really mean? If we look at the international bibliography, It is evident that economic diplomacy encompasses the fusion of two dimensions, namely the economic and commercial aspects. Indeed, economic diplomacy is the exploitation of all communication channels at the service of the country’s economy in terms of seeking new markets and attracting foreign businessmen (Kateb, A, 2011). In addition, changes in the international system since the end of bipolar politics have helped transform ideological interests into economic interests of states (Grosser, P, 1995).

According to Woolcock and Bayne (2016), who propose the most recent analysis to date, The

definition of economic diplomacy is not determined by the specific tools or methods employed, but rather by the economic challenges and issues it aims to address. Thus, it is not “just” commercial diplomacy, but it also includes industrial policy, the movement or exchange of goods, services, investments, money, etc.

According to Dafir (2012), economic diplomacy is the set of mechanisms and practices adopted by individuals or groups, state or non-state, with the aim of achieving a state’s economic objectives through the use of political means, or to achieve political objectives through economic means. This definition acknowledges the changes occurring in the global landscape, including the rise of new international actors. It recognizes that economic diplomacy is now closely intertwined with the comprehensive strategy for national development.

The definitions proposed so far reflect clearly the oscillation of the concept between the two poles that give it its identity: the public pole and the private pole. Moreover, this phenomenon particularly concerns developing countries which, in the absence of a basic definition, it is commonly accepted that economic diplomacy can be subject to multiple interpretations and can be defined in various ways. The first definition of the concept dates back to the beginning of the 21st. However, three components are common to the different definitions of economic diplomacy. The goal is to facilitate the expansion of domestic businesses into international markets., encourage foreign direct investment (FDI) in the country, and shape international regulations in a manner that aligns with national interests

2.2- The concept of Digitalisation

The concept of “digitization” is quite old, but it began to take shape in the 1950s and 1960s with the first computers and data processing systems. This term has been used and associated with the latest technological revolutions since 2004. It is increasingly used in the context of a company’s digital transformation.

Digitalization is defined in different ways according to the authors and the fields of study. However, several thinkers and researchers have contributed to the development of this concept over time. This concept was first introduced in 1679 by Gottfried Leibniz¹. Leibniz has also addressed in his writings concepts related to automation and the formalization of knowledge. He assumed that symbolic languages can be used to represent and reason about human knowledge, which could be considered a form of digitalization of knowledge.

Erik Brynjolfsson and Andrew McAfee in (2014) define digitalization in their book "The Second Machine Age" as “the process by which economic, social and cultural activities are

transformed through the intensive use of digital technologies. This includes process automation, the use of large amounts of data (big data), artificial intelligence and the Internet of Things.”

According to Ross et al. (2017), “Digitalization also means a complete transformation of the business. It aims at both the speed of expression and the comprehensiveness of transformation.” For Riemer (2013), “digitalization refers to the changes induced by digital technologies in order to shift an organization’s business model towards value creation for its missions”.

Reis et al., (2018) present three aspects of digitalization: The first aspect is technological in nature, where digitalization relies on new Information and Communication Technologies (ICT), such as social networks, mobile technology, analytical or integrated tools (Fitzgerald et al., 2013).

The second aspect is organizational in nature where digitalization requires a change in business processes or the creation of new business models (Ross et al., 2016). The last aspect is of a social nature where digitalization is a phenomenon that influences all aspects of human life (Matt et al., 2015). In fact, Reis and all combine the common points of these aspects to propose the following global definition “Digitalization is the use of new technologies that can significantly improve a company’s operations and affect all aspects of customers’ lives”

Westerman et al (2011) reported in an article that “Digitalization relies on several technologies that facilitate the transfer operation and multi-dynamic processing of data that can improve an organization’s performance.”

Dörner & Edelman (2015) defined digital as a means of covering a context in which companies and organisations operate. They think that for some executives, it’s a question of technology

2.3- Review of theoretical and empirical studies on digitalization and economic growth:

According to the Schumpeter growth model, which was developed in 1987 by Philippe Aghion and Peter Howitt, it is based on four main ideas inspired by the work of Joseph Schumpeter. First, he says that long-term growth is the result of innovation. “Without innovation, the economy stays flat.” Secondly, innovation is not a drop from the sky, but a social process. It results from investment decisions, such as research and development, training, the purchase of computers, taken by entrepreneurs, considered to be the engines of capitalism. The third fundamental idea is the concept of "creative destruction". New innovations make old obsolete, creating a permanent conflict between the old and the new. The final idea is that productivity growth can be generated either by "frontier" innovations, that is radical innovations that push existing boundaries, or by imitating more advanced technologies. As a country develops and

moves closer to the technological frontier, innovation becomes the main driver of growth, replacing capital accumulation and technological catch-up by imitation.

Solow also suggested that the impact of digital technologies could go beyond traditional GDP measures. Indeed, many digital goods and services are free and accessible to all but they are not counted in national accounting statistics because they are not traded on a market and have no monetary price.

Several recent empirical studies have assessed the endogenous relationship between digitalization, measured by ICT, and economic growth to highlight the existence of a positive impact. They also show that some countries may have a positive relationship between ICT and economic growth. Yet there is evidence of a negative relationship, indicating that its impact depends on the level of economic development in the countries analysed since higher investments in ICT lead to significant economic benefits in developed countries at the expense of developing country countries (Dewan and Kraemer, 2000; Thompson and Garbacz, 2011). According to a study by Parviainen and Coll. (2017) ²⁷, digitalization implies gradual economic growth. In this context, countries at the most advanced stage of digitization are 20% more economically beneficial than those at the initial stage. Researchers said digitisation was effective in reducing unemployment, improving quality of life and increasing citizens' access to public services. They said that this allows governments to operate more transparently and efficiently, which also has a beneficial impact on the country's economic growth.

Bahrini and Qaffas (2019)³¹ examined the impact of ICTs on economic growth in developing The East, North Africa and sub-Saharan Africa region using a growth model based on the generalized method of the moment over the period 2007 to 2016. According to the researchers, mobile phones, internet usage, and broadband adoption are the primary drivers of economic growth in the region.

Danilin (2019)³² conducted a comprehensive study of the digital economy in the US and China, and confirmed their growing economic influence and dominance. The underlying reasons for their leadership in the digital economy were defined as increasing investment in research and development (R&D), increased focus on digital innovation and human resource development, the dynamism of the information and communication technologies (ICT) sector, the potential synergies between the development of personal electronics and online marketplaces, and a powerful Internet infrastructure. The rate of economic growth in both countries has been reported to be positively affected by all of this together.

3- Digitalization as a Pillar of Morocco's Economic Diplomacy

The establishment of a digital and technological ecosystem is necessary to develop a connected economic diplomacy that plays a part in the country's economic growth and accelerate the digital transformation of the Moroccan economy. This involves setting up a voluntary development policy for the technology sectors – start-ups and bets on future technologies (e.g. artificial intelligence, big data, blockchain, etc.) ; setting up an attractive framework for international players in the digital ecosystem. On the other hand, all economic sectors and the fabric of enterprises must be encouraged and supported in their transformation and the transformation of SMEs and self-entrepreneurs must be accelerated. For example, Morocco would benefit from the introduction of incentives for the growth of electronic commerce, both in levels of logistics, regulation, promotion, transactional and connectivity. Morocco must also lay the foundations for an innovation system to develop its local technology industry. The main objectives will be to invest more in R & D, build up Morocco's innovation capital in the areas of finance, talent development and incubation of new technology-based sectors. Existing technological and digital innovation ecosystems will be used in this approach to benefit from their feedback.

This strategic axis will help to make Morocco a reference Digital and Technological Hub in Africa, while boosting the Moroccan technological ecosystem by attracting international and regional investments.

The importance of digital transformation in Morocco's economic policy is growing, both at home and abroad. As the world's markets move towards digital economies, Morocco is actively establishing itself as a digital hub in Africa and the Mediterranean region. The nation aims to draw foreign investment in its expanding technology industry, promote creativity, and enhance its digital infrastructure through careful diplomatic interactions.

A crucial aspect of Morocco's digital strategy involves collaborating with international organizations and foreign governments to enhance knowledge sharing and skill development. For example, the nation has established deals with the EU and prominent tech firms to improve digital education and infrastructure, crucial for integrating Moroccan enterprises into the worldwide digital economy. Moreover, through its participation in international organizations like the World Trade Organization (WTO) and the African Union, Morocco has the chance to influence global digital trade policies to its benefit. The development of the African continent

and its trade flows will also have to take into account global technological developments and transform the deficit in our intra-continental trade in a real opportunity for the development of new technologies digital.

Africa is becoming a laboratory of the digital world. Digital is changing the face of our continent, driven by an inventive, creative and daring youth. This digital leap is the fruit of young startups active in the fields of finance, telecoms, industry and agri-food, to name but a few. Often, the young and low-income population is at the heart of this innovation process; it must therefore be at the heart of our public policies.” (Speech by the King of Morocco at the Extraordinary Summit of the African Union on the Continental Free Trade Area, Kigali, 21 March 2018).

Since gaining independence, Morocco has pursued a comprehensive policy aimed at liberalizing its borders and fostering economic freedom. The country has expressed a clear intent to attract foreign direct investment (FDI) for various reasons. This includes the goal of engaging with international markets, encouraging their presence in Morocco, driving the country's economic growth, and capitalizing on the expertise of foreign investors in areas such as workforce management, technology transfer, and information systems.

3.1. Equipment and infrastructure available

Morocco achieved a score of 91.7 for the Development Index of Information and Communication Technologies (IDI) in 2024, according to the annual report of the International Telecommunications Union (ITU).

This score represents a 2% improvement over the previous year, reflecting the country's continued efforts to improve its digital infrastructure and encourage the use of technology.

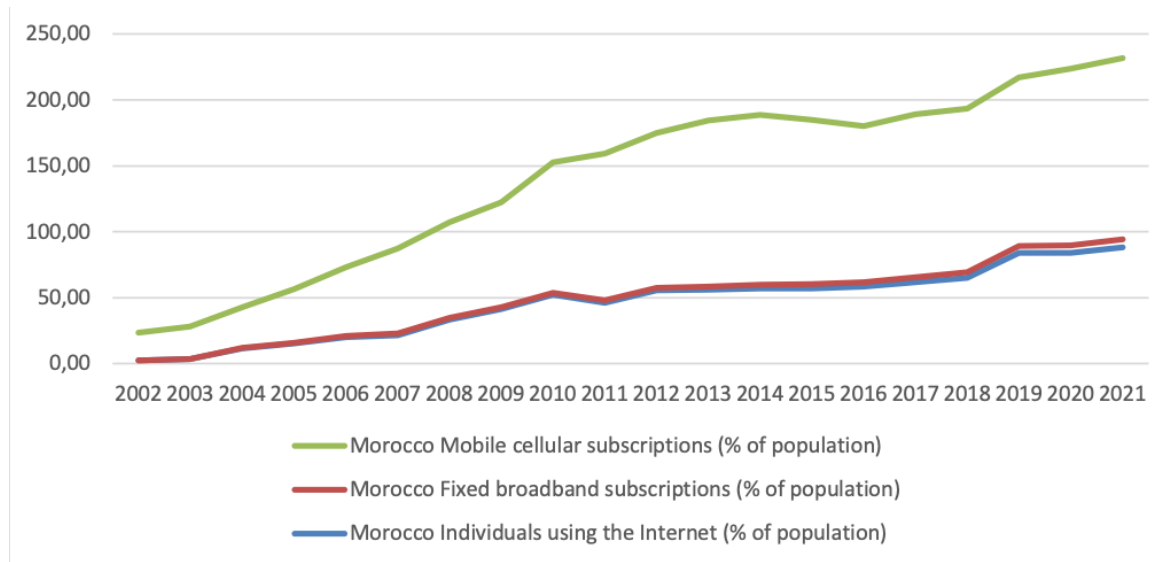
The improved IDI score indicates tangible progress in a number of areas, such as increasing the number of people with mobile phones, improving internet services and increasing investment in digital infrastructure. However, Morocco still faces challenges to achieve inclusive and meaningful global connectivity, such as the high cost of communications in some regions and improving Internet access in rural areas.

According to the report, 98% of Moroccans own a mobile phone and 80.2% use the internet. However, only 47.7% of households have an internet connection at home, which highlights the gap between people with access to the internet via mobile phones and those with fixed connections.

With regard to broadband services, there are 72.5 subscriptions to the Internet via mobile

broadband per 100 inhabitants and the 4G/LTE network covers about 58.1% of the Moroccan territory. The average Internet traffic via mobile broadband per subscription is 3.6 GB, while that via fixed broadband is 36.1 GB per subscription, indicating a growing reliance on the Internet for various uses.

Figure 1: Evolution of mobile phone and internet use in Morocco



Source: World Bank data

The Internet subscriber base is around 30 million, bringing the Internet penetration rate to 83%. There is a predominance of mobile internet in Morocco: it represents more than 93% of connections. As for the fixed internet, about 99.93% of ADSL subscriptions are operated by Maroc Télécom.

According to the Speedtest Global Index¹¹, the average mobile internet speed in Morocco (36.36 megabits per second Mbit/s) is lower than the world average (48.40 Mbit/s). In terms of this indicator, Morocco is ranked 60th out of 140 countries. The average fixed internet speed in Morocco (25.05 Mbit/s) is also much lower than the global average (98.67 Mbit/s), and Morocco ranks 112th out of 177 countries.

Morocco is ranked 44th out of 230 countries where the GB Gigabit (GB) is the cheapest in the world with an average price of 7.96 Dirhams the GB¹²; Morocco is the 11th cheapest country in Africa. As far as fixed internet is concerned, Morocco ranks 66th out of 206 countries where the average monthly subscription cost is the cheapest with an average price of 324 dirhams per month¹³. Morocco is the 6th cheapest country in Africa for this criterion.

Preparing for the arrival of 5G is a major challenge for the coming years. Morocco has set itself the objective of enabling the launch of 5G before the end of the guidance note. This launch should not be early, given the ambitious development for the fixed market and the progressive maturity of the technology, nor late given the need to maintain its regional leadership, In addition, "Full 5G" technologies would only be available from 2023.

A study will be conducted to propose the conditions and modalities for operating 5G networks in Morocco and to identify and prepare the plans for redesigning the target frequency spectrum. For operators who wish to do so, the ubiquity of licences will be examined. The study should also detail the quality criteria to be met by operators and the obligations attached to the deployment of 5G (coverage, sharing, roaming, business model ...) and identify the needs of the sectoral verticals.

This study should also identify frequencies that would be intended for the deployment by manufacturers of their own 5G networks (industry 4.0...) not open or public, in order to contribute to the national digitalization strategy, Moreover, and given that the business market constitutes the potential for 5G development (automotive, health, research...), actions would be promoted to encourage the emergence of a real ecosystem around 5G.

3.2. Strategies and Programs.

Morocco has designed several strategies for the development of digitalisation such as «Maroc Numeric 2013», «Maroc Digital 2020» and created specialized bodies such as the Digital Development Agency (ADD) and the National Commission for the Control of the Protection of Personal Data (CNDP).

Morocco has been able to implement several digital transformation projects for the administration and public services through several ministerial departments and institutions. Examples include:

The Directorate-General of Taxation (DGI) which has set up several digital initiatives for the declaration and payment of taxes and taxes online (vignette, IR, IS, VAT, etc.);

The Agence Nationale des Ports, which in 2008 launched a one-stop shop for PortNet. Since 2012, its management has been entrusted to the public limited company PORTNET;

The Justice Department, which has developed a video conference solution for hearings and trials (more than 14,000 audience¹⁴ were conducted remotely);

The Administration Reform Department, which launched the “Chikaya” platform in collaboration with the Digital Economy Department to facilitate the complaint procedure:

Citizens have been able to file more than 000 800 claims since its launch in January 2018 through March 2021 with a processing rate of approximately %70;

The Ministry of the Interior which has set up the program for the modernization of civil status, The platform «Watiqa» allowing the remote obtaining of administrative documents, the filing of complaints by citizens through the platform «Chikaya» - the territorial communities component and the issuance of authorisations via the "Rokhas" platform;

The Ministry of Education which has set up the GENIE programme (generalisation of information and communication technologies in education in Morocco) Equipping 87 of the 11,000 ordinary schools with multimedia rooms or multimedia suitcases. During the health crisis, the Ministry made the “TELMIDTICE” portal available to students for distance learning;

The Ministry of Health, which has adopted a legal framework for telemedicine (Law 13-131 and Decree 378-18-2 amended and supplemented by Decree 675-20-2). In addition, the Department has launched an online appointment portal called mawiidi.ma;

The National Health Insurance Agency (ANAM) which has put online the RAMED monitoring, the claim portal (Chikaya) for the benefit of AMO insured and the monitoring of students' declaration to the AMO.

The launch of digital innovation institutes in 2023, such as the YouCode school in Nador, the Berkane National School of Artificial Intelligence and Digital, opens up new horizons for training in digital and AI.

Furthermore, Law 55-19 on the simplification of administrative procedures, which came into force on 28 September 2020, introduced new measures to facilitate the relationship between the administration and users. Through this law, the National Administration Portal (PNA) was implemented, gathering information on current administrative procedures.

Regarding the digital transformation of the main sectors of the economy. It is worth mentioning advanced digitalisation of the banking sector (online banking) and reflections for digitalisation of the insurance sector; significant growth in e-commerce transactions, particularly after the Covid-19- event; In the agricultural sector, there have been some initiatives such as the electronic “one-stop shop” or artificial intelligence tools at INRA (in collaboration with SOWIT);

Concerning the industry sector: the maturity of digitalization is heterogeneous according to the size of the companies and the different sub-sectors;

Concerning the tourism sector: the majority of tourists who have visited Morocco (%90)17 prefer online booking;Regarding the culture and media sector: a set of media and culture

initiatives have been launched (SNRT applications, streaming of films during confinement). Morocco was the first African country to launch an Open Data Government (OGD)¹⁸ initiative in 2011 by launching its portal www.data.gov.ma. The EESC had stressed in its report on “open data, the liberation of public data for growth and knowledge”¹⁹, the importance of the right to access information and the openness of public data which are likely to improve the quality of services provided to citizens. Law 31-13 on the right of access to information subsequently came into force in March 2020 and the portal “chafafiya.ma” was launched to process requests from citizens and foreign nationals living in Morocco for access to information.

Morocco officially launched its national digital strategy, dubbed "Digital Morocco 2030", on September 25, 2024 in Rabat. This roadmap aims to transform the country into a regional digital hub while accelerating its socio-economic development. The plan, which is part of a participatory and multi-sectoral approach, aims to create 240,000 direct jobs in the digital sector and contribute 100 billion dirhams to GDP by 2030. One of the key axes of this strategy is the digitalization of public services, with the objective of raising Morocco among the 50 first nations in the world ranking of online services. To do this, a unified digital portal will be set up to centralise administrative procedures and simplify access to services for citizens and businesses. Solutions such as digital identity, electronic signature and data exchange platforms between administrations will strengthen this digitalization. The government also aims to improve the user experience through a "customer journey" approach, which involves optimizing each step of the online administrative process.

3.3- Moroccan economic diplomacy that is more connected:

Due to digitization, Moroccan economic diplomacy has become more agile and interconnected, making interactions and negotiations with international partners easier. Morocco has been able to enhance its abilities for real-time communication and diplomatic engagement at a lower cost and with fewer delays due to the increased utilization of digital tools. Digital platforms like video conferences and online forums are creating more chances for international meetings, even from afar, making it easier to negotiate trade and investment agreements faster.

Connected economic diplomacy, leveraging digital technologies and global networks, has several strategic benefits for governments and businesses. Some of these benefits include:

- Investor attraction: Investors are often looking for territories with modern and innovative public services, which can be facilitated by the implementation of digital tools for public services.

Digitization of public services can help attract investors by providing them with a more efficient and manageable administrative environment.

-Improving the country's image: Digitizing the country's services can help to sell the country's image by positioning it as an innovative and connected environment. Local authorities that invest in digital tools for public services can improve their image by demonstrating their commitment to innovation and modernity. Increasing the attractiveness of the territory The digitalization of public services can help to put the territory on the map by making it more attractive for businesses, tourists and investors. Businesses are often looking for territories that offer modern and efficient public services, which can be facilitated by the implementation of digital tools for public services. Tourists can also be attracted by a territory with modern and efficient public services, which can help develop the local tourism industry.

- Optimization of trade negotiations: Digital tools, such as video conferencing platforms, simplify communications between international economic actors. This makes it easier to arrange meetings between investors, business partners and governments while reducing travel costs.

- More effective international promotion: Connected economic diplomacy can improve the visibility and attractiveness of a country's products, services and investment opportunities through targeted digital campaigns, the use of social networks and international platforms.

- Strengthening transparency and governance: Digital tools offer solutions to improve transparency in transactions and negotiations, especially through blockchain and electronic contract management. This strengthens confidence between the economic partners

- Reduction of geographical barriers: Digitalization allows us to transcend physical borders and promote global economic diplomacy. Countries can easily collaborate with distant markets, without being constrained by geographical boundaries or time zones.

- Innovation in decision-making processes: the integration of artificial intelligence (AI) and data analysis tools allows us to better anticipate global and regional economic developments.

This can help diplomats identify opportunities and risks in advance, strengthening their capacity to develop effective strategies.

- Reduction of operational costs: Digital tools enable diplomatic missions and trade representatives to operate at a lower cost by optimizing the use of resources, reducing travel and automating certain administrative tasks.

This digital connectivity has allowed Morocco to engage in global discussions on artificial intelligence, cybersecurity, and digital governance, enhancing its capability to impact international standards and regulations in these fields. Simultaneously, digitalization has allowed for improved spread of economic data and more effective technological surveillance, enabling Morocco to promptly respond to shifts in the global market.

One of the most noteworthy features of the transition of Moroccan economic diplomacy into the digitalization era is its capacity to draw foreign investments in the digital industry. Morocco has positioned itself as a leading technological center in Africa by implementing policies that support innovation, foster startup culture, and encourage digital entrepreneurship. Economic diplomacy has been key in this process by creating strategic alliances with tech giants and helping international firms set up operations in the nation.

Projects like "Casablanca Finance City" and specialized free trade zones for tech industries are instances of this approach. Furthermore, bilateral and multilateral agreements that support technology transfer and enhance digital innovation capacity have allowed Morocco to enhance its digital ecosystem. Morocco's strategic focus on fintech, e-commerce, and value-added digital services has established it as a significant player, leading to economic diversification and the development of well-trained workforce.

Digitization has revolutionized Morocco's approach to trade and diplomacy, making it easier to reach global markets and update its administrative system. Morocco has made trade flows easier for local businesses to export globally by using digital management tools and e-commerce platforms.

The modernization of customs and tax systems now utilizes digital technologies to increase efficiency and enhance transparency, reflecting a transformative shift. These developments make it possible for Moroccan businesses to meet global requirements, increasing the country's

appeal to potential trading allies. Diplomatic initiatives have enabled the digitalization of public services in Morocco, enhancing its ability to meet global trade demands and establish a reputation as a dependable and effective player in international value chains.

As digitalization increases, cybersecurity and digital governance have become important in Morocco's diplomatic relations. Moroccan economic diplomacy has successfully adjusted to these modern challenges by collaborating with global allies to advocate for strong cybersecurity measures and unified regulation of digital data.

Morocco's involvement in international cyber security forums is actively helping shape regulations for the ethical and secure use of digital technologies. By honoring these global agreements, Morocco can safeguard its digital systems and ensure the safety of online transactions and data privacy. This is vital for drawing in digital investments and instilling trust in the Moroccan market.

4- A Critical Perspective and recommendation :

Morocco's digital transformation, although promising, continues to be characterized by disparities and structural obstacles that impede its progress as a regional leader. In contrast to nations such as Singapore or Estonia, which have set exemplary initiatives, Morocco continues to encounter significant obstacles in order to fully realize the potential of its digital strategy.

4.1 Comparison with the Thriving Digital Nations

Singapore has established its framework based on cohesive governance, swift implementation, and collaboration between the public and private sectors. The Smart Nation Singapore initiative has aimed at enhancing quality of life and sustainability, while fostering a strong cybersecurity framework. Likewise, Estonia has developed a centralized system, X-Road, to link citizens and companies to over 1,500 public and private services.

Morocco, conversely, has not attained this degree of integration yet. Despite considerable efforts through initiatives like “Maroc Numeric 2020”, their impact has been hindered by delays in execution and fragmented governance. The nation falls under the "Break Out Nations" category in the Digital Evolution Index, emphasizing a notable yet still incomplete potential.

- Digital inclusion: The gap in digital access continues to be a significant issue, as rural regions frequently lack connectivity to digital services.

-Inadequate innovation ecosystems: In contrast to Singapore and Estonia, Morocco does not

have vibrant regional centers to enhance local innovation.

-Cybersecurity: Although initiatives like MA-CERT are in place, a cohesive national cyber security strategy has yet to be established.

4-2. Infrastructure and Digital Access: A Foundation for Growth

The establishment of a strong broadband infrastructure is crucial for turning Morocco into a genuine “Digital Nation.” This encompasses the advancement of 5G networks, the building of data centers, and the growth of fiber optic connections. Digital infrastructures serve as both catalysts for the digital economy and as a driving force for sectors like education, healthcare, and commerce. For instance, 5G would advance fields like telemedicine and smart mobility, while supporting the digital evolution of Moroccan small and medium-sized enterprises.

Public-private collaborations are crucial for closing the digital gap. Successful cases, like the Irembo initiative in Rwanda, demonstrate how the public sector can collaborate with private firms to deliver digital services that are available to everyone. For Morocco, this might involve initiatives to link rural regions with broadband or create tailored applications for farmers.

A robust digital infrastructure needs to be backed by solid security measures. Morocco ought to follow Singapore's example, where cybersecurity is a top national concern, involving significant investments in safeguarding essential infrastructure.

4-3. Talent Nurturing and Brain Retention in Morocco

The development of human talent is central to any effective digital transformation. Morocco, while possessing talented human resources, must enhance its education system to align with the demands of a shifting digital economy.

Incorporating coding in primary education: Similar to Estonia, where children start coding at age 7, Morocco might add programming and algorithmic thinking classes into its educational programs. This would enhance problem-solving abilities and encourage enthusiasm for careers in technology.

-Encouragement of regional projects: Entities like Happy Coders Academy and Play Academy are starting to inform young Moroccans about coding. Support from the government for these initiatives may enhance their effectiveness.

- Updating universities and training institutes: Development of specialized programs: Moroccan universities might create courses focused on new technologies like artificial intelligence, blockchain, cybersecurity, and big data.
- Collaborations with global tech firms: By working alongside industry leaders like Google or Microsoft, Morocco could provide internationally acknowledged professional certifications.
- Promoting online education: Utilizing platforms like Coursera or edX could make digital skills training more accessible, particularly in rural regions.
- Regional incubators: Creating national hubs similar to Technopark in Casablanca would offer technology entrepreneurs a supportive atmosphere for innovation.
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- Financial assistance: Providing grants and affordable loans to technology startups might motivate young individuals to establish local enterprises rather than seeking opportunities overseas.
- Strategies for Retaining Talent : The exodus of talent, particularly in the tech industry, is a significant issue for Morocco. Focused actions can aid in reversing this pattern.
- Motivations for regional talent : Attractive salaries, Provide appealing salaries and social benefits similar to those available in European nations to decrease the emigration of skilled workers.
- Acknowledgment of talent: Create recognition initiatives for Moroccan engineers and developers who contribute innovation in the nation, like national awards or honors.
- Establishing a Pleasing Work Atmosphere: Contemporary coworking environments: Enable the establishment of collaborative areas where emerging talents can engage in cutting-edge digital initiatives.
- Enhancing life quality: Building urban and social infrastructures to render Moroccan cities more appealing for professionals and their families (international schools, contemporary

housing, etc.).

- Resumption of Skills Programs «Brain Gain Initiatives » Motivate the Moroccan diaspora to come back by offering advantages like tax breaks, improved housing access, and job prospects in key industries.

Conclusion

Moroccan economic diplomacy has experienced a true transformation with the growing use of digitalization, fundamentally altering how the country engages on the global stage.

Morocco has enhanced its companies' competitiveness in global markets and streamlined cross-border trade by improving its digital infrastructure and updating administrative and business processes. By taking the initiative in diplomacy, the nation has successfully drawn in significant technology investments and reinforced its alliances in key areas like fintech, IT, and startups.

Morocco's path to emerging as a prominent digital nation in Africa is characterized by substantial advancements and remarkable obstacles. The nation's dedication to digital transformation, as evident in programs such as "Maroc Numeric 2020" and new strategies for 2030, underscores its goal to utilize technology for economic diplomacy, inclusive development, and regional prominence.

Nonetheless, to completely unlock its potential, Morocco needs to tackle significant deficiencies in digital infrastructure, skill development, and cybersecurity. By encouraging innovation ecosystems, closing the digital gap between urban and rural areas, and investing in sustainable smart city projects, the nation can establish itself as a benchmark for technological progress and economic robustness in Africa.

Additionally, enhancing public-private collaborations, expanding e-governance, and executing practical policy frameworks are crucial for maintaining momentum. Morocco's capacity to adopt worldwide best practices while customizing approaches to its distinctive socio-economic context will be a crucial element in its digital transformation journey.

As Morocco navigates the digital age's challenges and opportunities, its achievements will boost economic competitiveness and motivate neighboring countries to chase similar goals. This groundbreaking perspective highlights the capacity of technology to act as a driver for growth, innovation, and inclusive progress throughout the continent.

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