

# Improving Small and Medium-Sized Enterprise Productivity in the Senegalese Informal Sector



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### **Disclaimer:**

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## Honor Policy

On my honor as a student, I have neither given nor received aid on this assignment





## Executive Summary

Informal small, and medium-sized enterprises (ISMEs) account for 94% of the business firms and approximately 70% of total employment in Senegal but only produce 30% of the country's economic output (ANSD, 2017). These statistics indicate a major productivity gap between formal firms and ISMEs, resulting from low firm productivity amongst ISMEs.

The goal of this APP is to establish a baseline understanding of Senegal's ISMEs, identify potential policies, evaluate those policies based on a set of relevant criteria, and provide a policy recommendation for the Senegalese government that UNACOIS can advocate for and help implement in order to effectively advance their mission and increase average ISME productivity.

After briefly outlining important definitions, ISME characteristics, and popular policy approaches to the ISME productivity gap, this APP analyzes the current conditions under President Macky Sall's national economic policy agenda, the Emergent Senegal Plan (PSE). Though UNACOIS helped the Senegalese government put this plan into place, it fails to adequately address the productivity issue, prioritizing the needs of formal firms and large informal firms over the needs of this larger population. As a result, this APP proposes the three potential policy alternatives that can be implemented and integrated into the PSE:

1. Bolstering Senegal's TVET programs,
2. Developing informal cooperatives networks amongst the country's ISMEs and
3. Improving ISME access to entrepreneurial financing.

These options were all measured against the baseline of letting present trends continue. These options, as well as the present trends, were also all analyzed and evaluated against the following criteria, with priority going from the first criteria to the last:

1. Cost-Effectiveness
2. Equity
3. Sustainability
4. Impact on Formal Economy

It is ultimately recommended that Senegal implement the first policy option: bolstering Senegal's TVET programs because this option was found to be the most cost-effective and have the most positive impact on the formal economy. Though the second alternative, Developing Informal Cooperative Networks, was found to be the most equitable and sustainable, the lack of quantitative data on this policy approach led me to still recommend the implementation and advocacy alternative #1. That being said, I also recommend that UNACOIS utilize its grassroots informal economic connections to establish cooperative networks on a local scale in order to determine its effectiveness as a policy intervention and potential integration into UNACOIS' future policy platforms.

## Key Definitions & Acronyms

**ANSD:** *Agence Nationale de la Statistique et de la Démographie* or National Agency of Statistics and Demography.

**APTE:** *Project de l'amélioration des performance de travail et d'entrepreneuriat* or the Improvement of Work and Entrepreneurship Performance Project

**CFAF:** *West African CFA Franc* – Senegal's currency. The conversion of dollars to West African CFA francs is approximately 1 dollar to 580 CFAF (xe, 2019)

**DER:** *La Delegation Generale a l'Entrepreneuriat Rapide* or the Rapid Entrepreneurship Delegation Fund

**Firm Productivity:** The value added (sales price minus production cost) divided by the firm's number of employees and capital stock

**ISME:** Informal small or medium-sized enterprise. In this paper, an ISME is one that does not have sales that exceed 50 million CFAF and fulfils fewer than 4 of the following 5 criteria – 1.

Registration (Are registered with administration), 2. Tax Status (Pay regular business income tax), 3. Honest Accounting (Maintain honest accounts), 4. Mobility of Workplace (Have a fixed workplace), 5. Access to Bank Credit (Are eligible for bank loans).

**MFPA:** *Ministère de la Formation professionnelle, de l'Apprentissage et de l'Artisanat* or Ministry of Vocational and Technical Training, Apprenticeship and Arts and Crafts

**PSE:** *Plan Senegal Emergent* – Emergent Senegal Plan

**RGE :** *Recensement général des Entreprises* or the General Census of Businesses

**TVET:** Technical and vocational education and training

**UNACOIS:** *Union Nationale des Commerçants et Industriels du Sénégal Jappo* or The National Union of Traders and Industrials from Senegal.

## Problem Statement

Informal small, and medium-sized enterprises (ISMEs) account for 94% of the business firms and approximately 70% of total employment in Senegal but only produce 30% of the country's economic output (ANSD, 2017). These statistics indicate a major productivity gap between formal firms and ISMEs, resulting from low firm productivity amongst ISMEs. This APP will focus on four possible alternatives to raise ISME firm productivity: bolstering Senegal's TVET programs, developing informal cooperatives networks, and improving access to entrepreneurial financing as measured against a baseline of letting present trends continue.

## Introduction

*Union Nationale des Commerçants et Industriels du Sénégal Jappo* (UNACOIS, 2018) is the largest business and trade association in Senegal. The organization primarily represents small and medium-sized enterprises from both the formal and informal sectors and is the strongest advocate for ISMEs in the country, serving as the main representative for ISMEs to the Senegalese government and a conduit for public-private dialogues (Mihaylova & Poff, 2014). Through this representative function, UNACOIS has been able to successfully work with the Senegalese government to reform certain aspects of the Senegalese tax code and business regulations as well as change the country's national economic strategy in order to better represent ISMEs. While UNACOIS Jappo's tax and business regulation-focused advocacy and the resulting governmental policies have facilitated the formalization process for ISMEs, it is unclear if these policy changes will lead to much needed productivity increases amongst ISMEs (CIPE, 2017). Connectedly, the majority of IMSEs do not generate sufficient profits to formalize, meaning that they remain unaffected by *most* ISME oriented government policies (Benjamin, Mbaye et al., 2012).

UNACOIS believes that the low-productivity issue is a major hindrance to Senegal's overall economic growth, strongly contributes to the pervasiveness of poverty in the country and is exacerbated by the Senegalese government's failure to implement policies that adequately provide support for ISMEs. But UNACOIS also believes that this low-productivity is an indicator of the untapped potential of the informal sector as ISME productivity growth could be a major catalyst for Senegalese economic development. According to UNACOIS Executive Secretary Ousmane Sy Ndiaye, the informal sector represents a massive opportunity as "Informal workers are the ones out there working in the sun all day, every day, earning meager livings. We need to harness that energy into something that is good for both them and this country."

Due to its influence, UNACOIS stands in a prime position to positively impact Senegalese regional and national policy. The organization hopes to generate new interventions that go beyond the country's tax and regulatory structures. By advocating for policies that directly address the low-productivity issue and assist ISME entrepreneurial activity, UNACOIS believes it will more effectively achieve its goal of supervising, assisting and promoting the creation of wealth & employment activities throughout Senegal (UNACOIS, 2017). **The goal of this APP is to establish a baseline understanding of Senegal's ISMEs, identify potential policies, evaluate those policies based on a set of relevant criteria, and provide a policy recommendation for the Senegalese government that UNACOIS can advocate for and help implement in order to effectively advance their mission and increase average ISME productivity.**

## Background

### Definitions

Before delving into discussions of the specific policy problem, it is important to establish what is meant by “informal” as well as “firm productivity” as there are varied scholarly understandings of each concept. The debates surrounding the definitions of informality and productivity are relevant as the decision to use specific definitions over others may be controversial and impactful on the interpretation of policy alternatives.

### Informality

This project will use a definition of an informal firm put forth by economists Benjamin and Mbaye in a 2012 World Bank report on informality in Senegal. This definition strays away from UNACOIS’s interpretation of informality, as it assesses a firm’s informality through 6 criteria:

1. Size- Have sales that exceed 50 million CFAF<sup>1</sup>
2. Registration- Are registered with administration
3. Tax Status- Pay regular business income tax
4. Honest Accounting- Maintain honest accounts
5. Mobility of Workplace- Have a fixed workplace
6. Access to Bank Credit- Are eligible for bank loans

Each of the above criteria reflect a different dimension of formality and informality. A firm is considered to be formal if satisfies all 6 criteria. Otherwise, it is considered to be an informal firm. World Bank economists Benjamin and Mbaye argue that using 6 criteria is more encompassing and allows for a more comprehensive analysis of the different levels of informality. They claim that not all informal firms are equally informal, as a firm that fulfils 4 or 5 of these criteria can be seen as ‘partially informal’ or, at the very least, less informal than a firm that fulfils 1-2 of the criteria (2012).

It must be noted that this approach to defining informality and informal firms is different from the standard as most definitions focus on only one or two of these criterion. For example, the International Labour Office defines an informal firm through the lens of firm size and lack of registration (2002). Though UNACOIS does not have a specific definition of informality, its rhetoric and policies seem to indicate that it views informality in a manner similar to the ILO, with UNACOIS officials typically differentiating between formal and informal firms on the basis of size and registration (UNACOIS, 2018). Despite still being the most popular definition of informality, it is based on antiquated interpretations of informal firms operating in strictly dichotomous economies, divided between formal and informal firms. Over the course of the past decade, scholars have begun to predominantly described informality as a continuum; acknowledging that there are varying degrees of formality (Guha-Khasnobis, 2005).

While there are a variety of arguments for why informality should be described as a continuum rather than an antipode to the formal sector, they are beyond the scope of this literature review. The most applicable aspect of these academic conversations is that viewing informality as a continuum allows for differentiations between large informal enterprises and ISMEs (as well as large formal enterprises and formal SMEs). **In this paper, an ISME is one that does not have sales that exceed 50 million CFAF and fulfils fewer than 4 of the aforementioned criteria.** This differentiation is important because large informal enterprises and ISMEs are characteristically very different. In Senegal, large informal firms are significantly more productive and better represented than their smaller counterparts

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<sup>1</sup> The amount needed to qualify for the standard Senegalese business tax. Equivalent to



(Benjamin, Mbaye, et al., 2012). Treating these disparate firm types and their policy issues as identical has exacerbated the underrepresentation of ISMEs and produced informality-focused policies that have failed to address the needs of ISMEs (Bdaji, 2018). It is important that UNACOIS Jappo adopt an updated definition of informal firms if it hopes to successfully understand and address the problem.

## Firm Productivity

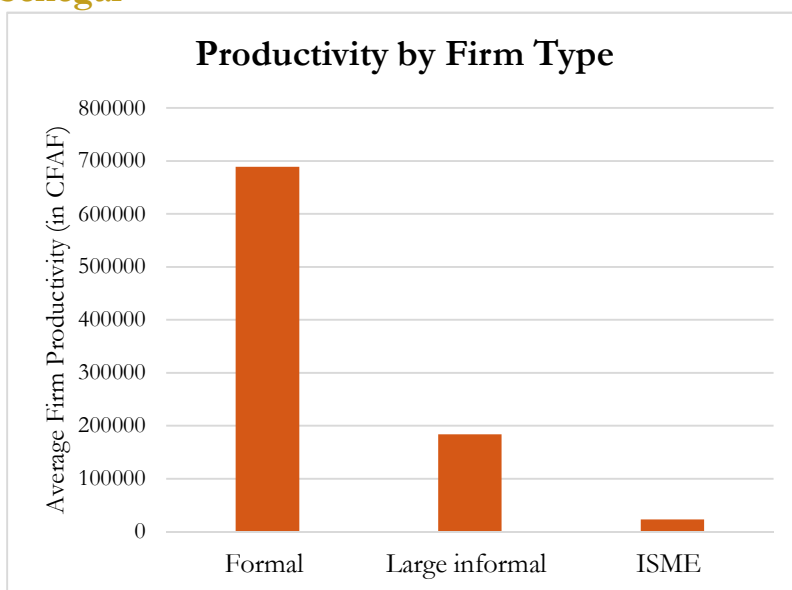
The debate surrounding the definition of productivity is much less controversial with economists using different definitions for different contexts. Economists and policymakers tend to analyze informal firm productivity through the lens Firm Total Factor Productivity (TFP). **The World Bank defines Firm Total Factor Productivity as the value added (sales price-production cost) divided by the total number of firm employees and capital stock (Benjamin, Mbaye, et al., 2012).** Any reference to firm productivity or productivity in this project is referencing to Firm TFP.

## Characteristics of ISMEs in Senegal

Small and medium-sized enterprises in the informal sector account for 94% of business firms and approximately 70% of total employment in Senegal. According to the 2017 RGE (the first and only ANSD census report on Senegalese businesses) an overwhelming majority of the country's youth (90%), women (92.9%), and poor (93%) work for such firms (ANSD, 2017). ISMEs exhibit significant heterogeneity in their production, capacities, and organizational structures. But,

despite this diversity, ISMEs can be generally characterized as having significantly lower wages, lower revenues, and lower growth potentials than their larger and/or more formal counterparts. According to a 2012 World Bank survey, 39.5% of ISME employees live below the 2-dollar a day poverty line, which is considerably higher than the 3.1% poverty prevalence amongst formal worker. These stagnant features of ISMEs are all indicators and consequences of their relatively low firm and labor productivities (Mansoor et al., 2012).

ISMEs produce an average annual output of 688,888 CFAF per worker (equivalent to \$1206). This level of productivity was found to be 30 times lower than that of formal firms and approximately 8 times lower than that of large informal firms (Benjamin, Mbaye et al., 2012). **Due to the pervasiveness of ISMEs, effectively addressing this aforementioned “productivity gap” and improving the ‘contributions’ of such firms is pivotal to ensuring economic and inclusive growth for Senegal and alleviating the country of its widespread poverty.**



## Approaches to Increasing Productivity

### Investment and Finance

The most common recommendation for increasing ISME productivity is increasing the availability of credit through targeted microfinance services. The Echevin and Murtin study found that 66% of the productivity gap could be accounted for through physical capital increases amongst ISMEs (2009). There are a variety of cases that support this approach as well including a study done by Mamudu Akudugu in Ghana that found that access to credit increased ISME productivity by 45% (2016).

Though it was an extremely popular solution in the 1990s and 2000s, microfinance has become a very controversial approach in the last decade. Two groundbreaking studies done by Milford Bateman found that microfinance has very harmful effects in the long run, stunting both ISME productivity and nationwide economic growth. The first study surveyed ISMEs throughout Latin America (2013) and the second analyzed microfinance data worldwide (2012). Both finding that microfinance actually reinforces unproductive tendencies amongst ISMEs while also creating widespread economic dependencies (Bateman, 2013). Though there is a concern that these studies do not adequately consider extraneous factor (political instability, the global financial crisis, etc.), the concerns still merit consideration.

### Training Programs

The second most common recommendation for increasing ISME productivity is providing training for the sector's workers. The World Bank assessed skill development programs for ISMEs by nongovernmental organizations throughout Sub-Saharan Africa and found varying results for these programs. Though these programs predominantly positive productivity results (7%-24% productivity increases in Zambia, -2%-27% productivity increases in Mali, etc.). It was also found that they often undermined government training and educational institutions and had negative effects on countries' formal economies. This study found that adherence to regulations and coordination with government institutions was important for mitigating these externalities and increasing productivity (Johanson and Adams, 2004).

### Cooperative Networks

Establishing cooperative networks is not as popular a policy approach as microfinance or human capital development but it has shown to be effective. Cooperatives are groups of firms, typically ISMEs, which collaborate to either facilitate access to certain services or work together to collectively produce larger amounts of a certain product in order to establish relationships with larger vendors or access more profitable markets. Cooperative networks have existed in countries like Brazil and India for decades, having developed naturally as a component of developing country's informal economies. Recently though, organizations such as USAID have started forming cooperative networking in developing nations in order to address the issues relating to economies of scale that ISMEs are faced with due to their small size (USAID, 2013).

There is little quantitative data on the effects that such networks have. Case studies in Bulgaria and the Philippines found that such networks facilitated access to training and improved the effects of financing for ISMEs (Morris et al., 2006). A similar study undertaken by USAID found that cooperatives throughout Southeast Asia greatly increased ISME access to credit and led pooling of resources amongst such enterprises (2013). Though cooperatives have shown to have positive effects, they are often tied to other policy interventions. Furthermore, the statistics on resulting productivity increases are very limited. Follow up studies need to be conducted before we can accept the findings from the aforementioned cases.

Informal ethnic cooperative networks are already very influential in Senegal, though the beneficiaries are primarily large informal firms. Though there is no data on the impact of these networks on productivity, it is theorized that they have major impacts on the productivity gap between ISMEs and large informal firms (Benjamin, Mbaye, et al., 2012).

In the following sections, I will lay out proposed policy alternatives that UNACOIS-Jappo can advocate for and Senegal government can implement in order to increase firm productivity amongst ISMEs. I will then identify and describe the criteria that will be used to analyze each alternative. This evaluation will be done in my following section, where I do my analysis each alternatives based on the criteria. Using this analysis, I will provide a final policy recommendation for the Senegalese government and an implementation directive for UNACOIS Jappo.

## Policy Alternatives

The following three potential policy alternatives were produced based on the data on ISMEs in Senegal as well as the research on policies addressing informality and productivity in West African and international contexts: Bolstering TVET Programs, Developing Informal Cooperative Networks and Improving Access to Non-Governmental Microfinancing. These three alternatives will be measured against letting present continue and evaluated based on a set of criteria listed described in the proceeding section.

### I. Let Present Trends Continue

In 2018, Senegal came to the end of the first phase of le Plan Sénégal Émergent. The PSE is an overall economic policy agenda put in place by President Mack Sall in 2012 to promote productivity growth throughout Senegal. The Senegalese government partnered with UNACOIS in developing this plan, committing itself to helping improve average ISME productivity by reforming aspects of Senegal's tax and regulatory frameworks and investing infrastructure (Republique du Senegal, 2012). Top UNACOIS officials have annual meetings with the President of the Republic to discuss the implementation of this economic plan (CIPE, 2017). Though this plan has helped to produce an average GDP growth rate of above 7% since 2015, it is unclear if this growth has benefited Senegal's large informal sector (African Development Bank Group, 2018). Historically, Senegalese GDP growth has meant little for the informal sector, though the government's increased focus on ISMEs could change that fact (Benjamin, Mbaye, et al., 2012). By letting present trends continue, UNACOIS will continue to partner with the Senegalese in the implementation of this economic program in hopes that it is successful. There is potentially no need for UNACOIS to change its advocacy strategy if le Plan Sénégal Émergent is already adequately addressing the problem.

As was mentioned above, the PSE tries to promote ISME productivity growth by

1. Implementing reforms to Senegal's tax and regulatory frameworks,
2. Investing in infrastructure.

The main component of these Senegalese ISME policies are the reforms to tax and business regulations. Through lowered taxes and loosened business regulations, the Senegalese government aims to facilitate the formalization process for ISMEs (Mihaylova & Poff, 2014). This push for formalization amongst small informal firms was based on theories popular in the early 2000s that

claimed that reducing the costs to formalization would increase the productivity of such firms by allowing them to join the formal market and gain access to public services (Loayza, 2005). This theory has been somewhat repudiated through empirical evidence as well as through the debate surrounding definitions of informality. Such policies fail to effectively differentiate between small and large informal firms<sup>2</sup> and tend to benefit large informal firms<sup>3</sup> while leaving ISMEs behind. Most small ISMEs are simply not productive enough and faced with too many barriers to formalize and, therefore, remain unaffected by these policies (Benjamin, Mbaye, et al., 2012). Though there is little evidence to support this claim, UNACOIS asserts that this was the case in Senegal as lower taxes have led to the formalization of better off informal firms while doing little to increase the success of smaller firms. **Under present trends, the Senegalese government will continue to reform its tax and business code to facilitate such formalization and UNACOIS will continue to advocate for tax reform** (UNACOIS, 2018).

The second component of PSE effecting ISMEs has been infrastructure investments. Since 2014, the Senegalese government has had a variety of infrastructure projects including the completion of a new airport, the construction of new roads and fishing facilities, rural electrification, and the Dakar Express Regional Rail project. The goal of these projects was to encourage private investment and establish the conditions for long-term growth. It is unclear if this goal will become a reality as the Senegalese central government failed to do feasibility studies. That being said, the Senegalese government has been internationally commended for its reforms and reform projects (BTI, 2018).

UNACOIS officials claim the effects of the PSE have been mixed. Though the PSE has mostly benefited large and already successful informal firms, certain aspects of the PSE have also benefited ISMEs. Most notably, the PSEs rural infrastructure projects seem to have been very successful. As a result of the PSE, 86% of rural areas now have access to water and 64% now have access to electricity, generating positive results of ISMEs in those areas. This have generated positive results and support President Macky Sall, leading to his easy reelection into the Presidency in 2019. Conversely, certain elements of the PSE have been received very poorly. For example, the Dakar Express Regional Rail project and the building of various highways have displaced many ISME businesses in the Dakar and Rufisque areas. Despite these negative outcomes for ISMEs, these projects have benefited or are expected to only benefit formal firms and successful informal firms (UNACOIS, 2018).

By letting present trends continue, the Senegalese government would implement the second phase of the PSE, which is outlined in its 2019-2023 PSE plan. The plan continues on with the implementation and expansion of the policies discussed above with a strong emphasis on formalization (Republique du Senegal, 2018). **It is almost inevitable that these policies will be put in place.** The remaining policy options should be seen as additives to this current economic strategy and, therefore, understanding the trends arising from the current PSE is pivotal to understanding the potential effectiveness. Furthermore, the effects of this option will be used as the baseline of comparison in the final analysis.

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<sup>2</sup> The differentiation between small and large is based on the definition of informality put forth earlier in the document. Though large firms may not generate more revenues or be formally registered, they often have access to bank loans and have fixed workplaces.

<sup>3</sup> Which is not a bad thing

## II. Bolster TVET Programs

With this alternative, Senegal would expand its government provided training programs by strongly marketing available programs, refocusing program curriculums on ISME skills development and reducing enrollment costs.

A somewhat overlooked project that was put in place as a part of the PSE was the Senegal Skills for Job and Competitiveness Project. This World Bank supported effort to improve the skills of young people in the areas of tourism, horticulture and poultry farming while also strengthening Senegal's TVET system by improving the "relevance and quality" of the country's vocational training centers, improving the competitiveness of ISMEs in the aforementioned sectors, reforming the TVET's final system and support the evaluation of Senegalese TVET programs (World Bank, 2014). The project, which is managed by the Ministry of Vocational and technical Training, Apprenticeship and Arts and Crafts, cost the World Bank approximately 44.37 billion CFAF (\$76.5 million). Despite this large investment and the promise behind the program, the results have been underwhelming. The project was created to provide short term skills development training for 10,000 youth but only are 2642 currently enrolled and 651 have graduated. Furthermore, the project has established 10 TVET institutions throughout the country, though enrollment for these schools have been underwhelming as well (World Bank, 2014). Senegal also partnered with the Education Development Center and The MasterCard Foundation to establish the *Project de l'amlioration des performance de travail et d'entreprenariat* (or the Improvement of Work and Entrepreneurship Performance Project/APTE). The 8.7 billion CFAF (\$15 million dollar) project aimed to train 30,000 youth through the establishment of 50 TVET schools (Gueye, 2017). Though the 50 schools have been built, enrollment statistics have yet to be collected. In 2017, project leaders Laura Dillion-Binkley and Melanie Sany asserted that enrollment for the schools were low because the schools were focused on generating youth employment for large formal firms rather than ISMEs, who produce more of the country's jobs (Dillon-Binkley & Sany, 2017).

If the Senegal government implements this alternative, it will aim to increase enrollment for its TVET program by

1. Cutting enrollment costs in half,
2. Changing and generalizing these programs' curriculums to focus more on ISME relevant skills and
3. Strongly promoting enrollment into these programs.

Under-enrollment is actually a common problem for TVET programs worldwide. This pervasive under enrollment has typically been tied to program curriculums being overtly focused on overly-specified industries rather than general ISME worker development, high enrollment costs and skepticism about program effectiveness. Despite all of these issues, as well discussed in the background section, TVET programs and school have shown to be highly effective. Kenya was able to dramatically increase enrollment by making TVET programs a central aspect of their economic agenda and implementing a plan very similar to the one outlined by this alternative (Nganga, 2018). Furthermore, putting particular emphases on advertisement and targeted communications have shown to be effective (UNEVOC 2009 & Mugo 2018). Due to these efforts, Kenya was able to double its enrollment in TVET programs, from approximately 153314 to 275135 in two short years (Matwere &



Mwami, 2019). Ghana, Malaysia, Rwanda and a variety of other countries have also implemented similar reforms, resulting strong enrollment numbers and increased worker productivity in both the formal and informal sectors. The hope is that, through such efforts, Senegal will be strongly bolstering the skills and training of its workforce, which has repeatedly improved ISME productivity in these countries.

### III. Develop Informal Cooperative Networks

With this alternative, the Senegalese government will aim to establish cooperative networks throughout the country. Specifically, the Senegalese government will aim to help start up service provider co-operatives across regions and across industries, aiming to connect and generate cooperation between ISMEs that produce similar products. The Senegalese government would aim to create these cooperative networks by

1. Identifying, bringing together and advising potential cooperative stakeholders in order to establish relationships and initial cooperative frameworks,
2. Provide existing cooperatives with capacity support and
3. Facilitating cooperative cooperation with formal sector enterprises.

If this option is chosen, UNACOIS-Jappo will be more involved in implementation. UNACOIS's informal grassroots advocacy network is very strong and a major factor for why the organization has been able to attain the regional and national success that it has. These grassroots networks have very strong potential to help generate ISME co-ops similar to those develop by USAID in South East Asia as well as more naturally in India and Brazil (WEIGO, 2014). UNACOIS would utilize its connections with informal community leaders to identify individuals working in similar production industries. The Senegalese government and UNACOIS would also advertise specific cooperative initiatives in different informal market places. Once potential stakeholders have been identified and brought together, Senegalese government officials will run seminars explaining the benefits of different types of cooperatives (market access, production, finance, utility, etc) and advise different groups on which kinds of cooperatives to develop. With this alternative, the Senegalese government as well as UNACOIS would simply serve as a facilitator and advisor to potential cooperative groups. ISME owners cannot be forced into cooperatives so catalyzing the development of these organization through information, networking and advocacy will be the conduit through which this policy is made into a reality. Once cooperatives are established, there are very few costs associated with their existence. **The primary goal of the Senegalese government with established cooperatives will be to link them to markets and formal networks (OCDC, 2007).**

### IV. Improving Access to Entrepreneurial Financing

This final alternative falls in line with the most common approaches to increasing ISME productivity: investment and financing. This option aims to increase access to entrepreneurial financing by

1. Identifying and supporting the growth of the best nongovernmental microfinance services in Senegal and
2. Expanding targeted governmental entrepreneurship investments.

There are currently over 800 microfinance institutions in Senegal (Fall, 2017). And yet, 60.8% of Senegalese ISME's claim that a lack of financing has, in some way, negatively affected the growth of their business. ISME owners seem to be staying away from microfinance institutions, preferring to

solicit funds from their friends and family or finance their enterprises through their own means (ANSD, 2017). This form of financing is not conducive to business growth as funding is typically used to cover necessities rather than investing in growth. But a large reason ISMEs avoid microfinancing is due to the fear that they hinder growth. There is a general assumption that working with such organizations will require ISME owners to deal with strict interest rates and business requirements (ANSD, 2017). This is not the case with many of the organizations that have and who are established in Senegal. Many microfinance organizations have taken into consideration the literature identifying the potentially harmful effects of such systems to improve their processes, lower their interest rates and increase their flexibility to better meet ISME needs (Churchill & Frankiewicz, 2013). If this policy is implemented, the Senegalese government and, specifically, the Ministry of Economy and Finance, will work to identify and support these microfinance organizations. Furthermore, the Senegalese government will encourage and advertise these microfinance institutions with the hopes that they will increase ISME owner's entrepreneurial investments in their own businesses.

If this policy is implemented, the Senegalese government will also expand investment in and advertisement for its Rapid Entrepreneurship Delegation fund (DER). The DER is a fund operated by a group of investment bankers that provide loans with low interest rates to ISMEs with innovative and entrepreneurial potential. This 30 billion CFAF (\$50 million) fund was launched in the April of 2018 and has been wildly successful, exhausting a 2/3<sup>rd</sup> of its available capital and credit in less than a year. DER funding, which is focused on innovation, financial inclusion, and ISMEs, as the drivers of employment creation, came under fire as a ploy to help Macky Sall get re-elected. Though the results of the policy have yet to be analyzed, the literature on such policies have indicated positive and immediately impactful results (Akudugu, 2016). An evaluation of this policy will help determine if UNACOIS should press to continue funding or not.

## Evaluative Criteria

This section lays out the evaluative criteria by which the potential policy alternatives will be assessed.

### I. Cost Effectiveness

This criterion will analyze an alternative's ability to increase the average ISME firm productivity in relation to the financial costs associated with implementing the alternative. In order to specifically measure this criteria, a ratio will be produced by comparing the total financial cost to implement a nationwide program to the anticipated increase in average firm total factor productivity profitability<sup>4</sup> for all ISMEs in Senegal. Though the Senegalese government will most definitely choose to implement a smaller or differently structured policy, the produced ratio will provide a strong indication of the alternative's effectiveness and efficiency. Nationwide impact is also measured rather than a smaller policy program impact because it will simplify measurement and comparability.

Costs and outcomes will be projected for each alternative through sensitivity analyses of pertinent data extrapolated from the Senegalese Census of Enterprises as well as through demographic comparisons and analyses of similar programs worldwide, though preferably from other West African contexts. The most cost-effective option will be projected as producing a 1% increase in ISME firm productivity for the lowest amount of CFA Francs spent. This criterion directly measures an alternative's ability to

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<sup>4</sup> Profitability is included because, though total factor productivity increases is the desired outcome, it is difficult to measure.

effectively produce the main desired outcome of the potential policy and, therefore, will be very heavily weighted in the final evaluation. That being said, this criterion will only assess an alternative's immediate one year impact on Senegal's ISME's, with more long-term productivity measures being project through the Sustainability criteria.

## **II. Equity**

This criterion will evaluate to what extent an alternative's effects will be distributed across demographic/income groups and firm types. Many of the current policies in place, both in Senegal and around the world, benefit the informal enterprises that are already the most productive and well-off. One of UNACOIS's main goals with this desired advocacy change is to produce more equitable policies for all ISMEs. Though there are trade-offs between cost-effectiveness and equity, ensuring that a policy can effectively reach and benefit ISMEs across the demographic and income pool is essential to ensuring inclusive economic growth. Contributing to this point, ISMEs are very diverse. Though cost effectiveness evaluates the impact of an alternative on the number of ISMEs, equity evaluates the impact on the number of diverse ISME industries and firm types.

The assessment of this criteria will be made qualitatively, based on analyses of the equity of parallel programs worldwide (preferably from West African contexts) as well as on an analysis of an alternative's applicability to prevalent and relevant ISME demographics and industry types. Equity will be scaled from Low to High with the low determination indicating a policy that only benefits high performing ISMEs whereas the high determination indicates a policy that benefits low productivity firms more. Strong broad-based but unequal productivity growth is still more desired than weak but equal productivity growth though, resulting in this criterion being outweighed in the final evaluation by cost-effectiveness criterion. That being said, it will still play an important in the determination of the final recommendation.

## **III. Sustainability**

This criterion will measure an alternative's ability to generate continued increases in total factor productivity or profitability in relation to long-term trends in financial costs. To specifically measure this criteria, a ratio will be produced comparing anticipated long-term (10 year) financial costs of a national policy to anticipated long-term average productivity changes. The most sustainable option will be projected, once again, as having the largest average increase in firm productivity per CFA Francs spent of the course of 10 years.

Costs and outcomes will be projected for each alternative through a sensitivity analysis of pertinent data extrapolated from the Senegalese Census of Enterprises as well as through demographic comparisons and analyses of similar programs worldwide. Unfortunately, there is little available data and few available studies on the long-term sustainability of policies similar to those that put forth in the project, especially in a West African context. Furthermore, there is considerable debate over the long-term impact of several of the proposed alternatives. As a result, the projected costs and outcomes will be much less accurate for this criteria, meaning that it will have to be weighed less heavily than the main cost-effectiveness and equity criteria when deciding the final policy recommendation.

## **IV. Impact on Formal Economy**

This criterion will assess an alternative's external impact on Senegal's formal sector. One of the main negative externalities associated with the strong prevalence of the informal sector in Senegal's economy is the unfair competition they create for formal enterprises (Benjamin, Mbaye et al., 2012). According to a World Bank Enterprise Survey, 55.2% of formal enterprises in Senegal list the practices of competitors in the informal sector as a major constraint (2014). Though these firms are likely

referring to the practices of large informal enterprises, it is still important that an alternative mitigates rather than exacerbates this issue.

This criteria will be measured both quantitatively and qualitatively. It will be measured quantitatively by projecting changes in the number of firms in Senegal that choose to be formal vs informal based on Senegalese Census of Enterprises data. An alternative with a positive impact will increase the number of informal firms that choose to formalize because their increased productivity allows them to do so. An alternative with a negative impact will decrease the number of formal firms because 1) increased productivity from informal firms generates increased competition and 2) it creates incentives to join the informal sector. Furthermore, each alternative will be assessed qualitatively based on how the increased productivity of recipients will compete with or supplement businesses in the formal sector. The qualitative calculation will be scaled from High Positive impact to High Negative Impact. An alternative that greatly increases competition between formal and informal firms will be deemed to have High Negative Impact whereas an alternative that greatly increases cooperation between formal and informal firms will be deemed to have a High Positive Impact. Though this competition between formal and informal firms is important, it is less important when analyzing the impact for ISMEs. As a result, this criterion is weighted less heavily than the criteria listed above.

## Evaluation of Policy Alternatives

This section presents the evaluations of each policy alternative. Only the findings of a more in-depth costing and outcomes analysis are presented here. The quantitative calculations for each policy alternative being found in Appendix A: Costing and Outcomes Projections. The Cost-Effectiveness and Sustainability Analysis Projections are probably very inaccurate due to a dearth in available data but comparisons between each alternative are likely representative of *relative* cost-effectiveness and sustainability. The results discussed in this section are summarized in outcomes matrix in the following section.

### I. Let Present Trends Continue

I evaluated the current PSE and 2019-2023 PSE plan in order to give UNACOIS a better idea of its effects on ISMEs throughout Senegal. A major finding from this evaluation and the research that preceded it is that the PSE has had more positive effects on ISME productivity than previously anticipated. No strict analyses were done for this option because will not be compared with the other three beyond discussions of PSE outcomes as a baseline. Only sensitivity analyses were done, the results of which are presented below.

#### Cost-Effectiveness

The sensitivity analysis for the PSE's cost-effectiveness found that, in order to attain a 1% increase in average ISME productivity, the Senegal government needed to invest with the range of 7.5 billion to 102 billion CFAF. Even at its highest projected cost, and therefore least effective levels, current policies were found to be more cost-effective than the presented supplementary alternatives. This is because the PSE's direct investment in agricultural commodities (specifically seeds) led to dramatic productivity increases for 48.2% of ISMEs that can be found operating in rural areas. Though the largest gains are projected to occur amongst large agricultural firms, the PSE's 2019 investment in rice, peanut and wheat planting is supposed to increase ISME yields, and therefore production, by 38 to 71% (Republique du Senegal, 2018). This led to overall average ISME firm productivity increases

being projected as ranging from 17.2% to 37.2% in 2019, overshadowing the firm productivity range of -2% to 6% increases for urban firms (The Presidency of Senegal, 2019 & UNACOIS, 2018).

### **Equity – Low-Medium**

This alternative was found to have low to medium levels of equity. Once again, this came down to the rural-urban breakdown. The PSE's effects have had low levels of equity in urban areas by primarily helping formal and large informal firms without effecting urban ISMEs to nearly the same extent (UNACOIS, 2018).

### **Sustainability – Low**

Letting present trends continue was found to have low to medium levels of sustainability. This alternative's best long-term cost effectiveness projection were worse than the TVET and Cooperative Network Projections. Letting present trends continue was found to have similar levels of sustainability to the Microfinance alternative which falls in line with the literature asserting that This is because the effects of the anticipated 2019 crop yields will not pan out. In 2014, Senegal saw very strong productivity growth amongst rural ISMEs followed by strong productivity growth from 2015-2018 (4.4% to 9.1% average annual growth). Meanwhile, urban ISMEs saw no long term growth during this period (Presidency of Senegal, 2019).

### **Impact on Formal Economy – High Positive**

Letting present trends continue was found to have a very strong positive impact on the formal sector. This is because Senegal's current economic policy overtly benefits its formal sector. For example, from 2014 to 2018, the PSE produced 500,000 new jobs and a 7% - 13% average growth rate for formal firms. Furthermore, based on the job growth, it was projected that approximately 10,417 new firms and 100,000 new workers will join the formal market in 2019 (The Presidency of Senegal 2019 & ANSD, 2017).

## **II. Bolster TVET Programs**

### **Cost-Effectiveness – Ranked Best**

Due to its relatively low costs and relatively high levels of effectiveness, this alternative was found to be the most cost-effective. This policy, which was based on the Kenyan government's as well as a Rwanda's TVET enrollment policies is projected to increased average Senegalese ISME productivity by 0.24% while only costing 27.8 billion CFAF. This is because TVET enrollment policies have been shown to be highly effective at increasing TVET enrollment and graduation rates (Nganga, 2018) while TVET programs have shown be to be highly effective at increasing the productivity of ISMEs for whom TVET graduates join when entering the workforce (Johanson & Adams, 2004).

### **Equity – Ranked 3rd**

This alternative was rated Medium in terms of equity because it exclude a majority of the Senegalese population. TVET programs are aimed at only helping youths therefore leaving anyone over the age of 25 without access to these much desired skills. That being said, going beyond age, this alternative does a fantastic job of including diverse demographic segments of the Senegalese population (Gueyem 2017).



### **Sustainability – Ranked 2<sup>nd</sup>**

Based on recurring costs, the Senegalese government is projected to spend 278.4 billion CFAF on TVET programs over the course of the next 10 years if it implements this program. Based on TVET enrollment numbers in Kenya as well as in South East Asian countries as well as admittance rates of TVET graduates in the ISME workforce, this alternative is projected to increase average ISME productivity by 0.36% each year (Voctech, 2017 & Lumpur, 2015), resulting in a 10-year cost effectiveness rate of 116 billion CFAF spent for a 1% increase in Senegalese ISME productivity. This makes sense as education has increasing marginal return (Johanson, 2004).

### **Impact on Formal Economy – Ranked Best**

This alternative is projected to have a positive impact on the formal sector because it 1. Increases the formal sector worker force and 2. Facilitates collaboration with ISMEs due to the relevant skills TVET graduate ISME worker have to produce outputs that fall within the formal production line (Johanson, 2004). It also is projected to generate 250 new formal firms. Though most TVET graduates use their skills to find jobs in the formal sector or beginning businesses in the informal sector, some also choose to start their small enterprises in the formal sector (Johanson, 2004).

### **III. Develop Informal Cooperative Networks**

Though this is a promising policy, the lack of available quantitative data on such policy interventions made it almost impossible to project outcomes. Projected outcomes were based on literature that discussed the process of forming informal cooperatives (US Federation of Worker Cooperatives, 2019) as well as literature which examined cooperative outputs through a qualitative lens (OCDC, 2007).

### **Cost-Effectiveness – Ranked Last**

This alternative ranked last in cost-effectiveness because literature on cooperatives assert that creating such organizations requires very high startup and organizational costs. Furthermore, estimated outputs are not anticipated to be as high as those produced by microfinance or training programs (WIEGO, 2014). It is projected that cooperatives have a cost-effectiveness of 300 billion CFAF per percentage increase in productivity. Though this is high, the sensitivity analysis for this alternative also very large (5.8 billion CFAF to 495.7 trillion CFAF spent per increase in ISME productivity). This was because costs were projected based on outcomes from specified cooperative cases (Motala, 2002) and costs were based on U.S. business recruitment (Bika, 2018) and scientific study recruitment costs (Pruncho et al.).<sup>5</sup>

### **Equity – Ranked 1<sup>st</sup>**

This alternative was ranked first in terms of equity because the literature on cooperatives spoke most favorably about such intervention's ability to include typically isolated, underproductive or disenfranchised segments of the population (WIEGO, 2014).

### **Sustainability – Ranked 1<sup>st</sup>**

This alternative also ranked first in terms of sustainability because of the very low costs to operate and regulate informal cooperatives. Cooperatives are autonomous organizations that aim to increase the productivity of its members. If the Senegalese government implements this option, it will require very

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<sup>5</sup> Similar information is not available for West African cases

low amounts of spending to maintain the productivity gains arising due to the existence of new established cooperatives, making this alternative very sustainable (Wanyama et al. 2008).

#### **Impact on Formal Economy – Ranked 2<sup>nd</sup>**

This alternative was found to have a neutral impact on formal sector. This is because, while some cooperatives establish linkages with the formal sector through market access efforts, others begin to compete with formal enterprises due to their increased economies of scale. Though the literature seems to indicate that cooperatives have positive impacts on formal economies, it is unclear if that is truly the case (WIEGO, 2014).

#### **IV. Improving Access to Entrepreneurial Financing**

The sensitivity analyses for this alternative were also very wide ranging. This was due to the large amount of competing literature on the impacts of microfinancing rather than a lack of data. It must be acknowledged that the author's opinions placed a strong role in the development of these cost and outcomes projections, though they were primarily based on what he believed were trends in the literature.

#### **Cost-Effectiveness – Ranked 2<sup>nd</sup>**

The implementation of this option was found to be strongly cost effective. This falls in line with much of the literature that find strong short term impacts of financing operations (Baumann, 2004). Calculating costs were calculated based on preexisting DER costs (ICTworks, 2018) whereas marketing costs were based on a South African case field experiment on marketing cost-efficiency in convincing individuals to sign up for microfinance programs (Bertrand, 2006). It was projected that this intervention would cost 91.3 billion CFAF to implement. Application trajectories for the DER as well as conscription trends from the South Africa study were combined from the results of the wide ranging microfinance literature to find that the implementation of this alternative would produce a 0.682% increase in ISME firm productivity (Akudug 2016 & Banejee et al. 2015), resulting in a projected cost effectiveness of 133.9 billion CFAF spent per 1% increase in productivity. This outcome could be considered equivalent to the cost-effectiveness of the TVET option, especially when the sensitivity analysis is taken into consideration.

#### **Equity – Ranked 2<sup>nd</sup>**

Though much of the microfinance literature finds that such interventions are typically very inequitable and even detrimental for poorer firms, this alternative was generated off of literature that suggest ways for governments and programs to overcome these shortcomings in microfinance intervention and specifically produce outcomes that are beneficial to the most poor (Churchill & Frankiewicz, 2006). As a result, this alternative was deemed very equitable.

#### **Sustainability – Ranked Last**

Though this alternative was considered cost-effective in the short term, it was found to be very unsustainable in the long-term. It was found that this alternative would have a long-term cost effectiveness of 1.2 trillion CFAF spent per 1% increase in ISME productivity. Though it heavily debated what the effects of microfinancing are in the short term, most literature acknowledges that long-term microfinance effects are negligible. Even if there are positive short term effects, they are typically found to wear off within a year or so (Cull & Morduch, 2017). As a result of these findings, the sensitivity analysis found that this policy could potentially even be harmful in the long term.

### **Impact on Formal Economy – Ranked Last**

Finally, this alternative was found to have a negative impact on the formal economy. This policy alternative reduces the incentives to formalize by greatly increasing the availability of financing, investments, and credit to ISMEs.

## Outcomes Matrix

Table 1: Outcomes matrix with summary of evaluation of each policy option.

		Alternative 1: Let Present Trends Continue	Alternative 2: Bolster TVET Programs	Alternative 3: Develop Informal Cooperative Networks	Alternative 4: Improve Access to Entrepreneurial Financing
<b>Cost</b>	Projected Government Spending, CFAF	2.8 trillion to 3.8 trillion CFAF	<b>27.8 billion CFAF</b> (9.3 billion to 108.8 billion CFAF)	6 trillion CFAF (957.7 billion to 347.2 trillion CFAF)	91.3billion (31.2 billion to 151,333 billion CFAF)
<b>Effectiveness</b>	Projected Percentage Increase in average ISME Firm Productivity	17.2% to 37.21% increase in productivity	<b>0.24%</b> (0.00876% - 2.592%)	20% (7%-54%)	0.682% (0.00940% - 13.9%)
<b>Cost Effectiveness</b>	Projected spending for a 1% increase in ISME Productivity, CFAF	7.5 billion- 102 billion CFAF spent for a 1% increase in average ISME productivity	<b>116 billion CFAF</b> (3.5 billion – 12.4 trillion)	300 billion CFAF (17.7 billion to 49.6 trillion CFAF)	133.9 billion CFAF (4.3 billion to 161 trillion CFAF)
<b>Equity</b>	Support for low productivity firms	Low-Medium.	<b>Medium</b>	High	High
<b>Sustainability</b>	Project Spending for a 1% increase in average ISME Productivity after 10 years, CFAF	219.4 billion to 1.3 trillion CFAF spent for a 1% increase in average ISME productivity	<b>77.3 billion CFAF</b> (1.1 billion to 1.4 trillion CFAF)	50 billion CFAF (5.8 billion to 495.7 trillion CFAF)	1.2 trillion CFAF (600 billion CFAF to -60 billion)
<b>Impact on Formal Economy</b>	Projected number of new formal firms	10,417 new formal firms created	<b>250 new formal firms created</b>	100 new formal firms created	0 new formal firms created
	Alternative's impact on formal firms	High Positive	<b>Positive</b>	Neutral	Negative

Given the project outcomes for each policy option, it is recommended that Senegal pursue Alternative 2 and bolster its TVET Programs. Additionally, UNACOIS should considering implementing Alternative 3 at the local level in order to further assess this policy alternative.

## Policy Recommendation

**It is recommended that the Senegalese government bolster its TVET programs and that UNACOIS Jappo incorporate the expansion of TVET institutions into its advocacy efforts.** Of the options being compared, this alternative was found to be the most cost-effective and found to have the most positive impact on the formal economy. As was mentioned in the criteria section, the cost-effective criteria was weighed the most heavily and, thus, played a very important role in the decision to recommend this policy. This policy was also found to be strongly sustainable. And while it performed the worst on equity measure, it still scored a medium.

This alternative was ultimately chosen due to the reliability of the data behind its costing and outcomes calculations. Though the cooperative networks alternative was found to be the most sustainable and most equitable, this was based on purely qualitative data and a set of very strong assumptions. It is very unclear what the ISME productivity outcomes or the implementation costs would have been if the Senegalese government had chosen this option. Conversely, the costs and outcomes for the TVET option are relative clear. Their costs and outcomes are relatively clear in comparison to the Entrepreneurial Finance option as well. Though it is debatable which option has more effective short-term outcomes, the TVET alternative strongly outperforms the Finance option in the realms of sustainability and impact on the formal sector. Finally, this option allows for the Senegalese government to address another major policy failure, which is the underutilization of invested funds. By bringing Technical and Vocational Education and Training programs to the forefront of government policy, Senegal will not only be bolstering the PSE's sustainability, but equity (amongst youths at the very least) as well.

## Implementation

Working with the Senegalese government to implement this policy will be relatively simple. Working to build off of the Kenya, Rwandan and Malaysia examples will help to guide UNACOIS Jappo and Senegal towards the right policy structures and interventions. Convincing the Senegalese government to put in place this policy will be *relatively* simple, as it addresses current waste in the system. UNACOIS Jappo will need to emphasize the importance of TVET teacher development. Furthermore, it will need to work to have TVET programs established in rural as well as urban areas. But, beyond that, the TVET advocacy process should be engaging and informative for both side.

I will also recommend that UNACOIS go beyond integrating TVET enrollment policies into its advocacy platform. As was previously mentioned, UNACOIS Jappo's strong informal grassroots advocacy network could be very conducive to the development of informal cooperative network. Based on the costing and outcomes analysis, the development of informal cooperative networks is a very promising policy alternative. If UNACOIS Jappo utilizes some of its connections with informal community leaders to identify individuals working in similar production industries, it will be able to create informal cooperatives on local and observable scales. If UNACOIS is able to easily establish cooperative networks and determine that they have a strongly positive overall impact, the organization should be able to utilize these small-scale cooperatives to further update its policy platform.



## Appendix A

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## **Appendix B : Costing and Outcomes Projections**

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