The missing balance in offering degrees: case study of the Senegalese Virtual University (SVU)

التوازن المفقود عند منح الشهادات: دراسة حالة الجامعة الافتراضية السنغالية

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Abstract:

The aim of this study is to identify the main challenges faced by public policy makers when planning to offer university degrees. Since higher education has to deal ex-ante with the concept of performance, according to the new public management (NPM) theory, it is assumed that job creation and inclusiveness are the primary goals.

The research addresses the question of how to enhance employability and inclusiveness among youth in future. To achieve this objective, a case study of the Senegalese Virtual University (SVU) during 2013-2022 was analyzed to derive some conclusions and recommendations.

The main results of our study are as follows:

1. Partnership between government and business (G to B) is crucial for the success of higher education strategies to mitigate the problem of unemployment.

2. Curricula and courses offered by the Ministry of Higher Education must align with the market demands for employment.

Key words: *E-learning, technology, employability, inclusiveness, virtual university, Senegal*

ملخص:

تهدف هذه الدراسة إلى التعريف بالتحديات الرئيسية التي يواجهها صانعوا القرار في القطاع العمومي عند التخطيط لمنح شهادات جامعية. بما أن التعليم العالي يجب أن يتعامل مسبقًا مع مفهوم الأداء، وفقًا لنظرية الإدارة العامة الجديدة (NPM)، فمن المفترض أن خلق فرص العمل والشمولية هما الهدفان الأساسيان.

يتناول البحث مسألة كيفية تحسين قابلية التوظيف والشمولية بين الشباب في المستقبل. لتحقيق هذا الهدف، تم تحليل دراسة حالة للجامعة الافتراضية السنغالية (SVU) خلال 2013-2022 لاستخلاص بعض الاستنتاجات والتوصيات.

النتائج الرئيسية لدراستنا هي كما يلي:

1- الشراكة بين الحكومة وقطاع الأعمال (G نحو B) أمر بالغ الأهمية لنجاح استراتيجيات التعليم العالي للتخفيف من مشكلة البطالة؛

2- يجب أن تتوافق المناهج والدروس التي تعرضها وزارة التعليم العالي مع متطلبات السوق للتوظيف.

كلمات مفتاحية: *التعليم الإلكتروني، تكنلوجيا، قابلية التوظيف، الشمولية، الجامعة الافتراضية، السنغال.*

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1. INTRODUCTION

Higher education institutions are facing a great change, which is the transition from the traditional model based on in-person classes to a newer model where physical presence is no longer a necessary requirement anymore (Yuan & Powell, 2013). This transition has been pushed by the emergence of new technologies, including video conferencing, online platforms, and professional networks.

In fact, technology has put our lives easier than before. For example, hand-held devices such as smartphones and tablets provided us with shortcuts on how to achieve a wide range of tasks and get them done with just one touch away. And owing to this, life has become simpler and more comfortable in ways we couldn't have imagined (Grant, 2019). Even for business, technology is continuously redefining the way organizations conduct their businesses by being more visible over the internet, accessible to customers (Simplilearn, 2022). It is significantly enhancing internal operating system as well as services they offer.

With that being said, the most prominent challenge for higher education is how to engage university in socioeconomic development using the advancements in information and communication technologies (ICT). This could be explained by three reasons:

(a) Designing a leaner centric curriculum to meet the needs of diverse industries and student cohorts can be challenging, requiring a considerable commitment of staff time and resources (Campbell, 2010), (Fitch & Desai, 2012);

(b) The policy focus on labor market driven policies in higher education has led to an ever-growing competition transforming this social institution into an ordinary marketplace, where attainment and degrees are seen as an asset that can be converted to a labor market value. In many countries, higher education ministries are making strenuous efforts to position themselves as economic growth instruments, leaving behind important human values such as the context for human development. As a result, higher education has become very expensive, and even if policies are aimed at promoting accessibility, in practice, only a few can afford it (Kromydas, 2017).

(c) Lastly, in many countries, higher education is considered a cultural and scientific asset, with most universities functioning as government agencies. Their decisions are generally tied to the central government and rely on the national budget to meet societal needs.

There is no doubt that technology has significantly enhanced the learning process and many universities worldwide are tapping into the realm of ICT. Also, companies have adopted new models of learning and human resources management. For instance, hiring processes now prioritize productive employees based on specific criteria that assess performance and skills.

Accordingly, this study aims to address the following questions: how can the employability be enhanced in higher education institutions using ICT? And how can the learning system be made more inclusive?

To achieve the research objective, a descriptive method was used in addition to the Senegalese

Virtual University (SVU) case study, and some other cases from Senegal.

Choosing the Senegalese Virtual University and other examples from Senegal, offers a relevant case study for exploring innovative higher education models, technology integration, policy implications, and opportunities for Algeria which has socioeconomic similarities with this country. It provides also, valuable insights that can inform Algerian policymakers and educators on enhancing access, quality, and effectiveness in higher education.

2. LITERATURE REVIEW

2.1. EMPLOYABILITY DEFINITION

Generally, employability can be defined from three perspectives, leading to three distinct groups in literature. The first group emphasizes the capabilities of individuals (De Vos et al., 2011; Hillage & Pollard, 1998; Hogan et al., 2013; Sanders & de Grip, 2004; Yorke, 2006). These definitions align with the notion that an individual's employability depends on personal assets or intrinsic characteristics. Hillage and Pollard (1998) refer to it as capability, Yorke (2006) describes it as a set of achievements encompassing skills, understanding, and personal attributes, and for De Vos et al. (2011), it encompasses capabilities and willingness. These definitions emphasize the absolute dimensions of employability, which pertain to whether individuals possess the requisite capabilities, skills, and attitudes sought by employers (Morrison, 2012). From this perspective, employers consider the aptitudes of employees and select the best performers among them. While this approach appears logical in competitive markets, its accuracy diminishes in monopolistic or imperfect markets where asymmetric information is prevalent.

The definition provided by the second group focuses on the relative dimensions of employability. They often criticize definitions that solely rely on individual capacity, as they overlook the fact that employability is predominantly shaped by the labor market (Brown et al., 2003; Sin & Amaral, 2017). For instance, Brown et al. (2003, p. 114) interpret employability as the "relative chances of finding and maintaining different kinds of employment." Employability can be influenced by broader external factors, including social, institutional, and economic aspects (Sin & Amaral, 2017).

The emphasis on the relative dimensions of employability has not received significant attention in the literature. Some conceptualizations of employability often overlook the interaction between social structures such as gender, race, social class, and disability, with labor market opportunities (McGinn & Oh, 2017). However, the relative dimensions can be crucial. For instance, ethnicity can influence employability, as some employers discriminate in job applications. In the United Kingdom (UK), while 53.3% of white university graduates were employed in full-time paid positions six months after leaving university, only 42% of minority ethnic graduates held the same positions (Davies, 2014). This suggests that we need to consider relevant political, social, and economic contexts, as well as the intersections of these factors, to fully comprehend the concept of employability (Speight et al., 2012). Consequently, it is acknowledged that employability, from this perspective, is merely an outcome, and efforts to enhance it require sophisticated macroeconomic analysis and tools most of the time.

The third group of definitions emphasizes the "duality of employability" (Brown et al., 2003, p. 110), which highlights the importance of understanding both the absolute and relative dimensions of employability. For instance, Small et al. (2018, p. 4) interpret employability as the "capacity to be self-reliant in navigating the labor market, utilizing knowledge, individual skills and attributes, and adapting them to the employment context, showcasing them to employers, while taking into account external and other constraints." Within this duality, there is an interplay between disciplinary training and the application of subject-specific skills in a job. As industries and career paths evolve, graduates are expected to possess attributes that are not only specific to their discipline but also transferable to a broader range of jobs and careers (König & Ribarić, 2019; Williams et al., 2019).

These two latter groups of definitions not only acknowledge the significance of personal characteristics that increase a graduate's likelihood of obtaining employment and succeeding in their chosen occupations but also highlight the impact of external factors on employability opportunities. These definitions position the individual, their skills, and competencies within a specific social context (Holmes, 2013; Vuksanovic et al., 2014). However, it is important to note that skills and competencies are crucial and must be developed to improve chances in the labor market.

2.2. THE IMPORTANCE OF EMPLOYABILITY

Recently, employability has emerged as a new imperative in education, as many students prioritize obtaining a job, and college graduates are increasingly open to alternative forms of education if they enhance their job prospects within a short period. According to the Edalex 2021 Employability Outcomes Survey Whitepaper, employability is a top priority, with nearly 68% of learners selecting their next level of education based on what is accepted or required by employers. However, there is a low understanding of how to secure employment, with only 33% feeling well prepared, 45% feeling somewhat prepared, and 22% not feeling prepared at all (McFadyen, 2021). Consequently, higher education programs must align with the demands of the labor market in terms of degree offerings and skill development.

For employers, aptitudes and individual performance are often the primary criteria for hiring new employees. However, they should consider that simply hiring graduates from higher-ranked universities does not guarantee a significant improvement in performance. The university rank alone is a weak predictor of individual job performance. In fact, it may be more beneficial for employers to consider students from lower-ranked institutions who possess the necessary skills and competencies for the job, rather than solely focusing on candidates from higher-ranked institutions. Additionally, it would be wise for employers to incorporate additional tests specifically designed to assess the technical and interpersonal competencies required for the job.

Considering the widening disparity between the skills acquired in college and the readiness for on-the-job requirements, any slight advantage in performance resulting from the university rank can be overshadowed by the effectiveness of on-the-job training. Employers already allocate substantial resources to train new hires, making such training a more significant factor in determining performance than the rank of the university from which the candidate graduated (Taras et al., 2020).

For reference, please find a list of universities that rank highly in various top study

destinations (see Table 1).

Table No. 1: Top employability rankings in top destinations

2022			2018		
Ranking	**University**	**Destination**	**Ranking**	**University**	**Destination**
1	MIT	USA	1	Stanford University	USA
2	Stanford University	USA	2	UCLA	USA
3	University of California, Los Angeles (UCLA)	USA	3	Harvard University	USA
4	University of Sydney	Australia	4	University of Sydney	Australia
5	Harvard University	USA	5	MIT	USA
6	Tsinghua University	China	6	University of Cambridge	UK
7	University of Oxford	UK	7	The University of Melbourne	Australia
8	The University of Melbourne	Australia	8	University of Oxford	UK
9	Cornell University	USA	9	University of California, Berkeley (UCB)	USA
10	The University of Hong Kong	Hong Kong	10	Tsinghua University	China

***Source**: https://www.topuniversities.com/university-rankings/employability-rankings/2022, accessed on: April 25th, 2023 at 16:54.*

2.3. INCLUSIVE LEARNING

A core definition of inclusive learning adapted from Hockings (2010) is: "Teaching which engages students in learning that is meaningful, relevant and accessible to all, embracing a view of the individual and of individual difference as a source of diversity that can enrich the lives and the learning of others."

Inclusive learning therefore invests in the following principles:

- Learning is consolidated by diversified social experiences of students;
- Accessible learning is relevant and approachable by all students;
- The curriculum and the means of delivery are both part of this accessibility;
- Students with full access to learning and teaching are more likely to engage with learning, and to reach their full potential.

According to the Institute of Physics IOP (2017) inclusive learning is achieved through the design, delivery, and assessment methods. This approach assumes that disability limits engagement, accordingly dealing directly with such limitations provides numerous opportunities for learning,

growth, and the improvement of practices, thereby promoting inclusive education.

One strategy that promotes inclusive learning is asynchronous learning, a form of remote education that allows individuals to learn at their own pace and in their own time. McLoughlin (2007) conducted research on inclusive e-learning and proposed an inclusive Pedagogical Model. According to McLoughlin, it is crucial to integrate student involvement with real-world tasks. She emphasizes the idea that knowledge acquisition cannot occur without collaboration and active participation (Béres et al., 2012; McLoughlin, 2007; Jones, 2019). Other models also emphasize three key principles:

(a) Flexibility in inclusive design: providing options promotes leaner agency and intrinsically motivates individuals to actively engage in their own learning;

(b) Collaboration during activities: collaboration is the process of working together to achieve a common goal. In teaching, the common goal always improves learner outcomes.

Based on assumption that learning is inherently social, meaning that humans learn through experiences and interactions with others, the approach of collaborative learning (CL) involves groups of learners working together to solve a problem, complete a task, or create a product (MacGregor, 1990). CL activities can vary widely, but they primarily focus on student's exploration or application of the course material, rather than solely relying on the teacher's presentation or explanation of it (Smith & MacGregor, 1992).

Collaborative teaching (CT) can also significantly enhance learning outcomes. It requires teachers to engage in the following activities:

- ✓ Debating, planning, and problem-solving together.
- ✓ Inquiring together, using evidence and research to guide decision-making.
- ✓ Capitalising on each other's strengths and working with each other's weaknesses.
- ✓ Actively contributing to a respectful and supportive learning environment.

Professional collaboration is the core value for the CT approach. It encompasses ongoing observation and feedback among colleagues, fostering a culture of professional sharing, dialogue, experimentation, and critique. It also facilitates connections between teachers, leaders, colleagues and students within and across schools, as well as with external experts. Collaboration can encompass a range of activities, from informal and unplanned teacher collaboration to the implementation of more formal collaborative approaches (Review Panel, 2018).

A recent study has shown that teachers who work together and learn from each other are more successful in improving student outcomes than those who work alone (Griffin, 2017).

(c) Assessment: This involves providing feedback and evaluating learners' progress through assessment methods, as well as evaluating the effectiveness of instruction and the learning environment. Evaluating learning is an ongoing process that begins with assessing performance needs and continues with designing curricula and personalized learning experiences (LX) throughout the learning journey. It also involves facilitating learning and supporting the transfer of

learning.

3. MATERIALS AND METHODS

3.1. RESEARCH METHODOLOGY

The study used both qualitative and qualitative methods. Qualitative research was focused with a case study of the SVU and some other initiatives on online learning. We have also utilize statistical inference based on official data (Senegalese government and other international organisations).

3.2. DATA GATHERING

Three main sources of data were used in this study, the SVU official website, the African Development Bank (ADB), and the National Agency of Statistics and Demography (ANSD).

To demystify the question of how ICT can effectively support the offering of degrees at higher education institutions, we have conducted an analysis of the SVU project launched as a government project in 2013. The choice of SVU as a case study was based on similarities in socioeconomic context and the national educational system.

The main goal of SVU is to address the key challenges related to the role of higher education in economic development. These challenges include regional and gender disparities in access to higher education, as well as a high rate of unemployment among newly graduated individuals, which stands at 15.9% (Sanou, 2021).

3.*3.* ANALYSIS

a- Employability assessment

The final report on the SVU project reveals positive achievements in terms of financial and technical aspects, including project implementation, finalization of the strategic plan, and the enhancement of students' capabilities to access digital learning. However, the indicators related to employability and HR preparedness show lower performance.

According to the report, the project faced challenges and experienced alterations during its implementation. The engagement and underestimation of costs resulted in a significant impact on the realization of the project. As a result, approximately 50% of the planned infrastructure remained incomplete by the end of the designated period. Some important constructions, such as the digital library of the SVU and the Kaolack's Opened Digital Space "ODS," were removed or not completed as planned (refer to Table No 2).

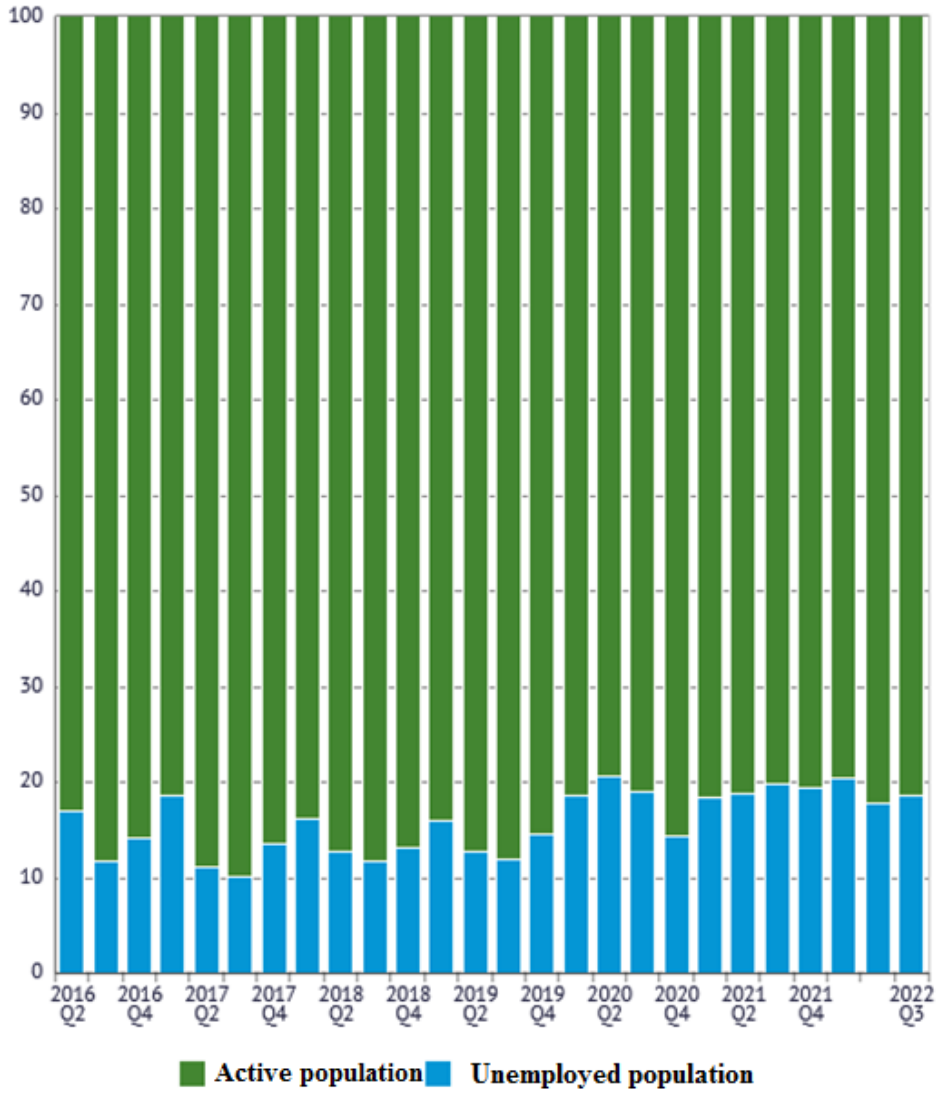
Tab No. 2: Some indicators about the SVU project

Indicator	Indicator Measure	Target 2013	Actual 2021
Insertion of new students in (SVU)	Number	45000	40000
Pass rate among (SVU) final year students (Bachelors Y3)	%	75.0	87,43
Percentage of (SVU) graduates having found employment 12 months after graduation	%	50.0	13,5
(SVU) strategic plan finalized	%	100.0	100.0
Realization of infrastructures at closure date	%	100.0	50
Percentage of (SVU) students having a laptop computer	%	100.0	100.0
Percentage of (SVU) Technical Administrative and Service Personnel (PAT) trained in the design of distance education modules	%	100.0	80.0
Development of new curricula and training frameworks	Number	6.0	6 .0

Source: *https://projectsportal.afdb.org/dataportal/VProject/show/P-SN-IAD-001 accessed on: 25/04/2023 at: 18:23.*

Macroeconomic statistics about employment were extracted from the National Agency of Statistics and Demography (ANSD), to evaluate the global socioeconomic context.

Fig No 1. Unemployment in Senegal during 2016-2022



Source: ANSD, at: https://www.ansd.sn/theme/societe?field_type_indicateurs_target_id=31 accessed on: 25/04/2023 at: 19:45

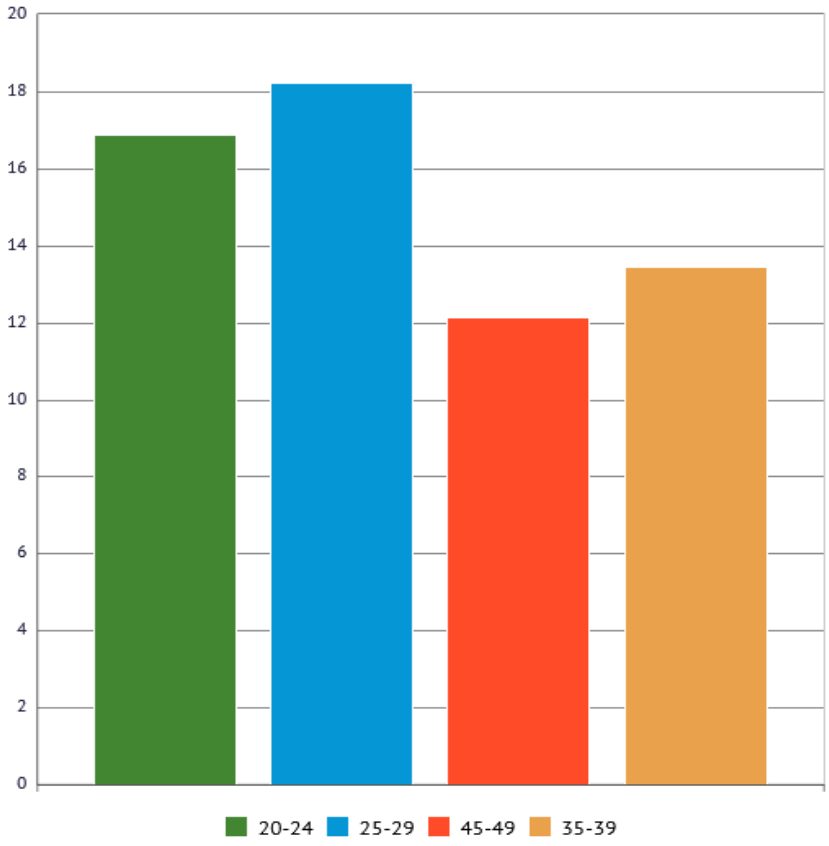
According to Figure 1, unemployment has averaged more than 15% since the last quarter of 2019. It is evident that the COVID-19 pandemic has had a negative impact on the Senegalese economy.

Statistics also indicate that out of 100 students who graduated in Senegal during the 2017-2018 academic year, only 43.65% were able to secure employment. Therefore, it is widely accepted that employability is both contextual and structural. In order to address this challenge, greater efforts should be made to understand why recent higher education graduates are unable to find employment within a year.

b- Inclusiveness assessment [1]

According to National Agency of Statistics and Demography (ANSD) in Senegal (2020), there are sharp disparities in the Senegalese workforce based on age, level of education and gender.

Fig. No. 2: Unemployment rate by age group in Senegal 2015



Source: *ANSD, at: https://senegal.opendataforafrica.org/puummg/indicateurs-du-march%C3%A9-du-travail accessed on: 25/04/2023 at: 20: 37.*

We can observe from Figure 2 that young individuals, represented by the green and blue colors, have lower employment rates compared to other age groups, specifically those aged 35 and above, represented by the red and brown colors. This indicates that youth often experience prolonged periods without employment.

Furthermore, the data shows that the highest rates of workforce participation are found among the age groups of 35-44 years (78.5% in 2017 and 80.6% in 2018) and 45-59 years (76.6% in 2017 and 78.7% in 2018). Additionally, individuals with no formal education (64.3% in 2017 and 65.9% in 2018), those with a preschool/primary level of education (66.5% in 2017 and 69.3% in 2018), and men (67.9% in 2017 and 69.4% in 2018) exhibit higher rates of workforce participation. This may suggest that specific employment opportunities exist that do not require a high level of education.

c- Supply side character of employment

The majority of occupied individuals in Senegal are classified as salaried workers, accounting for 31.5% in 2017 and 31.1% in 2018, followed by non-agricultural self-employed individuals, representing 40.7% in 2017 and 43.9% in 2018. Together, these two categories make up more than 70.0% of the employed population.

In rural areas, agricultural jobs accounted for 29.6% in 2017 and 28.1% in 2018. The majority of the rural workforce engages in non-agricultural activities as independent workers, representing 41.6% in 2017 and 44.4% in 2018. On the other hand, bosses/employers make up less than 3.0% of the employed population.

The relatively high proportion of self-employed workers, comprising over 54.0% of jobs, highlights the precarious nature of employment in Senegal.

d- G to B partnership

The adoption of the Senegalese Virtual University (SVU) reflects the strategic vision of diversification, specifically the expansion of higher education through the increased dominance of public supply over private universities. The Ministry of Higher Education has implemented a model based on training to improve the employability of young people by identifying value chains.

As a result, proposals to accommodate new high school certified students (baccalaureate in some African countries) through alternative means were rejected. This decision was made due to the high costs associated, which would strain the public budget and increase the burden of public expenditure.

e- Other online learning initiatives in Senegal

- ***Edacy:***

ICT is an emerging and expanding field in Senegal; however, there are currently limited employment opportunities available. One of the key challenges is the gap between the degrees offered by educational institutions and the skills needed by the industry. Conventional educational training programs are struggling to keep up with the rapidly evolving technology landscape. In response to this issue, Edacy introduced a training program in 2016 with the aim of bridging the gap and equipping African youth with ICT skills (Aspyee, 2019).

Initially, Edacy started by providing specialized and limited courses focused on digital skills training programs, such as software development, web development, data science, and other technology-related fields. Over time, they have expanded their offerings and now provide more than 100 customizable courses to enhance teams' mastery of critical skills.

The vision of Edacy is to address the job-skills gap caused by an insufficient education system. They aim to provide an alternative to traditional college education by offering high-quality upskilling courses in tech and engineering skills in Africa. Additionally, Edacy provides competency

modules covering a wide range of topics including growth mindset, leadership, innovation, service design, web development, data analysis, and security. This enables employees to become more agile and accelerate the changes needed to stay competitive (Pitchbook, 2023).

- **The Francophone University Association (*AUF):***

The Francophone University Association (AUF) was established in 1961 as an association of higher education and research institutions, serving as the operator of the university Francophonie. It encompasses more than 1,000 universities, colleges, university networks, and research centers across 120 countries that utilize the French language. The AUF is one of the largest associations of higher education and research institutions globally and serves as the operator for higher education and research within the Francophonie Summit (AUF, 2023).

The primary objective of the AUF is to promote a Francophone university committed to the economic, social, and cultural development of societies. It actively collaborates with various partners, including private companies and their foundations, states and governments, national development aid agencies, international organizations, non-governmental organizations, as well as university, scientific, and cultural associations. The AUF's global teams provide guidance and advice for project design and implementation, facilitate the exchange of best practices, expertise, and innovations.

- **Foreign partnership*:***

In recent times, learning stakeholders have become increasingly aware of the importance of introducing programs that improve youth employability. One significant initiative in line with this objective is the African Continental Qualifications Framework (ACQF). The ACQF is part of the Skills Initiative for Africa (SIFA), an undertaking of the African Union (AU) implemented through a partnership involving the European Union (EU) and Germany (BMZ, the Federal Ministry of Economic Cooperation and Development of Germany), who serve as co-founding partners.

- **Multi-stakeholder approach*:***

One successful experience in training programs is the Center for Port and Logistics Training (CFMPL). This initiative is the result of a fruitful collaboration between the Senegalese state, the president of the Port Industry Community, and the French Agency for Development (AFD). The future operations of the center are managed by the Association for Training in Port Trades (AFMP), which includes private companies in the port trade (Aspyee, 2019).

Key Results

- 554 students have graduated since inception; 81% of these students got placed in companies;
- 2675 students graduated from evening classes;
- 84 companies have partnerships.

Lessons Learnt from the experience

The training center benefits greatly from its cooperation with the private sector, as it enables

the center to gain valuable insights into the skill needs of the industry. This collaboration allows the center to prioritize meeting the demand for specific skills and continuously improve their training programs accordingly. Furthermore, the center also offers evening corporate training to approximately 600 individuals each year. This corporate training generates a significant portion of the center's revenue, further supporting its operations and sustainability.

4. FINDINGS AND DISCUSSION:

The socioeconomic context in the Senegalese higher education sector is characterized by a growing demand for education but limited capacity to meet that demand on the supply side. This situation has led public policymakers to invest in the SVU as it requires fewer resources compared to the traditional model of education, which necessitates significant investments in buildings and infrastructure. The fields of study offered at SVU are generally related to the administrative or service sectors, which align with the sectors generating high demand for employment. This reflects the sectoral economic growth in Senegal, where services make a significant contribution to the gross domestic product (GDP), while the primary sector, particularly agriculture, is considered the most dynamic engine of growth according to the World Bank (2023).

In the higher education sector, it is important to assess the needs of students and learners and develop capabilities to address personnel challenges, particularly related to employment and job status. Additionally, addressing the issues faced by the local community is crucial. Introducing fields of study such as agriculture, aviculture, aquaculture, and other branches related to the primary sector can promote productivity and create more job opportunities.

Furthermore, reskilling and upskilling learning modules focusing on communication, entrepreneurship, and management can also contribute to job creation and enhance productivity.

5. CONCLUSION

In conclusion, employability remains a significant challenge in Senegal. The current performance of the SVU project in addressing employability in higher education indicates the need for increased investment in human resources, emphasizing that technology should not be an end in itself. The use of information and communication technology (ICT) to promote technical learning in computing, artificial intelligence (AI), and other important fields can have a substantial impact on employability in the medium term. Investing in this domain is cost-effective, productive, and has the potential to generate employment opportunities, especially when widely introduced in business sectors that require development and innovation to solve technical issues.

Furthermore, in addition to technological advancements, it is crucial for the public university (SVU) to establish partnerships and collaborations to build a strong knowledge base for its learners and students.

6. POLICY RECOMMENDATIONS

Based on the findings, we suggest the following:

- Strengthen investment in faculty development programs: Allocate resources to support continuous professional development programs for Algerian higher education faculty. These programs can include training on innovative pedagogical approaches, technology integration, and industry partnerships. By enhancing faculty skills and knowledge, the quality of education can be improved, better aligning graduates with industry needs.
- Foster public-private partnerships for curriculum development: Encourage collaborations between Algerian higher education institutions and private companies to co-design and update curricula. These partnerships can provide valuable insights into industry requirements and ensure that graduates are equipped with relevant and up-to-date skills. It can also facilitate internships, apprenticeships, and industry-based projects to enhance practical experience.
- Integrate soft skills development across disciplines: Incorporate soft skills development within the curriculum of Algerian higher education programs across disciplines. Create dedicated courses or modules that focus on communication, critical thinking, teamwork, leadership, and problem-solving. This holistic approach will enhance graduates' employability, as employers increasingly seek candidates with well-rounded skill sets.
- Establish lifelong learning programs: Develop lifelong learning programs in Algerian higher education institutions to address the need for continuous upskilling and reskilling. These programs can offer short-term courses, workshops, and online learning opportunities to enable graduates and professionals to update their skills and adapt to evolving industry demands.
- Strengthen career services and alumni networks: Enhance career services within Algerian higher education institutions to provide career counseling, job placement support, and networking opportunities. Establish and nurture alumni networks that can serve as a resource for mentoring, internships, and employment connections. This will help bridge the gap between academia and industry and improve graduates' job prospects.
- Foster international collaborations and mobility: Encourage Algerian higher education institutions to establish partnerships with international universities and organizations. Facilitate faculty and student exchanges, joint research projects, and the recognition of qualifications to foster global perspectives and enhance graduates' international employability.

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