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GHANA YOUTH BUSINESS PERFORMANCE AND SUSTAINABILITY INDEX REPORT 2021



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Contents

List of Tables	5
List of Figures	6
Acknowledgement	7
Executive Summary	8
Findings and Implications	8
CHAPTER ONE	10
INTRODUCTION	10
1.0. The Background	10
1.1. The informal economy in Ghana – some stylized facts	11
1.1.1 The concept of informality	11
1.1.2. Characterization of the informal economy in Ghana	12
CHAPTER TWO	14
RELATED LITERATURE	14
2.1. Global Competitive Index	14
2.2. Global Innovation Index (GII)	14
2.3. Global Entrepreneurship Index (GEI)	14
2.4 Ease of Doing Business index	14
2.5 Business Confidence Index	15
2.6 Master Card Index for Women Entrepreneurs (MIWE)	15
2.7. Human Centered Business Index	15
2.8 Uganda Business Climate Index	16
2.9 The gap	16
CHAPTER THREE	17
METHODOLOGY	17
3.0 The Concept of Economic Sustainability	17
3.1. The Structure of the Youth Business Performance and Sustainability Index	17
3.2. Construction of the composite index	17
3.2.1. Selection of Sustainability Indicators	18
3.2.2. Determination of indicator weights	18
3.2.3. Normalization	18

3.2.4. Choosing the aggregation method	19
3.2.5. Index construction	19
3.3. Sampling	20
3.4. Unit of Analysis	20
3.5. Sampling methodology	21
3.6. Stratification	21
3.7. Survey Period	22
CHAPTER FOUR	23
ESTIMATION AND ANALYSIS OF THE YBPSI INDEX	23
4.1. Sample description of the data	23
4.2. General Findings	24
4.2.1 Disaggregated analysis of the estimated index	26
4.3. Challenges and constraints facing youth-led businesses	30
CHAPTER FIVE	32
CONCLUSION AND POLICY IMPLICATIONS	32
5.1. Conclusion	32
5.2. Policy implications and options	32
References	33
APPENDICES	35
APPENDIX I: Some informal organizations in Ghana	35
APPENDIX II: QUESTIONNAIRE	36

List of Tables

Table 1: Forms of informal sector activities and labour in Ghana	12
Table 2: Regional Distribution of Youth Businesses	21
Table 3: Sample description of the data	23
Table 4: Summary statistics of the youth business sustainability index	25
Table 5: Count of enterprises with sustainability index beyond some thresholds	25
Table 6: Operational challenges faced by youth enterprises	30
Table 7: Constraints faced by youth enterprises	31

List of Figures

Figure 1: Stages in building the sustainability index	18
Figure 2: Hierarchical scheme for computing the youth business sustainability Index	20
Figure 3: Average sustainability of businesses within regions	25
Figure 4: Regional distribution of the sub-indices	26
Figure 5: Distribution by business sector of operation	27
Figure 6: Distribution of YBPSI by sector within regions	27
Figure 7: Distribution of YBPSI by gender within regions	28
Figure 8: Distribution of the average sub-index by gender of the business owner	28
Figure 9: Distribution of YBPSI by gender within business sectors	29
Figure 10: Distribution of sub-pillars by age of the business owner	29
Figure 11: Distribution of sub-pillars across business type	30

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Report Compiled by:

Prince Boakye Frimpong (PhD) - Snr Lecturer, Dept of Economic, KNUST (Lead Consultant)

Sherif Ghali – CEO Ghana Chamber of Young Entrepreneurs

Edem Agbe – Managing Director, Participatory Development Associates

Wahab Suleman – Ghana Cocoa Board/ Y-SEG Member

John Defor – Director, Policy & Research, AGI

Francis Yawson – Y-SEG Member

Coordination of Research by:

Ethel Seiwa Boateng – Ghana Coordinator, Youth Forward Learning Partnership

Peter Annor Mensah – Project Officer, Youth Forward Learning Partnership

Jonathan Antwi Hagan – Snr. Project Officer, Youth Forward Learning Partnership

Executive Summary

This report, the first of its kind, features the development of an appropriate methodology and the construction of the Youth Business Performance and Sustainability Index (YBPSI) in Ghana. The YBPSI offers insights into the performance and sustainability of youth businesses particularly within the informal sectors of Ghana. In this report, we define youth enterprises as those owned by individuals aged between 18 and 35 years. Over the years, efforts have been made by different researchers to construct indexes within the business ecosystem. However, none of these indexes have given special focus on youth businesses and particularly within the informal sector. To be considered within the broader national policy circles, it is crucial to conduct cutting-edge research on youth enterprises' performance and sustainability to provide a fundamental evidence for their inclusion or otherwise in policy. At the outset, informal youth businesses appear to be outside the official books of governments. However, to reduce the size of this sector and the contributions they make to gross production is a biased depiction and cannot be overlooked. It, therefore, became imperative to set out to develop a methodology for the construction of an index which seeks to measure the performance and consequently the sustainability of youth enterprises.

In the development of this index, we concentrated only on the urban centers of all the 16 regional capitals of Ghana to draw our sample. Since, the population of youth enterprises is unknown, we resorted to using the recent Electoral register on individuals aged between 18 and 35 years disaggregated by region to have a fair idea about the number of youth in the country. It is important to note that, this is by no means suggesting that every youth owns and runs a business.

The YBPSI is anchored on three broad pillars: **social, economic and systems**. An enterprise's

performance and sustainability on the overall YBPSI results and pillars likewise is reported as a score on a 0-to-1 scale. The score of 1 represents the 'frontier', an ideal state where an enterprise is perfectly sustainable. Each youth enterprise should aim to move closer to the frontier on each pillar of the index. Thus, sustainability is achievable for all youth.

Findings and Implications

The evidence suggests that a large chunk of the youth enterprises is found within the informal sector. There is also evidence that youth enterprises in the urban informal sector are moderately sustainable. Specifically, an average youth enterprise irrespective of the business sector, age, gender and nationality of the business owner obtained a score of 0.42. The minimum and maximum scores were found to be 0.12 and 0.77 respectively. When disaggregated by region, youth businesses situated in urban Western North region outperform their counterparts from all the other regions. Male-owned enterprises are slightly sustainable compared with female-owned youth enterprises. Enterprises found in the manufacturing and industry sectors are considerably similar in terms of their sustainability while being marginally above those in commerce. When we consider the sub-indices, youth enterprises perform better on the social dimension, followed by systems. Stated differently, almost all the sampled enterprises underperform when we consider the economic dimension of the index. Thus, the overall average score of 0.42 can be attributed to the poor outcome of the economic pillar of the index. A corollary of this is, youth businesses in Ghana face high cost of doing business and this severely threatens their sustainability. Further, a favourable re-orientation of the tax and administrative structures would significantly improve the performance of youth hence the

significant proportion of the youth enterprises are found within the informal sector.

Drawing on the results, the report provides leads to unlock the social, economic and systems performance of youth businesses, which is critical for sustainability. Specifically, the report recommends ensuring access and operational

space for businesses, reducing barriers to registration of youth-owned businesses and ensuring that the general macroeconomic environment be stable. These and many more are important in enhancing the performance and sustainability of youth-owned businesses in Ghana.

CHAPTER ONE

INTRODUCTION

1.0. The Background

Over the past few decades, a number of indicators and indices tailored around businesses have been developed both globally and internally within Ghana. This is to facilitate informed decisions that affect businesses drawing from current business performance and prospects for the future. Examples of these indexes are the World Bank's Ease of Doing Business Index, the OECD Business Confidence Index, etc. However, of all these indexes, none focuses on the performance of youth-owned businesses and how the broader national policy environment affects their sustainability. Additionally, the indexes that are specific to Ghana look at businesses in only the formal sectors or specific geographic regions of Ghana.

The informal sector has grown both in the rural and urban areas of Ghana, despite several efforts by governments to formalize the economy. Governments have been working steadily to formalize the informal sector in order to widen the tax base, aimed at increasing tax revenues needed to manage the economy provide social protections and to promote growth and stability. Compared with the formal sector, informal sector employment has increased over the decades, partly due to the low educational attainment of workers and the challenges businesses face in operating in the formal economy. Moreover, between the 2000 and 2010 Population and Housing Censuses, the informal sector grew by 6.1 percentage points (GSS, 2014). In spite of the significant employment activities particularly by young people taking place in the informal sector, there is a lack of reliable and relevant information on the informal sector business environment, hence the likelihood to overlook the sector in

certain policy issues (GoG, 2014).

In this report, we compute the performance and sustainability of youth businesses with special focus on the informal sector. There is no unanimity regarding the definition of the term 'youth'. For instance, the EU (2009) classifies people within the ages of 15 to 29 years as youth whilst in countries like Japan and Korea, the age extends to under 35 years (Green, 2013). Furthermore, there is no consensus regarding the definition of youth enterprises. In this report, the definition of "youth" provided by the Ghana National Youth Policy as "persons who are within the age bracket of 15 and 35 years" was adopted and tweaked for the purpose of this project, to 18-35 to fit the minimum age in the electoral register which was used in the sampling of youth enterprises¹. Ergo, youth enterprises are defined as businesses owned by individuals between the ages of 18 and 35 years.

A number of national policy development frameworks highlight measures being implemented to ensure investments in various sectors of the economy to create more decent jobs particularly amongst the youth. Amongst these development policies include inter alia, the One District One Factory (1D1F), Planting for Food and Jobs, and the National Builders Corps (NABCO), National Entrepreneurship and Innovation Programme (NEIP), Programme for Economic Transformation (PET) and Infrastructure for Poverty Eradication Initiative (IPEP). Generally, the objective of these policy interventions is to ensure skill and entrepreneurial development in the Ghanaian business environment to facilitate job creation causing reduction in unemployment.

Over the past decade, there has been a surge in the number of startup and small and medium

¹ https://www.youthpolicy.org/national/Ghana_2010_National_Youth_Policy.pdf

enterprises in the country. Nevertheless, there is dearth of information regarding the sustainability and performance of these informal businesses particularly amongst the youth. Consequently, the lack of reliable and timely information on the performance of these enterprises coupled with the deficiency of data and evidence in the broader national policy environment is affecting the ability to effect evidence-based policy advocacy in Ghana.

Having identified the lack of reliable and timely data on youth-led businesses as a potential challenge, we seek to develop a youth-based business performance and sustainability index. The Youth Business Performance and Sustainability Index will be an effective tool that will assist Youth Sector Engagement Group (Y-SEG) and other relevant stakeholders in advocating for national policy changes that will ease starting youth-owned businesses; track their sustainability, growth and performance and finally ensure the inclusion of youth-led business issues in national development policies.

Pursuant to the foregoing, in this report we develop a baseline methodology for constructing youth business sustainability index (YBSI) with the aim of providing invaluable insights into the performance and sustainability of youth businesses with special focus on the informal sector. We collect data across the regional urban centers of the country on youth-led business and utilized the methodology to estimate the index. The index seeks to serve as a guide for the Y-SEG committee and the Association of Ghana Industries (AGI) to effectively engage relevant stakeholders charged with business development in Ghana to ensure that young people particularly in the informal sector are factored in programmes and policies. Furthermore, the index seeks to help identify areas in the youth business space that need urgent attention. The YBSI will further provide real-time information access to policy makers and other relevant stakeholders on the factors that cause youth-led enterprises to expand or

contract, thereby helping to put right measures in place to address the latter. For instance, the YBSI can help the NEIP in developing contents that is tailored to help address the challenges the youth face in the business space and to ensure long term growth and sustainability of youth-led businesses. Lastly, it will serve as an initial step to starting conversations and further research on how to address challenges that affect youth-led businesses in the country.

1.1. The informal economy in Ghana – some stylized facts

This section defines some conceptual issues regarding informality and the characteristics of the informal economy in Ghana. We rely on past data on employment, both in the formal and informal sectors of the Ghanaian economy to examine their trends and composition. This is to provide insights into the role played by the informal sector in the economy of Ghana, and the need to construct an index for the sustainability and performance of enterprises found in this sector.

1.1.1 The concept of informality

It is important to understand informality in a manner that appeals to the objectives of this study. The definition of the term adopted for a particular study is chosen to fit the objectives and methodology of the study. To begin, informal economy is broadly defined to have several synonyms.² While some studies are concerned with tax evasion, their definition for informal economy relies mainly on all incomes which are not reported to tax authorities, others showed interest in the validity of the national account figures and hence stressed on the relationship between the measured size of the economy and true size of the economy (Tanzi, 1982). Given the objectives of the study, we associate with the former definition of the informal economy. Hence, the informal economy is that part of an economy that is not monitored by activities of the government, is not

2 Different studies have variously used terms such as hidden economy, parallel economy, underground economy, shadow economy, unmeasured economy, unofficial economy, subterranean economy among others depending on the objectives of the study.

under strict tax obligations and excluded from Gross Domestic Product. The term “informal sector” originated from a study of urban labour markets in Ghana by the International Labour Organization (ILO) (Hart, 1973). Later, this was used in reports of labour markets condition in other African countries and by the World Bank. In its application to issues of equity, economic opportunity, and social development, the term “informal economy” first came into widespread use as a means of describing a dualistic economic structure found in developing countries (Losby *et al.*, 2002).

Within the labour market in general, different typologies define the various kinds of informal work and activities. According to Doeringer & Piore (1971) and Saint-Paul (1997), the labour market can be divided into four categories: primary, secondary, informal and illegal. The primary sector is composed of wage jobs and is usually regulated – for example white collar-jobs. The secondary sector is usually not well regulated and has less security than the primary sector – for example, pink-collar jobs. The informal sector is composed of individuals who operate in an unregulated businesses usually small in size. It also includes people who work for employers but their wages are not officially recorded so that no tax is paid. The last category includes all criminal activities that are revenue generating.

1.1.2. Characterization of the informal economy in Ghana

The informal economy in Ghana comprises broadly of the rural and urban informal economies. While the rural informal economy is predominantly agricultural related activities such as farming, fishing, the urban informal economy is mostly characterized by non-agricultural activities. Table 1 presents a summary of the various activities and labour found in the informal sector of Ghana based on the works of APADEP (1998), Adu-Amankwah (1999) and Osei-Boateng & Ampratwum (2011).

Ofori (2010) further characterized the urban informal economy under four categories:

- 1) Employment. This mainly concerns the characteristics of the people engaged in the sector;
- 2) Enterprise. This concerns the characteristics of the activities taking place in the sector;
- 3) Habitat which relates to the characteristics of the land and housing situation in the informal economy; and
- 4) Credit which relates to the characteristics of the informal credit markets.

Table 1: Forms of informal sector activities and labour in Ghana

Rural		Urban		
Activities	Labour Types	Activities		
Agriculture	Family labour	Services	Construction	Manufacturing
Fish and fish processing	Casual labour	Urban food processors and traders	Masonry	Food processing
Agro-based processing	Apprenticeship	Health and sanitation	Carpentry	Textiles and garments
		Private lotto operators		
Forest based	Permanent labour	Domestic workers	Steel bending	Wood processing
	Communal labour	Repairers	Plumbing	Metal works
	Child labour	Garages	Electricals	Shoe making
		Graphic designers		
		Audio-visual workers		
		Hairdressers and barbers		
		Security		
		Commuting services		

Source: Culled from Osei-Boateng & Ampratwum (2011) and Ocran (2018)

For the purpose of this study, we concentrate on the enterprise characterization of the urban informal economy. Accordingly, enterprises in the urban informal economy are also characterized by the following features:

- a) **Ease of entry.** There is a capital requirement that is needed to operate in the urban informal sector. In other words, this sector is mostly characterized by huge “labour intensive” technologies other than “capital intensive”. Also there are no regulatory requirements for entering into this sector. Consequently, individuals are free to enter at any time to begin operations.
- b) **Size.** The scale of operation of urban informal businesses is usually determined by the number of employees or apprentices and the capital injections. Typically, the informal sector enterprise is owned by individuals and operated for less than five years (Yankson, 1992). Furthermore, the average size of employment is four, albeit the number may vary depending on the type of activity (Barwa, 1995). In recent times, however, the Ghana Statistical Service

in its report on the sixth round of the Ghana Living Standard Survey (GLSS VI), indicates that the private informal sector engages about two out of every five (41.9%) of the currently employed persons 15 years and older, 47.8% of females and 35.5% of males (GSS, 2014).

- c) **Reliance on locally available resources.** The small scale of their operation usually inhibits the capacity to acquire resources (i.e., raw materials, financial or human) from external sources. Thus, businesses in the urban informal sector tend to rely on locally manufactured resources chiefly from the formal sectors of the economy (Barwa, 1995).

The rest of the report is structured as follows. Chapter two reviews pertinent literature on business related indexes around the world. Chapter three focuses on the design of the framework to consider in the development of the YBSI. Chapter four of the report presents the empirical estimation and implications of the estimated index. Chapter five concludes the report.

CHAPTER TWO

RELATED LITERATURE

In recent times, there have been intensification of efforts to compute composite indexes or indicators to show synthetically how sectors, enterprises and aggregate economies evolve. These indexes have varying focuses and purposes ranging inter alia from gender, sectoral, business cycle and human centered.

In Ghana, a number of indexes have been constructed including Ghana Stock Exchange Composite Index, Bank of Ghana's Composite Index of Economic Activity, the Association of Ghana Industries' Business Barometer and the Institute of Economic Affairs' Business Confidence Survey. On the global front, the list of indexes is bountiful so we present those closely related to our idea. We first examine those constructed on a global scale and then review country-specific indexes, particularly on the African continent.

2.1. Global Competitive Index

The Global Competitive Index (GCI) is an annual barometer for policy-makers to assess the progress of their economies using the full set of factors that determine productivity (World Economic Forum, 2019). This set is organized into 12 pillars: Institutions; Infrastructure; ICT adoption; Macroeconomic stability; Health; Skills; Product market; Labour market; Financial system; Market size; Business dynamism; and Innovation capability. A country's performance on the overall GCI results as well as each of its components is reported as a 'progress score' on a 0-to-100 scale, where 100 represents the 'frontier', an ideal state where an issue ceases to be a constraint to productivity growth. Each country should aim to move closer to the frontier on each component of the index. The GCI 4.0 allows economies to monitor progress over time. This approach emphasizes that competitiveness is not a zero-sum game between countries – it is achievable for all countries.

2.2. Global Innovation Index (GII)

This index details the metrics about the innovation performance of 130 countries and economies around the world (Dutta et al., 2018). It uses more than 80 indicators to explore a broad vision of innovation including political environment, education, infrastructure and business sophistication, institutions, human capital and research, knowledge and technology outputs and creative outputs.

2.3. Global Entrepreneurship Index (GEI)

The Global Entrepreneurship Index (GEI) is an annual index that measures the health of the entrepreneurship ecosystems in each of 137 countries around the world (Global Entrepreneurship Development Institute, 2019). To provide a picture of how each country performs both domestically or internationally, performances based on the measure are ranked against each other. Data on the entrepreneurial attitudes, abilities and aspirations of the local population are collected and weighted against the prevailing social and economic 'infrastructure' which includes aspects such as broadband connectivity and the transport links to external markets. Altogether, the index is based on 14 'pillars' which are used to measure the health of the regional ecosystem.

2.4. Ease of Doing Business index

The ease of doing business index created by World Bank (2020) ranks countries from 1 to the 155th position so as to enhance the patterns in regulating business. The business index is calculated by first computing for the average percentile rankings on starting a business, dealing with licenses, hiring and firing, registering property, having access to credit, protecting investors, paying taxes, trading,

enforcing contracts and closing a business. The principal component and the unobserved components were utilized and both methods give ranks that are near-identical to the ranks produced by simple averaging. The business opinion survey technique was employed in assigning weight to the business indicators.

2.5 Business Confidence Index

According to the Organization for Economic and Cooperation Development (OECD 2020), the business confidence index gives information on future developments, depending on the respondent's opinion on developments in production, access to credit, input prices, profit after tax, investments in fixed capital formation, total number of employees and orders and stocks of finished goods in the business. The confidence indicator can be used to monitor output growth and to anticipate turning points in economic activity. To compute for the confidence index, a questionnaire was designed to capture the respondent's impression about the indicators listed. Respondents were given three options such as up, same, down or normal, supernormal or abnormal. Values were attached to these options. Weighting was the next step for processing the results into a single number by adopting a technique called balancing. The business index calculated were categorized into three groups. On that account, values less than or equal to 100 imply an increased confidence in near future business performance, values equal to 0 point out that the business situation is normal and values less than 0 imply pessimism towards future performance.

2.6 MasterCard Index for Women Entrepreneurs (MIWE)

The MasterCard Index for Women Entrepreneurs incorporates 58 countries in the composition of their index (MIWE, 2019). The main focus is to identify the factors that creates gender inequalities among business owners and how the various business across the countries vary at 3 stages which is women's advancement outcome, knowledge access and financial assets, and supporting entrepreneur factors.

These three stages are made up of several indicators. The index also sheds light on which factors and conditions are the most conducive in helping to narrow the gender gap among female entrepreneurs as well as the most inhibitive and disabling conditions such as; fear of failure, poor mentorship and networking support, which weight on women's ability to thrive in business.

2.7. Human Centered Business Index

The index proposed by Hallin et al. (2016) measures the performance of businesses based on the metrics of *purpose, empathy, systems-approach and resilience*, and facilitates comparison, tracking and communicating progress and development. That is, it entails leading with purpose and resilience where an individual can innovate and assist in problem-solving, respecting other business ideas from different stakeholders and the use of systematic approach to get a comprehensive view of how stakeholders behave. The principal objective is to assess how and what leaders need to do in order to achieve sustainability in a holistic way.

The indexing procedure involves a measure of the four principles of leadership (purpose, empathy, systems approach and resilience) along with 12 indicators. These indicators (mission, vision, values, priorities, approach, key assets, strategy, services, value chain, sustainability context, stakeholder's inclusiveness, and transparency) represent a company's standard operating framework. To evaluate the performance of the four principles in the operating framework and to construct the final index, a weight on a scale of 1 to 4 are scored. The weight is attached based on some criteria including balance, comparability, accuracy, timeliness, clarity and reliability. This component of criteria provides information on how each indicator of the operating framework should be weighted in relation to the four main principles of the Human Centered Business. The business index is created to evaluate businesses and also serve as an indicator for marketing among countries.

2.8 Uganda Business Climate Index

Lacumba and Sserunjogi (2017) sampled 179 business out of 450,000 business recorded in Uganda, to ascertain the business environment in Uganda. The construction of the business climate index was based on several indicators including level of business activity, cost of inputs, turnover, profitability, establishment of new business, capacity utilization, price of produced goods, business optimism, number of employees, and wages. Dealing with these indicators, business owners were asked to specify the state of their business on the level of improved”, “did not change”, “declined” or “above normal for quarter”, “normal for quarter”, below normal for quarter” or “more favorable”, “unchanged”, “less favorable”. The feedback from the respondents were coded as 0, 1, and 2 respectively. The business climate index is then constructed as the estimated mean of indices of the individual business indicators. The indices vary from 0 – 200. The interpretation of the business climate index is in

a way where any value above 100, indicates a booming business environment. On the other hand, values below 100, suggest that the general business conditions are declining and a value at exactly 100 points to unchanged business environment.

2.9 The gap

From the foregoing, none of the indexes focuses on the performance and sustainability of youth-led businesses in Ghana and the world at large. In particular, the ones specific to the Ghanaian context have mainly focused on the formal sectors of the economy. We attempt to develop an index that is primarily focused on youth businesses and with special attention to the urban informal sectors of the economy. This is intended to provide an effective tool for advocating for national policy on the inclusion of youth-led businesses in the areas of startups, sustainability, growth and performance.

CHAPTER THREE

METHODOLOGY

3.0 The Concept of Economic Sustainability

There is still discussion about the definition of sustainability after the term was famously used by the World United Nations Commission on Environment and Development (WCED) to mean a pattern of resource use that aims to meet human needs while preserving the environment such that the needs of the future generation are not compromised (WCED, 1987). The concept of sustainability is quite elusive being very rare to find two identical descriptions of its different components (Pinar *et al.*, 2014). The term “sustainability” has been variously used in different disciplines such as engineering, science, social sciences and operations management. However, the definitions are usually focused on the environment. It is often described as a vague and heterogeneous concept but its evaluation by using indicators is well established (Bell & Morse, 2004).

In its simplest form, *economic sustainability* can be interpreted to mean how enterprises stay in business. There is, however, a general agreement regarding sustainability which is thought of as having economic, social and environment components or dimensions. It is thus, important to situate our definition of *economic sustainability* within the general framework of sustainability. It is important to consider the short- and long-term performance of businesses. While good financial performance could mean that businesses survive in the short-term, it may not necessarily lead to long-term economic performance, nor will it ensure positive social outcomes. To put it differently, neglecting the social dimension when predicting sustainability may impinge on the long-term survival of businesses, both at the micro or macro level. Furthermore,

various government policies have the potential of affecting the survival of businesses. Consequently, in the study, we consider the sustainability of businesses be organized under three broad themes (dimensions or pillars): *social, economic and systems*.

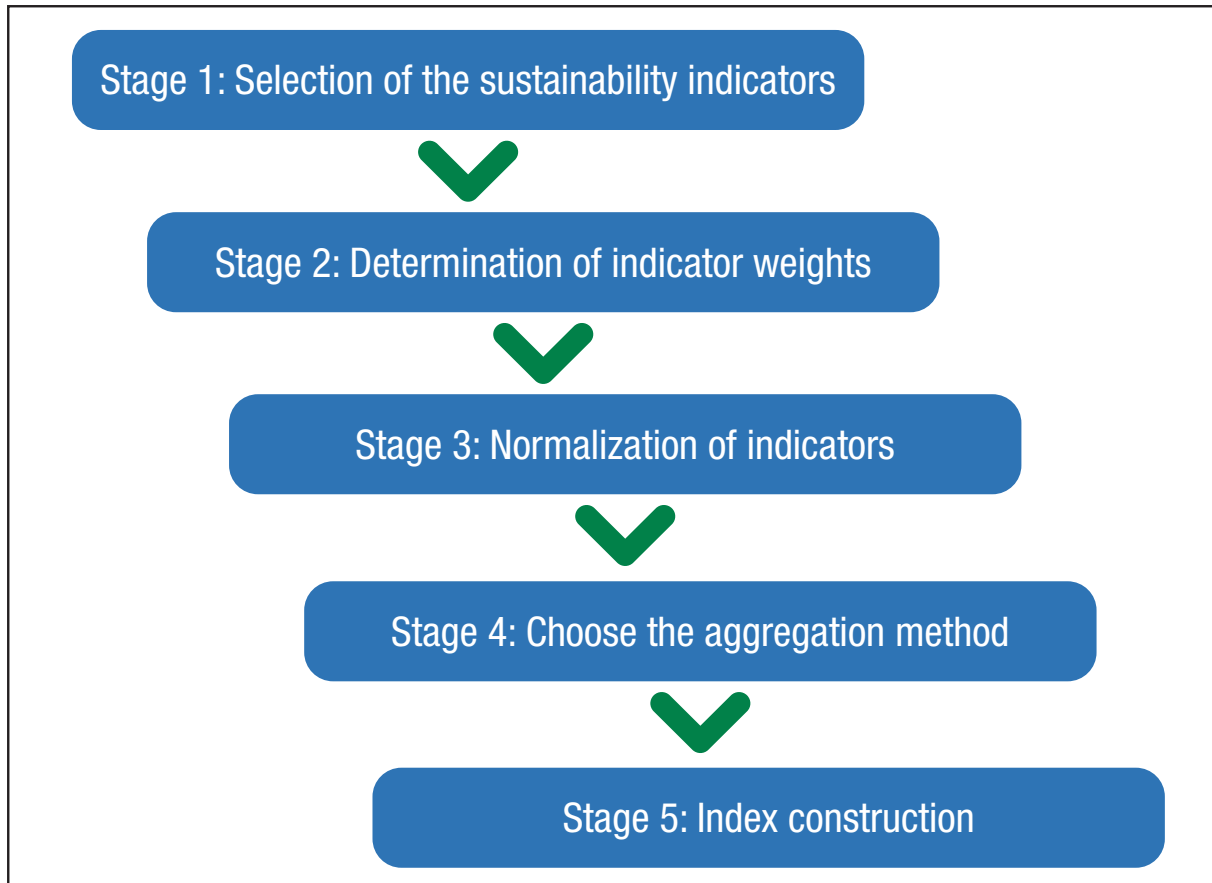
3.1. The Structure of the Youth Business Performance and Sustainability Index

We have defined youth businesses as those owned and run by people aged between 18 and 35 years inclusive. To measure how sustainable these businesses are, we used a five-step index building approach: (1) selection of sustainability indicators, (2) determination of indicator weights, (3) normalization of indicators (4) choosing an aggregation method and (5) construction of the index.

3.2. Construction of the composite index

Nardo *et al.*, (2008) described a framework for the construction of a composite index. The framework includes selection of indicators and data, imputation of missing data, normalization of the selected indicators, weighting and aggregation and finally the construction of the index. Several methodologies, however, exist to construct composite indicators. On the basis of the vast methodologies for constructing composite indices, we present a summary of the process in Figure 1.

Figure 1: Stages in building the sustainability index



Source: Salvado et al., 2015

3.2.1. Selection of Sustainability Indicators

In this section we describe the broad dimensions (sub-indices) and their objectives as well as the indicators making up those dimensions. As indicated earlier, we identify three broad dimensions of social, economic and systems (institutions) to constitute the youth business sustainability index. The social dimension reflects the extent of the quality of the social infrastructure enhances the operations of businesses. The economic dimension considers all the costs and benefits of operating the business while the systems dimension relates to the policies, programmes and institutions available to strengthen the operations of the businesses.

3.2.2. Determination of indicator weights

Like any index construction, a reliable construction of a composite index for youth business sustainability depends on the accurate estimation of the scores or weights. In

other words, weighting and aggregation are the most significant steps in index construction. However, there is no consensus regarding the appropriate weighting or scoring method as there are various methodologies in constructing composite indexes (CIs). Some variables such as costs and sales could have been obtained quantitatively with ease. However, we envisage poor record keeping particularly in the informal sector so we were inclined to determine the weights of these variables by re-categorizing the responses on a Likert scale.

3.2.3. Normalization

The next step is normalization, which is crucial as the indicators are usually measured in different units and hence not comparable. To make them comparable, we normalize the data to range from 0 to 1. A number of normalization methods are available: minimum-maximum, distance to a reference, and the percentage of annual differences over consecutive years

(Zhou et al., 2012). Considering the advantages and disadvantages of the various methods, this study uses the minimum-maximum according to Equation (1).

$$I_{i,j} = \frac{x_{i,j} - \min(x_{i,j})}{\max(x_{i,j}) - \min(x_{i,j})} \quad (1)$$

where, $I_{i,j}$ is the normalized value of the indicator i for dimension of sustainability j , $x_{i,j}$ is the raw value of indicator i , $\max(x)$ and $\min(x)$ are respectively the highest and lowest values of the individual indicator i for dimension of sustainability j .

3.2.4. Choosing the aggregation method

A number of aggregate methods exists in the literature. However, the choice of any particular method crucially depends on the purpose of the composite index and the nature of the subject being studied. The linear method of aggregation is useful when indicators have the same measurement unit. By contrast, the geometric method of aggregation is useful when the sub-indices are not comparable and have strictly positive values in ratio-scale of measurement. In this study, we employ the additive weighting method since it is assumed that there is independence between the variables.

3.2.5. Index construction

Having determined the weights and indicators normalized, we compute the sustainability index for both individual enterprises and the aggregate sample. Figure 2 summarizes the hierarchical presentation of how the composite index would be calculated from the social (I_{i1}), economic (I_{i2}) and systems (I_{i3}) dimensions represented by social indicators ($I_{i1}^S, \dots, I_{i1}^S$), economic indicators ($I_{i2}^E, \dots, I_{i2}^E$) and systems indicators ($I_{i3}^I, \dots, I_{i3}^I$) respectively.

For each business enterprise (j), the sub-indices is aggregated with the corresponding indicator as

$$(I_k)_j = f[W_{i1} \times (I_{i1})_j, \dots, W_{im-1} \times (I_{im-1})_j, W_{im} \times (I_{im})_j] \quad (2)$$

where $(I_k)_j$ is the behavior of enterprise j for

the broad sustainability dimension k ; $(I_{ik})_j$ is the value of indicator i associated with dimension of sustainability k for enterprise j ; m is the number of indicators considered for each model; and (W_{ik}) is the weight of indicator i for the sub-index associated with the dimension of sustainability k .

The composite index for youth business sustainability is thus given as:

$$YBPSI = f[W_{i1} \times (I_{i1})_j, W_{i2} \times (I_{i2})_j, W_{i3} \times (I_{i3})_j] \quad (3)$$

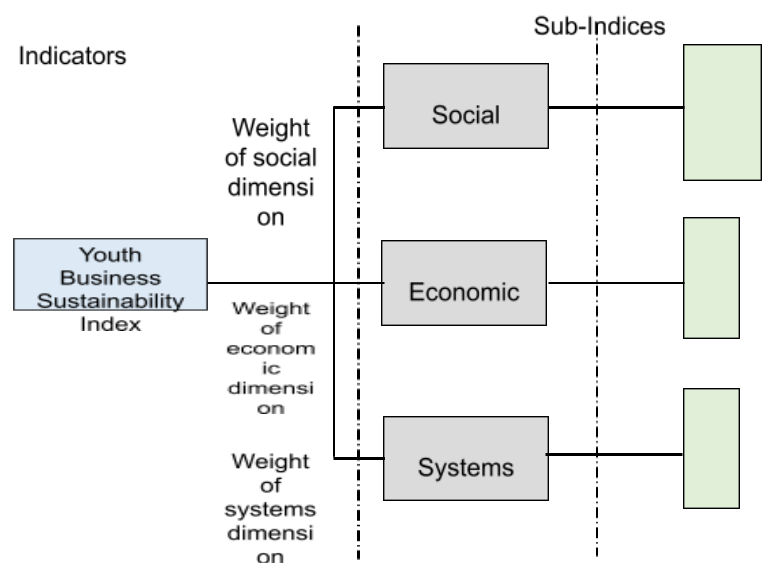
where $(I_k)_j$ is the behavior of dimension k associated with each sub-index for each enterprise; and W_{i1}, W_{i2}, W_{i3} are respectively the weights for social, economic and systems sub-indices. By construction, the $YBSI$ ranges from 0 to 1, where 0 means not sustainable and 1 means extremely sustainable.

The index is also disaggregated by business sector, region (location), sex and age of the business owner. For example, using the business sector as the unit of analysis, the sustainability index is computed as:

$$YBPSI_{sector} = \frac{\sum_{j=1}^n (I_k)_j}{n} \quad (4)$$

where n is the number of sampled enterprises that make up a certain sector, and $(I_k)_j$ is the behavior of enterprise j in terms of sub-indices I_1, I_2 and I_3 .

Figure 2: Hierarchical scheme for computing the youth business sustainability Index



Source: Adopted from Salvado et al. (2015)

3.3. Sampling

Sampling is one of the most technically complex stages of the survey process. The novelty of this study in particular, coupled with the current global pandemic presented a key challenge at this very stage. We also faced the challenge of picking the right sample frame. At the present, there is no information regarding the total number of unregistered businesses in the country. Even if we were to use the population of the various regions based on the most recent census data, we still face these challenges since no projections have been made regarding the new regions created. We were therefore unable to rely on the census data to choose our samples for each region. We thus, relied on the recent electoral (voting) data on individuals aged between 18 and 35 disaggregated by region provided by the Electoral Commission of Ghana³. We are by no means suggesting that, everyone within this population owns a business. Nonetheless, it provides a sense of the population and the distribution of ‘youth’ in the context of this study. This helped in determining the number of businesses interviewed within each region.

Due to the availability of funds, we restricted the sample of youth enterprises to be in the region of 2000. That is, we aimed at targeting a minimum of 2000 sampled youth enterprises. From Table 2, the regional share is obtained by dividing the total number of registered voters by the national total within. The proportional allocation for each region is obtained by multiplying the regional share by 2000 (i.e., the minimum targeted sample). However, enumerators were encouraged to obtain a sample within a window of plus or minus 5 of their allocated proportion for each region. Thus, the adjusted allocation is the actual samples obtained in each region by the enumerators.

3.4. Unit of Analysis

The sample universe for the YBPSI survey includes *all businesses owned by individuals aged between 18 and 35* within the country. In other words, we exclude businesses owned by individuals who were below 18 years or above 35 years at the time of the survey. The regional distribution of the samples covered is summarized in Table 2. We are unable to use the census enumeration areas because of the reasons earlier stated.

3 <https://www.ec.gov.gh/elections-gallery/>

Table 2: Regional Distribution of Youth Businesses

Code	Region	Rgt Voter population	Regional share	Proportional allocation	Adjusted allocation
1	Western	669,813	0.071443	143	144
2	Western North	260,641	0.0278	56	57
3	Central	837,932	0.089375	179	181
4	Greater Accra	1,940,380	0.206962	414	410
5	Volta	459,107	0.048969	98	100
6	Oti	192,933	0.020578	41	39
7	Eastern	832,854	0.088833	178	177
8	Ashanti	1,665,615	0.177656	355	360
9	Bono	357,361	0.038116	76	75
10	Ahafo	172,587	0.018408	37	38
11	Bono East	344,957	0.036793	74	77
12	Savanah	181,566	0.019366	39	39
13	Northern	658,755	0.070263	141	141
14	North East	179,031	0.019096	38	40
15	Upper East	354,937	0.037858	76	80
16	Upper West	267,046	0.028483	57	58
National		9,375,515	1.00	2000	2016

3.5. Sampling methodology

The sampling methodology of the YBPSI survey generated sample sizes that are appropriate to conduct analysis of how youth business perform and remain in business in selected sectors. To achieve this objective, the sampling methodology sampled 2025 youth enterprises for selected sectors to conduct statistically significant robust analyses with high levels of precision⁴. The nationally representative nature of this survey required that, every member who is a youth and owing a business had an equal chance of being selected. Nonetheless, because of the limitations pointed out in the preceding section, we limited the sample to only businesses found within the urban centers of all the 16 regional capitals. To select our sample, we implemented a two-stage approach. In the first stage, a simple screener question

was asked to determine the eligibility of each business owner. We asked of the age of the respondent (i.e., the owner of the enterprise). Once the eligibility has been determined, in the second stage the questionnaire is administered regardless of the sector the business is found.

3.6. Stratification

The population of youth businesses included in the survey, i.e., the universe of the study, included commerce, manufacturing and industry. To increase the precision of our estimate and since the survey was limited to youth businesses particularly in the informal sector, stratification was done by the sector of the business and the region and residential locality (urban). Stratification reduces the likelihood that distinctive businesses, e.g., those situated in some areas (i.e., either city)

⁴ After cleaning the data to remove some inconsistent responses, the final sample came to 2016 youth enterprises across the three sectors of commerce, industry and manufacturing.

are left out of the sample. Since we did not use census data in determining the regional distribution of the sample, we are unable to allocate the sample to each stratum as would have been indicated by the census. In view of this limitation, we allocate all of the sample to urban for this baseline study since greater number of informal businesses are located in the urban areas.

to ensure that all enumerators were conversant with the instrument and its objectives. Simulation exercises were conducted on the tool for the various groups. Thereafter, the enumerators pretested the instrument in parts of Kumasi. Enumerators were regionally grouped with each group having a team leader who was answerable to the research team on the activities of the group in the field

3.7. Survey Period

The survey took place from 19th to 30th April 2021. A total of 32 enumerators were deployed to all regions of the country. Prior to their deployment, intensive training was conducted

CHAPTER FOUR

ESTIMATION AND ANALYSIS OF THE YBPSI INDEX

The results of the estimated YBPSI index for the average youth enterprise in Ghana using the methodology proposed in the preceding chapter to construct the composite index are presented here. The various dimensions which make up the composite index are considered where we examine the performance and sustainability of youth enterprises on the basis of the three broad pillars aside the overall composite index. We also examine the performance and sustainability of these enterprises by disaggregating the index according to gender of the business owner, regional location of the business, nationality of the business owner, business sector of the business, etc. Before presenting the results of the estimation of the index, sample description of the data is presented for preliminary appreciation of the data collected in the field.

16 regional capitals of Ghana, 54.81% were males whereas 45.19% were females. From the data, significant proportion (99.01%) of the business owners were Ghanaians, with a paltry 0.99% having their nationality from other African countries (i.e., Togo, Nigeria, Niger, Cameroon). The data also indicated that, most (88.8%) of the youth enterprises are solely owned, whereas about 10.6% and 0.5% operate as partnership and limited liability company respectively. Considering the business sector in which an enterprise operates, the data showed that majority, constituting 46.63%, are found in the industry sector, whereas 41.17% are into commerce. The remaining 12.20% are into manufacturing. The regional distribution of the enterprises also indicated about a third of the sample were from the Greater Accra and Ashanti regions, with the remaining distributions indicated in Table 3.

4.1. Sample description of the data

Of the 2016 respondents obtained across the

Table 3: Sample description of the data

Variables	Frequency	Percent
<i>Gender of business owner</i>		
Male	1105	54.81
Female	911	45.19
<i>Nationality of business owner</i>		
Ghanaian	1996	99.01
Non-Ghanaian	20	0.99
<i>Type of Business Structure</i>		
Corporation	1	0.05
Limited Liability Company	10	0.50
Partnership	214	10.62
Sole Proprietorship	1791	88.84
<i>Business sector</i>		
Commerce	830	41.17
Industry	940	46.63
Manufacturing	246	12.20
<i>Region</i>		

Western	144	7.14
Western North	57	2.83
Central	181	8.98
Greater Accra	410	20.34
Volta	100	4.96
Oti	39	1.93
Eastern	177	8.78
Ashanti	360	17.86
Bono	75	3.72
Ahafo	38	1.88
Bono East	77	3.82
Savannah	39	1.93
Northern	141	6.99
North East	40	1.98
Upper East	80	3.97
Upper West	58	2.88
Total	2016	100.00

Source: Authors' calculation

4.2. General Findings

The YBPSI provides stakeholders and policymakers with a detailed map of factors and attributes that drive the performance and sustainability of youth enterprises in Ghana. By systematically measuring these factors across firms, the YBSI is intended to offer direction for policies aimed at strengthening the foundations and operations of young businesses. The YBPSI is a “composite indicator” which is computed based on successive aggregation of scores from the individual indicators forming the broader sub-dimension (See the sections of the methodology for detailed exposition).

We present the results obtained from estimating the YBPSI from the data by applying the methodology proposed in chapter three. We present the summary statistics of the overall youth business sustainability index in Table 4. Overall, the country's youth business sustainability index averages 0.425 indicating that youth enterprises are below the median sustainability level. However, the range of the index is 0.652 (i.e., a minimum of 0.122 and a maximum of 0.774). This implies that there are pockets of the sampled enterprises which are closer to the minimum value of the index.

For example, from Table 5, 14 out of the total sampled enterprises achieved a sustainability index of less or equal to 0.2. On the other extreme, 13 of the sampled enterprises achieved an index of greater or equal to 0.7 indicating a high level of sustainability. This may imply that, only a handful of enterprises can be said to be in a better position of being sustainable, whereas the other few extreme ones are also on the brink of going out of business. Nevertheless, the estimated index suggests that, on average, youth businesses are moderately sustainable, that is, most are closer to the median.

Table 4 also shows the mean values for the broader dimensions making up the composite index. Overall, the social dimension contributes more than the other two. If we were to take the economic and systems pillars in isolation as independent indices, the analysis suggests that some youth enterprises were already not sustainable as indicated by the 0 minimum values recorded. This implies that the economic costs of doing business is high as well as the prevailing governing structures are unfavourable to support young businesses.

Table 4: Summary statistics of the youth business sustainability index

Variable	Observations	Mean	Std. Deviation	Minimum	Maximum
YBSI	2,016	0.425	0.099	0.122	0.774
<i>Pillars</i>					
Social	2,016	0.526	0.126	0.12	0.9
Economic	2,016	0.244	0.120	0	0.8
Systems	2,016	0.358	0.1403	0	0.8

Source: Youth Sector Engagement Group analysis

Table 5: Count of enterprises with sustainability index beyond some thresholds

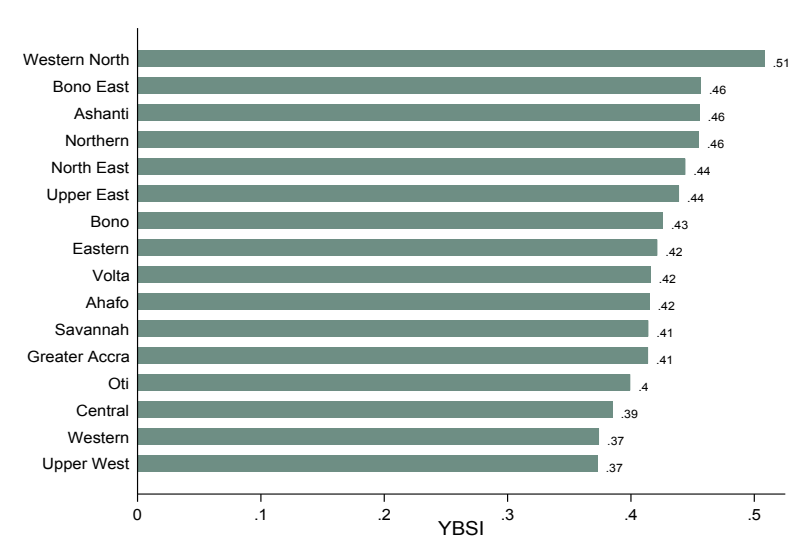
Index threshold	Number of enterprises
Less than or equal to 0.20	14
Greater than or equal to 0.50	467
Greater than 0.6	85
Greater than 0.7	11
Greater than 0.75	2

Source: Authors' calculation

In terms of ranking according to the region of locations, the results showed that enterprises within the Western North region obtained the highest scores (0.51) followed by enterprises located in Bono, Ashanti and Northern regions with a similar score of 0.46 (See Figure 3). On the other hand, enterprises located in the Central, Western and Upper West are worst performers as far as sustainability is concerned. Enterprises found in between these two extreme regions

showed similar dispersions in their sustainability levels. Another interesting observation is that, most of the newly created regions performed well which could be a consequence of the youth taking advantage of the opportunity to stay back and operate businesses other than migrating to the otherwise capital cities. Taken together, the estimated index indicates that an average youth enterprise is just around the median sustainability level.

Figure 3: Average sustainability of businesses within regions



Source: Authors' construction

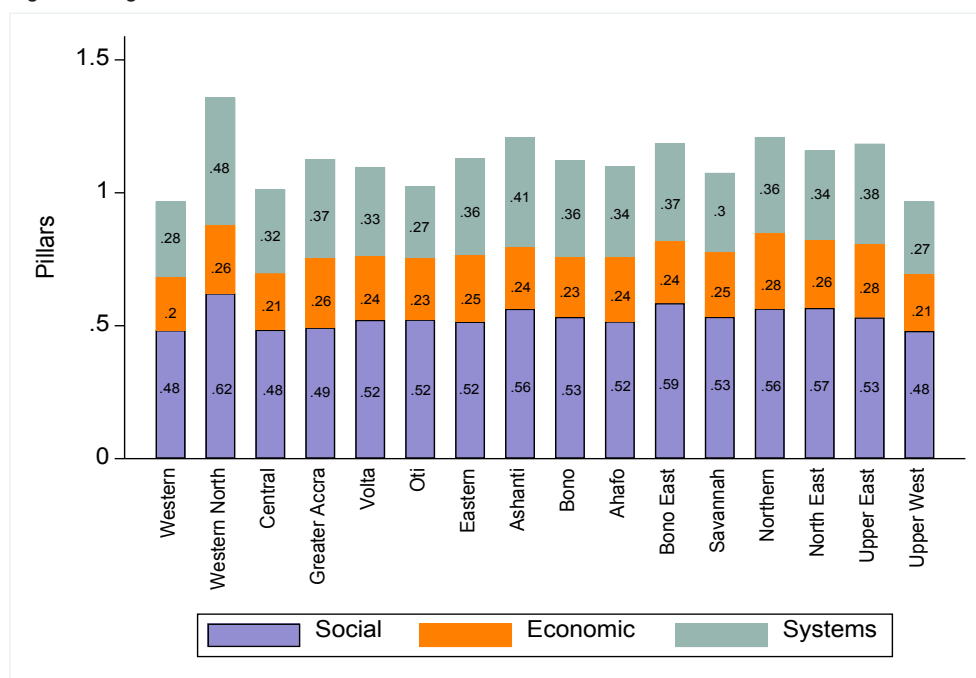
4.2.1 Disaggregated analysis of the estimated index

Presenting the composite index in isolation is likely to obscure relevant information regarding the specific pillars that significantly drive it. From the analysis of the overall scores, there is not much variation across the enterprises and between regions. In this section, we step up the analysis by examining the contributions from the various pillars making up the composite index. By doing this, we are able to show which particular dimension of the index generates the greater share of the composite index. As a consequence, in this section and beyond, we

present the analysis disaggregated by region, gender, business sector, business type using the broader dimensions making up the index.

Figure 4 shows the regional distribution of the index disaggregated by the various sub-indices. From the figure, the social dimension appears to be the driving force of the composite index as its scores are larger compared with the remaining two dimensions. The economic pillar is the least performer for all enterprises in all the regions. Thus, enterprises indicated having challenges with regards to the cost of operations and realizing less in terms of revenues and profits.

Figure 4: Regional distribution of the sub-indices



Source: Authors' construction

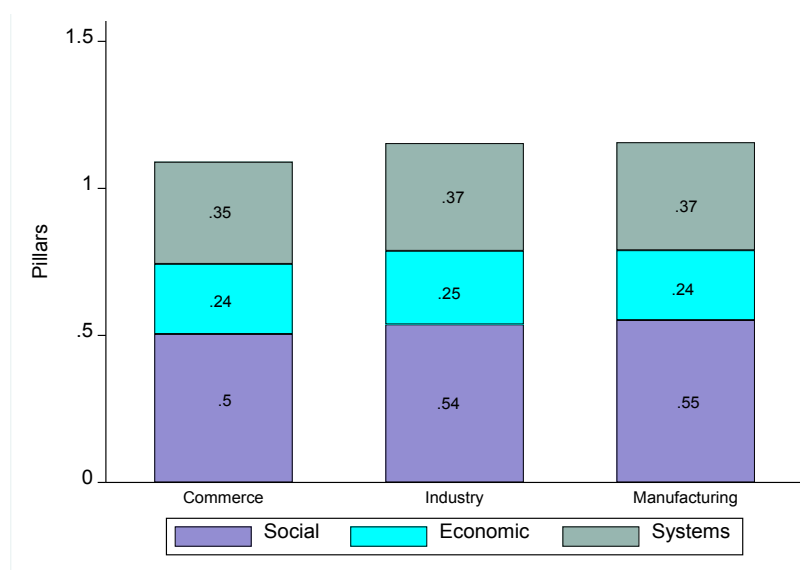
Figure 4 shows the cross-regional disparities across the three pillars. It is evident that, the large regional disparities are concentrated on the social pillar where almost every region attained scores around the median which is relatively closer to the frontier. In other dimensions, such as the economic pillar, the differences in enterprises across the regions are comparatively smaller. The systems dimensions also, showed some relatively large variances across enterprises found in different regions. In terms of ranking the regions, Western North is the best performer as indicated in the highest bar (which is a cumulative of the scores from

the three sub-pillars). Specifically, enterprises found in this region attained respective scores for social and systems pillars of 0.62 and 0.48. Even with regards to the economic dimension, which seems worst across all the regions, comparatively, enterprises in Western North are quite better than those located in other regions.

Figure 5 depicts similar analysis for cross-business sector of operation differences. Apparently, the index is stable across the business sectors. Stated in another way, there are no significant variations in the scores obtained for the various sub-pillars across the

business sectors. Thus, irrespective of the business sector an enterprise operates from, their setbacks and their achievements appear to be similar.

Figure 5: Distribution by business sector of operation



Source: Authors' construction

Figure 6 depicts the distribution of the average index by business sector within the regions. Apparently, manufacturing and industry sectors appear to perform better in general across the regions. Another observation is that, while commerce seems to be better relative to the other sectors in the northern part of the country, manufacturing and industry appear

to perform better in the southern half of the country. Altogether, the distribution across the business sectors within the regions indicate some marked variations particularly in the Western, Upper West and Oti regions. The remaining regions appear to be similar in terms of the variations across the sectors, as there is not much difference in the average index.

Figure 6: Distribution of YBPSI by sector within regions



Source: Authors' construction

Figure 7 shows the distribution of the average index by gender within the regions. In all the regions except the North-East region, male-owned youth enterprises obtained a higher score than their female-owned counterparts. Thus, male-owned business in general appear to perform better and are more likely to be sustainable than female-owned enterprises. A further disaggregation using the sub-pillars

shown in Figure 8 also indicates that though male-owned youth enterprises appear slightly better than female-owned enterprises, the variance is not that significant. The former performed better in all the sub-pillars but only slightly. When the disaggregation is done within business sectors, the significant differences between the gender category comes from commerce (see Figure 9).

Figure 7: Distribution of YBPSI by gender within regions

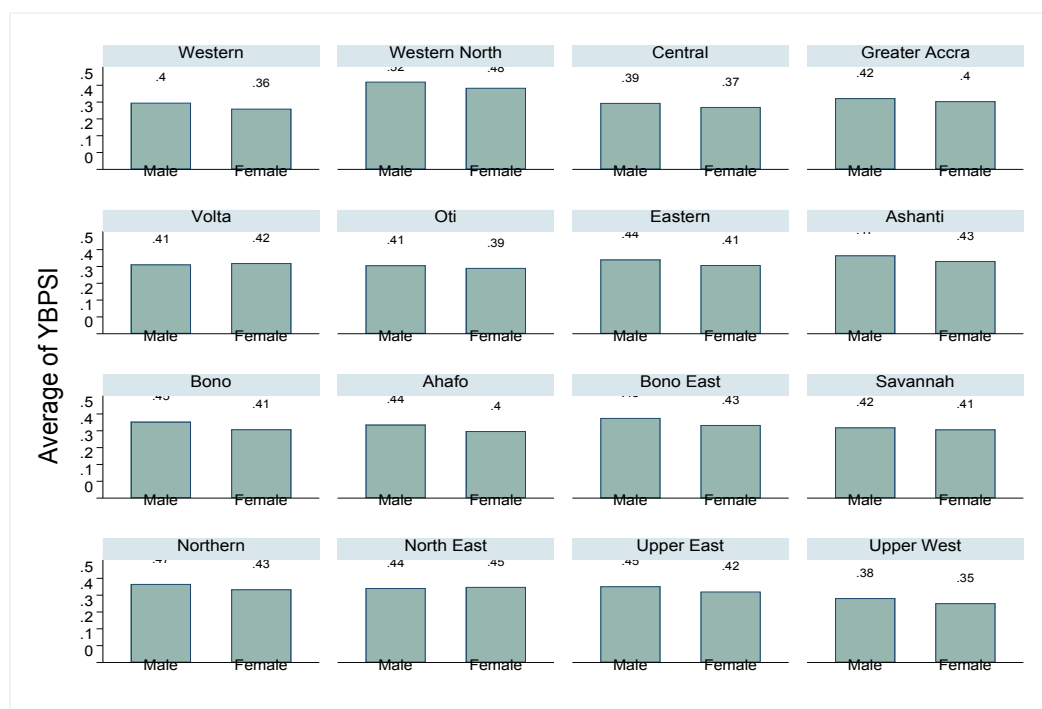
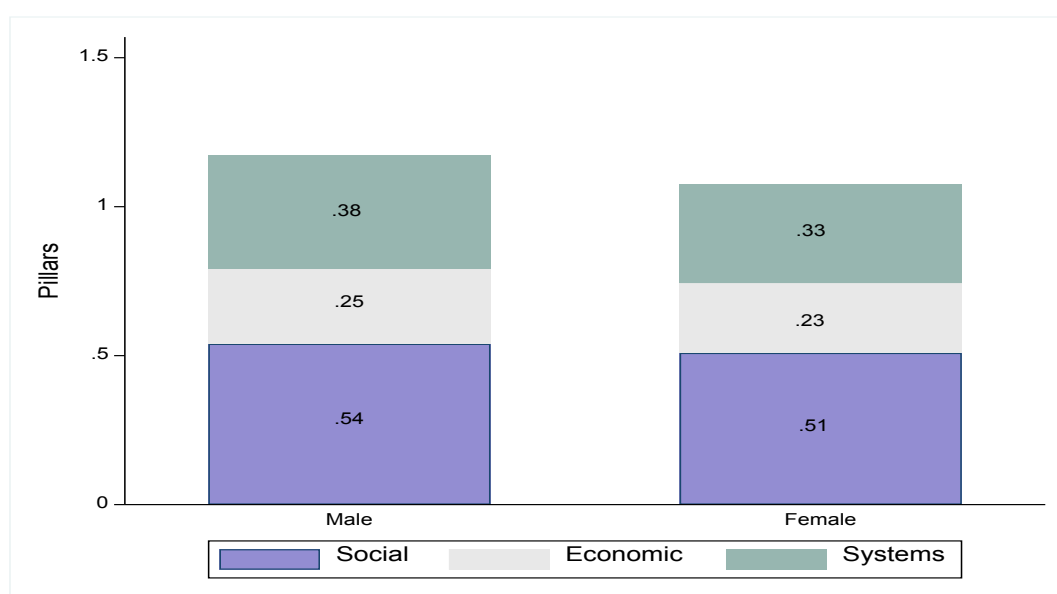
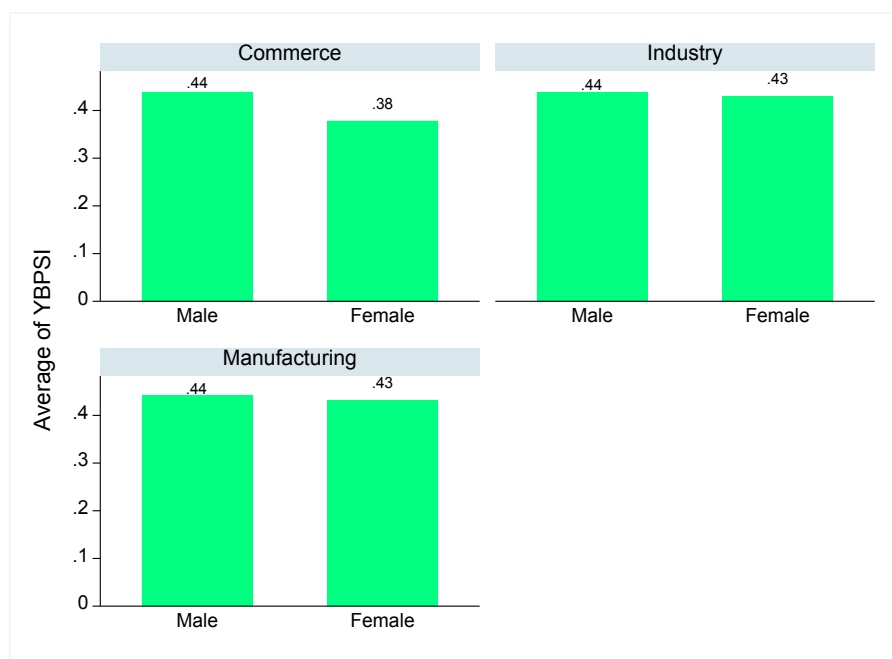


Figure 8: Distribution of the average sub-index by gender of the business owner



Source: Authors' construction

Figure 9: Distribution of YBPSI by gender within business sectors



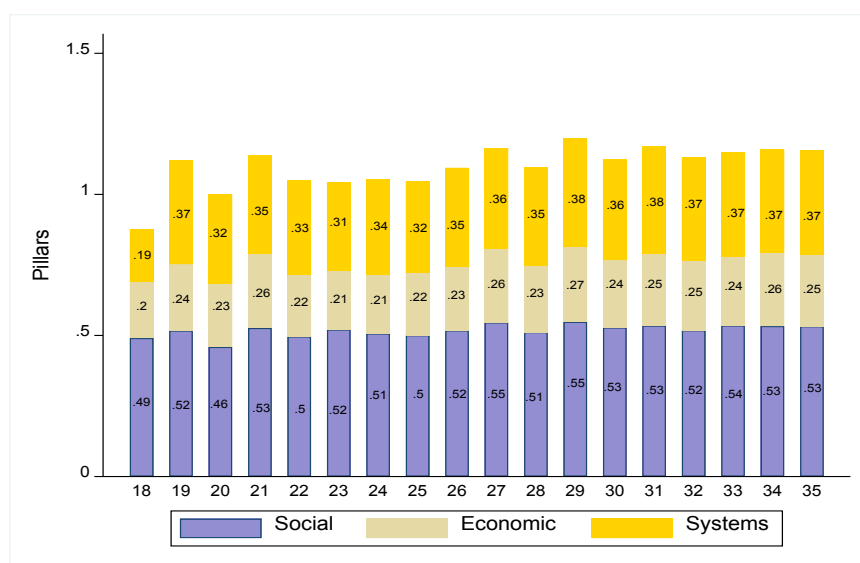
Source: Authors' construction

Figure 10 depicts the distribution according to the age of the business owner. It is not surprising that the worst performers are those who are on the lower end of the age range (18 years). It is however, intriguing to find that the best performer are individuals owners who were 19 years at the time of the survey. What possibly could explain why the difference in the performance of these two categories of individuals whose age difference is just one? Apart from that, there appears to be some

stability of the index across the other ages.

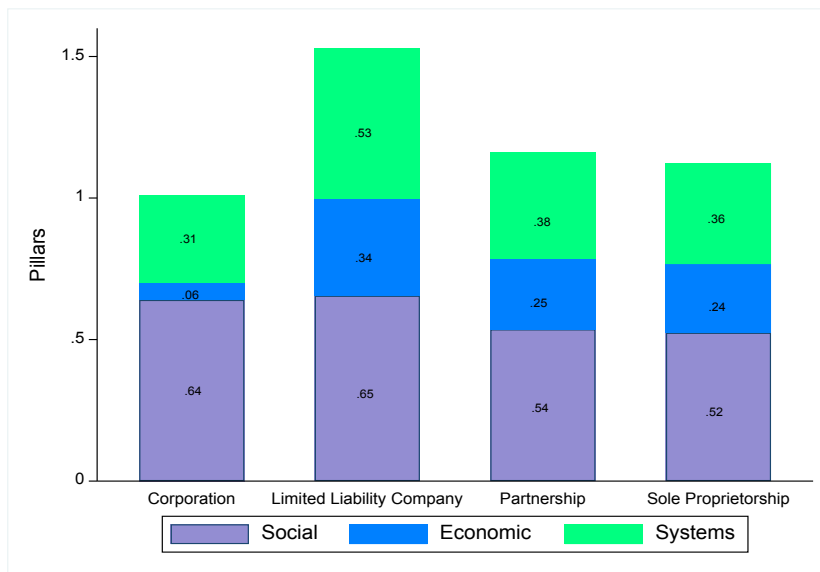
In addition, businesses registered as limited liability companies are better performers compared with the rest (see Figure 10). This is however, not surprising since most of these businesses are duly registered and usually do things right. This suggests an institution of policy measures that can help transit most of these informal enterprises to the formal sector where their activities are regulated.

Figure 10: Distribution of sub-pillars by age of the business owner



Source: Authors' construction

Figure 11: Distribution of sub-pillars across business type



Source: Authors' construction

4.3. Challenges and constraints facing youth-led businesses

The data collected on the field had some interesting revelations concerning some of the challenges faced by youth-owned enterprises in the country. Among the sampled enterprises,

1350 representing 66.96% indicated facing operational challenges in their businesses. These challenges include the physical space or facility to operate their businesses, cash flow, access to finance, legal/regulatory, and marketing (see Table 6).

Table 6: Operational challenges faced by youth enterprises

<i>Do you face operational challenges?</i>	Frequency	Percent
No	666	33.04
Yes	1350	66.96
Total	2016	100
<i>Which operational challenges?</i>		
Assets/facilities/infrastructure	451	33.41
Cash flows (e.g., pricing decisions)	356	26.37
Finance	177	13.11
Legal/regulatory	77	5.70
Marketing communications	160	11.85
Value chain	129	9.56
Total	1350	100

Source: Authors' calculation

Table 7: Constraints faced by youth enterprises

<i>Are there constraints that inhibit sustainability?</i>	Frequency	Percent
No	374	18.55
Yes	1642	81.45
Total	2016	100

<i>Which constraints?</i>		
Access to markets	192	11.69
Availability of inputs	100	6.09
Inability to keep up with competition	82	4.99
Inadequate finance	943	57.43
Macroeconomic factors (e.g., exchange rate)	182	11.08
Right knowledge and skills	38	2.31
Security issues (e.g., theft)	105	6.39
Total	1642	100

Source: Authors' calculation

Aside these challenges, about 81.45% of the sampled respondents indicated facing constraints which inhibits their growth and sustainability. Among these constraints, majority indicated access to finance, access to market, macroeconomic factors such as exchange rate depreciation, availability of inputs and competition (see Table 7).

CHAPTER FIVE

CONCLUSION AND POLICY IMPLICATIONS

5.1. Conclusion

The need for a well-defined index that combines social, economic and systems aimed at measuring the sustainability and performance of youth-led businesses particularly in the informal sectors of Ghana has been recognized. We have shown that youth-led enterprises found in the informal sector are mostly left out when considering national policy. This spurred a new idea about how to develop an appropriate index representing enterprises owned by the youth and mostly found in the informal sector. Against this backdrop, all stakeholders came together and agreed on a common solution – developing a methodology for measuring the performance and sustainability of youth enterprises. Hence this study was commissioned to fashion out a measuring rod for examining the sustainability of youth enterprises. After developing the appropriate methodology, we tested it by sampling some representative youth businesses across all the 16 regional capitals of Ghana. We found that on average, youth-led enterprises are moderately sustainable and this is mostly driven by the social dimension of the composite index. We again found that, youth-led businesses located in Western North region of Ghana are the best performers as far as the sustainability index is concerned. Furthermore, male-owners, limited liability companies, businesses in the industry and manufacturing sectors are relatively better performers compared with their respective counterparts.

5.2. Policy implications and options

From the foregoing, multiple forces that impact both performance and sustainability are at play. The evidence suggests youth-owned businesses have not put up any stellar performance, for which reason their sustainability can be threatened. Policy should

be geared towards addressing these factors that can lead to improve the performance of youth-owned businesses while ensuring their sustainability. We present some of the policy options below:

Ensure access to opportunities and operational space

Inequality of opportunity opened to youth businesses has the proclivity of making the disadvantaged ones fall out of business with all their entrepreneurial skills. Though, recent technological advancement has made businesses thrive regardless of having a physical space, some particularly those in manufacturing and industry, require a fixed physical space to undertake operations. As a consequence, there is the need to create more market spaces at affordable rental prices. This reduces the cost of operations of businesses and hence potentially improves performance and sustainability.

Reduce barriers to registration

One revealing outcome of the study was the seemingly stellar performance on the index by the registered enterprises relative to their informal counterparts. Though, the sample for these registered enterprises was few, the outcome presents a key policy option of ensuring that significant barriers be removed to enable most of these youth-owned businesses get registered. This would invariably lead to the gradual formalization of the business environment in the country.

Macroeconomic stability

Apparently, the results obtained indicated that the economic sub-pillar appeared to be the main sustainability threat to almost all the businesses. Consequently, prudent macroeconomic policies to ensure that the cost of doing business in the country reduces must be developed.

References

1. Adu-Amankwah, K. (1998). The Informal Sector in Ghana - Challenge for Trade Union Organisation, Paper presented to a GTUC leadership workshop, August.
2. APADEP. (1998). Informal sector in the agricultural sector in Ghana, a case study.
3. Aryee, J.R.A. 2007. "Building Tax Compliance through Reciprocity with Government." Paper presented at the Foreign Investment Advisory Service (FIAS) of the World Bank Group Regional Conference on the theme "Enterprise Formalization in Africa" held at the Alisa Hotel, Accra on 10-11 January 2007
4. Barwa, S. D. (1995). Structural adjustment programmes and the urban informal sector in Ghana (No. 3). International Labour Office, Development and Technical Cooperation Department.
5. Bell, S. and Morse, S. (2004). Experiences with sustainability indicators and stakeholder participation: a case study relating to a 'Blue Plan' project in Malta. *Sustain. Dev.*, 12, 1-14
6. Doeringer, P. P., & Piore, M. J. M. (1971). Internal labor markets and manpower analysis. Lexington, MA: Health/Lexington Books.
7. Dutta, S., Lanvin, B., & Wunsch-Vincent, S. (Eds.). (2018). Global innovation index 2018: Energizing the world with innovation.
8. EU (2009) Youth in Europe, EU: Luxembourg
9. Hallin, J., Fredriksson, E., Altman, R., & Zhou, S. (2016). Developing a Human Centered Business Index—Leading with Purpose, Empathy, Systems-Approach and Resilience in 'Business Beyond Sustainability'. *European Public & Social Innovation Review*, 1(1), 33-43.
10. Ghana Statistical Service (GSS) (2014). Ghana Living Standards Survey Round 6 (GLSS 6). Accra: GSS.
11. Green, F. (2013). Youth entrepreneurship: A background paper for the OECD Centre for Entrepreneurship. SMEs and Local Development.
12. Hart, K. (1973). 'Informal income opportunities and urban employment in Ghana'. *Journal of Modern African Studies* 11, 61–89.
13. Haug, J. (2014). Critical overview of the (Urban) informal economy in Ghana. Accra, Ghana: Friedrich-Ebert-Stiftung, Ghana Office.
14. Lakuma, C. P., & Sserunjogi, B. (2017). The Uganda Business Climate Index. Economic Policy Research Centre, (18), 3.
15. Losby, J. L., Else, J. F., Kingslow, M. E., Edgcomb, E. L., Malm, E. T., & Kao, V. (2002). Informal economy literature review. ISED Consulting and Research, 1-55.
16. Mastercard Index of Women Entrepreneurs (MIWE) (2019). Mastercard Index of Women Entrepreneurs (MIWE) 2019. Mastercard Index of Women Entrepreneurs (MIWE) 2019.
17. Nardo, M.; Saisana, M.; Saltelli, A.; Tarantola, S.; Hoffman, A.; Giovannini, E. (2008).

Handbook on Constructing Composite Indicators: Methodology and User Guide; Organisation for Economic Co-operation and Development (OECD) Publishing: Paris, France.

18. Ocran, M. K. (2018). Estimating the size and trends of the informal Economy in Ghana. AERC.
19. OECD (2020), Business confidence index (BCI) (indicator). doi: 10.1787/3092dc4f-en (Accessed on 12 July 2020)
20. Osei-Boateng, C., & Ampratwum, E. (2011). The informal sector in Ghana. Accra: Friedrich-Ebert-Stiftung, Ghana Office.
21. Pinar, M., Cruciani, C., Giove, S., & Sostero, M. (2014). Constructing the FEEM sustainability index: A Choquet integral application. *Ecological Indicators*, 39, 189-202.
22. Saaty, T. L. (1980). *The analytic hierarchy process*, new york: Mcgrew hill. International, Translated to Russian, Portugueses and Chinese, Revised edition, Paperback (1996, 2000), Pittsburgh: RWS Publications, 9, 19-22.
23. Salvado, M. F., Azevedo, S. G., Matias, J. C., & Ferreira, L. M. (2015). Proposal of a sustainability index for the automotive industry. *Sustainability*, 7(2), 2113-2144.
24. Saint-Paul, G. (1996). *Dual labor markets: a macroeconomic perspective*. MIT press.
25. Schwab, K. (2018, November). *The global competitiveness report 2018*. In *World Economic Forum* (pp. 9-14).
26. Tanzi, V. (1982). *The underground economy in the United States and abroad*. Free Press.
27. Yankson, P.W.K.: *Employment in the Urban Informal Sector in Ghana*. ILO/JASPA, Addis Ababa, 1992.
28. <https://thegedi.org/global-entrepreneurship-and-development-index/>
29. World Bank. 2020. *Doing Business 2020*. Washington, DC: World Bank. DOI:10.1596/978-1-4648-1440-2. License: Creative Commons Attribution CC BY 3.0 IGO
30. World Economic Forum. *The Global Competitiveness Report 2019*. <http://www.weforum.org/reports/global-competitiveness-report-2019>. Cited July 12, 2020.
31. World Commission on Environment and Development (WCED) (1987). *Our Common Future*; Oxford Paperbacks: New York, NY, USA.
32. Zhou, L.; Tokos, H.; Krajnc, D.; Yang, Y. (2012). Sustainability performance evaluation in industry by composite sustainability index. *Clean Technol. Environ. Policy*, 14, 789–803.

APPENDICES

APPENDIX I: Some informal organizations in Ghana

Box 1. Some of the informal organizations in Ghana

1. Ghana Private Road Transport Union (GPRTU)
2. Ghana Cooperative Transport Society (GCTS)
3. Progressive Transport Owners Association (PROTOA)
4. Ghana National Chemical Sellers Association
5. Ghana National Tailors and Dressmakers Association
6. Musician Union of Ghana
7. Phonogram Producers Association
8. Ghana Tape Recorders Association
9. National Drinking Bar Operators Association
10. National Garage Owners Association
11. Greater Accra Second Hand Spare Parts Dealers Association
12. Refrigeration and Air-Conditioning Workshop Owners Association
13. Chop Bar Keepers and Cooked Food Sellers Association
14. Hair Dressers Association of Ghana
15. Susu Collectors Association
16. Traditional Healers, Fetish Priests, Mallams and Drug Peddlers Association
17. Sandcrete Block Manufacturers Association
18. Ghana Gold and Silver Smiths Association
19. Second Hand Clothes Dealers Association
20. Radio and Television Repairers Association
21. Ghana Cooperative Distillers Association Ltd
22. Corn mill Owners Association
23. Licensed Diamond Winners Association
24. Ghana Association of Private Sports Papers
25. Ashiaman Livestock Breeding and Traders Association
26. Butchers Association
27. Ghana Livestock and Meat Marketing Association
28. Video Operators Association
29. Ghana Private Schools Association
30. Day Care Centres Association
31. Akpeteshie* Distillers Association
32. Second Hand Car Dealers Association
33. Ghana Union Traders Association (GUTA)

Source: Aryee, 2007

APPENDIX II: QUESTIONNAIRE

YOUTH BUSINESS SUSTAINABILITY INDEX FOR GHANA BASELINE INTERVIEW SCHEDULE

GENERAL INFORMATION

This questionnaire is designed for business establishment owners who are at most 35 years. This questionnaire must be completed by each business enterprise to be assisted by an interviewer.

CONFIDENTIALITY

All information supplied shall be treated with much confidentiality

SECTION 1: IDENTIFICATION

Enterprise Reference Number						Interviewer Number				Field Number					
G	H	A				G	H	A							
[Official use only]										[Allocated by supervisor]					

1.1: NAME AND PHYSICAL LOCATION OF ENTERPRISE

NAME OF BUSINESS	
GPS COORDINATES	
AREA (Urban / Rural)	
TOWN NAME	
DISTRICT NAME	
REGION NAME	

1.2: OTHER INFORMATION

NAME OF CONTACT PERSON			
NAME OF OWNER			
GENDER OF OWNER			
AGE OF OWNER			
TELEPHONE			
EMAIL ADDRESS			
NATIONALITY OF OWNERSHIP			
TYPE OF LEGAL ORGANIZATION (e.g., Sole proprietorship, Limited liability Co, Partnership, etc)			
YEAR OF COMMENCEMENT OF BUSINESS			
SECTOR OF BUSINESS [circle one]	Commerce	Manufacturing	Industry
	1	2	3

SECTION 2: SOCIAL DIMENSION OF BUSINESS SUSTAINABILITY

2.1. HUMAN CAPITAL

Owner's education	Yes	No
A. Have you received formal education?	1	0
B. If yes, specify the level of education you have received?		
Knowledge about business	Yes	No
A. Did you acquire any knowledge about this business before starting?	1	0
B. Have you been involved in any capacity building after setting up the business?		
C. Do you think continuous capacity building will help the business to succeed?		
D. Do you think knowledge acquired before helped the business to succeed?		

Skills	Yes	No
A. Do you keep accounts of your business?	1	0
B. Do you keep records of your business?	1	0
C. Have you attended any training in the past for your business development		
	No	Yes
		Once Twice Three or more times Don't know
	0	1 2 3 9
	Not good	Fairly good Good Very good Excellent
D. How do you rate your Human relation skills (Customer relations, management of staff)?	1	2 3 4 5
E. How do you rate your Technical skills for successful business (Record keeping, Business Development, Financial Management)?	1	2 3 4 5
F. How do you rate your Conceptual Management skills (Planning & Organisation, Business principles etc	1	2 3 4 5

Mentorship	Yes	No
A. Do you have a business mentor?	1	0
B. Has business mentorship helped sustained your business?	1	0
C. Does having a business mentor make businesses sustainable?	Strongly disagree	Disagree Indifferent Agree Strongly agree
	1	2 3 4 5

2.2. INFORMATION

Information: Availability	Yes	No
A. Do you have information about credit facilities?	1	0
B. Do you have information about market (suppliers and distributors)?	1	0
C. Do you have information about government interventions in assisting businesses? (e.g., MASLOC)	1	0

Information Accessibility					
	No	Yes			Don't know
		Once	Twice	Three or more times	
A. Do you have access to credit facilities?	0	1	2	3	9
B. Do you have access to government interventions in assisting businesses? (e.g., MASLOC)	0	1	2	3	9

2.3. COMPETITION

Competition				
	No	Yes		Don't know
		Few	More	
A. Do you have other businesses that do the same thing?	0	1	2	9

SECTION 3: ECONOMIC DIMENSION OF BUSINESS SUSTAINABILITY

3.1. COST OF INPUTS

<i>How do you rate the cost of the following inputs in operating your business?</i>	Too low	Low	Moderate	High	Too high
Labour	1	2	3	4	5
Electricity	1	2	3	4	5
Fuel	1	2	3	4	5
Water	1	2	3	4	5
Raw materials	1	2	3	4	5
Rent	1	2	3	4	5

3.2. ACCESS TO INPUTS AND FINANCE

<i>How often do you obtain access to the following in operating your business?</i>	Not available	Rarely available	Moderate available	Seldom available	Always available
Inputs	1	2	3	4	5
Finance	1	2	3	4	5

3.3. RISK PERCEPTION

	Yes	No
A. Have you insured your business	1	0
B. Does your business own a bank account separately from your personal account?	1	0

3.4. SALES AND PROFIT

<i>Describe the performance of the following in the past year of operation</i>	Below normal	Did not change	Normal	Above normal
A. Sales	1	2	3	4
B. Profits	1	2	3	4

SECTION 4: SYSTEMS DIMENSION OF BUSINESS SUSTAINABILITY

4.1. GOVERNANCE

	Very bad	Bad	Good	Fairly good	Very good
What is the nature of your business governing systems?	1	2	3	4	5
How favourable are government policies and regulations to your business?	1	2	3	4	5
How favourably do you receive assistance from business support institutions e.g., NBSSI?	1	2	3	4	5

4.2. INNOVATION

	Very bad	Bad	Good	Fairly good	Very good
What is the level of innovation and learning you incorporate in running your business?	1	2	3	4	5
What is the level of technology or digitization you apply in your business for transactions?	1	2	3	4	5

4.3. INFRASTRUCTURE

	Very bad	Bad	Good	Fairly good	Very good
Do you have adequate provision of social infrastructure to aid operation (road, water, etc)?	1	2	3	4	5
Do you have adequate business infrastructure (built environment) to facilitate export and sale of your products	1	2	3	4	5

4.4. REGISTRATION

	Very bad	Bad	Good	Fairly good	Very good
What has been your experience with business registration? (New business only)	1	2	3	4	5
How do you rate getting license and permits for business?	1	2	3	4	5

4.5. TAXATION

	Very low	Low	Moderate	High	Very high
How do you rate the cost of taxes, levies and fees?	1	2	3	4	5

	Very easy	Easy	Indifferent	Difficult	Very difficult
How do you rate the processes for filing annual returns and tax processes?					

5. OTHER QUESTIONS

	1st response	2nd response	3rd response
<i>What are your significant operational challenges?</i>			
Cash flow (e.g., how to price your product or service)			
Legal/regulatory (e.g., how to register a business)			
Finance (e.g., how or where to file your accounts to required standards)			
Marketing/Communications (e.g., how to conduct market research or promote your business)			
Value chain-where and how to find the best suppliers / distributors			
<i>What do you think is the greatest constraint to the growth and sustainability of your business</i>			
Inadequate finance			
Right knowledge and skills			
Access to market			
Inability to keep up with competition			



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