



Creating an Enabling Policy Environment for Youth Entrepreneurship in the Technological and Innovation Sectors



**APPLIED RESEARCH PROJECT
MOBILITIES, CITIES, AND MIGRATION**

**CREATING AN ENABLING POLICY ENVIRONMENT FOR YOUTH
ENTREPRENEURSHIP IN THE TECHNOLOGICAL AND INNOVATION SECTORS
IN SELECTED DEVELOPING COUNTRIES**

PARTNER ORGANIZATION: INTERNATIONAL TRADE CENTER, GENEVA

ITC COORDINATORS:

JULIA ZIETEMANN

MILENA NIEHAUS

SASKIA MARX

STUDENT TEAM:

MARCUS V. BOLLINI ENGLER

HEERAN KIM

NIKITA DENNIS JOSEPH

PROFESSOR: CHRISTOPHE GIRONDE

TEACHING ASSISTANT: IDIL YILDIZ

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Executive summary

The world's growth and development rest in the hands of current and future generations of youth given that the youth population will largely increase, especially in developing countries. Therefore, the promotion of youth entrepreneurship has been broadly foreseen as a potential means of increasing employment, thereby facilitating the entry of young people into the labor market, and resulting in better development outcomes.

The objective of this research was to analyze the current youth entrepreneurship policies in four targeted countries, — Ghana, Kenya, Colombia, and the Philippines—and identify their effectiveness and limitations to derive the optimal policy recommendations that lead to the enabling environment for youth entrepreneurship. For this study, we relied on an in-depth review of the international literature pertinent to youth entrepreneurship and primary qualitative data collected through semi-structured interviews with young entrepreneurs, entrepreneurship hubs, and governmental agencies of development.

According to the framework of national strategies for entrepreneurship, there are six main policy action fronts capable of fomenting entrepreneurship on the part of the youth: regulatory environment, entrepreneurship education and skills development, technology exchange and innovation, access to finance, and awareness and networking.

Strong regulations and complex registration processes are common challenges in all the targeted countries. Especially, in the Philippines, the regulations and law are outdated, with several hurdles for business. Entrepreneurial education and training may result to be a support integral actions toward enabling youth to thrive as entrepreneurs. Still, our respondents suggested that these programmes are still scarce. In most of the given countries, as the necessity of accelerating STI and technology skills has been recognized as a key role for youth entrepreneurship, there have been incentives and training programmes regarding technology and innovation yet the regional gap between urban and rural areas is the common challenge for all targeted countries.

Access to finance is one of the most crucial challenges in most developing countries. There is consistency in the causes of why accessing finance is challenging for youth entrepreneurs in the targeted countries. Lack of collateral, credit history, and entrepreneurial experience continues to be

barriers for the youth. The level of awareness and networking among youth entrepreneurs appears to vary across the countries listed. There are some programmes to enhance the awareness, but they are often stagnant or have difficulty reaching networking level.

To enhance the existing policies and ecosystem of youth entrepreneurship, more specific and practical policies will be essential under each section of the youth entrepreneurship framework. This report incorporates general policy recommendations as well as country-specific recommendations according to specific challenges in each targeted country.

List of Acronyms and Abbreviations

ABM	Accountancy, Business and Management
ASEAN	Association of Southeast Asian Nations
CAAYE	Commonwealth-Asia Alliance of Young Entrepreneurs
DTI	Department of Trade and Industry of the Philippines
EFC	Entrepreneurial Framework Conditions
GDP	Gross Domestic Product
GEM	Global Entrepreneurship Monitor
GIZ	German Agency for International Cooperation
ILO	International Labour Organization
IT	Information Technology
ITC	International Trade Center
JCI	Junior Chamber International
MSMEs	Micro, Small and Medium Enterprises
NEET	Not in Education, Employment or Training
NEIP	National Entrepreneurship and Innovation Plan of Ghana
OECD	Organization for Economic Co-operation and Development
PE	Private Equity
REUNE	Red de Egresados Empresarios de la Universidad Nacional de Colombia
SDG	Sustainable Development Goals
SMEs	Small and Medium Enterprises
STI	Science, Technology and Innovation
TEA	Total Early-Stage Entrepreneurial Activity
ToT	Training of trainers
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development

Introduction

In 1998, a report formulated for the OECD already identified the problem of unemployment among young people (Blanchflower, 1998), highlighting that this form of unemployment is probably one of the most relevant issues of modern public policy, including in advanced economies. The international literature has emphasized the importance of promoting entrepreneurship as a means of development, especially in poverty reduction through socio-economic inclusion and job creation (Stevenson & Lundström, 2005; Schoof, 2006; Spigel, 2020).

For instance, the world's growth and development rests in the hands of current and future generations of youth given that the youth population will largely increase, especially in developing countries. Therefore, the promotion of youth entrepreneurship has been broadly foreseen as a potential means of increasing employment, thereby facilitating the entry of young people into the labor market, and resulting in better development outcomes.

According to the UN, in the 47 least developed countries, the youth population is projected to increase by 62 percent by 2050, rising from 207 million in 2019 to 336 million in 2050 (UN, 2019). Therefore, the creation of new employment opportunities for young people is critical to achieving the SDG and ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all (ILO, 2020). To achieve this goal, institutions need to support the transition of young workers into the labor market. Yet, there is a growing gap between the number of young workers seeking employment and the availability of opportunities globally. In addition, the evidence suggests that enabling the environment for youth entrepreneurship within sustainable and inclusive development is lacking, especially in developing countries.

According to the ILO's Global Employment Trends for Youth of 2020, the youth labor force participation rate, which accounts for employed youth, has been decreasing globally. The highest rates of youth unemployment are observed in Northern Africa and the Arab States, where only around 27% of the young population participates in the labor market (ILO, 2020). Data from the World Bank confirm that global unemployment has been on the rise since the mid- 2000s, particularly affecting young workers in both developing and developed regions. Furthermore, recent

data from the ILO on youth unemployment trends reveals that practically all regions of the world are affected by the lack of opportunities among the youth.

Our study aims to tackle the subject of youth entrepreneurship development in the context of a diverse set of determinants. For instance, issues such as economic growth, poverty, and unemployment rates, education level, population, percentage of youth population (and the benefits of population dividend), political situation, structural and institutional support provided for business culture, market size, future growth projections are some of the factors that influence the environment of opportunities for the youth.

More specifically, our study aims to analyze: (i) What are the existing national policies and governmental support systems in the concerned countries to address these challenges and support youth entrepreneurs; (ii) Are these policies are efficient; (iii) what are the barriers for enabling youth entrepreneurship in the concerned countries; (iv) Which are the successful practices that can be learned by the concerned countries to harness the potential of youth entrepreneurship. The objective of this research was to analyze the current youth entrepreneurship policies in four targeted countries, — Ghana, Kenya, Colombia, and the Philippines—and identify their effectiveness and limitations to derive the optimal policy recommendations that lead to the enabling environment for youth entrepreneurship.

The countries were chosen because of the need to disburse such policies to combat youth unemployment concerns and based on accessibility to data and interviewees in the countries. Specifically, Kenya, and the Philippines are the targeted countries for ITC's Youth and Trade Programmeme and Ghana and Colombia have been target countries for another research project conducted by ITC¹. Consequently, the report also intends to provide inputs and support for the Ye! Community action² in partner countries within the design, implementation, and evaluation processes involving their activities in these regions.

In summary, this project will aim at (i) conducting an in-depth study on the existing policies available for youth entrepreneurship across all sectors in the following countries: Ghana, Kenya, Colombia, and the Philippines; (ii) identifying countries with similar sociocultural contexts which have effective policies targeted toward youth entrepreneurship across various sectors and studying

¹ [International Trade Center](#).

² [Ye! Community](#).

these policies to determine if there are any unique methods adopted globally to address the issue of incentivizing/encouraging more youth to pursue entrepreneurship; (iii) understanding the inefficiencies and limitations of the existing policies in the targeted countries, and making policy suggestions that governments and the private sector can implement in the most effective way.

Notwithstanding the importance of supporting micro and small entrepreneurs in developing countries, in this study, we are specifically interested in opportunity-driven entrepreneurs, notably those in the technological and innovation sectors. These entrepreneurs are largely motivated by business opportunities emerging from the development of new technology and innovation processes.

This document consists of this introduction, four chapters and a conclusion. In chapter 1, we aim to summarize some of the main concepts and framework of entrepreneurship and policy analysis, as well as to address some of our methodological choices and sources of secondary data.

In chapter 2, we present an overview of youth entrepreneurship, thereby highlighting some of the recent trends in youth entrepreneurship, challenges for entrepreneurs as well as good policy practices and learning opportunities for countries to engage in entrepreneurship promotion policies. Further, in Chapter 3, we present our data collected through secondary data research and primary data research through semi-structured interviews of various stakeholders from the entrepreneurship ecosystems of Ghana, Kenya, Colombia, and Philippines. We also use the UNCTAD policy suggestion guidelines to group our findings in this the five main categories: Regulatory Environment, Entrepreneurial Education, Access to Finance, Technology and Innovation, Awareness and Networking.

Finally, we conclude the report with chapter 4, that focuses on country specific recommendations we have offered based on the unique challenges faced by each of our focus countries. We have also developed a general list of recommendations along the five policy guidelines as proposed by UNCTAD, that can be extended to developing countries with similar contexts and challenges. As a conclusion, we summarize some of the main points and findings of our study.

Chapter 1: Policy for Youth Entrepreneurship: Concepts, data, and inputs of analysis

The international literature on entrepreneurship has stressed that entrepreneurship may vary broadly, notably in terms of economic objectives, impact, and response to promotion policies. In fact, according to Alam (2019), policy failures for entrepreneurship are often associated with the lack of distinction between different forms of entrepreneurship. In this sense, it is particularly important to accurately identify the target groups for which such policies have worked to be able to make informed decisions about when such policies may get the desired results, as well as to properly diagnose when adjustments should be made.

Most of these frameworks revolve around two concepts frequently used to distinguish entrepreneurs: necessity-driven and opportunity-driven entrepreneurs. While the firsts are motivated by the lack of working opportunities, the latter are usually driven by opportunities of becoming independent or increasing their incomes.

According to data presented by Alam (2019), 35% of early-stage entrepreneurs in low-income countries are motivated by necessity compared to 28% and 18% in middle and high-income economies, respectively. Conversely, 37% of early-stage entrepreneurs in low-income countries are driven by opportunities, whereas in middle- and high-income economies the shares correspond to 42% and 51%, respectively.

For instance, some of our findings suggest that entrepreneurs aged between 18 and 35 years old are more likely to engage in technological and innovative activities. Furthermore, whereas MSMEs often account for a high number of firms in many developed and developing countries, the contemporary literature on entrepreneurship has stressed that high-growth entrepreneurs are more likely to create jobs in the short-term.

Policies targeting entrepreneurship may also take into consideration specific youth age groups. As suggested by the UNCTAD policy guide on youth entrepreneurship (2015), there is no universally accepted definition of the term youth. In fact, this definition may vary broadly across countries, international organizations, and funding agencies. UNCTAD guide however considers youth as people aged between 15-24. In this report, we use the ITC definition, that is, youth entrepreneurs are conventionally aged between 18 and 35 years old. A similar approach is used by

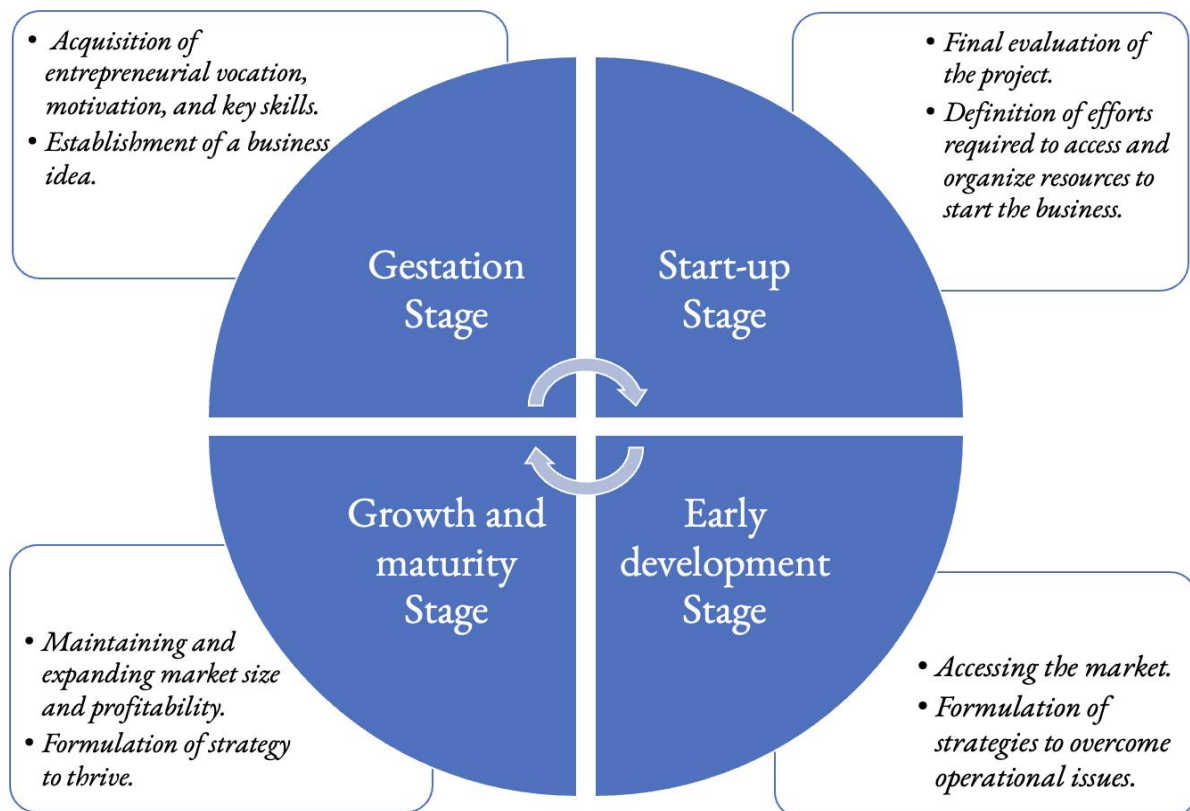
the GEM for age-clippings, thereby also distinguishing between “young youth” (18-24 years) and the “older youth” (25-34 years)³.

1.1. The entrepreneurial dynamic process

Considering that entrepreneurship is a multilayered phenomenon with several meanings, GEM defines it “as any attempt at new business or new venture creation, such as self-employment, a new business organization, or the expansion of an existing business, by an individual, a team of individuals or an established business” (GEM, 2022).

For the purposes of this research, we aim to employ the conceptual frame of entrepreneurship as a dynamic process. For instance, Alam (2019) suggested that, to grow and thrive, entrepreneurs experience several events and stages that are influenced by diverse factors. Consequently, entrepreneurs may be categorized into four stages of entrepreneurship, commonly known as the entrepreneurial journey.

Figure 1 - The entrepreneurial Journey.

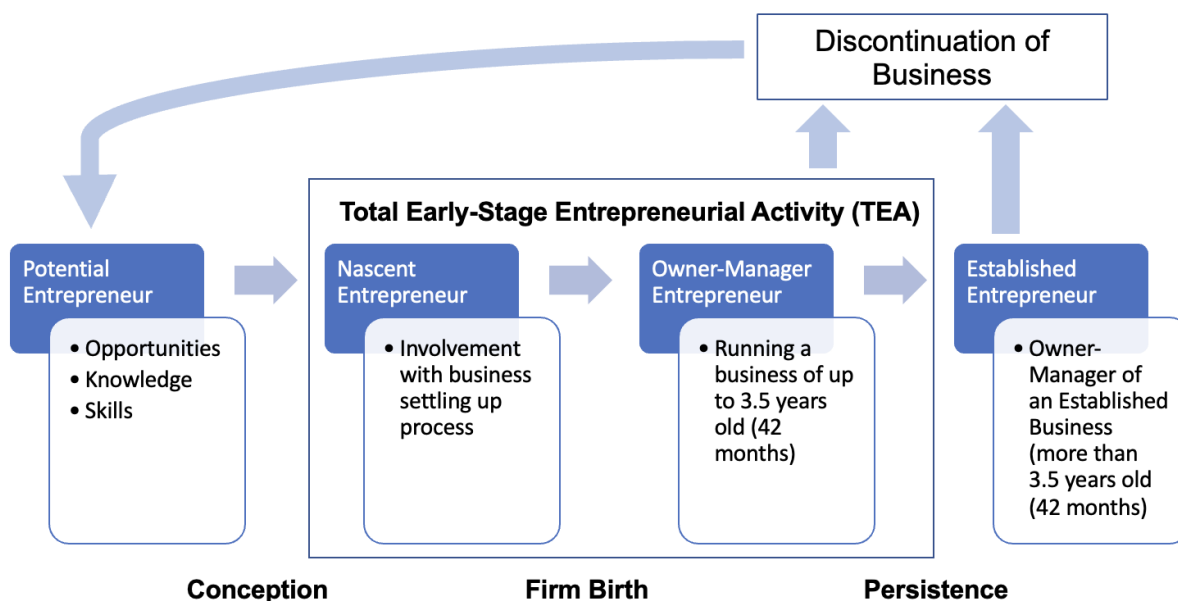


Source: Alam (2019). Design formulated by the authors (2022).

³ GEM (2015). Future Potential – A GEM Perspective on youth entrepreneurship.

Furthermore, GEM focuses on the entrepreneurship cycle-based analytical framework that also considers the stage before the start-up of a new firm (nascent entrepreneurship) and the stage after of its start-up (owning-managing a new firm). Together, these two stages comprise the TEA, which are highlighted by the following figure.

Figure 2 - Dynamic entrepreneurial cycle.



Source: GEM. Design formulated by the authors (2022).

It is worth mentioning that, as suggested by the GEM, the analysis of entrepreneurship discontinuation is an important component of the entrepreneurial cycle. In fact, while data may indicate the rate of the extent to which people decide to discontinue their business, there might be varying reasons underlying such a decision. According to this organization, in many cases, such decisions might result to be positive as entrepreneurs are involved in starting up a new business.

1.2. Methodology and Sources for Data Collection

For this study, we relied on an in-depth review of the international literature pertinent to youth entrepreneurship, thereby analyzing the main frameworks of policies specifically targeting this group. In addition, we relied on study cases and evaluations of some policies to comprehend the extension to which they may produce positive outcomes to entrepreneurship undertaken by the youth. Furthermore, our study relied on primary qualitative data collected through semi-structured

interviews from young entrepreneurs, entrepreneurship hubs and governmental agencies of development.

Regarding secondary data, we mainly relied on global and specific country publications, as access to such data is still restrictive. Some of the main sources were publications from organizations working with development, employment, and enterprises such as the World Bank, the ILO, UNCTAD. In particular, GEM is probably the most resourceful base specifically targeting entrepreneurship at an international level and when it comes to youth entrepreneurship. The GEM produces research and publications on entrepreneurship and ecosystems supporting entrepreneurship through the application of surveys and secondary data, and these resulted to be very relevant for the scope of our research.

Chapter 2: Global Overview of Policies for Youth Entrepreneurship

Policies targeting youth entrepreneurship specifically aim at improving the conditions of the environment for young entrepreneurs, thereby eliminating constraints and distortions that prevent them from achieving their potential. This chapter sheds light on some of the main challenges to which entrepreneurs are confronted, to some of the best practices and policy learning opportunities, as well as a country-level literature review about the current state of youth entrepreneurship and policy in the countries concerned by the study.

2.1. Youth Entrepreneurship: Challenges for entrepreneurs, Best Practices, and Learning

In summary, to achieve the Sustainable Development Goals (SDG), it is critical to generate new employment opportunities for young people, especially in countries where the gap between young workers and employment opportunities is growing. While there are many challenges and constraints to be overcome, there are also a variety of factors that may be positive for the promotion of entrepreneurship, notably among the young. According to Schoof (2006), the evidence suggests that the most critical challenges among youth entrepreneurs include, but are not limited to:

- Bureaucratic and legal inefficiencies and related high costs may result to be more burdening for the youth as they may lack resources and experience to comply with those.

- Negative misconceptions about the entrepreneurial skills undertaken by disadvantaged groups may particularly affect the youth when it comes to building credibility, resulting in more limited access to technology, markets, and finances.
- Fear of failure and limited networking opportunities might be more pronounced among the youth, as they lack experience with operating in the market.

Policies targeting youth entrepreneurship are usually also conceived within the framework of national strategies for entrepreneurship (UNCTAD, 2015). Under this perspective, there are six main policy action fronts capable of fomenting entrepreneurship on the part of young people. The following table 1 summarizes these policies.

Table 1 - Potential policies for the promotion of youth entrepreneurship.

<i>Policy front</i>	<i>Actions</i>
Regulatory Environment	<ul style="list-style-type: none"> • Simplification of regulatory requirements for starting a business, including STI-based procedures. • Enhancement of contract enforcement, property, and guarantee protection. • Implementation of information campaigns on regulatory issues.
Entrepreneurship education and skills development	<ul style="list-style-type: none"> • Promotion of entrepreneurship awareness and education in all levels of education through adapted pedagogical models such as vocational and experiential programmes. • Promotion of educator's networks and training for teachers. • Diffusion of material including case studies and interactive/digital tools.
Technology exchange and innovation	<ul style="list-style-type: none"> • Promotion of training in STI skills for youth as well as its expansion, notably among young people. • Implementation of policies to support STI diffusion and development hubs and clusters and support new job creation in these environments. • Fostering university-based research commercialization and entrepreneurship centers to support youth-led innovation and facilitate skill acquisition and business linkages among youth. • Invest in innovation through grants, tax breaks and other incentives that encourage public-private partnerships and university-industry collaboration.
Access to Finance	<ul style="list-style-type: none"> • Facilitation of development of youth-friendly financial products including mobile banking technologies and diffusion of viable financing options. • Promotion of financial sector reforms aimed at increasing financial inclusion, including financial sector's capacity to support start-ups. • Promote youth-oriented financial literacy training • Implement policies that specifically promote access to finance for youth
Awareness and Networking	<ul style="list-style-type: none"> • Diffusion of awareness and opportunities among stakeholders of potential outcomes from supporting and investing in young entrepreneurs at national, regional, and local levels. • Promotion of initiatives for youth entrepreneurship through competitions and awards, as well as exchange between established entrepreneurs, notably through peer networks.

Source: UNCTAD (2015). Content reorganized by the authors (2022).

In addition to supporting entrepreneurship, the OECD (2020) proposes that the aim of entrepreneurship policy should be to improve the quality of the business and decent jobs created as well. Under this perspective, several new enterprises are based on a few workers, if not only concentrated on the founder. Hence, policies seeking a greater economic and social benefit also need to focus resources on enterprises with higher potential for sustainability and growth. Furthermore, the OECD (2020) recommends that entrepreneurship policies should consider regional variations in their designs, including both systemic interventions targeting economic and fiscal policies (which may affect different sectors) as well as business support programmes.

The following five subchapters were intended to provide more detailed information on how each of the potential policies may improve the conditions for young entrepreneurs. We aim to establish the causality relation between each of them and the barriers commonly encountered by young entrepreneurs. Further, we aim at summarizing some of the main successful policy experiences reported by the literature on the subject in the form of briefcase studies. Moreover, we provide a specific country-level literature review on how these determinants are perceived in the concerned countries by the study.

2.1.1. Regulatory environment for the Youth

According to Schoof (2006), the regulatory and administrative burdens affect entrepreneurs in general, but are particularly more time-consuming for young entrepreneurs in high-income and developing countries. In the latter, complex government regulations and bureaucratic formalities are particularly conceived as one of the main explanations for the existence of large informal sectors, as the costs of formalizing are higher than the gain in productivity from entering the formal sector.

The burdens are associated with business registration, tax administration, obtaining investment approvals and business licenses, coping with copyright and patent regulations, competition law, access to workspace and long-term leases, among others (Schoof, 2006). Under this perspective, young entrepreneurs often lack the experience with such challenges, and these limitations may push young entrepreneurs to informality, thereby preventing them from opportunities to grow and thrive. Nevertheless, as we might argue in our analysis, informality is more likely to run in necessity-driven enterprises rather than in opportunity-driven ones.

Unsupportive tax regimes and complex registration procedures and costs constitute a burden for young entrepreneurs as they are often less susceptible to dispose of the resources to confront them (Schoof, 2006). For instance, the regulatory and administrative constraints are often reported by the literature as one of the main reasons why entrepreneurs struggle to access finance because being able to comply with formal regulations is necessarily one of the main requirements imposed by investors. This was an important criterion of our country-level interviews, as we will discuss further in this study.

Furthermore, according to Schoof (2006), some of the potential measures to simplify the regulatory and administrative systems could include: (i) introducing electronic tax management systems, so that such procedures can be performed at any time from a computer; (iii) introducing more simplified accounting methods, which would allow faster transactions and less expense for accounting professionals; (iv) the establishment of one-stop-shops (physical and electronic) to enhance business registration procedures in a manner that young entrepreneurs are able to complete the formalization process at one location, thereby avoiding time and money waste; (v) integrating fiscal and tax education with entrepreneurship training programmes. In addition, from the perspective of this author, tax relief programmes or differentiated tax rates may also be conceived to enhance the start-up process. These last measures may take the form of lower tax rates or tax exemptions for a limited period.

Moreover, enhancing the regulatory and administrative framework to make it simpler for young entrepreneurs might also result in positive outcomes from the perspective of governments. The economic literature on public finances largely sustains the potential of tax and regulatory system reforms in increasing tax revenues sustainably. Such increase in revenues may help governments to improve their capacities of formulating and implementing sectoral policies in other areas. While this is not the scope of our study, it is important to note that such reforms can lead to a win-win situation for both young entrepreneurs and governments themselves.

There is quite a lot of evidence reported by the literature that simplifying and modernizing the tax and administrative formalization may improve the conditions for entrepreneurs. For instance, an interesting case of study presented by Schoof (2006) corresponds to the Croatian Reform. From this perspective, this country undertook reforms in the areas of business entry and property registration, envisaging speeding business entry. For this purpose, the Croatian government

launched a one-stop-shop through the Finance-Agency of the State (FINA), thereby reducing the number of steps for registering a business from 12 to 5 (which represented a reduction of 20 days).

2.1.2. The Role of Education for Youth Entrepreneurship

According to Martinez et al. (2010), educational and training programmes that target developing entrepreneurial skills may be provided at various levels of education. They are specifically conceived for the purpose of enhancing entrepreneurial skills and may be implemented not only through the official education systems, but also through other institutions such as chambers of commerce, employers, or other government agencies. The entrepreneurial education is particularly important for young entrepreneurs since it not only develops the attitudinal skills necessary for such, but also contributes to promoting a social and cultural legitimacy and acceptance of entrepreneurship (Schoof, 2006).

While some of these programmes are conceived with the intention of training students to start their own business by acquiring behavioral skills, others might teach about entrepreneurship in the academic context. Consequently, these authors understand entrepreneurship education as the promotion of knowledge and skills about or for the purpose of entrepreneurship. Arguments in favor of these programmes suggest that the largest individual's exposure to entrepreneurship enhances their probability of becoming entrepreneurs in the future (Martinez et al., 2010).

According to Martinez et al. (2010), there are many debates about which type of approaches have the best results, but there is a consensus that the best practice consists in learning-by-doing through experiential learning approaches. For instance, as observed by Alam (2019), the evidence shows that specific entrepreneurship education for secondary and tertiary students may positively affect entrepreneurial mindsets and skills, although it is not clear whether it leads to increases in entrepreneurial activity or income in the long run.

Furthermore, this author sheds light on the fact that evidence suggests positive outcomes from short-cycle business training specifically targeting entrepreneurial psychology for youth and potential entrepreneurs (including women), if such training is held in conjunction with policies targeting the access to finance. Moreover, the role of multi-faced programmes should not be underestimated. In fact, as suggested by this author, the evidence reveals that the most successful

entrepreneurial educational and training policies were closely combined with other actions identified as constraints specifically faced by the beneficiaries (Alam, 2019).

Entrepreneurial education and training may present itself under diverse designs, which in fact are formulated to address each issue involving youth entrepreneurship in each country. For instance, in an issue brief from the ILO in the context of the startUP&Go Programme, evidence from South Africa suggests that business studies classes for in-school youth may generate positive prescription of entrepreneurship as a career possibility among the youth (ILO, 2017). This programme supports high-school teachers to incorporate practical entrepreneurship components into the national curriculum through experiential learning techniques.

According to the findings of the evaluation, after being exposed to the programme, students demonstrated a more realistic view of entrepreneurship, resulting in a few students concluding that they did not have the rightful skills for it, whereas a larger share of them became more interested in it as a choice of career. On the other hand, the entrepreneurial training did not reflect a higher intention or interest for starting a new business in comparison to students that did not receive the same training. According to authors of the study, one of the evaluations for this is that the programme was intended for business students, who in turn were already interested in business before. Nevertheless, although it is a short period of time for reaching conclusions, only 4% of all students had started up a business after one year completing their studies (ILO, 2017).

A second contribution to the discussion is provided by a broad impact evaluation run by the World Bank (2012). Evidence from a randomized trial of entrepreneurship training and self-employment among university graduates in Tunisia upholds that undergraduate students who were assigned to a new entrepreneurship track instead of the standard one was more likely to become self-employed. From the perspective of the authors of this study, *“in economies characterized by a constrained labor demand from the private sector and high rates of youth unemployment, entrepreneurship training has the potential to enable graduates to gain the skills and create their own jobs”* (Premand et al. 2012).

In the case of Tunisia, the motivation that led to the policy, as indicated by the authors of the evaluation, is the fact that this country has been experiencing a high unemployment pattern among the youth, notably among university graduates. For this reason, the Tunisian government launched in 2009 a new entrepreneurship track within the applied undergraduate curriculum (Premand et al.

2012). Consequently, a few undergraduate students in their last years were allowed to write a business plan instead of a traditional undergraduate thesis and subsequently submit it to a competition. The winners of the competition would turn up to be eligible to receive seed capital to start up their enterprises.

The impact evaluation in Tunisia was based on two main hypotheses (i) whether the training and coaching provided through the entrepreneurship track increased self-employment among graduates; (ii) whether the entrepreneurship increased overall employment among these students, considering that these skills might be transferable across occupations (Premand et al. 2012). Their results show that the policy intervention increased self-employment among participants one year after graduation in comparison to the control group.

On the other hand, the results of the study in Tunisia demonstrated that the same impact was not observed when it comes to overall employment (Premand et al. 2012). From the perspective of the authors, the results suggest that the programme changed the composition of employment among its participants, thereby inducing a substitution from wage-employment to self-employment. In addition, according to their analysis, the programme increases students' self-employment probability in the short-run, but there is no evidence that it has the same result in the long-run.

The conclusions from the evaluation in Tunisia (2012) were reinforced by a medium-term impact evaluation held by the World Bank (Alaref et al., 2019). From the perspective of the analysis of these authors, the small positive effects observed in the short-run were not observed in the long-run. Their estimations demonstrate that there are no lasting impacts from entrepreneurship track on self-employment among graduates.

On the other hand, the medium-term evaluation also discusses some of the mechanisms for impacts on entrepreneurship. The authors analyzed that although results indicate that students were more likely to prepare a business plan, they were not susceptible to undertake other actions, such as doing extra studies, working to gain experience, requesting loans to fund the project, enrolling in trainings, disposing of their networks, or using their savings (Alaref et al., 2019). Therefore, the entrepreneurship tracks only had a limited impact on self-employment.

The results of the studies conducted by the ILO and the World Bank confirms the perspective of Martinez et al. (2010) and Alam (2019) understanding of the role of education and training for youth entrepreneurship, that entrepreneurial education and training only has a limited impact on

youth entrepreneurship, and that successful policy practices should also rely on multifaceted policies targeting other constraints faced by young entrepreneurs.

2.1.3. Technology Exchange and Innovation

Entrepreneurship, technology, and innovation are mutually supportive. Unprecedented developments in technology and innovation information STI have afforded young people with new and interesting opportunities. According to the UNCTAD, thanks to the advancement of technology, entrepreneurs have access to new tools to increase the efficacy and productivity of their businesses, as well as new platforms on which to expand their enterprises. STI are used here to refer to computers, mobile phones as well as broadband technologies, not only by using these technologies to learn new skills that will enhance their employability, but also by using STI to develop new products, services, and processes or to improve existing ones (UNCTAD, 2015).

The objectives of policies that facilitate technology exchange and innovation recommended by the UNCTAD (2015) should be supporting greater diffusion of STI, promoting inter-firm networks that help spread technology and innovation, building bridges between public bodies, research institutions and the private sector, and supporting high-tech start-ups.

The development of clusters in various sectors plays a vital role for enhancing the technology exchange and innovation for entrepreneurs. It can generate opportunities for young entrepreneurs to learn skills and capabilities and facilitate the market access (UNCTAD, 2015). In addition, the development of clusters facilitates the knowledge spillovers that creates a synergy effect. Organizations investing in research or technology development often end up facilitating other agents' innovation efforts, either unintentionally, as when inventions can be imitated, or intentionally, as where scientists publish their findings (Stam, 2008).

The case of the Norwegian Innovation Cluster Programmeme (NICP) in Norway can be a good example of a successful innovation cluster. Building on a national cluster policy that has evolved since the early 2000s, the NICP was launched in June 2014 to increase the attractiveness and dynamics of clusters in Norway, as well as to improve the innovativeness and competitiveness of individual companies and start-ups within clusters, and to foster collaborative development (OECD, 2021). Through annual open calls under the strict selection criteria, clusters compete to be part of the programme for funded cluster development projects. Once selected, clusters receive partial

funding for a cluster management organization in addition to advisory services, cluster development assistance, networking activities, and profiling services. Since the programme selects clusters on three distinct levels, including immature clusters that are in the first stages of organized cluster collaboration, the programme is accessible to all entrepreneurs including the youth, regardless of the size or phase of their businesses. The programmes were a big success, resulting in a substantial rise in collaboration and links between all firms and research institutions, as well as an expansion of innovative activities (Røtnes, R. et al., 2017).

2.1.4. Access to Finance

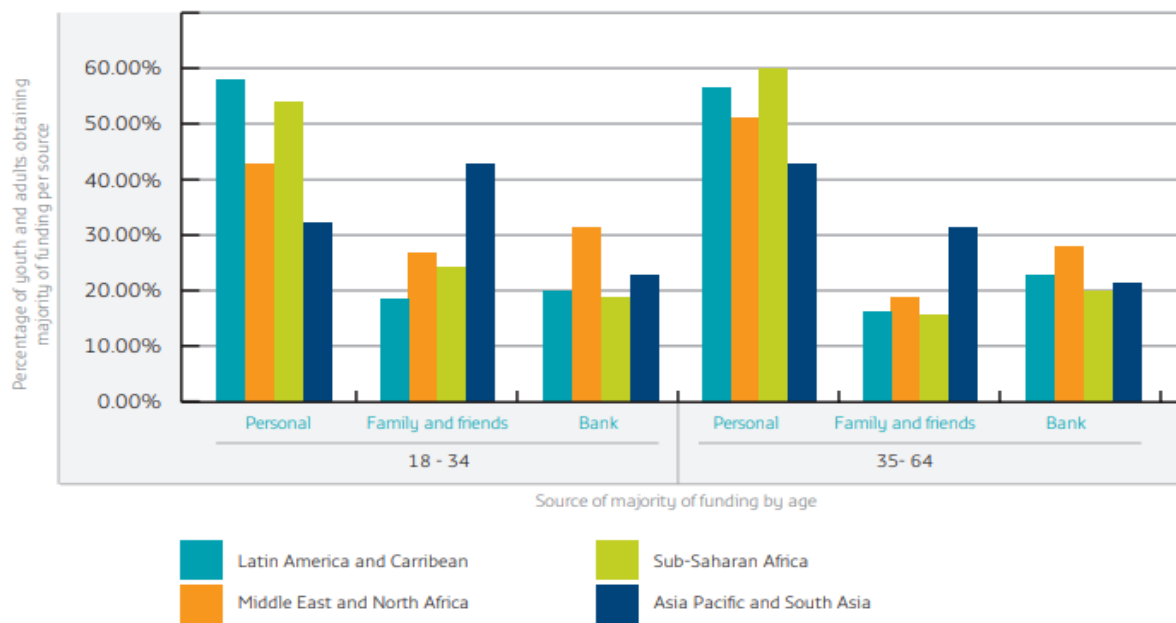
The UNCTAD (2015) identifies access to finance as one of the most crucial challenges for aspiring entrepreneurs, especially in developing countries. For instance, the International Labor Organization identifies some key constraints faced by youth entrepreneurs in financing their startups. These include lack of personal savings and resources, lack of securities and credibility, lack of business experience and skills, strict credit scoring methodologies and regulations, complex documentation procedures, long waiting periods, lack of knowledge, understanding and awareness of startup financing possibilities, unfavorable firm characteristics and industry, legal status/form of enterprise, lack of micro lending and seed funding (Schoof, 2006).

Despite the ILO's report identifying key challenges in access to finance many years ago, these challenges continue to exist at varying degrees in many developing countries. Therefore, youth entrepreneurs are often left to seek other forms of informal financing through the help of their personal savings, or initial capital borrowed from friends and family.

A GEM publication in partnership with Youth Business International (2012) revealed that youth enterprises at early stages are primarily funded by personal savings, or with the help of family and friends. According to this report, three quarters of early-stage youth businesses in Sub-Saharan Africa (77.7%), Latin America and Caribbean (77.7%) and Asia Pacific and South Asia (73.1%) indicated that their primary source of funding was through personal and informal means.

This panorama is also more likely to generate inequality among the people who get the opportunity to become entrepreneurs, as youth from less privileged socio-economic backgrounds are not likely to have such access to informal financial support to launch their enterprise.

Figure 3 - TEA, Source of most of the money to start business by age and region.



Source: Kew et al. (2013).

The literature also reveals that there is a gender parity in access to formal credit in developing countries. Recent data shows that young men generally have greater access to banks and financial institutions than young women, except in a few countries. For instance, in Ghana, 17.9% of men have access to formal credit, against 7.8% of women in the same cohort (Kew et al., 2013).

Figure 4 - Sources of Finance for Early-Stage entrepreneurs, by region, GEM 2015



Source: Daniels et al., 2016.

A GEM publication on Entrepreneurial finance explains the current model of financing entrepreneurship (Daniels et al., 2016). While this data is not specific to youth entrepreneurs, it gives a good overview of the current financing options available to young entrepreneurs as well (table 2).

Table 2 - Overview of financing solutions available for entrepreneurs.

<i>Solution</i>	<i>Explanation</i>
Bootstrapping	In this form of financing, the entrepreneur uses their personal savings and other sources of income to finance their enterprises. While some entrepreneurs may choose this option to retain control over the growth of their company, some also must choose this means of financing as they do not have access to credit otherwise and are forced to finance themselves out of necessity.
Bootstrapping	Friends, Family and Colleagues: This form of financing is usually chosen when an entrepreneur is unable to access credit from formal sources. In such cases, family members, friends or colleagues could own a part of equity or control some shares for their investment into the enterprise.
Public Financing	There are many organizations/governments who are dedicated to spur entrepreneurship and offer grants/seed capital as a part of their programme to promising entrepreneurs.
Accelerators	Several entrepreneurship hubs and incubators are now providing access to funding when entrepreneurs agree to spend time and receive training and mentorship under accelerator programmes. This provides an opportunity for entrepreneurs to learn from experienced mentors and refine their business models, while also giving them the opportunity to receive funding through the networks of such entrepreneurship hubs.
Venture Capital	Venture Capital firms are groups of investors who finance high risk entrepreneurial ventures. 'Partners' usually raises capital through their network of investors and use their experience and expertise to choose ventures that align with the company's investment thesis. The Venture Capital ecosystem is not well-developed in many developing countries, however, many venture capital firms from the developed world are now directing their investments into developing and emerging markets.
Angel Investors	Angel Investors are usually high networth individuals who invest into specific entrepreneurs who interest them in exchange for equity. Such individuals are usually operating alone and have personal preferences on the asset classes and sectors they are interested in investing into.
Microfinance	Microfinance is not a recent form of financing and is usually undertaken by private organizations, non-profit organizations, and government entities to finance less privileged people without any collateral requirement. The Grameen Bank in Bangladesh, founded in 1983 by Muhammed Yunus is a classic example of microfinance.
Peer-to-peer lending	In this form of financing, entrepreneurs get access to credit through rigorous screening processes and selection criteria. However, such loans usually do not require collateral, which makes this form of financing more accessible to many people who may be unable to access formal credit.
Crowdfunding	This is a relatively new model to finance entrepreneurship. It can be very similar to peer-to-peer lending, in exchange for other forms of repayment or equity arrangements. There is more flexibility in the way an entrepreneur can finance their enterprise and repay their investors.

Source: Daniels et al., 2016

Existing policy recommendations about increasing access to finance covers several intervention areas. Policy recommendations by UNCTAD (2015) suggest the need to improve access to relevant financial services on appropriate terms, direct more finance towards innovations by incentivizing venture capital investors, capacity building of the financial sector to enable the growth of startups and educating entrepreneurs about financial literacy.

Agencies of investment promotion also play an important role in access to finance. These are dedicated government agencies that work towards promoting startups within their country by attracting foreign direct investment. For instance, according to the World Economic Forum, Turkey has made great progress through its Presidential Investment Office by engaging in policy campaigns to enable an investor friendly legislation with an active participation from its agency of investment promotion. Further, the office was able to connect local VC Firms to International Limited Partners, thereby allowing foreign VC firms to be familiar with Turkey's local startup ecosystem. Recent data reveals that Turkish startups have raised 1.2 billions of dollars in the first quarter of 2022 (World Economic Forum, 2022).

The lack of a strong VC ecosystem is often associated with barriers to accessing finance, too. Eventually, the state needs to take measures to stimulate growth of the VC industry. For instance, in Israel, the "Yozma Programme" stands out as a great example of how the government was involved in stimulating the VC industry, thereby enabling startups to access finance more easily. After successfully phasing out the government involvement in 1998, the private sector has led the public sector in VC investments since 2000. As a result, data for the period comprised between 1997 and 2012 reveals that 24 billion of dollars were invested in the VC sector in Israel, during which time 100 Israeli high-tech firms were enrolled on the Nasdaq index. These measures even inspired other countries such as Malaysia, India, and Chile to implement similar policies (Daniels et al., 2016).

2.1.5. Awareness and Networking

The environment in which young people live, how they are perceived, and their role on the labor market, among other factors, influence their perspectives on entrepreneurship. According to the UNCTAD, Negative sociocultural perceptions of entrepreneurship can act as significant impediments to enterprise formation and reduce the efficacy of policy interventions designed to

support entrepreneurship. Fostering an entrepreneurial culture that positively values entrepreneurs and entrepreneurship is a crucial factor in determining the success of an entrepreneurship policy framework, as well as a crucial factor in overcoming a culture of dependence – whether from governments or aid donors (UNCTAD, 2015). Therefore, developing a good entrepreneurship ecosystem requires promoting more awareness of entrepreneurship to enhance the positive perception of entrepreneurship.

To ensure those youths have access to pertinent business knowledge, it is essential to raise awareness of entrepreneurship opportunities. For better awareness, networks play a key role in raising awareness of entrepreneurship opportunities, as well as in shifting mind-sets. Entrepreneurship networks can be crucial resources that facilitate access to resources such as financing, business partners, suppliers, employees, and customers (OECD, 2020). Moreover, social networks can be significant as a source of motivation and inspiration, for instance through providing entrepreneurial role models or familial support. Without a professional network, it might be challenging for an entrepreneur to find the variety of public actors that might be able to provide support and funding (OECD, 2020).

However, youth typically have little experience in the labor market and therefore have had fewer opportunities to build professional networks. Due to their limited work experience, young entrepreneurs have had less time than older entrepreneurs to create a professional network and rely more heavily on the support of their family (OECD, 2020).

Policymakers should help youth overcome those challenges by opening opportunities for them to build and strengthen their entrepreneurship networks. The objectives of policies that promote awareness and networking on entrepreneurship recommended by the UNCTAD (2015) should be highlighting the value of entrepreneurship to society and address negative cultural biases, raising awareness about entrepreneurship opportunities, and simulating private sector led initiatives and strengthening networks among entrepreneurs.

The Ye! Community is a good example of enhancing networks among youth entrepreneurs. The Ye! Community, initiated by the ITC, is the global platform where youth entrepreneurs, up to 35 years of age, can connect with resources, tools, mentors, opportunities, and a network. With more than 23,000 members, including young entrepreneurs, mentors, business support organizations, and

financiers, the “Ye! Community” supports and aspires young entrepreneurs to build impactful businesses and enhance economic development (ITC, 2022).

2.2. Youth Entrepreneurship in four countries

For our research, we are going to investigate the entrepreneurial framework conditions for youth entrepreneurs in four countries, namely, Colombia, Ghana, Kenya, and the Philippines.

2.2.1. Colombia

Colombia stands out as an exceptional case when it comes to youth entrepreneurship in Latin America. On one hand, the share of the youth working-age population (15-24 years) registered as unemployed in 2021 was significantly high (24.6%) and, similarly to other Latin American nations, Colombia is confronted with an increasing rate of NEET, which accounted for 24% of the total youth-population in that year.

On the other hand, according to the data from GEM (2016), Latin America presents a TEA of around 18.8%, while in Colombia it reached 27%, which is considerably high. This means that Colombia has a good rate of youth entrepreneurship in comparison to its neighboring countries with similar patterns of development.

Youth Entrepreneurship in Colombia

The evidence from Colombia shows that young people between 18 and 34 are the group that expresses the greatest interest in being entrepreneurs (Pereira et al., 2012). Data from GEM (2012) confirm this trend, also highlighting that youth aged between 18 and 34 are most likely to engage in opportunity-driven entrepreneurship. For instance, in a study about youth entrepreneurship in Caribbean countries, Villegas (2017) indicates that Colombia scores the highest rates of youth that consider being an entrepreneur as a good choice of career (around 92%). On the other hand, this author sheds light on the fact that despite a high perception of opportunities, Colombian entrepreneurs still perceive themselves with the lowest capabilities required for entrepreneurship. Therefore, there is still a high fear of failure among them in comparison to other countries in the region (Villegas, 2017).

Recent quantitative data confirm such positive trends. According to the GEM report for Colombia in 2016 and 2019, the age group between 25 and 34 years was the most likely to be running early-stage firms (27.1%), followed by entrepreneurs aged between 18 and 24 (25%) and the ones aged between 35 and 44 years old (21%). For instance, the report in 2019 indicates that 25% of individuals holding an intention to start up a business end up abandoning it before evolving to the start-up stage, and this share increases to 50% when it comes to the new enterprise's stage. This suggests that support mechanisms for entrepreneurs (promotion policies) need to be analyzed as there is a strong potential for new firms and job generation is being lost (Villegas et al., 2019).

Early-stage youth entrepreneurship in Colombia is equally distributed among youth between 18-34 years old (Villegas, 2017). Similarly, this author suggests that the proportion of new youth entrepreneurs in Colombia has been on the rise since 2011, while the proportion of established youth entrepreneurs, notably among 25 and 34 years old, has also significantly increased. As indicated by the author, this is a good indication that many Colombian youth entrepreneurs thrive to overcome the first obstacles associated with a new business.

Furthermore, GEM's report also suggested that around 58% of early-stage entrepreneurs were driven by market opportunities, whereas the share of entrepreneurs motivated by lack of work opportunities only accounted for 13%. Moreover, approximately 90% of early-stage entrepreneurs considered the opportunity of becoming independent and increasing their incomes as one of the most important motivations to develop their businesses.

Concerning the economic sector, around 70% of Colombian enterprises in all stages are situated within the tertiary sector, thereby providing services to final consumers or other firms. In terms of employment, almost 70% of all enterprises create from 1 to 5 new job positions. However, still, according to GEM's report, only 44% of early-stage enterprises and only 36% of established enterprises expected to create more than 5 new job positions throughout the horizon of 5 years (GEM, 2016).

Entrepreneurial Framework Conditions for the Youth in Colombia

In terms of the environment for youth entrepreneurship, the evidence suggests that factors such as human capital, policy, and regulatory frameworks, as well as the demand and cultural environment for value-added business, have presented themselves favorably in the country (Villegas,

2016). The main challenges for young entrepreneurs, in contrast, are associated with social determinants and social capital: while the former refers to the income levels of the population and how society is structured, the latter corresponds to the environment of trust that makes it possible to build networks among entrepreneurs and between entrepreneurs and institutions to obtain the necessary resources (Villegas, 2016). Under this perspective, the first determinant restricts the integration process of young entrepreneurs with other valuable social networks, whereas income may directly affect the capability of financing new entrepreneurial initiatives.

On the other hand, the report suggests that in the past few years in Colombia the entrepreneurial culture has been on the rise, thereby sparking a higher interest among the youth in running their own business. Although such interest was in principle driven by necessity, it would have become more sophisticated, progressively giving place to entrepreneurship driven by opportunity and conviction (Villegas, 2016).

Education and Entrepreneurship in Colombia

In addition, since 2006 there has been an important effort in Colombia toward entrepreneurial education under the auspices of Law 1014 from 2006, according to which all education establishments in the country are expected to run integrated actions to promote the acquisition of entrepreneurial skills in all levels of education, comprising from the primary school to higher education institutions. Such initiatives include the “National Network of Entrepreneurship” and the REUNE.

Education also seems to be relevant for entrepreneurship in Colombia. According to the report, in Colombia, there is a direct correlation between the level of education and entrepreneurial activity. To this extent, 33% of early-stage enterprises in 2016 were run by individuals holding postgraduate levels of education, while only 6% of enterprises were created by individuals without primary education (Villegas, 2016).

2.2.2. Ghana

According to World Bank Data (2021), its population is 31.7 million. Over the last two decades, Ghana has made good progress in developing a democracy with a multi-party system, and an

independent judiciary. According to 2021 World Bank Data, Ghana's GDP is \$77.59 billion. Its GDP growth stands at 5.4% (2021) and unemployment at 4.7% of the total labor force (2021)

Youth Entrepreneurship in Ghana

The Ministry of Employment and Labor Relations in Ghana (Boateng et al., 2014) identifies certain causes that aggravate the youth unemployment situation. The lack of emphasis on vocational training and job placement, not adequately linking education to key sectors needed for economic growth, inefficient management of Ghana's industrial base, the lack of sufficient public sector opportunities coupled with the slow growth of the private sector and the lack of a comprehensive strategy to deal with the challenge of unemployment were a few factors identified.

The potential of harnessing the youth population in Ghana to engage in entrepreneurship has several benefits which include tackling the challenge of unemployment, raising domestic competition, enabling more choices for consumers, encouraging an environment of innovation and learning, and creating new opportunities in various sectors.

In a 2014 study, when participants were questioned about the barriers to youth entrepreneurship in Ghana, corruption was stated as a significant challenge by 79.41% of the respondents, which seemed to be affecting access to resources, dominantly in the state programmes employed to promote youth entrepreneurship (Boateng et al., 2014)

The total entrepreneurial activity (TEA) data for Ghana in 2012 shows that youth aged 25–34 represent the most entrepreneurial cohort. The data also shows that Ghana is one of the few countries in the world where female participation in entrepreneurship is a little more than men. The female TEA is highest among the youth cohort, with 44% (data for men was 40%) (GEM, 2012).

Ghana's rate of business discontinuation continues to be a challenge. In 2012, the business discontinuation rate was 16%, the fifth highest among GEM countries (GEM, 2012). Challenges in business development including low profitability, difficult access to finance and opportunities, lack of innovative training, and government regulation that will enable entrepreneurial activity are some of the factors that prevent young people from venturing and sustaining their enterprises.

Government Intervention in Ghana

The National Youth Policy's implementation plan was launched in 2015 and highlights key intervention areas for developing youth-human development and technology, economic empowerment, participation in governance, leadership, sports, and national orientation. The STI policy of Ghana also specifically has policies to drive youth innovation through promoting innovation at all levels of education, financial aid to promising students, and identification and mentoring of talented young scientists (Browne et al., 2021).

The National Entrepreneurship and Innovation Plan (NEIP) launched in 2018 primarily focuses on providing integrated, national support for start-ups and small businesses. There are various focus areas under this policy that aims to develop the ecosystem more aggressively. The key target sectors under this policy include- agribusiness, STI, sports, tourism, creative arts, health sanitation and waste management, transport and logistics, fashion and beauty, manufacturing, and industrial processing (Government of Ghana, 2022).

The Government of Ghana announced a youth (18-40 years) targeted entrepreneurship plan in 2022 called the YouStart Programme to encourage entrepreneurship to create at least 1 million jobs in the next three years (2022-2025). The programme intends to provide funding and technical assistance to youth businesses to help them incubate, build, and scale their businesses (Ghana Ministry of Finance, 2022).

Public-Private Sector Interventions

Private sector involvement is key to developing the entrepreneurial ecosystem in any country. The Ghana Tech Lab was founded by the Ministry of Communication and the World Bank to promote digital entrepreneurship and jobs (Browne et al., 2021). According to these authors, another initiative by this Ministry includes the Ghana Innovation Hub to support youth innovation through assistance in business development. In addition, accelerator programmes like the Ghana-Oracle Digital Enterprise Programme, launched in 2019 aims to accelerate 500 local start-ups. Moreover, there are other interventions in Finance, Tax, Venture Capital, and Angels Networks undertaken by both the government and the private sector that aim to create a more enabling ecosystem for youth entrepreneurship to flourish.

2.2.3. Kenya

Kenya, a country in East Africa, has a population of 54 million (World Bank, 2021). The unemployment rate of Kenya stands at 5.7% in the year 2021 (World Bank, 2021). The World Bank estimates youth unemployment (15- 24 years) to stand at 13.8% in 2021.

The Kenya Youth Development Policy (2019) 'seeks to provide an opportunity for improving the quality of life for the youth in Kenya through their empowerment and participation in economic and democratic processes, as well as in community and civic affairs. One of the priorities of the policy involves the promotion and development of entrepreneurial culture among the youth by providing access to finance, training partnerships, and business incubation.

A few barriers that currently hinder youth entrepreneurship development in Kenya include the lack of alternative forms of education or education focused on developing life skills, a negative attitude in society about youth, the lack of clarity in expectations of youth, and challenges in access to credit (Wise Sambo, 2016).

A study of youth entrepreneurs sampled in Kibera (Wise Sambo, 2016). Kenya revealed that there was an equal distribution of gender in business enterprises. About 60% of entrepreneurs belonged to the age group of 26-29 years, and 37% belonged to the age group of 30-35 years. Most of the youth entrepreneurs pursued ventures in areas like groceries, salons, car washes and garages, kiosks, supermarkets, boutiques, and butcheries (Wise Sambo, 2016).

The discussion of integrating entrepreneurship education in Kenya is not recent. The Ministry of Research, Technical Training and Technology initiated a project to implement a policy requiring vocational and technical students to complete a course in entrepreneurial education as early as 1990 (Nelson, Johnson,1997). In studies about the implementation of entrepreneurship education in Kenya, it is found that the pedagogic methods employed by teachers are not adequately effective in 'developing an entrepreneurial orientation or inculcating an entrepreneurial culture. (Mkala, 2013).

The YEDF, a state corporation under the Ministry of Public Service, Youth, and Gender, was founded in the year 2007 with a strategic focus on enterprise development to increase economic opportunities and participation of the youth in Kenya towards nation-building. According to the authors, the objective of the fund is to create employment opportunities for young people through entrepreneurship and encourage them to be job creators and not job seekers. It does this by providing easy and affordable financial and business development support services to youth who are keen on

starting or expanding businesses. So far, YEDF has disbursed 12.8 billion Kenya Shillings nationally' (YEDF, 2022).

One of the key objectives of the Youth Enterprise Development Fund was to tackle the challenge of unemployment. Studies from the Naivasha and Gilgil districts of Kenya show that despite some success of the YEDF, the number of youths employed in YEDF enterprises in these districts is still very low (Mutuku, 2014).

Research also indicates that the YEDF continues to face challenges such as inadequate access to rural areas, operational challenges in the disbursement of loans, mismanagement, and corruptions and requires better implementation structures that provide better management of funds, eradication of corruption and more clarity of eligibility criteria (Sikenyi, 2017).

2.2.4. Philippines

The Philippines is an archipelago made up of more than 7,000 islands and a founding member of the ASEAN. It is classified as a factor-driven economy relying mainly on its natural resources in generating income and economic activities for the country. However, as more businesses are engaged in service, the country is expected to move from a factor-driven to an efficiency-driven economy (Velasco, 2013). The Philippines posted a GDP of 394 billion US dollars in 2021, with a relatively high GDP growth rate of 5.7%. The unemployment rate in the country has been reduced constantly, from 3.6% in 2011 to 2.4% in 2021. Foreign direct investment (FDI) reached 1.9% in 2020, which is about three times higher than in 2010 (0.5%). The total population of the Philippines is 111,046,910 in 2021, ranked as the 2nd most populous country in the ASEAN, with a constantly decreasing population growth rate of 1.3% (World Bank, 2021).

The Philippines, like other ASEAN countries, is dominated by MSMEs. According to the 2020 List of Establishments compiled by the Philippine Statistics Authority (PSA), there are a total of 957,620 businesses operating in the Philippines. Out of these, 99.5% are MSMEs and 0.49% are large enterprises. Micro enterprises constitute 88.7% (850,127) of total MSME establishments, followed by small enterprises at 10.25% and medium enterprises at 0.49%. Moreover, the top five industry sectors among MSMEs in 2020 were (i) wholesale and retail trade; (ii) repair of motor vehicles and motorcycles; (iii) accommodation and food service activities; (iv) Manufacturing; (v) other service activities; and (vi) financial and insurance activities.

These industries represented approximately 83.7% of all MSME establishments. As the country aims to transition from a factor-driven economy to an efficiency-driven economy, the role of MSMEs in sustaining growth and supporting inclusive growth becomes more vital. The creation of jobs by MSMEs contributed to the reduction of unemployment and the incidence of poverty. With government support in developing and growing Philippine enterprises, the country is facing a new breed of entrepreneurs who will require a more innovative and supportive business environment (Velasco, 2013).

The Philippines put a significant effort into encouraging youth entrepreneurship and developing young entrepreneurs, and a part of this effort can be entrepreneurial education in higher education in the country. Entrepreneurial education in higher education in the Philippines is mandated by law and offered as a bachelor's degree and master's degree (Velasco, 2013). There are also government and private undertakings to support the development of youth entrepreneurship through the different business incubator programmes that offer relevant training.

According to the 2015 GEM Global Data, the Philippines have the most favorable societal perception of entrepreneurship among countries in Southeast Asia. In the Philippines, 76% of the survey respondents placed high status on entrepreneurs and 73% recognized entrepreneurship as a good career choice. This positive societal perception implies the strong motivation of the population to become entrepreneurs, which is one of the important factors of entrepreneurship.

One of the major governmental supports for youth entrepreneurship in the Philippines is the (YEP) implemented by the DTI of the Philippines. The YEP is a nationally focused programme targeting young Filipino entrepreneurs aged 18-30 to promote youth entrepreneurship development and address the young demographics of the country to become productive individuals through entrepreneurship. It helps young Filipinos develop their entrepreneurial skills by offering them a comprehensive package of interventions, including business registration assistance, entrepreneurship skills training, and access to investment funding and relevant equipment.

On the other hand, there is criticism against inefficient government policies toward entrepreneurship. According to the GEM, government policies and bureaucracy impede the growth and development of businesses in the country. Although there are numerous laws in the Philippines that support entrepreneurship, information dissemination is limited. Similarly, regulations and policies about SMEs are implemented inconsistently and inefficiently.

Laws have been enacted to encourage the formation of new businesses. However, these laws do not encourage the expansion and growth of start-ups. As businesses expand, their operations become more burdensome due to increasingly restrictive regulations. It is also more difficult to conduct business in the Philippines due to government taxes and the bureaucracy involved in implementing business policies and procedures. Therefore, to improve the favorable environment for youth entrepreneurship, adequate policy recommendations should be needed.

Chapter 3: Results and Analysis

The following chapter aims to introduce the results and analysis of information collected through the semi-structured interviews. We seek to summarize the main findings collected through the semi-structured interviews conducted with relevant actors from the entrepreneurial ecosystem in their respective countries. For this purpose, we designed a set of questions based on the main policy fronts presented in table 1 which we used to guide the interviews undertaken between September and November 2022. Nevertheless, interviewees were invited to freely respond to the questions, and each of us acted as moderator to guide them through covering most of the points concerned.

3.1. Colombia

From the perspective of the interviewees in Colombia, some of the most favorable factors are associated with the existence of a large and diverse ecosystem of entrepreneurship, especially in medium and large cities such as Bogotá, Medellín, and Barranquilla, among others. These ecosystems are strong and well-connected and rely on a few national and regional public and private institutions including incubators, accelerators, and larger enterprises that support entrepreneurs directly. In internationalization terms, Colombia benefits from a geographic location that allows entrepreneurs to easily access international markets if they are willing to, and this is a strong advantage for entrepreneurs to grow.

On the other hand, all respondents mentioned that the country is currently facing a period of uncertainty associated with the recent change of government. One of our respondents expressed the concern that possible upcoming tax reform might not only affect enterprise creation in Colombia but may also have a direct impact on individuals that consume the products marketed by the

entrepreneurs. All the respondents' main concerns revolved around the impact of such uncertainty over the economy, particularly affecting access to finance and national and foreign new investments.

One interesting finding from the interviews is that the respondents do not believe there is a substantial distinction in how the regulation affects young entrepreneurs in comparison to older ones. For instance, all respondents believe that most tech-based entrepreneurs are young, and while this is an advantage as they are more exposed to new knowledge and technology, thereby reaching markets with new ideas and propositions, they could lack credibility in the market. Nonetheless, this cannot be generalized, as many young entrepreneurs thrive very well.

In addition, three respondents perceived informality as not being a major issue among tech-based entrepreneurs. On one hand, informality is an issue that concerns mostly necessity-driven entrepreneurs in the country. On the other hand, although Colombia has a modern tax and regulatory law, only a small fraction of enterprises, mostly large ones, comply with the law and pay taxes. From this perspective, tech-based firms are innovation-driven, and it is particularly important to keep documents updated, notably if entrepreneurs aim to network with large-sized companies. According to the interviewees, this is not necessarily an issue for these entrepreneurs, as they are normally more prepared for the markets.

In general lines, the respondents believe that reaching financial funds remains one of the biggest challenges for entrepreneurs of all ages, as the supply is not enough for the demand. Consequently, Colombian entrepreneurs often seek investors abroad. The ongoing global inflation affected Colombia, and it became harder to obtain resources. Because the official interest rates in the market are higher, many investors prefer to invest in other funds. For the youth, this is a greater issue because they have fewer guarantees in comparison to older entrepreneurs.

Regarding policies, our respondents stated that since the year 2000, there were several advances when it comes to including incentives for the youth in terms of access to technology and innovation. There have been government programmes targeting training the youth through training in developing and coding. Consequently, many young individuals envisage in technology a possibility for better career prospects.

According to the interviewees, in most of these cities, there are organizations like chambers of commerce that support entrepreneurs to which enterprises are required by law to be members. Consequently, these chambers play an important role in supporting entrepreneurs, too, also

considering that these chambers benefit from resources resulting from membership fees. They also play a relevant role locally and at a national level by helping to integrate diverse actors such as entrepreneurship hubs, universities, and entrepreneurs. This institutional setup is very important for the ecosystem. They support entrepreneurs through diverse fronts of action to help them to achieve a higher stage.

There are some policies supporting entrepreneurs at all levels of government and in partnership with the private sector, including fostering access to funds as well as incentivizing innovation and a culture of entrepreneurship, and some of these policies aim to be inclusive. Nonetheless, the government should support more entrepreneurs by enabling access to finance, which could be made in partnership with the official banking systems.

3.2. Ghana

Data collection from interviews conducted by stakeholders from the Ghana entrepreneurship ecosystem revealed that there is a consensus on the attractiveness of Ghana as a stable and promising business environment due to its peacefulness, stable political nature, and good governance. Due to concerns about unemployment among youth in Ghana, the government has taken proactive steps through the NEIP and YouStart Initiative towards encouraging more youth entrepreneurship to tackle the employment crisis. This has led to the entrepreneurship ecosystem swiftly developing over the last few years. While agriculture remains the backbone of the economy and requires a lot more technology intervention and investment, fintech, and emerging tech startups have also been very popular choices among young entrepreneurs. One of the most crucial challenges for youth entrepreneurship in Ghana is access to finance.

All interviewees acknowledged the role of government policies⁴ in driving the interest towards youth businesses, however, they also acknowledged challenges in its implementation. Awareness around such policies was still a challenge as many young people continue to be unaware of such policies. Interviews from entrepreneurs also revealed the trade-offs they were required to make in their careers as students in universities to be able to support their businesses at such an early age. With little or no support from universities to further their businesses, entrepreneurs were left to

⁴ National Entrepreneurship and Innovation Programme and YouStart.

sacrifice their academic goals to be able to continue to grow their businesses. Interviewees spoke of the need to integrate such entrepreneurial activities into the mainstream curriculum, in which motivated and innovative students could receive credits for the work they do.

Due to high-interest rates in Ghana, access to finance through loans from banks is not desirable. Despite the Venture Capital Trust Fund that aims “to provide financial resources for the development and promotion of venture capital financing for Small and Medium Enterprises (SMEs)” and the presence of the Accra Angel Network (Browne et al., 2021), according to the interviewees, the country has almost negligible venture capital presence, too, which is very limiting for young entrepreneurs. Financial support for entrepreneurs continues to be largely dependent on external funding and grants.

There is a need to increase VC/PE/Angel investor presence in the country and the government needs to take initiative to develop the ecosystem to attract such investors. Technology, an important variable that determines the scalability and success of enterprises, is still largely concentrated in big cities with little access to rural regions in Ghana. Furthermore, finding the right technology partners is still a challenge for entrepreneurs coming from non-tech backgrounds. In such cases, there is a need to proactively look for collaborations and synergies that could bring together complementary skill sets to build tech-driven enterprises.

International organizations like the GIZ, World Bank, and the Mastercard Foundation have a strong presence in the ecosystem in Ghana, however, a lot of their intervention is channelized through the government. To increase awareness, interviewees suggested that communication regarding available policies could be improved, and universities could be a great medium to disperse such information. A unique observation among the interviewees was a certain attitude shift required among the youth of Ghana to become more proactive in seeking opportunities rather than having them delivered to them.

This entrepreneurial curiosity and consistent persistence in seeking opportunities was something they believed were necessary to be taught and encouraged in universities and schools to increase synergy among youth people and ecosystem stakeholders. Furthermore, incentive structures could be put in place to encourage the youth to actively take part in more incubation and acceleration programmes rather than just looking for funding opportunities.

3.3. Kenya

Data collection from interviews of ecosystem stakeholders from Kenya revealed there was a sectoral focus on enterprises related to climate change and agriculture, health, youth employment generation, education, and gender. However, intervention in agriculture was extremely crucial, especially moving towards innovations in agriculture value chains by making agribusinesses a more attractive venture opportunity. Many youths engaged in entrepreneurship in Kenya are working in key impact sectors that should ideally be managed by the government. While Kenya has seen many wins in entrepreneurship, the distribution of such wins remains a question. Inequality in rural and urban areas and gendered biases in youth entrepreneurship remain a challenge. There is also a need to identify gaps in skills development and capacity building and develop a consistent overarching youth strategy that will remain stable despite changes in political leadership.

The Youth Enterprise Development Fund is a government initiative to improve access to finance for young entrepreneurs, however, none of the respondents seemed to passionately talk about any government policies that were supporting youth enterprises. Some of the interviewees commented on the challenges entrepreneurs face when getting access to funding through the development fund, however, there was no unique or exceptional mention of any government policies specifically targeted toward youth entrepreneurs. Access to finance is a major challenge even in Kenya. While there is decent venture capital funding available to support entrepreneurs from different stages of business, this funding is still primarily from outside of Kenya. There is a need to make entrepreneurs more investment ready and introduce alternative financing options for smaller businesses that do not require ticket sizes of millions. An interviewee also commented that certain racial preferences guided the likelihood of founders getting access to funding. This is a challenge that is usually beyond the control of the government as it happens within the private sector investment area.

Education and skill development in sector-specific industries coupled with general entrepreneurial hard and soft skills were suggestions proposed by the interviewees to incorporate entrepreneurial training into the education curriculum. While such programmes were available in private universities, there is a need to make them more accessible by also expanding this to public universities. The interviewees also stressed the need to extend networks to include more stakeholders from the ecosystem and suggested that international organizations like the ITC could take leadership in building more partnerships with local hubs and connecting them with international partners.

There is also a need to increase communication and knowledge sharing to make information more accessible to everyone.

Finally, overall, there is considerable confidence among investors to invest in young people⁵. There is a strong emphasis on data-driven companies, working in circular economy and climate-related enterprises. However, despite such wins, the gender bias against female entrepreneurs is very concerning and requires intervention.

3.4. Philippines

According to interviews conducted with stakeholders in the Philippines, where 99.9% of businesses are classified as SMEs, and where the social perception of entrepreneurship is very positive and encouraging, there is little resistance among young people to starting their businesses, but there are still many obstacles. All interviewees identified "disconnection" as a key problem of government policies, which is the root of all challenges across all sectors.

One interviewee stated that government policies do not correspond with reality. Despite the government's efforts to construct an ecosystem, there is a significant gap between government policy and reality because market regulations are not keeping pace with market realities. Foreign ownership and certain industries are still subject to stringent controls and significant taxation. New firms are taxed and subject to the same penalties as businesses that have been operating for decades. Due to the government's lack of compliance education, new entrepreneurs are taxed heavily for minor infractions at the earliest stages of firm formation, which may impede their efforts.

Although the government conducts several training courses to improve entrepreneurial skills and awareness, they are not properly implemented since the government employees in charge lack business or entrepreneurial expertise. Consequently, the programmes frequently diverge from reality, resulting in superficial, impractical content. In addition, most educational and training programmes have stagnated or ceased after starting or planning since COVID-19.

There is another disconnect between government agencies. Since there is no single institution responsible for entrepreneurship policies, they are dispersed and overlapping, which inhibits and delays their effective implementation. Education in the Philippines is weak to that of its neighbors.

⁵ Enterprises led by founders under the age of 40

Unlike in neighboring countries like Indonesia and Malaysia, there is no entrepreneurial education in primary school. Except for the ABM track, there are virtually few entrepreneurship classes in high school. To create a more hospitable ecosystem for young entrepreneurs, the government should place a greater emphasis on the effective implementation of existing policies and relax the current burdensome restrictions.

3.5. Main findings of semi-structured interviews briefly

In Colombia, Ghana, and Kenya, our interviewees recognized the presence of general interest and drive from the government to promote policies aiming at supporting youth entrepreneurship. In particular, the interviewees in Colombia indicated that there are governmental policies at all levels, as well as several public partnerships, whereas Ghana out stands for counting with two policies directly targeting cross-section issues between innovative entrepreneurship and the youth. Kenya, on the other hand, created programmes to foster funding for youth entrepreneurship.

Lastly, in the Philippines, the regulations and laws are outdated, with several hurdles for business. Interviewees often highlighted the importance of strengthening the regulatory framework systems, thereby turning them more modern through concrete actions and interventions.

Table 3 - Regulatory Environment and Governmental Support

<i>Country</i>	<i>Main findings</i>
Colombia	<ul style="list-style-type: none"> ⇒ Expensive to comply with regulatory and tax frameworks ⇒ Existence of governmental policies in all levels ⇒ Existence of public-private partnerships for fostering access to funds and incentives for innovation ⇒ Promotion of entrepreneurial culture ⇒ Policies fostering access to finance require more attention ⇒ Law 2069 from 2020: “Entrepreneurship Law”
Ghana	<ul style="list-style-type: none"> ⇒ Strong interest and drive from the government to encourage entrepreneurship to create more jobs and reduce unemployment ⇒ National Entrepreneurship and Innovation Programme and YouStart Initiative are the most mentioned policies. However, challenges in implementation still exist. ⇒ Limited awareness of such policies among entrepreneurs. Information flow from the government requires improvement. ⇒ Challenges in registration of businesses, bureaucracy, and hurdles in situations where non-Ghanian co-founders are involved. ⇒ Government support is required to develop a strong Venture Capital ecosystem.

Kenya	<ul style="list-style-type: none"> ⇒ Youth Enterprise Development Fund-Government policy to promote youth entrepreneurship by providing access to funding. ⇒ Several limitations on the actual implementation of policy and interviewees had a very lukewarm response in general when asked about policies by the government ⇒ The government is interested in promoting agriculture and must focus on infrastructure development in rural Kenya.
Philippines	<ul style="list-style-type: none"> ⇒ Still, very strict regulations on foreign ownership and certain industries ⇒ Regulation is outdated, and not catching up with the reality: new businesses are subject to the same penalty as businesses that are operating 2-30 years ago ⇒ Not much awareness of compliance by the government

Sources: Interviews conducted by the authors (2022)

Entrepreneurial education and training may result to be a support integral actions toward enabling youth to thrive as entrepreneurs. Still, our respondents suggested that these programmes are still scarce. In Colombia, for example, there is a specific law from 2006 that defines that entrepreneurial education and trainings is supposed to be included in the curriculum of schools in all levels of education. Nonetheless, some respondents were not aware of concrete policies in this sense, and even when they were aware of the law, they were not aware of concrete programmes in schools, except for the actions implemented in all the neighborhoods of Medellín. Moreover, such actions were not taking place in the formal education system.

In Ghana, youth entrepreneurs reported that the education system was not accommodating to entrepreneurship. Some of our respondents suggested that the government should encourage entrepreneurship better, which included promoting entrepreneurial education and skills. They proposed the expansion of incubation hubs at the universities to enhance exposure to entrepreneurship, which included possible partnerships with foreign universities.

On the other hand, in Kenya, the respondents highlighted a scarcity of such initiatives, and suggested that universities and research institutions should engage more in them. Similarly, in the Philippines, entrepreneurial education and training is very rare, except for specific business school tracks. Therefore, this country is placed in a disadvantaged position in comparison to neighboring countries.

Table 4 - Entrepreneurship education and skills development

<i>Country</i>	<i>Main findings</i>
Colombia	⇒ The Law 1014 from 2006 established that establishments of all levels are required to introduce some training in entrepreneurship.
Ghana	<ul style="list-style-type: none"> ⇒ Youth entrepreneurs reported trade-offs and sacrifices that were to be made to support their businesses with education. ⇒ Suggestions on credit-based rewards for engaging in entrepreneurial activities, such as incubation programmes. ⇒ Suggestions on the need to encourage more entrepreneurship education, skills development and mindsets and attitudes in public universities. ⇒ Proposals for creation of more incubation hubs within universities and form partnerships with foreign universities for international exposure towards entrepreneurship.
Kenya	<ul style="list-style-type: none"> ⇒ Presence of incubation hubs in private universities, however lack of such entrepreneurship/incubation hubs present in public universities. ⇒ Suggestions on the need to develop more skill training in universities with emphasis on sector specific skills, storytelling skills etc. ⇒ Suggestions on the need to engage in more knowledge and research in universities and connect them to practice in the field of entrepreneurship.
Philippines	<ul style="list-style-type: none"> ⇒ Education on entrepreneurship is very rare in high school in all tracks except for the ABM track. ⇒ No entrepreneurship course in primary school unlike neighboring countries such as Indonesia and Malaysia

Sources: Interviews conducted by the authors (2022)

In most of the given countries, as the necessity of accelerating STI and technology skills have been recognized as a key role for youth entrepreneurship, there have been incentives and training programmes regarding technology and innovation. In Colombia, since 2000, there have been several developments in incentives for youth when they access to STI as well as training programmes for developing IT skills such as coding skills for the youth.

Ghana also has a concentration of tech-startups in big cities. However, the common challenge for all targeted countries is the regional gap. Interviewees from Ghana, Kenya, and the Philippines stated that despite the existence of IT skills programmes, most of supports and programmes are concentrated in urban areas. There is a limited access and connectivity to rural areas in Ghana and Kenya, and the IT skills level among the youth varies largely in different regions in the Philippines.

Table 5 - Technology Exchange and Innovation

<i>Country</i>	<i>Main findings</i>
Colombia	<ul style="list-style-type: none"> ⇒ Since 2000: Several developments in incentives for youth access to STI. ⇒ Existence of training programmes for skill IT and coding skills for the youth ⇒ Increase of youth interest for tech-related careers.
Ghana	<ul style="list-style-type: none"> ⇒ Urban-rural divide in access to technology, resulting in concentration of tech-startups in big cities. ⇒ Existence of infrastructure and connectivity limitations perpetuating this divide. ⇒ Technology skills in rural areas limited: Youth forced to come to bigger cities to develop such skills. ⇒ Suggestions on the need to increase collaboration and synergy to build more tech enterprises. ⇒ Challenges identified in finding the right technology partners.
Kenya	<ul style="list-style-type: none"> ⇒ Limited access to technology penetration in the whole country. ⇒ Acknowledgement of the need to leverage technology to increase scalability of startups.
Philippines	<ul style="list-style-type: none"> ⇒ Most SMEs are digitized rapidly nowadays yet still most of them don't have digital tools to expand their business efficiently ⇒ IT skills level among youth varies in different regions.

Sources: Interviews conducted by the authors (2022)

Data collection from interviews from the chosen countries revealed that access to finance was one of the most crucial challenges in most developing countries. There is consistency in the causes of why accessing finance is challenging for youth entrepreneurs in these countries. Lack of collateral, credit history and entrepreneurial experience continues to be barriers for the youth. In the case of Ghana, the local economic situation has also resulted in very high interest rates, which has made formal credit through banks a very expensive and undesirable option.

There tends to be high dependence on external funding to support local startups, either through grants/ external VC investment or entrepreneurship hubs /international organizations. The interviewees observed that the strength of the VC sector in countries like Ghana was also not very developed and required strengthening to attract investors. Data collected from the Philippines revealed other challenges related to proper financial inclusion and observed inefficiencies in government implementation in government funding.

Existing policy recommendations include a variety of intervention areas by the various stakeholders involved in the ecosystem. Some of them include 'micro-funding models, coupled with

training/mentoring through the first year of operation’ [GEM,2015] As many young entrepreneurs are novices to financial systems and processes in business, such a training programme with the incentive of financial investment is a way to incentive young entrepreneurs to also learn key financial skills.

Table 6 - Access to Finance

<i>Country</i>	<i>Main findings</i>
Colombia	<ul style="list-style-type: none"> ⇒ One of the main challenges for all entrepreneurs. ⇒ Entrepreneurs often seek credit abroad. ⇒ The ongoing global crisis hit Colombia strongly and investors have been redirecting their investments to less risk fund options. ⇒ The youth have fewer guarantees than old entrepreneurs. As a consequence, it might be harder for them to access financing. ⇒ In the past few years, there was an emergence of a number of crypto firms and fintech firms that are favorable for the STI and entrepreneurs system.
Ghana	<ul style="list-style-type: none"> ⇒ Entrepreneurs largely depend on loans from banks. However, this is not affordable due to the high interest rates in Ghana. ⇒ Access to finance remains one of the biggest challenges to youth entrepreneurs, as they have no prior experience, no credit history and lack of strong alternative sources of financing. ⇒ Investments majorly sourced from abroad through incubation hubs and are usually limited to participants of such incubation/acceleration programmes. ⇒ Very poor venture capital/ angel investor presence in Ghana. Suggestions to build an ecosystem to attract more VC investment. ⇒ VC/PE investment from abroad is available, but largely depends on the track record of the enterprises.
Kenya	<ul style="list-style-type: none"> ⇒ Requirement to make affordable finance more accessible to people. Loans from banks are very limiting. ⇒ Decent presence of venture capital, impact investors, grant givers who support idea stage companies as well. ⇒ Need to make enterprises more investor ready, especially in the case of VCs. ⇒ More provisions need to be developed for financing companies that require smaller funding ticket sizes. ⇒ Observed tendency of VC/foreign finance being more accessible to racially privileged groups and limitations on amount invested with unfair terms and conditions.
Philippines	<ul style="list-style-type: none"> ⇒ Retention rate of bank account is very low ⇒ Funding from the government is very limited : too many requirements. ⇒ Process is too slow: inefficient and stagnant implementation

Sources: Interviews conducted by the authors (2022)

Women entrepreneurship also requires additional support in the form of financial aid, as observed in the gender parity that exists in access to finance. Policy recommendations also include

specific funds allocated to women entrepreneurs without traditional securities such as collateral. (GEM, 2016)

The level of awareness and networking among youth entrepreneurs appears to vary across the countries listed. In Colombia, the interviewees stated the existence of robust ecosystems in the major cities, the integration of regional ecosystems on a national scale, and the favorable support of youth entrepreneurs by several public and private organizations.

To train hub managers in Ghana, where the GIZ, the World Bank, and the Mastercard Foundation play a central role in the ecosystem for youth entrepreneurship, the ToT programmes are available. In Kenya, despite the observed trend of more entrepreneurs being willing to support and assist younger entrepreneurs, information access remains limited. To create a better ecosystem for youth entrepreneurship, it would be necessary to increase awareness of existing opportunities and build stronger networks.

Table 7 - Awareness and Networking

<i>Country</i>	<i>Main findings</i>
Colombia	<ul style="list-style-type: none"> ⇒ Strong ecosystems in the main cities in the country. ⇒ Chambers of commerce play an important role. ⇒ Integration of regional ecosystems at a national scale ⇒ Several public and private organizations support entrepreneurs to achieve higher stages through a large set of actions.
Ghana	<ul style="list-style-type: none"> ⇒ ToT programmes available to train hub managers. ⇒ GIZ, World Bank and Mastercard Foundation are active players in the ecosystem, however many initiatives go through government programmes like NEIP. ⇒ Suggestions on the need to improve communication of policies. Universities can be a great medium to disperse such information.
Kenya	<ul style="list-style-type: none"> ⇒ Challenges in attracting talent towards youth led enterprises. ⇒ Access to information is still limited, and the need to increase the knowledge of existing opportunities. ⇒ Suggestions on the need to create a strong network of entrepreneurs where common challenges faced by entrepreneurs can be communicated. ⇒ Observed tendency for more established entrepreneurs open to support and help younger entrepreneurs. ⇒ Suggestions on the need for ITC to increase more partnerships with local hubs and bridging the gap between the various stakeholders in the ecosystem.
Philippines	<ul style="list-style-type: none"> ⇒ Government's programmes for awareness, such as training, do not work well because people in charge have nothing to do with entrepreneurship. ⇒ Awareness programmes often end up being too superficial and theoretical, rather than reflecting the reality ⇒ There are some training programmes for better awareness, but still haven't reached the

networking phase.

Sources: Interviews conducted by the authors (2022)

Although the social perception of entrepreneurship in the Philippines is highly favorable, awareness of the existing policies is low due to ineffective implementation. In addition, the existing programmes for raising awareness are too superficial because the government officials who implement them frequently lack business expertise.

4. Recommendations

This chapter comprises general and country-specific recommendations. These were formulated on the basis of our study and main findings.

4.1. General Policy Recommendations

Regulatory Environment and Governmental Support

- ❖ Modernization of entrepreneurship-related laws and regulations to enable inclusive and diverse access to formalization.
- ❖ Identify the barriers related to enterprise formalization and formulate strategies to allow young entrepreneurs to reduce time and other resources spent for complying with the law.
- ❖ Integration of the regulatory framework into the strategy for entrepreneurship policy, thereby targeting regulation-related issues in other policy fronts (e.g., access to finance).
- ❖ Promoting reforms within the tax system to make it more equitable and to reduce systematic distortions that discourage entrepreneurship.
- ❖ Formulation of strategies to enhance awareness of young entrepreneurs about the regulations and laws, as well as the importance and concrete benefits of complying with it.

Entrepreneurship education and skills development

- ❖ Strengthening entrepreneurial education and training in all levels of education to develop skills and an entrepreneurial culture.
- ❖ Introducing entrepreneurship/incubation hubs within public universities so that talent can be identified and honed at the right time

- ❖ Introduce a reward structure (e.g., credits, grades) for students who are also working as entrepreneurs so that they are encouraged to attend incubation programmes/ accelerators and engage in other entrepreneurial activities without feeling the need to compromise on their academic pursuits.
- ❖ Establish partnerships with foreign universities, so students get exposure to young entrepreneurs from other parts of the world.
- ❖ Integrate relevant public and private organizations such governmental agencies and chambers of commerce into the strategy for teaching entrepreneurship for the youth to raise awareness and networking.
- ❖ Integrate the entrepreneurial education into multidimensional programmes specifically supporting young entrepreneurs and eventually based on inclusiveness-wise clippings (e.g., gender or minorities).

Technology exchange and innovation

- ❖ Increasing the courses for IT skills open to the public in collaboration with local universities across regions.
- ❖ Investing in innovation through incentives such as tax breaks and grants
- ❖ Reinforcing the linkage between youth entrepreneurs and tech enterprises that foster youth-led businesses' skills development and market access
- ❖ Reinforcing policies to support technology enterprises, incubators, and cluster

Access to finance

- ❖ Introduction of low-interest loans from banks specifically designed to cater to high-potential youth entrepreneurs.
- ❖ Couple access to finance and management with training and mentoring so that young enterprises are guided in the right direction even after receiving financial support
- ❖ Development of government financial products/loans specifically dedicated towards women to bridge the gap in financing of young male and female entrepreneurs.
- ❖ Creation of government policy incentives to manipulate investors, private banks to lend more to young entrepreneurs.

- ❖ Encourage corporates and foundations to use Corporate Social Responsibilities and other such requirements to direct investment towards youth enterprises.
- ❖ Creation of a government Investment Promotion Agency dedicated towards improving startup ecosystems by making them more investment ready and enabling international partnerships to increase FDI within the local country.
- ❖ Strengthening the venture capital venture presence in the countries by government intervention to enable the creation of an ecosystem that would attract more VC presence internally and externally (Using models such as the example from Israel above).
- ❖ Train young entrepreneurs on investor readiness, so they are adequately prepared on how to sell themselves to potential investors.
- ❖ Attracting financing alternatives with smaller ticket sizes so that young entrepreneurs with smaller ventures can access more affordable funding options.
- ❖ Mainstream financing information from governments, private investors, international organizations, and companies on a common platform supported by the government or network of entrepreneurship hubs to ensure information about such funding opportunities are accessible to everyone.
- ❖ Capitalizing on the impact driven nature of youth entrepreneurs in developing countries to attract more impact investment from the developed countries.

Awareness and networking

- ❖ Creating a national online platform where local youth entrepreneurs can find a practical database of existing start-ups, active hubs and supporting policies, and share their current challenges and information.
- ❖ Creating awareness by media engagement from both mainstream media and specialized media agencies.
- ❖ Developing mentoring programmes to connect aspiring entrepreneurs with experts in their respective fields.
- ❖ Increasing the number of regional hubs to reduce the regional gap.

Other general recommendations

- ❖ Promoting social entrepreneurship among youth entrepreneurs to attract investment from specific asset classes
- ❖ Developing a legal framework [in the case of it not being present] to categorize companies as social enterprises so that they can access funding from specific impact driven VCs/impact investors globally.
- ❖ Supporting entrepreneurs to hone business models in social entrepreneurship and producing impact reports that could be used to further attract such investment options.
- ❖ Incentivizing aggrotech businesses across the entire value chain
- ❖ Developing specific policies that would help incentivize the youth to move towards agribusinesses across the entire value chain
- ❖ Engaging in university level research to involve students in agriculture related research and innovation that can be converted to businesses.
- ❖ Revamping the narrative around aggrotech businesses to make it a more attractive business opportunity based on the urgent need in many developing countries.
- ❖ Creation of more inclusive and diverse policies to encourage more participation of rural parts of developing countries and female participation in youth entrepreneurship. Specifically designed policies or programmes targeting certain less privileged social groups is a great way of ensuring more inclusive benefits.

4.2. Country-specific recommendations

Colombia

- Granting regulatory and tax frameworks with a more efficient and trustful approach.
- Strengthening digitization processes for complying with the regulation to facilitate the inclusion of the youth that are keener to use digital services.
- Reducing tax burden for entrepreneurs, as the current situation affects all entrepreneurs.
- Strengthening enforcement of the regulations for all entrepreneurs.
- Strengthening the mobilization among diverse actors in the ecosystem for youth entrepreneurship, in particular the regional Chambers of Commerce and initiatives such as

“Connect Bogotá Region” and “Ruta” in Medellín.

- Enhancing integration of policies held by levels of government to improve access to finance.
- Expanding collaboration of public and private sectors towards increasing funding opportunities for youth entrepreneurs.
- Formulating policies to provide loans and grants to tech-based initiatives, which may also be undertaken in collaboration with the banking system through subsidies and favorable rates.
- Strengthening the role of “Innpulsa Colombia” and “Procolombia” in fostering entrepreneurship and internationalization of Colombian enterprises, respectively.
- Adopting concrete actions to implement the “Law 1014 from 2006” that defines the role of entrepreneurial education and training in all levels of education.
- Adopting concrete actions to implement the “Entrepreneurship Law” 2069 from 2020, which defines the guidelines for several of the previous points.

Ghana

- Inspection required into the implementation of the NEIP and YouStart initiative to check for inefficiencies in execution and bureaucracy
- Improving government communication strategy of youth enterprises directed policies to ensure the youth are aware about the existence of such programmes.
- Government intervention required to stimulate VC/PE presence in the country.
- Infrastructure development to ensure technology is accessible in remote regions as well
- Creating private/public platforms that would enable entrepreneurs with non-technical backgrounds to meet technical experts as co-founders.
- Creating opportunities through programmes/events/ partnership platforms to create more collaboration and synergy among technology and business partners
- Creation of incubation hubs in public universities through credit reward systems to foster entrepreneurship at university levels
- Providing more opportunities for students to engage with foreign universities skilled at innovation and entrepreneurship.
- Creation of more R&D hubs in universities and linking them with strong business models to promote innovative entrepreneurship.

Kenya

- Inspection required into the implementation challenges of funding access through the Youth Enterprise Development Fund.
- Improved access to technology required in more remote regions
- Creating a platform to attract talent willing to work with youth enterprises
- Building more partnerships with local hubs, international organizations, and other foreign organizations to increase networks of entrepreneurs.
- Creation of incubation hubs in public universities through credit reward systems to foster entrepreneurship at university levels
- Providing more opportunities for students to engage with foreign universities skilled at innovation and entrepreneurship.
- Creation of more R&D hubs in universities and linking them with strong business models to promote innovative entrepreneurship.

Philippines

- Simplifying the registration process for businesses, at least in their earliest stages.
- Establishing a common agency or initiative among different government agencies to avoid the stagnation of implementation and overlapping.
- Increasing the number of entrepreneurial courses at all levels of education and in university programmes.
- Increasing the number of open-to-the-public IT courses at local universities across the country to narrow the regional divide.
- Enhancing the quality of entrepreneurial education programmes or awareness programmes by incorporating mentors and instructors with relevant business experience.
- Strengthening the existing awareness programmes so that they can build more stable and robust networks among young entrepreneurs, not becoming one-time events.
- Increasing the number of funding opportunities through private sector collaboration.
- Creating a mentorship programme where youth entrepreneurs can be linked with experienced entrepreneurs in relevant fields to take advantage of the abundant MSMEs in

the country.

Conclusion

Enabling the framework conditions for young entrepreneurs is broadly identified by the literature as a core challenge for tackling the youth unemployment issue and therefore achieving the SDG, thereby ensure inclusive and equitable access conditions of work for the future generations. Still, recent data show that there are many global challenges when it comes to unleashing the potential of the youth entrepreneurship in developing countries.

Guided by the UNCTAD policy framework guidelines for youth entrepreneurship, we analyzed the different favorable and unfavorable conditions in each country through an in-depth review of the international and national literature about each country. Our literature review, associated with the findings of our interviews, demonstrates that despite increasing interest from governments, international organizations, and the private sectors, all the all four countries are confronted with important barriers.

While the hurdles confronted by the youth in each case may vary significantly from one country to another, notably within their particular contexts, most of them are confronted with similar major issues, largely, (i) low access to finance; (ii) complex and burdening outdated regulatory frameworks; (iii) scarce governmental support; (iv) lack of entrepreneurial education and training, in particular those leading to building skills required for operating business; (v) low access to network and opportunities. In chapter 3 we addressed these issues in more detail, and further, in chapter 4, we proposed a large set of general and specific recommendations aiming at tackling those.

Lastly, it seems relevant to note that despite all the challenges, most of the entrepreneurs, hub directors, country leaderships or government agents were very enthusiastic about youth entrepreneurship. This supports this research too, as it confirms that many actors playing in different ecosystems in diverse developing countries are keen to continue the entrepreneurial journal as means to development. We hope our research will contribute with inputs in this regard.

References

Audretsch, D.B. (2007) *The Entrepreneurial Society*, Oxford University Press, New York.

Audretsch, D. B. (2017). Entrepreneurship and universities. *International Journal of Entrepreneurship and Small Business*, 31(1), 4-11.

Alaref, J., et. al. (2019). The Medium-Term Impact of Entrepreneurship Education on Labor Market Outcomes: Experimental Evidence from University Graduates in Tunisia. *In: Policy Research Working Paper 8701. Social Protection and Jobs Global Practice*, January 2019. Washington: World Bank Group.

Blanchflower, D. G. and Oswald, A. J. (1998). *Entrepreneurship and the Youth Labour Market Problem: A Report for the OECD*. Paris: OECD Publisher.

Boateng, G. O. et. al. (2014). Barriers to Youthful Entrepreneurship in Rural Areas of Ghana. *In: Global Journal of Business Research*, 8 (3).

Bohne, A., et al. (2014). Short-term impact of the startUP&go entrepreneurship education programme in South Africa: a first follow-up survey in a quasi-experimental and longitudinal study of an experiential entrepreneurship education programme in South Africa”. Pretoria: International Labour Office.

Browne, L. et al. (2021). *Harnessing Ghana Youth Innovation Potential for the SDGs. UNDESA/IATT Policy Brief – Technology Facilitation Mechanism*.

Commonwealth Youth Programme. Commonwealth-Asia Alliance of Young Entrepreneurs (CAAYE) Launched. [Link to publication](#). Accessed on November 02nd, 2022.

Daniels, C. et al. (2016). *Global Entrepreneurship Monitor 2015/2016: Special Report on Entrepreneurial Finance*. London: Global Entrepreneurship Research Association.

EDC (2021). *Youth Entrepreneurship in Ethiopia, Mali, and Rwanda: Understanding the Opportunities*. Washington: Education Development Center.

Gachugia, T. M. et al. (2014). Role of youth enterprise development fund in curbing youth unemployment in Kenya. *European Journal of Social Sciences, Arts and Humanities*, 2 (2).

Velasco, A. L. et al. (2015). *Global Entrepreneurship Report for the Philippines, 2015-2016*. Manilla: De La Salle University Publishing House.

Schøtt, T. et al. (2015). *Future Potential – A GEM perspective on youth entrepreneurship*. London: Global Entrepreneurship Research Association.

Hill, S. et al. (2022). Opportunity Amid Disruption GEM 2021-2022 Global Report. London: Global Entrepreneurship Research Association.

Kew, J. et al. (2013). Generation Entrepreneurs? The state of global youth entrepreneurship - Understanding the entrepreneurial attitudes, aspirations, and activities of young people. The Prince's Youth Business International. London: Global Entrepreneurship Research Association.

Kew, J. et al. (2015). Africa's Young Entrepreneurs: Unlocking the potential for a brighter future. International Development Research Center. London: Global Entrepreneurship Research Association.

ILO (2017). Educating entrepreneurs: Can in-school youth be taught to start a business? - Evidence from South Africa. Issue Brief No. 5, October 2017. Geneva: International Labour Organization.

ILO (2020). Global Employment Trends for Youth 2020: Technology and the future of jobs International Labour Office – Geneva: ILO.

Martinez, A. C. et al. (2010). GEM Special Report: A Global Perspective on Entrepreneurship Education and Training. London: Global Entrepreneurship Research Association.

Mkala, D. M. & Wanjau, K (2013). Transforming Implementation of Entrepreneurship Education Programmeme in Technical Training Institutions in Kenya. *In: European Journal of Business and Innovation Research*, 1 (3).

Nelson, R. E. & Johnson, S. D (1997). Entrepreneurship Education as a Strategic Approach to Economic Growth in Kenya. *In: Journal of Industrial Teacher Education*, 35 (1).

OECD (2018). Guidance notes: Facilitating access to finance for youth entrepreneurs. [Link to publication](#). Accessed on November 02nd, 2022.

OECD/European Commission (2020), "Policy brief on recent developments in youth entrepreneurship", *OECD SME and Entrepreneurship Papers*, No. 19, OECD Publishing, Paris, <https://doi.org/10.1787/5f5c9b4e-en>.

OECD (2021), "The regional entrepreneurial ecosystem", in *Entrepreneurship in Regional Innovation Clusters: Case Study of Chiang Mai and Chiang Rai, Thailand*, OECD Publishing, Paris, <https://doi.org/10.1787/41482bc7-en>.

Owusu, G. et al. (2016). Youth Entrepreneurship in Ghana: Current trends and policies (Chapter). *In: Young Entrepreneurs in Sub-Saharan Africa*. 1st edition, London: Routledge.

Pereira, F. et al (2012). GEM Antioquia 2012 - Issue Brief. Medellín: Universidad Nacional de Colombia et al. (Consortium)

Prem and et al. (2012). Entrepreneurship Training and Self-Employment among University Graduates: Evidence from a Randomized Trial in Tunisia. *In: Policy Research Working Paper 6285*. December 2012. Human Development Department. Washington: World Bank Group.

Republic of Kenya (2019). Kenya Youth Development Policy – Empowered Youth for Sustainable Development. Policy Framework Report. Nairobi: Government Printer.

Røtnes, R. et al. (2017). Evaluation of Norwegian Innovation Clusters. Report 76-2017. Oslo: Samfunnsøkonomisk analyse AS.

Sambo, W (2016). Factors affecting youth entrepreneurship development in Kibera district, Kenya. *In: Problems and Perspectives in Management*, 14 (3). South Africa: University of South Africa.

Schoof, U (2006). Stimulating Youth Entrepreneurship: Barriers and Incentives to Enterprise Start-ups by young people. In: SEED Working Paper 76 – Series on Youth and Entrepreneurship. Geneva: ILO.

Sikenyi, M (2017). Does Kenya’s Youth Enterprise Development Fund Serve Young People? *In: Ayele, S. et. Al (orgs). IDS Bulletin – Transforming Development Knowledge: Africa’s Youth Employment Challenge: New Perspectives*, 48 (3).

Stam, E. (2008). Entrepreneurship and Innovation. In B. Nooteboom & E. Stam (Eds.), *Micro-foundations for Innovation Policy* (pp. 135–172). Amsterdam University Press. <http://www.jstor.org/stable/j.ctt46mwvr.10>

UNICEF (2019). Alam, A. (org). Youth Entrepreneurship: concepts and evidence - Issue Brief. Washington: UNICEF.

UNCTAD (2015). Policy Guide on Youth Entrepreneurship. Geneva: United Nations Conference on Trade and Development.

UNCTAD (2022). Entrepreneurship Policy Hub: Access to Finance. [Link to website](#). Accessed on November 02nd, 2022.

Velasco, A. L. (2013). Entrepreneurship Education in the Philippines. *In: DLSU Business & Economics Review*, 22 (2).

Villegas, R. V (2017). Youth entrepreneurship dynamics in the Caribbean region: 2011-2013. *In: Int. J. Entrepreneurship and Small Business*, Vol. 30, No. 3, 2017.

Villegas, R. V., et al. (2020). Dinámica de la Actividad Empresarial en Colombia. GEM Report 2019. Universidad Icesi et al. (Consortium). Cali: Editorial Universidad Icesi.

World Bank (2020). Unlocking finance for youth entrepreneurs: Evidence from a Global Stocktaking. Washington: The World Bank Group. [Link to the publication](#). Accessed on November 02nd, 2022.

World Economic Forum (2022). In the era of global start-up, countries must step up their game to attract FDI. Entrepreneurship Press Release. Accessed on December 4th, 2022.

Youth Fund (2022). Information about the Youth Enterprise Development Fund of Kenya. [Link to website](#). Accessed on July 08th, 2022.

APPENDIX

A. Semi-structured Questions

The interviews were conducted with ITC country managers, entrepreneurs, leaders, entrepreneurship hubs, and governmental agents. Each interview lasted from 30 to 45 minutes, a time during which each participant was asked to freely give their qualitative opinion about each of the following guiding questions.

In some specific cases, the questions were adjusted to reflect the profile of the respondent, but such questions still revolved around the policy fronts.

Table 8 - Guiding questions for semi-structured interviews.

<i>Front</i>	<i>Guiding Question</i>
General	<ul style="list-style-type: none"> - Can you briefly describe the panorama of young entrepreneurship (18-35 years old) in your country with a focus on technology-based ventures (Startups, Fintechs, other sectors)? - How is the current situation? - Is the situation favorable or unfavorable? - Are there indications that youth entrepreneurship is an option for the promotion of economic development and to increase employment opportunities for young people in your country? - What are the main challenges faced by young entrepreneurs in your country? - What is your perception of the Agri-tech businesses in your country? - Are there sectors that require a special attention? - What were the main challenges you encountered across different stages of business?
Regulatory Framework	<ul style="list-style-type: none"> - How is the situation in your country in relation to the regulatory environment / laws related to youth entrepreneurship?

Government Support and Policies	<ul style="list-style-type: none"> - What are the main policies or governmental initiatives supporting tech-based young entrepreneurs. - What are the most successful policies in your perception, and why? - What are fewer effective policies in your perception, and why? - Are there economic sectors that need more policy intervention / specific policies with a view to the development of youth entrepreneurship? Why? - What are the public policies at national or regional level that aim to support the development of youth entrepreneurship? Are they coordinated? - What are the difficulties or challenges encountered in the implementation of such policies?
Entrepreneurship Education and Skills	<ul style="list-style-type: none"> - In reference to young entrepreneurs, how is the situation in your country in relation to education for entrepreneurship development? - Are there laws supporting this type of approach? Are they effective?
Technology Exchange and Innovation	<ul style="list-style-type: none"> - In reference to young entrepreneurs, how is the situation in your country in relation to development and exchange of STI and its effect over young entrepreneurship?
Access to Finance	<ul style="list-style-type: none"> - In reference to young entrepreneurs, how is the situation in your country in relation to accessing finance? - What is the panorama of Venture Capital and Private Equity in your country? - How is the funding gap being addressed?
Awareness and Networking	<ul style="list-style-type: none"> - In reference to young entrepreneurs, how is the situation in your country in relation to awareness of entrepreneurship and networking? - What is your perception about the collaboration among various stakeholders in the entrepreneurship ecosystem? Is the government involved? - How helpful are the other actors within the ecosystem in supporting the growth of entrepreneurs? - How is the general social perception of entrepreneurship in your country?
Infrastructure for Entrepreneurship	Current state of Internet and Technology penetration in Kenya. How accessible are such solutions to entrepreneurs from regions away from the capital and big cities?
International Cooperation	<ul style="list-style-type: none"> - Can you briefly describe the outlook for internationalization in your country, with a focus on tech-based enterprises undertaken by the youth? - Is the current situation favorable or unfavorable? - What are the government policies aimed at promoting internationalization? - Are there indications that such policies have achieved the expected results? - Which and how international organizations or multinational companies are collaborating with entrepreneurs? - What are the main challenges related to internationalization of firms?
Others	<ul style="list-style-type: none"> - Would you like to mention other challenges, recommendations, or policy solutions?

Source: Formulated by the authors (2022).

B. List of Interviewees

The interviewees were previously selected by the research team. Further, they were validated by the ITC national expert for each country, thus being adjusted accordingly. Thereafter, the ITC established a connection with each interviewee, who promptly replied to our message to book a time slot.

Table 9 - List of country interviewees

Country	Interviewee Name	Affiliated Organization	Stakeholder Category
Ghana	Mr. Isaac Newton Acquah	International Trade Centre	International Organization
	Ms. Patience Alifo	Econexus Ventures Limited	Entrepreneur
	Mr. Mathias Charles Yabe	AkoFresh	Entrepreneur
	Mr. Joshua Opoku Agyemang	STEM Network & IoT Africa	Entrepreneurship Hub
Kenya	Ms. Belinda Kageni	Ongoza	Entrepreneurship Hub
	Ms. Winnie Njogo	Ongoza	Entrepreneurship Hub
	Mr. Ian Mati	iProcure Ltd & Vintara Co.	Financing Ecosystem Actor & Entrepreneur
	Mr. Vincent Odhiambo	Ashoka East Africa	Regional Director Entrepreneurship Hub
	Ms. Grace Kola	Circular Innovation Hub	Entrepreneurship Hub
Colombia	Mr. Federico Perez Vasquez	International Trade Center	International Organization
	Mr. David Mejia Gomez	Vertical Labs (Medellín)	Entrepreneurship Hub
	Mr. Erez Zaionce	Centro para la Cuarta Revolucion Industrial de Colombia (C4IR)	Joint Initiative of National Government with Medellín's City Hall
	Ms. Tatiana Leon	Connect Bogotá Region	Innovation and Entrepreneurship Network
	Mr. José Enrique Campos Bermúdez	Procolombia, Ministry of Foreign Trade and Development	Governmental Agency
	Ms. Camila Andrea Polo Gamez	Procolombia, Ministry of Foreign Trade and Development	Governmental Agency
Philippines	Ms. Charmaine Co	Philippine Young Entrepreneurs Association	Entrepreneurship Hub
	Mr. Victor Varela	Philippine Young Entrepreneurs Association	Entrepreneurship Hub
	Mr. Raymound Joshua Tan	Philippine Young Entrepreneurs Association	Entrepreneurship Hub
	Ms. Alwyn Joy Rosel	QBO	Entrepreneurship Hub
	Mr. Carlo Calimon	Startup Village	Entrepreneurship Hub

Source: Formulated by the authors (2022).