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New Business Opportunities created by the Digital Transformation in West Africa**

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**Business Opportunities, Start-ups and Digital Transformation in Africa, vol. 23 (2022)**

***Thematic Unit:***

***New Business Opportunities created by the Digital Transformation in West Africa***

This thematic unit will permit to describe IT situations in enterprises in West Africa: Senegal, Ghana and the Ivory Coast. The introduction will demonstrate regional tendencies and the role of Senegal as a regional hub of digital transformation. New products, new services, and new forms of cooperation will be discussed. It will be shown that digital entrepreneurship is advancing not only in technology hubs but in all areas where Internet access is given. Connections to local, regional, and global markets will be shown. Long-term implications of the digital transformations for agribusiness will also be tackled.

**New business opportunities in Senegal: Policy measures and actual entrepreneurship models<sup>1</sup>**

**Ulrike Schuerkens<sup>2</sup>**

**Abstract:** The first article will give an overview of the *Délégation de l'Entrepreneuriat Rapide* linked to the Senegalese presidency that has started to give credits in 2018, supports small entrepreneurs with counselling activities and has links to banks so that these small entrepreneurs begin to be accustomed to bank accounts and bank services. The DER has put in place a framework ensuring the implementation of structuring measures, promoting youth and women's entrepreneurship, through the development of value chains and the exploitation of the growth potential brought about by ICTs. The DER dedicates parts of its credits to economic empowerment, which brings together people who ask for small loans and banks. The second part of its activity is allocated to much more structured entrepreneurs and allows for the financing of solid business projects, the creation of business support (e.g., education of basis-knowledge in accounting), and the investment in working capital. 90% of DER credits are on a loan basis. 17 billion F-CFA helped financing 76,000 direct beneficiaries so that

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<sup>1</sup> The information used in this article was collected during missions conducted as part of the ManaGlobal program, which has been supported by the European Union's Horizon 2020 Framework Program through the Marie-Sklodowska Curie grant agreement 82374.

<sup>2</sup> Oumar Bâ participated in the writing of the part of the article dedicated to ClicMagic.

65,000 bank accounts could be opened in 2018/19. The second window concerns the creation and the support of enterprises financed by up to 7 billion F-CFA. In 2020, the DER dedicated 600 million F-CFA to the numerical sector and wants to reach more than 1 billion in 2021. The DER intends to assist more than 22.000 enterprises to adopt digital solutions according to P. A. Sarr, the minister in charge of the DER. On top of that, the DER realizes non-funded support through activities such as formalization, coaching and incubation.

The second part of the article will give an overview of three enterprises working with digital technology: an enterprise specialized in IT services and IT teaching; an enterprise that proposes the creation of websites and a third one specialized in online teaching on the secondary level.

## **Introduction**

The improved and globalized connectivity has led to an expectation of significant development potentials for the African continent. Digitization in entrepreneurship has begun to be seen as an important driver of structural economic development (cf. Friederici 2019). The creativity of skilled individuals in the production and distribution of digital software and applications has led to a boom in digital entrepreneurship. Digital technologies need browsers, network sites and software developments for the use of enterprises and individuals (Hopkins 2015). From a few African success stories of digital businesses at the beginning of 2000, numerous technology start-ups have recently been created. Policy makers and development organizations soon began to consider national digital economies as an important source of economic development (Manyika et al. 2013). Rigorous research in this field is rather scarce in Africa and the question about the importance of digital entrepreneurship in economic development must be studied (Schuerkens et al. 2019). Where and how entrepreneurial opportunities rise is an idea that this chapter wants to deepen. Digital entrepreneurship is considered in recent publications as global in nature (Nambisan 2017). It has been claimed that “Africa is about to be transformed and revolutionized by digital technologies and entrepreneurship.” (Friederici 2019: 11) We therefore try to determine which entrepreneurial opportunities and practices have become possible through three case studies and which actors are involved in the process of digitalization. Moreover, we give an overview of one of the organizations that support digital entrepreneurship in Senegal, the *Délégation de l’Entreprenariat Rapide* (DER).

### **The ManaGlobal project and its theoretical framework<sup>3</sup>**

This chapter is based on research conducted through the ManaGlobal project, which is an innovative research project that seeks to explore the type of management approaches practiced in selected African and Arab countries. ManaGlobal goes beyond literature review and critical academic debates to investigate the realities on the ground through collaborative, exploratory and ethnographic research that will lead to a clearer diagnosis and better understanding of business and management practices in African and Arab countries. As Africa and the Arab world are important to the European Union, we consider that a project whose results will contribute to the improvement of the economic situation of these regions, last, but not least, could lead to less transnational migration to the European continent, which is a crucial scientific and political challenge.

There is a need to understand local and international business management in Africa because:

- (i) there is an apparent gap in the literature on management and leadership in African and Arab countries because most recent studies are limited in scope and their theoretical and methodological approaches are weak (Mellahi and Budhwar, 2010; Nkomo, 2011; Zoogah and Bengre, 2012; Mamman et al. 2015);
- (ii) policymakers in general and managers in particular in public and private sector organizations have faced increasing challenges in balancing the demands of globalizing corporate power with the demands of localizing cultural and policy power;
- (iii) the complexity of economic, social, and political change has very often resulted in contradictory and problematic outcomes, especially when development opportunities, in terms of labor and raw materials, are available but not properly utilized (d'Iribarne, 2003, 2009; Michapoulos and Papaioannou, 2015).

The consequence of this lack of understanding of management practices is a simple focus on the symptoms of problems and not on the roots of the problem found in glocalization processes. The concept of glocalization can be explained by mixtures of local traditions and global approaches to management and governance. In fact, local traditions react to elements imported by globalization processes. These traditions may adapt, resist, or create hybrid or glocal responses that form new mixtures, or an interweaving of local origins and global

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<sup>3</sup> Cf. Schuerkens et al. (2019) and <https://managlobal.hypotheses.org/>.

elements introduced from outside the given context. Often the origin of these global elements is the Western world and thus the Western discourse of management (cf. Schuerkens, 2014; Schuerkens et al., 2019). The results of this intertwining are often linked to the development discourse of these regions that needs to be analyzed.

By studying Senegal, we aim to better understand a complex process of hybridization between (i) globalized norms of governance, mainly inspired by North American and European discourse, and (ii) local norms in the conduct of business that are the product of local customs and sometimes political regimes. These factors are often neglected because they are specific but profoundly modify the practice of business management and make the impact of management precepts taught in business schools unpredictable, as they are applied outside the legal framework of the economic and social context in which they were conceived. Our hypothesis from the state of the literature and our exploratory research is that hybridization processes take specific local forms and that these forms can be distinguished for different generations of leaders in the South, and in particular, the generation that is now forty to fifty years old and that has recently experienced its first successes. In fact, there is a duality of global norms and requirements, originating from the global centers of financial capitalism and the local ways of doing business and managing organizations. This duality introduces a great diversity - insufficiently studied - in the ways companies are controlled and managed, but also a gap between what is officially declared and what happens in practice in companies (Villette 2016).

We understand that globalization cannot be reduced to a simple model of management convergence and a unified form of corporate governance. Investment from traditional and post-colonial countries (mainly European) is no longer the norm as many African countries continue to attract increasing volumes of investment from China, South Korea, and even emerging countries such as India, Iran, and Turkey (Alden and Alves, 2015). Beneath the process of legal, financial, and accounting homogenization, beneath transnational doctrines, regulations, standards, and business techniques, lies a plethora of different ways to run a business and ensure its economic success. Moreover, recent successes of local African businesses, particularly in the food distribution and procurement sector, have outperformed their European and American competitors (Patterson and Winston, 2016; Ward, 2016). Therefore, this research is based on the understanding that due to globalization, African countries are attracting investments and with them management practices from non-European countries, they are developing their own business practices despite limited success. African

countries are experiencing significant changes in their strategic alliances, especially with the growing presence of Chinese and other non-European investors in the region. Of course, these shifting economic and political allegiances pose a challenge to future European investors, and that is why this research is crucial for Europe at this time, as it will help strengthen future collaborations between and among European and African companies and academic institutions before it is too late.

In this context, our main objective is to study and understand the hybridization of business and management practices in African countries, and to develop a theoretical framework that could help future business leaders and managers to act locally and think globally.

To achieve this main objective, several specific objectives (SO) were identified:

- SO1: Assess actual business practices and compare them with theoretical and "leader" visions to understand the causes of performance failures and successes.
- SO2: Examine the education, training, and business background of successful African business leaders against their actual "real life" management experience.

Through this research, our goal is to move beyond the debate about convergence and divergence (Boyer, 1996; Gomez and Korine, 2009) of management and business practices between developed and developing countries and consider the emergence of a hybridization of best sustainable management policies and practices (Caby, 2003; Schuerkens, 2014; Yousfi, 2014) that are globally and locally applicable.

### **Business and Management Practices in Africa**

Current business and management practices in Africa are characterized by administrative processes that are stifled by unnecessary bureaucracy, centralization, politicization, and corruption (Bagire and Namada, 2015; Achtenhagen and Brundin, 2016). Much of the bureaucracy reflects the management style of former colonial administrations. The politicization of management is explained by the close connection to governments and their use of control mechanisms. Family-inspired management, the so-called "Ubuntu management," reflects the significant cultural influence of African traditions on management practices (Branine, 2011; Kamoche, Siebers, Mamman and Newenham-Kahindi, 2015). Ubuntu management emphasizes the importance of family and ethnic group, respect for age and seniority. It is reinforced by the fact that many managers lack management training or expertise because they are politically appointed or familiarly chosen to perform tasks that they are not prepared or able to perform. The leaders of many business enterprises are never

challenged and are respectfully obeyed without any questions asked about their decisions. Employees are dependent on their managers, so they have no authority to do anything without their approval. Detailed instructions given by managers inform employees what to do even if they have done the job several times before (Ellis, Nyuur and Debrah, 2015; Jackson, 2015). However, on the positive side, African managers also attend to the material and personal needs of their employees as if they were family members (Branine, 2011; Kamoche et al., 2015). This attitude is explained by social values such as belief in seniority, social class, and social divisions in status, which brings together accepted forms of authoritarian management and privileged paternalistic relationships between managers and their subordinates. It seems from the above that there is a consensus that describes management in Africa, at least on the surface, as more people-centered and "less rational" than the familiar Western management systems.

Therefore, it can be argued that the implementation of Western management policies and practices in Africa is confronted with strong cultural traditions that must be understood. Indeed, local family businesses often tend to imitate Western management models in the belief that they are "modern". These two types of organizations can be seen as competing, but they reveal strong arguments for hybridization through knowledge exchange, cross-investment, partnership, and strategic alliances.

### **Methodological approach**

To achieve these objectives, we need to profile and learn from the careers of entrepreneurs and managers in the Senegalese case and link them to national socio-economic characteristics.

Step 1: Conduct in-depth surveys and profile the careers of entrepreneurs and managers of industrial and commercial enterprises in Senegal. To fully understand how business is done and how managers run their organizations in Africa, we interviewed (qualitative data) and used relevant documentary data (reports, biographies, Internet, etc.) to produce biographies of selected entrepreneurs: owners of local businesses operating in Senegal. ManaGlobal's goal is to study the educational background and professional experience of local business leaders and managers-often (but not always) trained in higher education institutions and companies in Western countries. We believe that career profiling will help us better understand the socio-economic, cultural, educational, historical, familial, and political factors that influence the way business and management are practiced in African countries. Methodologically, we also

believe that this profiling process will help us to collect more data to produce case studies of selected companies.

### **Entrepreneurship: An alternative to unemployment and underemployment?**

Entrepreneurship is one of the levers that could help meet the challenge of employment in Africa. The notion of entrepreneurship is associated with freedom, autonomy, and innovation in line with an entrepreneurial spirit defined already in the early 20th century by Max Weber. The subsequent definitions associated with it are multiple because each specialist specifies them according to his or her priorities and the nature of capitalism. However, the processes of creating businesses in West Africa (e.g. Senegal) do not conform to the requirements of the classic entrepreneurial model oriented by criteria of financial profitability. The stages of entrepreneurship (Initiation, Preparation, Start-up, and Consolidation) defined by Borges et al. and cited by Nkakleu (2018) are not often respected in Africa.

In the recent pandemic crises, researchers further emphasize the need to permanently rebalance the excesses of market capitalism in favor of the general interest and to re-embed the economy in the social, a requirement that is paramount for Africa but is far from being defended by all economic actors. Researchers also insist on the need to reinvent the global regulatory system, which is not balanced and is the cause of multiple crises, not only in Africa. They saw entrepreneurship in Senegal, particularly that of women, as a "safety valve" to the country's economy. The African Development Bank, for its part, already emphasized that women in Africa are very dynamic economic agents. Beyond their income-generating activities, they are the main levers of the domestic economy and family welfare.

However, entrepreneurship in the African context is subject to multiple constraints. These constraints relate to the business environment, which differs according to socio-economic contexts, but also to financial inclusion and the cultural environment.

Today, Senegalese authorities have put in place levers to support entrepreneurship among women and youth. These initiatives include the Senegalese Program for Youth Employment (PSE-J) and the Delegation for Rapid Entrepreneurship/Women and Youth (DER/FJ).

The PSE-J is an instrument that is part of the logic of providing higher professional training to young people. It is financed by the State. Its main mission is to facilitate the creation of businesses by young people, by providing training, technical and financial support, and advice.



The DER, on the other hand, is a structure set up by the state at the beginning of 2018. It is an instrument dedicated primarily to financing female entrepreneurs aged 18 and over and young men aged 18 to 40. In its first year of implementation, it has deployed about 30 billion F-CFA in financing individual projects at 100,000 F-CFA and 500,000 F-CFA each for the most part. DER's main objective is to promote entrepreneurship by providing youth and women with credit and capacity building. In addition, it monitors businesses that have already received financing.

Financial education is also a priority in the country. In Senegal, the program's focus on financial education is built around five themes (budgeting, savings, debt management, financial services, financial negotiations) that can build the capacity of entrepreneurs. The shift from the developmentalist approach that characterized microfinance in the 1970s to the commercial logic that prevails today (over-commercialization, mistreatment of clients consciously or unconsciously, failure to consider the real situation of clients: poverty, illiteracy, etc.) is, however, one of the main obstacles to the development of entrepreneurship and financial inclusion. The barriers and constraints to financial inclusion for women and youth are mostly related to their entrepreneurial status. For example, the 2016 report by the *Agence Nationale de la Statistique et de la Démographie* on the General Census of Enterprises in Senegal showed that entrepreneurs are the most vulnerable and pay the highest taxes proportionally. This structural "constraint" is linked to the fact that entrepreneurs are victims of information asymmetry: these women and young entrepreneurs are not familiar with the financial system - and in particular the tax system - which makes it difficult for them to access quick and sustainable financing. Thus, entrepreneurs have less access to traditional banks, which require guarantees that are often out of reach, than to decentralized financial services (SFD), which apply exorbitant interest rates. This situation contributes to the short- and medium-term failure of their activities. However, microfinance institutions act according to the laws on usury set in WAMU and are perfectly in compliance with the regulations even when they set interest rates often between 18% and 22%.

#### ***Délégation de l'Entreprenariat Rapide (DER)***<sup>4</sup>

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<sup>4</sup> An appointment was made on July 4, 2019 at the DER and Mr. P. A. Sarr where we had exchanged on our respective projects. In addition, an intervention on the radio ETECH of the Delegate General on January 3rd, 2021 provided further information for this part of the article: <https://www.youtube.com/watch?v=8WIIUMjJCqA>. A further meeting with the DER was organized on July, 30th, 2021.

Digital entrepreneurship is supported by political actors often reunited around incubators and innovation hubs. The DER in Senegal is such a political and economic project linked to the Senegalese presidency and chaired by the General Delegate for Entrepreneurship Papa Amadou Sarr. These institutions are seen as “enablers of digital entrepreneurship, functioning as powerful connectors of entrepreneurs and an array of partners (such as investors, mentors, governments, etc.)” (Friederici 2019: 13).

These hubs were created with the target to assist young individuals to express their creativity and ambition and allow them to create wealth and to address the needs of their surroundings (Hopkins 2015). In this chapter, we will present the DER including empirical research on the efficacy and usefulness of this institution in the interaction with digital entrepreneurs via one case study. As each country has its own economic context, this presentation is particular to the Senegalese ecosystem and not representative for the wider African context.

Hubs provide services (events, desk rental and training), spaces of social location points and an entrepreneurial purpose (Sambali and Whitt 2017). The actions of hubs are understood as directed towards entrepreneurs. Interactions with other entrepreneurs are possible at given costs mainly for starting entrepreneurs that need support actions more often than already established entrepreneurs. As such, the DER depends on the active participation of digital entrepreneurs and the socioeconomic fit with their local environment.

It is important to make available to project leaders not only educational measures but also funding of a credit base for young entrepreneurs, as the DER in Senegal, the FAFCI in the Ivory Coast and the UNDP in Cameroon provide for women and young men (Chigunta 2016). Often large parts of these groups are excluded from formal financial circuits due to a missing bank guaranty and even missing bank accounts. The DER has started to give credits in 2018, supports small entrepreneurs with counselling activities and has links to banks so that these small entrepreneurs begin to be accustomed to bank accounts and bank services. The DER dedicates parts of its credits to economic empowerment, which brings together people who ask for small loans and banks that may be microfinance institutions. The second part of its activity is allocated to much more structured entrepreneurs and allows for the financing on a credit basis of solid business projects, the creation of business support (e.g., education of basis-knowledge in accounting), and the investment in working capital. 90% of DER credits were on a loan basis in 2020; the rest was destined to support selected activities. 17 billion F-CFA helped financing 76,000 direct beneficiaries so that 65,000 bank accounts could be

opened in 2018/19. The second window concerns the creation and the support of enterprises financed up to 7 billion F-CFA. On top of that, the DER realizes non-funded support through activities such as formalization, coaching and incubation. The institution, headed by a former Master student of Ulrike Schuerkens, has in-house experts who take care of these offers in partnership with other players in the Senegalese ecosystem to assure a mutual approach of their services. The goal is to help take off these fledgling start-ups and to encourage investment funds to take over and invest in this sector. The DER places itself at the start of the business to help move the entrepreneur beyond the difficult beginnings. 2,000,000 US dollars have been invested in one year in the financing of 45 start-ups operating in various activities (agriculture, digitalization, education, logistics etc.). In Senegal, there exist further support organizations since 2012 such as the *Agence de développement et d'encadrement des petites et moyennes entreprises* (ADPME), which is a support structure for small and medium-sized enterprises, and the *Agence nationale pour la promotion de l'emploi des jeunes* (ANPEJ), which is responsible for promoting youth employment.

The DER has received funding for the hub from the Emir of Abu Dhabi to the tune of 20 million euros, as well as from the African Development Bank. The organization deals with start-ups, SMEs and incubators. For the year 2021, 57 billion F-CFA (87 million euros) were used to finance some 100,000 projects. Thanks to the French Development Agency and the African Development Bank, 74 billion F-CFA (112 million euros) have been raised in 2020. These sums make it possible to have an impact on young people and women in Senegal throughout the country. Together with the Agricultural Bank BNDE, UM-PAMECAS and the *Crédit Mutuel du Sénégal* projects have been financed. 1,100 million F-CFA (1.67 million euros) have been devoted to digital technology in Senegal: Incubators give assistance and remote technical support. One of the key sectors is digital health, which will make it possible to set up health posts in all regions and departments to reduce the gap between well-equipped urban centers and the neglected hinterland. According to P. A. Sarr, Senegalese Minister in charge of the DER: "IT, digital and young start-ups can be useful in this fight."

The overall objective of the Project for the Support and Valorization of Entrepreneurial Initiatives of Women and Youth, Phase I (PAVIE I) will be to support the creation of jobs for youth and women through the promotion of entrepreneurship as Senegalese actors end up in self-employment if they have difficulties to find a job in the formal sector. Specifically, this project will contribute to the development of entrepreneurial initiatives of women and young people by i) access to financing and ii) technical support for entrepreneurs in both business

lines and business management with a view to ensuring the viability and sustainability of their businesses. Its total cost of UA 90.55 million is financed by an *Agence française du développement* (AFD) loan of UA 10 million, an African Development Bank (ADB) loan of UA 39 million (48.828 million Euros), UA 15.97 million (20 million Euros) in co-financing from the AFD and the government's counterpart of UA 25.58 million (21 billion CFA francs). The three-year project until 2023, designed on a demand-driven approach and implemented in coordination with the private sector, particularly banks and microfinance institutions, will finance entrepreneurial initiatives of women and youth throughout Senegal while providing technical support in terms of business and business management. Ultimately, the project will enable: (i) finance more than 14,000 entrepreneurial initiatives for a financing volume of about 61 billion CFA francs, or UA 80 million; (ii) generate or consolidate about 65,000 direct jobs and 89,000 indirect jobs, or a total of 154,000 jobs, 60% of which are for women; (iii) train more than 27,000 entrepreneurs, including more than 15,000 women, or 55%; (iv) support the digital transformation of 22,000 companies and formalize 3,500 others (50% of which are headed by women). According to P. A. Sarr in July 2021 (LinkedIn) “To date, more than 110,000 projects have been supported and accompanied for more than €100M in less than three years.”

The project will set up a monitoring and supervision system for the supported initiatives to avoid detour of objectives, as well as a geo-localized investment monitoring system.<sup>5</sup> The State acts as a bank to be able to finance online applications. This has led to the fact that countries such as Guinea-Bissau and Guinea-Conakry but also Burkina Faso have requested the DER to support their digital development. According to P.A. Sarr: "For us, it is a mission to help women and young people in this country to find an activity, to earn a dignified living. We help them to become autonomous through the digitalization of payments. The DER is the future of young people of this country... There is something to live for in this country.”

The DER has an innovation cluster to support start-ups by subsidizing their financing. The financial empowerment will enable loans of up to more than one million F-CFA (1518,- Euros): "This approach will enable women to have credit, micro-credit with the use of the digital to go further,” according to P.A. Sarr. This funding is given to the entire territory of the country with local initiatives in urban centers, local administrative units and even rural

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<sup>5</sup>Source: [https://www.afdb.org/sites/default/files/documents/projects-and-operations/senegal\\_-\\_projet\\_dappui\\_et\\_de\\_valorisation\\_des\\_initiatives\\_entrepreneuriales\\_des\\_femmes\\_et\\_des\\_jeunes\\_phase\\_i\\_pavie\\_i\\_-\\_rapport\\_devaluation.pdf](https://www.afdb.org/sites/default/files/documents/projects-and-operations/senegal_-_projet_dappui_et_de_valorisation_des_initiatives_entrepreneuriales_des_femmes_et_des_jeunes_phase_i_pavie_i_-_rapport_devaluation.pdf)

communities that may receive a funding from 100,- to 1000,- euros. The current annual funding is of 30 billion F-CFA. The interest rate is with 5% lower than bank lending rates (9 to 11%). During the first year of activities in 2018/19, the focus was on the numerical economy, technics of innovation and the integration of women in the digital economy.

In the DER's current premises, there are a latest-generation Fab Lab, 3D printers, robots and drones. Co-operations are underway with the IAM Business school, the Gaston Berger University of Saint-Louis, and the Virtual University of Senegal. These institutions should enable the creation of "future champions of start-ups", according to P.A. Sarr. The current head office of the DER has rooms for information, training, formalizing the company, analyzing it, and dealing with issues such as customs, taxes, etc.

This overview of the DER is completed in the following section by a presentation of a success story of a local enterprise that has received funding from the DER, more than 30,000 euros on a credit basis.

### **Volkeno: A Senegalese startup in the IT sector, supported financially by the DER<sup>6</sup>**

Volkeno is a digital company and start-up studio based in Dakar. Created in 2015 by a Senegalese having studied informatics in France at the Technological University Compiègne, who graduated as an engineer. His parents were both specialists of informatics so that they could support financially and intellectually his studies that were also supported by a student's grant. Volkeno was created with the assistance of Abdou K. Diallo's parents and three associated partners. Abdou K. Diallo is the project leader. The enterprise started in the flat of his parents before renting two flats that still exist. The start-up began with a turnover of 1,5 million F-CFA in the first year; 9 million F-CFA in the second year; 16 million F-CFA in the third year and 70 million F-CFA in the fourth year. The last year could demonstrate a turnover of 120 million F-CFA. Gains are mainly reinvested but also support numerous staff members. In 2021, the start-up has already formed some 4000 students in programming and web design.

Volkeno is dedicated to creating and helping create high value-added digital products and services. The enterprise is well known for creating innovative and eye-catching web and mobile applications and platforms for startups, businesses, organizations, and multinationals.

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<sup>6</sup> An appointment with the CEO in Dakar was organized at the startup in July 2021.

A skilled and experienced team is ready to take on challenges to create high value products that are designed to bring growth to projects.

Volkeno is positioned as a Startup Studio with the aim of contributing to the development of Start-ups conceived and designed by young Africans. The objective is to contribute to the creation of high value-added technological products that solve African problems. In addition, they also contribute to the innovation process of existing companies by accompanying them in their digital transformation. Their ambition is to have the largest IT center in the West African zone.

Volkeno's vision is to contribute to the ongoing digital revolution by actively participating in the training of young Africans and encourage them to self-employment to reduce the unemployment rate in Africa, particularly in Senegal. They plan to create 1000 startups in Africa within 10 years. As the future is digital, they plan to bathe in this future with their own solutions that consider societal realities.

The enterprise offers courses in their premises but also online. Volkeno has received a credit of 36,000 euros in 2018 from the DER that has to be reimbursed until 2025, with a delay accepted due to the COVID-19 pandemics. The amount received was used to buy material and to pay the salaries. During the COVID lockdown, online courses were offered, and remote work was done by the 47 staff members: 20 salaried staff members and 27 trainees who receive some 55,000 F-CFA when they don't have another student grant. These trainees are educated to obtain higher competencies in courses that cost some 30 euros per month. Qualified staff of the enterprise can receive up to 200,000 F-CFA per month.

Volkeno has two other rented offices in Thiès, some 70 km from Dakar, and in Guinea. These staff members take part in the activities of the enterprise by realizing remote tasks. Abdou K. Diallo supervises all activities and validate projects and recruiting. The staff costs some 5 to 6 million F-CFA per month according to the CEO.

Abdou K. Diallo has continued his education with online courses such as business administration. Volkeno's staff is invited to do the same so that the enterprise can continue to be at the forefront in its specialty. The start-up is an enterprise that looks for a viable economic model. As such, Volkeno accompanies other start-ups to realize a successful business plan that may permit a turnover of some 10 million F-CFA in a rather limited time horizon.

### **Tasks and activity sectors**

With the digital revolution underway, all companies are going digital to offer the best services or products to their consumers. They are increasingly looking to get closer to their customers by providing them with well thought-out platforms or software in terms of user experience. Having a digital tool is more than essential these days. With more than a decade of expertise in digitalization, Volkeno designs all types of software projects. Their software engineering division takes on challenges every day to offer digital products with high added value and meeting international standards to hundreds of clients around the world. This vast pole embeds several IT services which vary according to the objective of their customers which are in particular: The design and development of web applications.

Volkeno's expertise in the digital environment allows them today to develop all types of web applications according to the needs of their customers, whether it is just static, dynamic, e-shop or e-commerce type, web portal or just to manage content, their team of experts provides them with the best product through a working methodology based on empathy that puts the customer and consumer at the heart of the development.

Mobile application design and development: The importance of mobile usage is no longer in question. Africa is witnessing an increase in the number of mobile users from year to year. If the customers are looking for a team of experts to design a hybrid or native mobile application, Volkeno provides this service, which accompanies the customer from the design phase of the interactive prototype to the final deployment of a mobile application on the stores (Play and App).

The design and implementation of web and mobile platform: It is trendy nowadays, to have a mobile-oriented web application to get closer to its users. More than 75% of the world's population uses the cell phone as a daily means of communication (calling, texting, browsing, shopping online). The goal here is to offer a simple and very intuitive web and mobile application with simple functionalities and a reduced user path without distorting the visibility of the searchable web.

The design and realization of modular sites: Volkeno provides their customers with different types of applications depending on the objective they want to achieve. Modular applications are part of the services they offer to their customers to allow them to have platforms that can support multiple users simultaneously without any malfunction or that they do not feel a change in navigation.

Cloud native development service: Requirements levels are no longer where they were 20 years ago, everything is growing fast, application development is becoming more and more complex with very advanced functionalities and high requirements levels. Faced with this, applications are increasingly designed to make the most of the features offered by the cloud. Volkeno's team of experts is at the disposal of the customers to help them realize a cloud application project.

The creation of sites through CMS Wordpress, Drupal, Joomla: Volkeno also accompanies their customers according to their needs in the design of showcase sites, information, e-commerce with open-source CMS, such as Wordpress, Drupal, Joomla.

Today, when creating any type of application, it is more than essential to put the end user at the heart of the project. That's why at Volkeno, before designing or developing web or mobile applications, they first think about the end user to provide them with an intuitive and easy-to-use product that meets their expectations and needs.

Digital marketing refers to all marketing techniques used to promote products and services through digital media and channels. Volkeno supports its clients in their marketing and communication projects, whether it is to consolidate a strong visual identity, launch a product on the market, generate qualified leads, find new customers or just organize events.

The presence of companies on the web is characterized by a strong graphic identity. In this era of content wars, all companies are directing their marketing and communication strategies towards the creation of different content formats, ranging from simple images to infographics or podcasts and videos. Through this service, Volkeno accompanies all its clients and partners to create the different formats of communication media to enable them to achieve their objectives.

More and more complex innovative projects are coming up with very high requirements. To meet this need and offer a better service, Volkeno provides current and future customers with a division entirely dedicated to projects integrating the cloud.

Every digital project needs support to keep the product up to date and to make the necessary corrections in case of malfunction in real time. This pole provides companies with services based on 10 years of expertise allowing them to outsource all IT support and maintenance to alleviate them and anticipate possible malfunctions through regular project monitoring.



To conclude, Volkeno is a young and innovative start-up that has diversified products and a teaching department that assures that the enterprise is at the forefront of Senegalese start-ups. Moreover, due to online courses, the team can reach the African diaspora and other Senegalese or foreign regions such as Guinea where an office exists. The development of the start-up has been fast due to a directory that understands its business. The credit from the DER has thus gone to a promising enterprise that attracts young Africans who wish to work in the IT sector. Two teaching models contribute to the success of the startup: Bakeli that teaches for one-month competent web design and Andu, a platform that permits to learn programming, digital marketing and infographics with interactive contents and exercises.

### **ClicMagic: Creation of Websites<sup>7</sup>**

Before the creation of this company, Amadou T. Gaye, its owner, was twice national champion of Senegal of the NGO *Students in Free Enterprise* in 2009 and 2011 that promotes entrepreneurship at the global level. With seven other young men (some were students at AFI-UE Dakar), he travelled to Germany to obtain this prize. His activity started at the University of Ziguinchor where he created a website (unizig.com) to host courses and departments. He launched an enterprise with several other students but the geographical environment in an insecure region of Senegal soon revealed the limits of this model. The company was created in 2012 with a capital of 25 000 F-CFA (38 euros) by a group of six students from the University of Ziguinchor in the south of Senegal under the name of Karembenor LLC. At that time, no company was specialized in the creation of websites. These students had the ambition but not the experience of a company after a three-year course in computer science applied to management. The group decided to sell the enterprise and only A.T. Gaye was ready to re-invest: The other persons decided to remain in the plant as consultants. Three years later, this adventure terminated in a failure and A.T. Gaye decided to start alone another enterprise in Dakar.

A.T. Gaye had observed that the creation of websites was an informal activity done by individuals without the support of an enterprise. Knowing that Africa had already shown that it was a latecomer in Internet, A.T. Gaye reflected how to bring the digitalization to the

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<sup>7</sup> We had an appointment on January, 12th 2021 to collect the information presented in this part of the article. A second meeting was organized in April 2021. A discussion at the ManaGlobal conference in Dakar in June 2021 added some more information.

Senegalese businessman, the “baol baol”. To give access to this digital opportunity, he developed a well-thought communication strategy and a business plan.

Before moving to Dakar in June 2018, he created in his village, Marsassoum, during a time of reflection of eight months, a dozen models of websites for several activity sectors. The sale of these websites amounted to 65,000 F-CFA and was initially considered by his educational supporters as too low. But A.T. Gaye insisted wishing “to sell websites such as hotcakes”. This procedure has allowed him to sell these different models in several copies: "Instead of creating sites for each person, I created sites for everyone. It's the hosting that will change." After an eight-month stay in the village where he had only an e-mail access as a means of communication, he moved to Dakar.

By moving to Dakar, A. T. Gaye, 36 years old in 2021, created ClicMagic with the aim of gaining experience and developing the company. The name already shows that with a “clic” in a digital universe a magical event is created that offers the possibility to rule out digital problems. With a father who was involved in fishing and farming but was also active in the sheep and cloth trade, he had no real experience of entrepreneurship. He was the first in his family to graduate from college. His first local was in a poor suburb in Dakar where the rent was low before moving to Yoff-Virage, near the former airport of Dakar, a suburb with more favored populations where he could welcome his customers without any problems.

The website of his enterprise announces creating applications that contribute to the creation of jobs and the success of commercial enterprises. To develop his enterprise, A.T. Gaye has focused on the relational marketing. Instead of high investments in advertisement, he gives young people the opportunity to earn a living and assist in the communication of the enterprise. Most of these commercial staff members are students (some of them at AFI-UE) or young school leavers without diploma that can earn a living permitting them to afford their school or university studies. Young people are also included among his consultants that combine their cursus at schools with an experience in an enterprise.

ClicMagic has rather been successful. From the beginning and up to three years, the enterprise realized a turnover of 250,000 F-CFA a week and one million F-CFA a month. With a turnover of three to five million F-CFA since 2018, A.T. Gaye managed to sell 15 to 20 websites per month. At the time of COVID-19, the turnover has raised to 2.5 million F-CFA per month and should be stabilized around 5 million F-CFA in 2021 with a sales team, essentially composed of about twenty freelance consultants who do the forecasting and some

five employees forming the technical team. The consultants earn for the sale of four sites per month 25% of 100,000 F-CFA, the cost of a site to be paid by the customer. Thus, these consultants earn around 100,000 F-CFA per month. In times of COVID-19, merchants have begun to ask for websites to avoid the loss of sales due to confinement and curfew. Only online stores could then make an interesting turnover. Thus, the number of site deliveries grew from 15 to 100 sites in 2021.

How to explain this success? In Senegal, enterprises that were specialized in the sale of websites did not exist so that ClicMagic could build on this advantage with a young team that was recruited to sell the product and to gain commissions. The commercial staff was thus motivated and could assure the advertisement of the plant. This marketing strategy contributed to the rapid development of the enterprise and its expansion due to the sale of websites in a couple of years. The owner of the enterprise had seen that this relational strategy was most adapted to the Senegalese and African environment, a success that traditional advertisement strategies could not realize. Calling entrepreneurs and visiting their enterprises have permitted to A.T. Gaye to have success. These consultants could replace external investments that would have asked for complicated financial conditions by forming a proactive task force.

A.T. Gaye tells how he started financing his business: "I started doing graphic design in Casamance (US: a region in southern Senegal). In the university, I did computer science, then computer science and multimedia. I learned everything that is computer graphics and audiovisual production; I won contracts for business cards and others in universities and in some NGOs to be able to finance my business. These funds allowed me to take on young people that I trained myself... I found young people who had been to school (US: high school) but who had dropped out. I trained them to transfer the skills because these young people wanted to settle down... They have managed to master everything that is computer graphics, audiovisual, website creation and others."

A.T. Gaye is aware that he is constantly obliged to perfect his training, especially the technological one, due to the rapid advancement in this field. At the time of COVID-19, he has chosen a school that offers online training. To improve his performance, he has also chosen universities. He is constantly trying to develop his enterprise: one possible way was to offer his customers the possibility to advertise their stock of articles on the internet. Moreover, he is currently trying to develop Emagic, a service that offers visibility to images of African origins.

To return to the salaries paid in his enterprise, they vary between 100,000 to 200,000 F-CFA. Those who excel are offered 2 to 5% of the company's profits. Engineers working in the company are essential and receive "good salaries": "If we are interested in you, instead of paying you 100,000 F-CFA, we pay you 300,000 F-CFA, but you will also earn 2% of all profits. These people should stay in the company for 10 years... There are two very important people who understood this project and accepted."

The company is situated in a rather peaceful neighborhood near the ancient airport of Dakar and a rather limited amount of money is spent on rent. The director of the company combines his entrepreneurial activity with the management of a radio station and a TV chain (Atlantique FM 106.1 and Atlantique TV), located in the same building. The resulting savings in rent and the provision of a beautiful building impress potential customers and ensure confidence in the activity of creating websites carried out by ClicMagic.

The websites that the company offers cost 100,000 F-CFA as opposed to other companies that charge up to three times this amount. The websites are offered in a bilingual manner in English and French. The customer can order the website on an online platform, receives an example of a site from several proposed models which can be adapted to his/her needs and pays it if he/she likes it. The site is then copied into his/her space and delivered.

The students who work for the company touch all activity sectors: marketing, communication, IT services and webmasters. The students who develop websites can sell the site in two ways: he/she can sell a website and contract a percentage of 25% of its price; or sell the design and be paid 250,000 F-CFA by ClicMagic to which the website then belongs.

The customers of the websites are trained by ClicMagic in a few hours training. For their online sales, they need to know how to put products and categories on the website; but also, how to organize a promotion and be able to distribute it.

The owner of ClicMagic is a developer who is ready to spend the night in the company if there are lots of demands for websites. The technicians normally work ten hours a day so that these activities have been very time-consuming but rentable in 2021.

Prospecting is done by the company who seeks to obtain a list of companies that are contacted by phone or by a visit on site to make understandable the usefulness of a website to a customer. Social networks such as Facebook and Instagram are used. The customers are accompanied for one year and many of them renew their adhesion by an assistance contract. This follow-up is organized by technicians who manage the Facebook and Instagram pages

and others. For each website created, ClicMagic offers business cards and manages the Facebook pages. Each manager working in the company manages at least 25 sites paid by the client at 25,000 F-CFA for one month and one site. These managers make daily reports and must make two personal posts on Facebook and Instagram. They receive a monthly payment of 100,000 F-CFA. The money earned from these activities pays for the radio, the rent of the house, the graphic concepts and the editor. Thanks to these activities, ClicMagic is positioning itself as a main digital operator in Senegal.

The staff of ClicMagic is trained by a teacher who owns a school. These persons learn the basics of marketing but also how to obtain customers and, how to organize a prospecting interview. This well adapted approach allows ClicMagic to have customers in Switzerland and the United States but also in Guinea and Gambia: "The priority is that the person knows the different aspects to privilege."

An important aspect in dealing with customers is the creation of a relationship of trust: "The customer does not always have the data to believe you. So, there are a lot of questions that the customer asks. That's why you must settle these trust issues once and for all. Therefore, you may sometimes have to give all the references. If we ask for the pictures, it is to show the customers that we are the owner of this site."

The services offered, such as support after the creation of the website and appointments, are not free: "We only sell the creation. In the first year, we offer hosting. For the other years, the customer pays for the hosting." In this sense, the company is innovative and is also present in Mauritania and Mali." A.T. Gaye has even contacts with French partners that can pay the website with Mastercards.

ClicMagic is ambitious: "The objective is to employ young people throughout the national territory. We already have about 20 permanent sales staff. We recruit 15 people per month. In Dakar, we have up to 50 regular consultants. We need to have about ten people in each region. We create jobs because 1000 people is not something to be neglected. We want to avoid another underdevelopment linked to technology. We must invite the Senegalese and Africans to be in the digitalized world." ClicMagic thus creates jobs and will open three further branch offices in other regions to be nearer to the customers. Consultants working for ClicMagic not only create their own salary but also participate in their education in the digital sector that is a future sector in Africa. The enterprise contributes even to the preservation of the environment with the creation of websites that reduce the use of paper for advertisements.

By accompanying the enterprises that buy a website, ClicMagic contributes to the economic success of these small entrepreneurs that are the workforce of the emerging Senegal and its economic future.

### **Digitalized Online Education adapted to the Senegalese context<sup>8</sup>**

The third case is that of an entrepreneur, Moussa Seck, who has just returned to Senegal after studying in France and obtaining a master's degree in management and business strategies at the University of Metz. He worked in operational marketing in the Lorraine region. Then, he set up an entrepreneurial project of intergenerational colocation that he managed for eight years before transforming it into a project taken over by a social economy group. This project was supported by the Luxembourg government following a competition from which he emerged as the winner. This project started in 2014 and was called Cohabitat. Moussa Seck continues to participate in it remotely on a part-time basis. After 22 years in Europe, he wants to participate in the development of his country and to develop an educational project to contribute to the academic success of young people. Together with his brother who remained in Senegal, he created a company called Digiclever: digital technology for school reinforcement. The company provides face-to-face and distance learning courses. The two brothers have set up a computer sales program with easy payment in five installments. Moussa Seck works with a friend who has been a tutor for about 20 years, but in an informal way. This friend had done the baccalaureate with him and was convinced by Moussa Seck to cooperate and to prepare his retirement.

The company was formalized in September 2020 together with a notary. Moussa Seck injected a capital of 500,000 F-CFA (762,- euros) to pay the formal expenses. The rented premises are shared with another company. A website digiclever.sn has been created to set up reinforcement courses. Teachers and professors have been recruited and close contact with school principals has been established. The latter have made classrooms available to the company. In January 2021, the courses offered by the company concern physics-chemistry, mathematics and languages (French and English) for primary and secondary schools. The staff is salaried, but the teachers are service providers paid by the hour. Among them, there are retired teachers but also active teachers from the private and public sectors. 120 pupil participants were enrolled in January 2021 in privileged neighborhoods of Dakar (Almadies

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<sup>8</sup> A first meeting was organized on January, 15th 2021. A second meeting took place in April 2021.

and Plateau). The prospective students were identified by ten volunteers who collected the contact information of interested parents of students. These people were contacted by phone by Digiclever but also by the students themselves from the company's office. Their database included 650 people of which 120 families decided to participate. The prices are 6,000,- F-CFA (9 euros) for primary and 10,000,- F-CFA (15 euros) for secondary school level for a period of 45 days. Ten students chose the distance learning courses during which the teacher sits in a small room to give his lesson. Students and teachers alike come to the platform and have access to a workspace with a login and password.

These lessons are recorded and can be broadcasted to other students. For face-to-face classes, Digiclever works with school principals: they sign a partnership agreement, and the company pays them 5% of the turnover generated within the school. This is a real-time interactive course, but students can send in exercises from their workspace that are corrected.

The families who register are rather privileged ones and can buy a second-hand computer for a price of 100 euros. The chosen course model is then presented to high schools in Dakar, such as Galandou Diouf. In summer 2021, courses in science, mathematics, English and accounting are offered. The company also provides training for teachers on their platform to familiarize them with digital technology.

As the company has just started, Moussa Seck hopes to achieve a turnover of 10,000,- to 30,000,- euros per year. His working capital amounts to 10,000,- euros that is mainly used to pay the rent. Thanks to his savings and bank credits, he was able to start the company with his brother who is a senior manager of the BCEAO and an audit manager. His brother has a master's degree in accounting and management from the Cheikh Anta Diop University in Dakar. Their father worked at SONATEL (telecommunication sector) and their mother worked at the post office so that the entrepreneurial sector was new for M. Seck.

The company Digiclever has developed flyers to pass information to interested students in schools. It is also present on Facebook and other social networks. It has launched a recruitment offer for teachers and has received 800 applications, mainly from students with a Bac+3 level. To convince the schools to cooperate with them, Digiclever has offered the painting of the school and the distribution of school kits and painted boards. The objective is moreover to create small structures in the neighborhoods that will be able to accommodate a dozen students for courses.

In conclusion, a promising strategy in the face of a national education system with classes of 80 people that struggles to qualify young people. The marketing strategy is based on the social relationships of students, parents and teachers in order to sell the strategy of the company, which resembles those of French companies, such as Acadomia. The health crisis has certainly facilitated the establishment of Digiclever and its success in the near future with few current competitors.

### **Conclusion**

This article has displayed that digital technologies act as enablers of transformations within business and self-employment practices in West Africa. Their use enables socioeconomic developments through the respect of cultural heritage and regional complexities and their link to more developed globalized practices (Braun and Warner 2002). The case studies of digital entrepreneurs let appear their contribution to economic growth and its impact on society. As such, they demonstrate the global process of digitalization and its use in doing business in Senegal. Individual aspects of the role of entrepreneurs are discussed and their link to regional economic conditions. As such, they demonstrate that entrepreneurship is considered a solution to the socioeconomic problems of Africa (cf. Ratten and Jones 2018). However, it is necessary to examine individual countries rather than pretending to display regional case studies as there are different business systems in sub-Saharan Africa in the East, West and South.

The three entrepreneur profiles above reveal a market open to young entrepreneurs that is being neglected by Western and Asian companies. Two of them have acquired their know-how in the West and have returned to Senegal based on professional experiences already made abroad in Northern countries (France). All three have a work ethic characterized by Western values, such as punctuality, an approach of individual and not group valorization, and creativity as a main asset in the business world where entrepreneurial success is only acquired by those who renew their knowledge, rely on social networks pre-existing to the entrepreneurial project and expose themselves to the novelty required by a company that wants to be and wants to remain competitive (cf. Achtenhagen and Brundin 2016). The owner of ClicMagic acquired his know-how in a Senegalese university that taught him an idea of westernized management that he was able to adapt with some success to the Senegalese context.



These profiles reveal a group of entrepreneurs who are at the forefront of entrepreneurs in Senegal. Abdou K. Diallo's success is based on an excellent professional background obtained in France and parents who could orientate his interests in informatics. Amadou T. Gaye. has learnt at a university in Senegal and uses his knowledge of the Senegalese society to succeed. Moussa Seck thanks to his training as a manager in France, can launch a company that proposes school reinforcement. All three of them have been able to bring together what they know about Senegalese society and a particular Western apprenticeship to ensure their economic success (cf. Branine 2011). All three have completed higher education before going into digital technology (cf. Nambisan 2017). With their acquired intellectual baggage, they support their activities in niche markets that are accessible to them in the face of a public market that offers them few chances for a professional future (cf. Croce 2018).

To conclude, a trend towards the creation of small businesses is crystallizing with entrepreneurial profiles for higher education graduates from Europe but also from Senegal (cf. Mamman et al. 2015 and Manyika et al. 2013).

## References

Achtenhagen, L. and Brundin E. (eds.) (2016) *Entrepreneurship and SME Management across Africa: Context, Challenges. Cases*. Berlin: Springer.

Alden, C. and Alves, A.C. (2016) "China's regional forum diplomacy in the developing world: socialisation and the 'Sinosphere!'" *Journal of Contemporary China*, 1-15.

Boyer, R. (1996) "The convergence hypothesis revisited: Globalization but still the century of nations?" in Berger, S. and Doré, R. (eds.), *National Diversity and Global Capitalism*, pp. 29-59. Cornell Studies in Political Economy, New York: Cornell University Press.

Branine, M. (2011) *Managing Across Cultures: Concepts, Policies and Practices*. London et al.: Sage.

Budhwar, P. and Debrah, Y. (eds.) (2001) *Human Resource Management in Developing Countries*. London and New York: Routledge.

Caby, J. (2003) "La convergence internationale des systèmes de gouvernance des entreprises: faits and débats", <http://www.gregoriae.com/dmdocuments/2003-07.pdf>; Institut d'Administration des Entreprises de Paris.

Chigunta, F. (2016) "Entrepreneurship as a Possible Solution to Youth Unemployment in Africa," *People*, 10: 1.

Croce, F. (2018) "La recherche du management africain au XXIe siècle: sous l'effet de la globalisation, vers un management africain 'métis'," *Revue africaine de management – African Management Review*, 3 (1): 1-12.

D'Iribarne, P. (2003) *Le Tiers-monde qui réussit: Nouveaux modèles*. Paris: Odile Jacob.

D'Iribarne, P. (2009) *L'Épreuve des différences: l'expérience d'une entreprise mondiale*. Paris: Seuil.

Deichmann, U. and Mishra, D. (2016) *World Development Report 2016: Digital Dividends*. Washington, DC: The World Bank.

Deichmann, U., Goyal, A. and Mishra, D. (2016) *Will Digital Technologies Transform Agriculture in Developing Countries?* Washington, DC: The World Bank.

Ellis, F.Y., Nyuur, R.B. and Debrah, Y.A. (2015) "Human resource management in Africa," in *Handbook of Human Resource Management in Emerging Markets*, Chapter 18, pp. 393-424. Cranfield School of Management: Cranfield, UK.

Friederici, N. (2019) "Innovation Hubs in Africa: What Do They Really Do for Digital Entrepreneurs?" in Taura, N.D., Bolat, E. and Madichie, N.O. *Digital Entrepreneurship in Sub-Saharan Africa, Challenges, Opportunities and Prospects*, 9-28. Cham: Palgrave Macmillan.

Friederici, N., Wahome, M. and Graham, M. (2020) *Digital Entrepreneurship in Africa: How a Continent Is Escaping Silicon Valley's Long Shadow*. Cambridge: Massachusetts Institute of Technology Press.

Gomez, P.-Y. and Korine, H. (2009) *L'entreprise dans la démocratie: une théorie politique du gouvernement des entreprises*. Paris: De Boeck.

Hopkins, C. (2015, October 5) "How Africa Grew More than 200 Local Tech Scenes", *The Daily Dot* (blog). Retrieved from <http://www.dailydot.com/debug/africa-tech-hubs-hacker-spaces-incubators/>.

Jackson, T. (2013) "Reconstructing the indigenous in African management research," *Management International Review*, 53 (1) 13–38.

Kamdem, E. (2004) *Management et interculturalité en Afrique, expérience camerounaise*. Paris: L'Harmattan.

Kamoche, K., Siebers, L.Q., Mamman, A. and Newenham-Kahindi, A. (2015) "The dynamics of managing people in the diverse cultural and institutional context of Africa," *Personnel Review*, 44 (3): 330-345.

Mamman, A., Kanu, A.M., Alharbi, A. and Baydoun, N. (2015) *Small and Medium-sized Enterprises (SMEs) and Poverty Reduction in Africa: Strategic Management Perspective*. Cambridge: Cambridge Scholars Publishing.

Manyika, J., Cabral, A., Moodley, A., Moraje, S., Yeboah-Amankwah, S., Chui, M. et al. (2013) *Lions Go Digital: The Internet's Transformative Potential in Africa*. McKinsey Global Institute, McKinsey & Company. Retrieved from <https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/lions-go-digital-the-internets-transformative-potential-in-africa>

Mellahi, K. and Budhwar, P.S. (2010) "Introduction: Islam and human resource management," *Personnel Review*, 39 (6): 685-691.

Michalopoulos, S. and Papaioannou, E. (2015) « Further evidence on the link between pre-colonial political centralization and comparative economic development in Africa, » *Economics Letters*, Elsevier, 126 (C): 57-62.

Nambisan, S. (2017) "Digital Entrepreneurship: Toward a Digital Technology Perspective of Entrepreneurship", *Entrepreneurship Theory and Practice*, 41 (6): 1029-1055.

Nkakleu, R. (2018) "Introduction", in Nkakleu, R. (ed.), *Accompagnement des petites entreprises au Cameroun et au Sénégal. Compétences des dirigeants et performance*, 19-26. EMS Editions, 2018.

Nkomo, S.M. (2011) "A postcolonial and anti-colonial reading of 'African' leadership and management in organization studies: Tensions, contradictions and possibilities," *Organization*, 18 (3): 365-386.

Patterson, K. and Winston, B. (eds.) (2016) *Leading an African Renaissance: Opportunities and Challenge*. Berlin: Springer.

Ratten, V. and Jones, P. (2018) "Bringing Africa into Entrepreneurship Research", Dana, L.P., Ratten, V. and Honyenuga, B. (eds) *African Entrepreneurship*. Cham: Palgrave Macmillan.

Sambuli, N. and Whitt, J.P. (2017) *Technology Innovation Hubs and Policy Engagement*. Brighton, UK: Institute of Development Studies. Retrieved from <https://opendocs.ids.ac.uk/opendocs/handle/20.500.12413/12860>

Schuerkens, U. (ed.) (2014) *Global Management, Local Resistances*. London and New York: Routledge.

Schuerkens, U. et al. (eds) (2019) *Pour une sociologie du management en Afrique et dans le monde arabe*. Paris: L'Harmattan.

Ward, J. (2016) *Perpetuating the Family Business: 50 Lessons Learned from Long Lasting, Successful Families in Business*. Berlin: Springer.

Yousfi, H. (2014) "Rethinking hybridity in postcolonial contexts: What changes and what persists? The Tunisian case of Poulina's managers," *Organization Studies*, 35 (3): 393-421.

Zoogah, D. B. and Beugré, C.D. (2012) *Managing Organizational Behavior in the African Context*. London and New York: Routledge.

**Websites**

<https://www.clicmagic.net/>

<http://www.digiclever.sn/>

<https://www.volkeno.sn/>