

## **Market Analysis**

### **Gaps between technical institutes and local market.**

### **A case study: the Don Bosco Technical Institute in Sunyani**

Realized in Ghana in 2023, within the framework of the project “*Skilling VET ecosystem: enhance enabled environments for private and public VET key actors in Ghana and Senegal*”, co-funded by the EU.

“This publication was co-funded by the European Union. Views and opinions expressed are however those of the authors only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them”.

**Authors:**

Kenneth Dodzi Anlonyah – TVET expert

Costanza Steinbach – VIS Project Manager

Benedict Mensah – Don Bosco JSO

**Contributors:**

Emma Bertolini – VIS Volunteer

Elena Paolini – VIS Volunteer

Carlotta Nanni – VIS Regional Coordinator for West Africa

*“Vocational education programs have made  
a real difference in the lives of  
countless young people nationwide;  
they build self-confidence and leadership skills  
by allowing students to utilize  
their unique gifts and talent”*

Conrad Burns

## Table of contents

|   |    |
|---|----|
| FOREWORD AND ACKNOWLEDGEMENT .....  | 6  |
| INTRODUCTION .....  | 7  |
| METHODOLOGY .....   | 8  |
| Part 1. Labour market research .....  | 9  |
| 1.1 Overview of the labour market in the Bono, Bono East and Ahafo Region ..... | 9  |
| 1.1.1 Brief History of the Bono, Bono East and Ahafo Regions .....              | 10 |
| 1.1.2 Employment Situation .....  | 10 |
| 1.1.3 Unemployment rate.....  | 10 |
| 1.1.4 From a gender point of view .....   | 11 |
| 1.2. Analysis of Labour Market Sectors.....                                     | 11 |
| 1.2.1 Analysis of Agriculture .....   | 11 |
| 1.2.2. Analysis of Service Sector .....   | 13 |
| 1.2.3 Infrastructure Conditions .....   | 13 |
| 1.3. Analysis of In-Demand Professional Roles and Skill Gaps.....               | 14 |
| 1.3.1 Professional Figures and skills required in the agriculture sector .....  | 14 |
| 1.3.2 Professional Figures and skills required in the construction sector ..... | 16 |
| 1.3.3 Professional Figures and skills required in the IT/ICT sector .....       | 17 |
| 1.3.4 Service demanded in the three sectors .....                               | 18 |
| 1.3.5 Importance of technical skills .....                                      | 19 |
| 1.3.6 Sectors with high tendency for growth.....                                | 20 |
| 1.4. Future tendency .....  | 21 |
| 1.4.1 Sector growth and supply/demand analysis.....                             | 21 |
| 1.4.2 Skills (hard and soft) needed for employment.....                         | 22 |
| 1.4.3 Growth Potential and Job Creation in IT .....                             | 23 |
| 1.4.4 Growth Potential and Job Creation in Construction .....                   | 25 |
| Part 2. DBTI Case Study: an analysis of both primary and secondary data .....   | 27 |
| 2.1 Introduction .....  | 27 |
| 2.2 Market and employment situation of Don Bosco Trained Graduates .....        | 27 |

|        |   |    |
|--------|---|----|
| 2.2.1  | Don Bosco graduates' employment status .....                                    | 27 |
| 2.2.2  | Alignment of graduates' work with their training areas.....                     | 28 |
| 2.2.3  | Years spent before employment by graduates of Don Bosco .....                   | 29 |
| 2.2.4  | Income of Don Bosco graduates in relation to the minimum wage.....              | 29 |
| 2.2.5  | Whether graduates were willing to migrate to cities and other countries.....    | 30 |
| 2.2.6  | Insights on the effectiveness of the Don Bosco Technical Training Programs..... | 31 |
| 2.2.7  | Whether vocational training helps to acquire soft skills.....                   | 32 |
| 2.2.8  | Whether vocational training helps to acquire value skills .....                 | 32 |
| 2.2.9  | Whether vocational training helps to acquire life skills.....                   | 33 |
| 2.2.10 | Whether vocational training helps to acquire computer skills.....               | 34 |
| 2.2.11 | Don Bosco teachers need to update teaching methods .....                        | 35 |
| 2.2.12 | Don Bosco teachers' technical background .....                                  | 35 |
|        | Conclusion .....  | 37 |
|        | Recommendations.....  | 39 |
|        | Bibliography and list of secondary sources .....                                | 40 |

## FOREWORD AND ACKNOWLEDGEMENT

This research aims at identifying gaps between TVET and the labour market in the Bono, Bono East and Ahafo regions of Ghana with a focus on Don Bosco Technical Institute in Sunyani.

It analyses various labour market indicators on employment, and provides an overview of the main profiles and skills required by companies and verifies which skills are taught in the TVET center. Even if the research considers Don Bosco Technical Institute of Sunyani as a case study, this analysis can be applied to other institutions, most especially TVET.

The research analyses the labour market situation, the unemployment, and the main growing economic sectors, and its associated competences and qualifications, to provide a comprehensive picture of the TVET and labour market in the Bono, Bono East and Ahafo regions. We wish it will be useful for TVET practitioners, managers and policy makers to take decisions that can have an impact on the improvement of employment.

One of the mandates of the Don Bosco Job Service Officer is to ensure that the skills taught in the various Don Bosco TVET institutions are relevant to the labour market. Therefore, the contribution of the Job Service Officer of Sunyani Don Bosco School was key in supporting the collection of data and analysis of the research.

While the ravaging impact of COVID-19 situation brought about challenges to the conduct of the research, we were able to retain a high response rate to provide key insights on the training gaps as well as the labour market in a timely manner. This was achieved because of the strong support from trainees in providing the necessary information, and the commitment of the consultant to collect, process, analyse the data efficiently, and ensure that it is of high quality.

I would like to acknowledge, with sincere thanks, the financial contribution and support received from the European Union, Salesians of Don Bosco - AOS and VIS - Volontariato Internazionale per lo Sviluppo, as well as the technical and professional assistance provided by the team, the local Job Service Office at the Don Bosco Technical Institute – Odumase, Sunyani.

**BENEDICT MENSAH**

Provincial Job Service Officer, Salesians of Don Bosco, AOS.

## INTRODUCTION

This research aims at identifying the gaps between TVET and the labour market in the Bono, Bono East and Ahafo regions of Ghana with a focus on Don Bosco Technical Institute in Sunyani<sup>1</sup>. The three sectors analyzed are Agriculture, Construction and Services, especially IT, and they were chosen for their relevance within the local job markets of the researched regions.

In the first part, the research provides, first, an overview of the employment situation, especially for youth, in the three target regions and, then, it delves into the three most relevant sectors: Agriculture, Construction and Services.

In the second part, it presents the results of the analysis of the primary data collected among companies by describing in detail the professional profiles and skills requested in the three target sectors. It also tries to anticipate the future tendencies in term of demand and supply.

The third part analyses the employment situation of the Don Bosco Technical School graduated. Finally, the conclusion provides insights on the effectiveness of the Don Bosco Technical School training program and make us think about, more in general, whether vocational training helps students to acquire fundamental soft and life skills together with technical skills and whether there is need of an update of the teaching methods.

Among the findings, it is worth mentioning that agriculture, especially food production, is a very lucrative venture for the youth in the target regions that are considered the “breadbasket” of Ghana. Especially, the major prospects of agriculture include vegetable farming, poultry, livestock agro-processing, marketing and financing. In the services sector, the research confirms the validity of the statement “information technology serves as the driving force behind every economy” for Ghana and this is true in particular for the Bono, Bono East and Ahafo Regions. It also brings light on the various opportunities in this sector. Finally, it is important to highlight the three main professional skills that are lacking in the construction sector: tillers, plumbers, and carpenters.

---

<sup>1</sup> Information and data have been taken from previous researches and studies that VIS conducted within the framework of other projects, including the project “*Supporting local development tackling irregular migration from Ghana*”, co-funded by the Italian Bishop Conference (CEI).

## METHODOLOGY

The methodology used to write the present research combines secondary and primary data.

For the first chapter of the research, articles, reports, and studies from international organizations, think tanks, and national bodies were analyzed and considered to have an overview of the socio-economic situation of the country on the research topics of interest, and to have a sufficient knowledge at local level to allow an accurate collection of data in the Ahafo, Bono, and Bono East regions.

For the development of the second chapter, primary data were collected among a sample of companies in the target regions and among Don Bosco Technical Institute (Sunyani, Bono Region) students. Given the objective of the research, quantitative tools were used to make the results measurable and quantifiable.

Specifically, the sample of companies has been selected according to the following criteria:

1. Geographic location of the company;
2. Sector of expertise.

As a result, eighteen (18) companies were selected and interviewed by telephone. Seventeen (17) of them are located in the Bono Region, while one (1) in the Bono East region, with nine (9) being in the field of construction and nine (9) in the field of agriculture.

Quantitative research tools were also chosen for Don Bosco students. The sample to interview has been selected according to the following criteria:

1. Graduation within a year – considered to be a sufficient period of time to find a job;
2. Gender balance – for this criterion it needs to be considered the low percentage of female students attending the Technical Institute.

Overall, fifty-four (54) former students, all between the ages of 20 and 28, were contacted by telephone and asked to fill out a questionnaire: of the total number, six (6) were females.



## Part 1. Labour market research

The objective of the study is to identify the gaps between the TVET offer of Don Bosco Technical Institute and the labour market, by analysis the prevailing trends, and opportunities for the future. The research team investigated Ghana's economic landscape and established connections between the national outlook and the three primary regions: Bono, Bono East, and Ahafo.

From a national standpoint, Ghana's economy witnessed a year-on-year growth of 4.8% during the second quarter of 2022, marking an acceleration from the previous three-month period's 3.3% increase. On a seasonally adjusted quarterly basis, the GDP experienced a 1.1% growth, increasing from the 0.9% upturn in the previous quarter (according to the 2021 report from Ghana Statistical Service). Notably, the industrial sector expanded by 4.4%, rebounding from a 0.5% contraction, with manufacturing output leading the way at an impressive 8.8% growth. This positive trend also carried over to the construction sector, showing a growth of 0.4%. The construction industry's strong performance carries significant weight in both gross domestic product and employment, exemplified by the steadily growing demand for cement, which reached an estimated 12.5 million tons by 2021 (as cited on the 2022 Official Website of the International Trade Administration).

The agricultural sector exhibited a growth of 4.6%, following a 5.1% increase in the previous period. Concurrently, the services sector demonstrated solid growth of 5.2%, building upon the 5.6% expansion recorded in the preceding period. This growth was primarily propelled by education (13.2%), health & social work (12.7%), and information & communication (12.4%).

These three labour sectors identified earlier (i.e. construction, agriculture and services) also emerged as the thriving segments within the local job markets of the researched regions (GIZ 2022).

More specifically, this research will delve into three primary domains: information technology within the services sector, crop cultivation and processing within the agricultural sector, and the construction field.

### 1.1 Overview of the labour market in the Bono, Bono East and Ahafo Region

Before delving into the single employment sectors, it is essential to offer a comprehensive overview of the regions chosen as a focus of the research. The objective is to understand the demographic and social dynamics that influence the labour market and employment outlets in these regions of Ghana.

### 1.1.1 Brief History of the Bono, Bono East and Ahafo Regions

Following the 2018 referendum, the region formerly named Brong Ahafo was divided into three regions: Bono, Bono East and Ahafo. The land size of Bono stands at 11,481km<sup>2</sup>, Bono East at

22,952km<sup>2</sup> and the land space of Ahafo occupies 5,193km<sup>2</sup>. While the 2021 population and Housing Census estimated the population of Ghana as 30, 792,608, the estimated population of Bono was at 1,208,965, Bono East was estimated at 1,203,306 and Ahafo was estimated at 564,536 (GIZ, 2022, p. 14).

### 1.1.2 Employment Situation

The Ghana Statistical Service (2021) estimates the population of the Bono Region at 1,208,649, that of the Bono East Region at 1,203,400 and that of Ahafo Region at 564,668. The number of those employed within populations (aged 15 and above) in the Bono Region stands at 394,082, that in Bono East Region at 402,954, and that in Ahafo Region at 190,725. This data results in employment- to-population ratios for Bono, Bono East, and Ahafo regions of 32.7 percent, 33.5 percent, and 33.8 percent respectively. Although slightly higher, these estimates are not significantly different from the national rate of 32.4 per cent.

The economies of the Ahafo, Bono and Bono East Regions of Ghana, are largely influenced by activities in the agriculture, services, and construction sectors, reflecting the analysis at national level carried out by GIZ (2022). Most households are engaged in agriculture-related activities. Out of the households engaged in agriculture, 70.9 per cent are in rural areas while urban centers constitute the remaining 29.1 per cent (GIZ, 2022). The three regions are notable for the cultivation of a variety of agricultural produce including commercial crops such as cocoa and cashew as well as food crops like maize, cassava, yam and plantain. Trade activities involving the marketing and sale of raw cocoa beans and cashew nuts are common in the three regions. The regions also have quite a good number of other traditional growth drivers like finance, real estate and tourism, however none of these activities is as vibrant as in Accra and Kumasi.

### 1.1.3 Unemployment rate

The Ghana Statistical Service (2021b, as cited in 2022 GIZ report) estimates the number of unemployed persons as 1,551,118. This figure translates to a total unemployment rate of 13.40 per cent among Ghanaians who are 15 years old and above – with the rate being higher for females (15.5%) compared to males (11.60%). Specifically, within the 15-35 age group, the unemployment rate reaches 19.70%, escalating further to 32.80% among young adults aged 15-24.

In the Bono Region, the unemployment rate for young adults aged 15-24 is relatively higher at 38.20%, compared to Ahafo and Bono East regions. The average youth unemployment rate (15-

24 Years) for Bono, Bono East, and Ahafo regions stands at 32.40%, a significant 2.4 times higher than the national total unemployment rate of 13.40%. Furthermore, this challenge within this age

bracket is more pronounced for females, as men generally experience lower unemployment rates than women across all three regions.

Moreover, unemployment rates are elevated among highly educated youth in these regions, with respective rates of 11.90% for Ahafo, 13.80% for Bono, and 11.20% for Bono East. These figures suggest that approximately 12,752 (Ahafo: 2,058; Bono: 7,101; Bono East: 3,593) graduates at the upper-secondary or tertiary level might be unemployed and actively seeking employment. This could exacerbate the existing challenges of labour mobility within these regions. This data reinforces the notion that elevated unemployment rates play a significant role in propelling irregular migration. Indeed, the prevalence of irregular migration is prominent within the Bono, Bono East, and Ahafo regions of Ghana (GIZ, 2022).

#### **1.1.4 From a gender point of view**

While empirical data regarding the gender-based classification of unemployment is not explicitly available, GIZ (2022) highlights that unemployment rates are relatively higher among women and well-educated youth in the Bono, Bono East, and Ahafo regions. This aligns with the national unemployment trends for individuals aged 15 and above, which indicated a 11.60% unemployment rate for men and a 15.5% rate for women. Furthermore, the migration authority of Ghana reports that the majority of irregular migration instances are concentrated in the Bono, Bono East, and Ahafo regions (GIZ, 2022).

## **1.2. Analysis of Labour Market Sectors**

### **1.2.1 Analysis of Agriculture**

The Services sector recorded the highest growth of 6.3%, followed by Agriculture sector with a growth of 6.0% and the Industry sector with a contraction of 1.9% growth rate (Ghana Statistical Service, September 20, 2023).

The Agriculture sector has ceded its top position to the Services sector. However, the sector continues to employ a substantial proportion of the population although that is also declining gradually. In 2000, more than half (53.1 percent) of the population worked in the agricultural sector. This, however, declined to 40.2 percent in 2010 and further to 33 percent in 2021 (ISSER,

2023). The growth in population of Ghana and the world population calls for production of agriculture outputs to meet the growing needs of the people.

The Bono, Bono East and the Ahafo regions are richly endowed with natural resources, forest and timber species, arable lands and good climatic conditions. The Bono, Bono East and Ahafo regions are often described as the ‘breadbasket’ of Ghana, jointly contributing an estimated over 30% of the local food requirements of the country (Ghana Statistical Service, 2015). The Bono, Bono East

and Ahafo regions are also known for the production of livestock and poultry. The Bono region has the largest number of producers in the poultry industry with Dormaa leading in terms of investment into poultry production (College of Agriculture and Natural Resources, 2016).

This makes agriculture, especially food production, a very lucrative venture for the youth. According to Quartey and Darkwah (2015), agro-processing is the most important sub-sector of the manufacturing sector in terms of output and employment, with food and beverages representing the largest component of processed commodities. The agroindustry sub-sector is dominated by Ghanaians who own about 99 % of all manufacturing firms in the country.

Of this number, over half are agro-processing firms. While about 9% of all large firms in Ghana are owned by foreign owners, less than 2% of micro to medium-sized firms are owned by foreigners (GSS, 2017). The major prospects of agriculture in Bono, Bono East and Ahafo regions include vegetable farming, poultry, livestock agro-processing, marketing and financing.

Although the agriculture sector has been overtaken by the service sector nationally in recent years, in Bono, Bono East and Ahafo regions, it is still a large contributor to the local and national economy. This sector employs over 71% of the youth within these regions, surpassing the national average of more than 50%, and continues to present substantial prospects for youth employment (GIZ, 2022). Evidently, the agriculture sector remains a primary avenue for employment and is poised to serve as a lifelong career option for many individuals in these three regions. Prospects in the agriculture sector for young people include agro-processing, transportation, agricultural waste conversion storage (warehousing), organic farming, and cultural practice services in areas such as disease, pest, and weed control service. Further potential for youth involvement emerges from connecting farmers with agricultural markets or machinery services. Entrepreneurial and vocational training opportunities spanning the entire agricultural value chain, from production to marketing, are also available for young individuals. Tertiary-level graduates can find career prospects in research, financial management, engineering, and other technical domains within the sector.

To foster the expansion of agri-businesses on a larger scale, it becomes imperative to establish technology hubs through collaborations with universities and research institutions, thereby establishing business incubation centres. This approach can facilitate the growth and development of agricultural enterprises.

### 1.2.2. Analysis of Service Sector

The GDP of Ghana is notably shaped by the service industry, which constituted 5.2% of the nation's GDP in 2021. The key drivers of growth are as follows: Education at 13.2%, health and social services at 12.7%, and IT at 12.4% of the GDP.

At the regional level, the Bono, Bono East, and Ahafo regions exhibit fewer business activities within the manufacturing sector, where most companies are involved in agro-food processing. The services sector plays instead a pivotal role in the labour market, employing about 180,822 members of the workforce with substantial numbers into wholesale, retail, and general repairs activities (GIZ, 2022).

Digital technologies can also lead to the creation of entirely new industries, jobs, and business models. The internet has revolutionized the approach to achieving economies of scale, particularly in the realm of online service dissemination. Furthermore, digital platforms have revolutionized the interaction between buyers and sellers, thereby altering the impact of asymmetrical information. As a result, novel industries have surfaced in recent years, engaging in activities that were beyond conception merely five or ten years ago.

In Ghana, there exists a relatively modest domestic demand for numerous everyday products, such as processed foods, as well as services in sectors like tourism, retail, and hospitality. This scenario paves the way for innovative, cost-effective offerings fueled by emerging technologies. The adoption of digital financial solutions has notably propelled the demand for financial products in Ghana over recent years (GIZ, 2022). According to the World Bank's Global Findex, the percentage of Ghanaian adults (aged 15 and above) holding formal financial accounts surged by 42% between 2014 and 2015, attributed to the prevalence of digital financial solutions. Still according to GIZ (2022), without essential digital infrastructure and a digitally skilled workforce, Ghana might face potential setbacks and miss out on many opportunities for growth. The undeniable truth is that information technology serves as the driving force behind every economy. Take, for instance, sectors like mechanics, plumbing, construction, banking, marketing, education, installation, transportation, and more.

COTVET has initiated skills gap assessments in various sectors to ensure that programs remain relevant in a fast-changing global work environment that is increasingly dominated by the use of technology, and that the programs themselves and the training they offer meet the standards required by the industry. However, more investments are needed to finance construction, as well as to revamp the equipment and tools available to existing vocational training institutions (GIZ, 2022).

### 1.2.3 Infrastructure Conditions

The Bono East and Ahafo regions were created not long ago and are consequently suffering significant deficits in infrastructure. The Bono East and Ahafo region do not currently have fully functional regional administrative set up and lack office infrastructure for the Regional Coordination Council (RCC) (GIZ, 2022). The Bono, Ahafo and Bono East regions have a wide and extensive network of towns and farming. Notably, the provision of essential basic services like electricity, water supply, sanitation, transportation, waste management, and telecommunications

receives commendable ratings. Most households within these regions have access to electricity and clean water supplies.

Even most rural areas in the respective regions have access to electricity connection. The poor road network infrastructure, however, has the likelihood to increase SMEs' cost of operations and hampers their competitiveness as compared to other regions in Ghana, particularly Accra and Kumasi. The weak infrastructure causes businesses, particularly manufacturers, to focus their activity on regional and district capitals at the expense of rural communities. This slows down both productivity and income growth in rural communities, causes rural-urban migration and hampers improvements in living standards for residents as well as companies' ability to generate employment opportunities. It must be noted, however, that the Government of Ghana is working to improve infrastructure in the Bono, Bono East and Ahafo regions. For some time now, there have been constructions, renovations, and upgrades of roads in the respective regions.

In the Bono, Bono East and Ahafo regions approximately 53.3 percent of the total population is classified as urban residents, while the remaining 46.7 percent reside in rural areas.

Specifically, the Bono region stands out with the highest proportion of urban residents, accounting for 58.4 percent, in contrast to 42.1 percent of the population residing in rural areas.

The Government of Ghana, through the Ministry of Trade and Industry (MoTI) has embarked on supporting the private sector under the One District and Factory (1D1F) to establish strategic manufacturing companies in each district based on the resource base of the local areas. The government is supporting the establishment of about 19 factories in the Bono region, 10 in the Bono East region and 5 in the Ahafo region. These industrial initiatives are to focus on the setting up of manufacturing industries in the areas of agri-food processing, recycling and so on (GIZ, 2022). The initiatives provide an opportunity for potential investors to explore the resource base of the three regions.

### **1.3. Analysis of In-Demand Professional Roles and Skill Gaps**

The research aimed to analyse the sought-after professional roles, identify skill gaps, and predict future demands within the three primary sectors: agriculture, construction, and services industries.

#### **1.3.1 Professional Figures and skills required in the agriculture sector**

With reference to the agriculture sector – which represents the major youth employer in the Bono, Bono East and Ahafo regions – Table 1 discussed the various demands.

*Table 1: Survey results with regards to agriculture sector*

| Trade/professions           | How often mentioned | Percentage (%) | Professional skills lacking | Big future demands from companies |
|-----------------------------|---------------------|----------------|-----------------------------|-----------------------------------|
| General worker              | 4                   | 30.77          |                             |                                   |
| Veterinary officers         | 2                   | 15.38          | 3                           |                                   |
| Green house farming         | 2                   | 15.38          | 2                           | High                              |
| Disease and pest controller | 2                   | 15.38          | 1                           |                                   |
| Aquatic farming             | 1                   | 7.69           | 1                           |                                   |
| Feeding of birds' skills    | 1                   | 7.69           |                             | High                              |
| Livestock production        | 1                   | 7.69           | 1                           |                                   |
| Processing                  |                     |                | 1                           |                                   |

Regarding the question about which professional figures are most in demand from the labour market in the agriculture sector, it is observed in Table 1 that general workers are in most demand from the labour market, constituting 30.77% of the responses from the sector. Veterinary, greenhouse farming and disease and pest control skills follow closely in demand at 15.38%, as shown in the table. Other skills that are in demand with high interest are aquatic farming, feeding of birds, and livestock production.

*Table 1* shows that veterinary officers are the ones that are lacking the most in the agriculture industry. Green house farming is an emerging farming method, but it is gaining interest in the Bono, Bono East and the Ahafo regions. Since it is an emerging area most youth need to be trained to take advantage of it. The workforce in greenhouse farming is lacking in the Bono, Bono East and Ahafo regions. The other skills lacking in the agriculture sector include disease and pest controllers, aquatic farmers, livestock production skills, and processing of farm outputs skills.

It is therefore important to highlight the main high future demands in the agriculture sector. The two predominant traits with high future demand are greenhouse farming and poultry production

skills, as indicated in Table 1 earlier. This emphasizes the necessity for directing investments towards training young individuals in acquiring the essential skills for greenhouse farming and poultry production.

### 1.3.2 Professional Figures and skills required in the construction sector

With reference to the construction sector in the Bono, Bono East and Ahafo regions, Table 2 discusses the various demands. Table 2 below discloses levels of demand for skills for the construction domain.

*Table 2: Survey results with regards to construction sector*

| Trade/profession  | How often mentioned | Percentage (%) | Professionals' skills lacking | Big future demands from companies |
|-------------------|---------------------|----------------|-------------------------------|-----------------------------------|
| Mason             | 6                   | 25.00          |                               | High                              |
| General workers   | 3                   | 12.50          |                               |                                   |
| Electricians      | 3                   | 12.50          |                               |                                   |
| Engineers         | 3                   | 12.50          | 1                             |                                   |
| Steel benders     | 2                   | 8.33           |                               |                                   |
| Plumbing          | 2                   | 8.33           | 3                             | High                              |
| Carpentry/joinery | 2                   | 8.33           | 2                             |                                   |
| Machine operator  | 1                   | 4.17           |                               |                                   |
| Tillers           | 1                   | 4.17           | 4                             |                                   |
| Paving            | 1                   | 4.17           |                               |                                   |
| Painters          |                     |                |                               | High                              |

With reference to *Table 2*, it is observed that mason workers are in most demand from the labour market which constitute 25% of the responses from the construction sector. General workers, electricians and engineers follow closely at 12.5% each. The rest are steel bending, plumbing and carpentry/joinery of 8.33% each. Machine operators, tillers and pavers have also been mentioned.



It is observed in Table 2 that although masonry was the professional skill that was mentioned the most, there is no lack for it in the construction sector. The future demand for masonry has also been identified to be large by the construction companies.

It is important to highlight the three main professional skills that are lacking in the construction sector: tillers, plumbers, and carpenters. Notably, despite its lower demand as noted in *Table 2*,

tilling emerges as the most significant skill gap within the construction industry. Following closely is the scarcity of plumbers, while carpentry/joinery and engineering expertise also exhibit notable shortages within the construction domain.

Professional skills that are in large future demand include mason, plumbing and painting.

Important to note the inclusion of painting skills, which, although not explicitly mentioned in the list of highly sought-after or lacking skills, has been identified as having a substantial future demand. Further inquiry with participants revealed that the climatic conditions in the regions, characterized by the frequency of rainfall, will likely lead to an increased demand for professional painters in building maintenance, specifically for painting purposes. Presently, it has been confirmed that a majority of buildings within the communities remain unpainted.

### 1.3.3 Professional Figures and skills required in the IT/ICT sector

IT/ICT sector is a growing area with a lot of potential for young people to develop their skills. IT/ICT can be a lucrative career for the youth if well managed. It can help reduce unemployment in the three main regions and in Ghana at large. With reference to the IT/ICT sector, Table 3 discussed the various demands. The table disclosed levels of demand for skills by employers for this domain.

*Table 3: Survey results with regards to IT/ICT sectors*

| Trade/professions         | How often mentioned | Percentage (%) | Professional skills lacking | Big future demands from companies |
|---------------------------|---------------------|----------------|-----------------------------|-----------------------------------|
| Web developers & managers | 3                   | 25             |                             | High                              |
| Computer networking       | 2                   | 16.67          | 2                           |                                   |
| Hardware engineer         | 2                   | 16.67          |                             | Medium                            |
| Software engineer         | 2                   | 16.67          |                             | High                              |
|                           |                     |                |                             |                                   |

|                  |   |       |  |        |
|------------------|---|-------|--|--------|
| Microsoft suit   | 2 | 16.67 |  |        |
| Graphic designer | 1 | 8.33  |  | Medium |

Regarding the question about which professional figures are most in demand from the labour market in the IT/ICT sector, it is observed in *Table 3* that web developers and managers are in most demand, constituting 25% of the responses from the sector.

The other skills in high demand include: computer networking, hardware designing, software designing, and Microsoft suit all representing 16.67% of the skills needed in the Bono, Bono East and Ahafo regions. It is also observed that graphic designing is moderately high in demand in the three regions.

*Table 3* discloses that computer networking skills are lacking in the Bono, Bono East and Ahafo regions. This must be taken seriously by training institutions to maximize employment opportunities for the youth in the regions.

There are two main high future demands for trades in IT/ICT which are web developing and management and software engineers. The companies interviewed disclosed that future demand for web designers will be very high and that it will be very high for software engineers, too. The position of graphic designer shall see medium demand in the future together with that of the hardware engineer, as shown in *Table 3* above.

In this context, possessing technical knowledge becomes an essential prerequisite for employment within the technical realms. Hence, all trainees or employees are expected to showcase area-specific technical skills, a requirement that is duly confirmed by employers and companies alike.

### 1.3.4 Service demanded in the three sectors

All the three main sectors must have a service department to support production. In that regard, the question about which services and skills are in highest demand has been asked and the responses are interpreted in *Table 4* below.

*Table 4: Survey results with regards to the highest service demanded*

|                               | Agriculture | Construction | IT/ICT |
|-------------------------------|-------------|--------------|--------|
| Teamwork                      | 2           | 4            | 1      |
| Marketing & Digital marketing | 4           | 0            | 3      |
|                               |             |              |        |

|                    |   |   |   |
|--------------------|---|---|---|
| Bookkeeping        | 0 | 1 | 1 |
| Communication      | 1 |   | 1 |
| Front desk         |   | 1 |   |
| Managerial skills  |   |   | 1 |
| Customer care      |   |   | 1 |
| Cyber security     |   |   | 1 |
| Statistical skills |   |   | 2 |

As cited in Table above, teamwork is highlighted in the three main sectors as very crucial in the Bono, Bono East and Ahafo regions. Marketing and digital marketing has been identified as the most in demand service for agriculture sector and IT/ICT sectors. Construction and IT/ICT are in high demand for bookkeeping personnel. Finally, communication skills, front desk, managerial skills, customer care, cyber security expertise, statistical skills are among the skills demanded in the services sector in the Bono, Bono East and Ahafo regions.

The companies have all agreed on the necessity for their employees to hold specific minimum certificates. These certificates serve as tangible evidence of attaining a foundational level of formal education, ultimately reducing the extent of training required. It is worth noting that while some companies acknowledge the potential for training trainee workers or existing staff members on-the-job, the prerequisite remains the ability to exhibit a capacity for acquiring new skills and knowledge, rendering certificates less critical in such cases.

### 1.3.5 Importance of technical skills

The technical skills that are considered by workers in the various fields during recruitment were investigated and employers were interviewed according to the importance attached to such skills. The results are cited in Table 5 below.

*Table 5: Survey results with regards to the importance of technical skills*

|   |                |
|---|----------------|
| Practical technical skills                              | Very important |
| Theoretical technical skills                            | Very important |
| Being technically up to date with the newest technology | Very important |
| Having learnt the skills in a training center           | Very important |
|   |                |

|  |                |
|--|----------------|
| Being officially certified by a technical school (diploma level) | Very important |
| Capacity of understanding and solving problems                   | Very important |
| Willingness of learning and adapting                             | Very important |
| Team and communication skills                                    | Very important |

All the employers agreed that the above skills are crucial for employment of the workforce into their firms. They further said that the above skills help them to minimize their stress, as those people work to produce efficient results. Conversely, individuals lacking these essential skills can potentially pose challenges for the organization, necessitating additional efforts to address the resultant issues, as conveyed by several respondents. For the youth to be able to fit effectively into the job market, they need to develop those skills from their training institution. In conclusion, they must be guided by the training institutions to acquire these skills.

### 1.3.6 Sectors with high tendency for growth

The question sought to address the major growth rate in the three main industrial sectors in the Bono, Bono East and Ahafo regions. The findings derived from the engagement with respondents are presented in Table 6 below.

*Table 6: Sector growth rate survey*

| Tendencies for growth   | Agriculture | %     | Construction | %     | IT/ICT | %     |
|---|-------------|-------|--------------|-------|--------|-------|
| Our branch shows fast growing                                 | 2           | 22.22 |              |       | 1      | 14.29 |
| Our branch is constantly growing but at a moderate rhythm     | 4           | 44.44 | 3            | 33.33 | 4      | 57.14 |
| There it is not so much growing but our branch is quite solid |             |       | 1            | 11.11 | 1      | 14.29 |
| The situation is a little bit faltering                       |             |       |              |       | 1      | 14.29 |
| The economic situation causes some problem to our branch      | 3           | 33.33 | 5            | 55.56 |        |       |

Referencing *Table 6*, agriculture shows either fast growth (22.22%) or to be moderately growing (44.44%) but faces some challenges due to the current economic situation in the country.

Construction firms have been hit hard by the economic conditions in the country in the three regions of Bono, Bono East and Ahafo. The rate of economic impact on construction firms and their functioning stands at 55.56%. This is evidenced by the fact that prices of building materials have increased sharply due to sharp increase in inflation in recent times. It is important to highlight that despite the prevailing economic challenges faced by the construction sector within the three main regions, there is still moderate growth in the sector, as testified by 33.33% of respondents.

The IT/ICT sector shows a high level of growth: it demonstrated a moderate growth in 57.14% of the cases, which is more than the growth recorded by agriculture and construction sectors. Surprisingly, the current economic volatility appears to exert limited influence on the sector. This encouraging trend suggests that young individuals possessing the necessary skills in this domain can still reap rewards from their proficiency in ICT, even in the face of less favorable economic indicators.

## 1.4. Future tendence

The term "future tendencies" refers to skills in agriculture, construction, and ICT sectors showing notable growth and demand-supply dynamics in Bono, Bono East, and Ahafo regions. In this segment, we provide an overview of the specific roles and competencies characterized by a high degree of demand and a comparatively low level of availability. This section will reference data from earlier chapters, reintroducing crucial information that holds significance for our analysis. A closer look at the sectors of construction and IT/ICT will follow.

### 1.4.1 Sector growth and supply/demand analysis

*Table 7: Results with regards to future growth, demand, and supply of skills*

| Sectors     | Growth rate (%) | Demand (High)                   | Supply (Lack supply)         |
|-------------|-----------------|---------------------------------|------------------------------|
| IT/ICT      | 71.43           | Website developers and managers | Computer networking          |
|             |                 | Software engineers              |                              |
| Agriculture | 66.67           | Greenhouse farming              | Veterinary officers          |
|             |                 | Feeding of birds' skills        | Greenhouse farming           |
|             |                 |                                 | Disease and pest controlling |
|             |                 |                                 | Aquatic farming              |

|              |       |          |                      |
|--------------|-------|----------|----------------------|
|              |       |          | Livestock production |
|              |       |          | Processing           |
| Construction | 33.33 | Mason    | Tilling              |
|              |       | Plumbing | Plumbing             |
|              |       | Painters | Carpentry/joinery    |
|              |       |          | Engineers            |

Table 7 above provides insights into the comparative growth rates among sectors and highlights the prevailing demand for specific skills, along with their availability for employment.

ICT tops the growth potential in the industry at the rate of 71.43%. There is a high demand for website developers and software engineers in the ICT industry. The industry is currently lacking a supply of computer networking personnel.

ICT was followed by agriculture which is growing by 66.67% in that industry. Demand for greenhouse farming skills and people responsible for feeding birds are in high demand. The agriculture sector is lacking veterinary officers, greenhouse farmers, disease and pest controllers, aquatic farmers, livestock producers and processors in the Bono, Bono East and Ahafo regions.

Construction is currently growing very slow due to the cost of materials for building. The inflation of 40.3% reported by statistical authority has been cited to be one of the major factors affecting growth in the construction sector. Moreover, mason, plumbing and painters are in high demand in the construction sector in the Bono, Bono East and Ahafo regions. It is also highlighted that tilling, plumbing, carpentry/joinery, and engineers are lacking in the sector.

#### 1.4.2 Skills (hard and soft) needed for employment

Employers identified skills that they prioritize when considering trainees for employment, making these competencies the central focus for training within educational institutions. Table 7 highlights some of the key skills that play a pivotal role in driving employment opportunities across the three main sectors within the Bono, Bono East, and Ahafo regions.

*Table 8: Survey results with regards to the skills needed for employment*

As cited from Table 8, these are other skills in response to the question of skills gap. These skills are very essential for job sustainability. It is evident from the companies' perspective that the above soft skills have not been visible in the working performance of the young people coming from the training institutions, of whom there are many that are still seeking employment or attachment. Acting on this discrepancy must be a priority for the training institutions. Besides the technical

skills, training institutions should focus on these soft skills, as the students' ability to acquire them is a major concern from the employers.

|                             |                                       |
|-----------------------------|---------------------------------------|
| Practical skills            | Laying blocks                         |
| Tilling                     | Steel bending                         |
| Plumbing                    | Measure effectively                   |
| Basic calculations          | Human relationship                    |
| Read and write              | Have field experience                 |
| Teamwork Spirit             | Research skills                       |
| Paying attention to details | Fast learning                         |
| Safety                      | Truthfulness                          |
| Commitment to work          | ICT skills                            |
| Respect                     | Willingness to learn                  |
| Critical thinker            | Trustworthiness                       |
| Seriousness                 | Ability to learn                      |
| Honesty                     | Respectfulness                        |
| Teamwork Spirit             | Time Management                       |
| Hardworking                 | Adaptation                            |
| Trustworthy                 | Serious with task                     |
| Ability to read plans       | Willingness to sacrifice for the firm |

### 1.4.3 Growth Potential and Job Creation in IT

Information and Communication Technology (ICT) has become an important aspect of development. In recent times, ICT and the concept of digitalization have become focal points in the development of almost all sectors of the Ghanaian economy. According to the Minister for

Communications and Digitalization the country is moving towards a direction where digital skills will be required in all forms of entrepreneurship and vocational fields.

In this perspective, an initiative has been launched to train about three thousand girls from basic and second cycle institutions in the Bono East, Bono and Ahafo regions (2022 GIZ).

ICT infrastructure in the regions is relatively low, considering the drive to move the economy towards digitization. There is a limited number of actors who finance ICT projects in the respective regions. One of them is an agency of MoCD known as the Ghana Investment Fund for Electronic Communications (GIFEC) which provide financial resources for the establishment of universal service and access for all communities, and facilitate the provision of basic telephony, internet, multimedia broadband and broadcasting services to these communities. There are few individuals who offer services as accelerators, incubators and provide hosting, coaching, linkages to investors, access to markets, and business-management training for newly established ICT companies.

There are few organizations such as GIZ that offer soft skill training in ICT for the youth in the Bono, Bono East and Ahafo regions. One of the key actors in the ICT is the Mobile Telecommunication Companies (Telcos) that, among its services, provides internet service. Although there is considerably improved presence of telecommunication infrastructure in the Bono, Bono East and Ahafo regions, the high cost of internet data services is a threat to the smooth development of digital skills.

The GoG has identified manpower gaps and the country has a huge number of young people who are without jobs and the required competencies. It has been projected that 6 million young people will join the labour force by 2024 while 9 million jobs in Ghana will require digital skills by the year 2030. In the medium term, there is the recognition for a strong digitalization drive for more efficient and effective service delivery and formalization of the economy.

The adaptation of digital technology has the potential to create jobs, significantly boost productivity, increase income and support wealth creation.

These expectations provide prospects for the ICT sector. The ICT sector contributed an average growth of 21.0 per cent to Ghana's economy.

The total employment in the ICT sector is 48,984 and the Bono (973), Bono East (713) and Ahafo (260) regions account for only 1,946 (Ghana Statistical Service, 2021). This implies that more investment needs to be done in the three regions in order for the unemployed youth to take advantage of the prospective jobs in the ICT sector.

The three regions enjoy a good level of access to internet service and this improvement presents opportunities to companies to operate from the various local communities that often record low rates of employment in ICT-based occupations. Also, the improved internet access has the potential to promote the development of internet-based mobile applications that could be used anywhere in the country and beyond while increasing the chances of knowledge transfer. Against this backdrop, there will be the need for donor governmental and NGOs to create programs in ICT that support



beneficiaries, particularly the youth, to develop skills in computer programming, web designing and development of apps.

This will prepare such persons to take advantage of the various opportunities that the sector may provide within the Bono, Bono East and Ahafo regions (GIZ, 2022).

The following technical skills are in high demand:

- i. Hardware repair
- ii. Webpage hosting
- iii. Website design
- iv. Digitalization
- v. Social Media Marketing skills
- vi. IT (Hardware & Mobile phone repairs)
  
- vii. Scanning, Storage, and Retrieval
- viii. Business or entrepreneurial skills
- ix. Microsoft tools
- x. Start-up support

#### **1.4.4 Growth Potential and Job Creation in Construction**

The construction sector is a major of the Ghanaian economy, contributing about 8.1 per cent to the overall gross domestic product (Budget Statement, 2021). According to the Ghana Statistical Service (2021) it is estimated that approximately 521,271 persons are employed in the construction sector, representing 5.20 per cent of the general employment across the country's key sectors. A total number of 35, 276 persons in the Bono (16, 832), Bono East (12, 659) and Ahafo (5,785) regions are estimated to work in the construction industry. The sector employs a relatively larger percent (5.6%) of the youth (between 15 and 35 years) in Ghana.

The construction sector in the Bono, Bono East and Ahafo regions is made up primarily of road and related infrastructure (such as bridges) development, the construction of real estate and other social infrastructure.

The construction sector in Ghana has experienced an average annual growth rate of approximately 11.00% over the last 10 years (COVET, 2019). The sector continues to provide a steadily increasing contribution to Ghana's economy. A combination of the benefits of oil production in the country, strong economic growth, the rising housing deficit and the critical need for development to bolster the country's economy have been key in the observed growth trend (GIZ 2022).

Furthermore, developments in the construction sector affects or stimulates the growth of other sub-sectors like real estate activities, engineering, interior decoration, property management and furniture and electronic equipment retail.

Natives of the Bono, Bono East and Ahafo regions mostly build in their native towns and villages, and it is expected that construction activities in the regions will continue to rise.

The Newmont Ghana projects in the Ahafo and Bono regions are expected to boost construction activities in the respective regions (GIZ 2022). Furthermore, the re-opening of Sunyani Airport in 2022 is expected to unlock the economic potential of the regional capital and its environments, and propel socio-economic development in a bustling Sunyani city and across the country (Ghana Airports Company Limited, 2022).

The following technical skills are required for the construction sector:

- i. Plumbing
- ii. Welding and Fabrication
- iii. Bio-fill Toilet construction
- iv. Building construction
  
- v. Tiling
- vi. Electrical wiring
- vii. Carpentry and Joinery
- viii. Drivers - Crane drivers
- ix. Machine operations
- x. Work Finishing.

While the required soft skills are as follows:

- i. Good communication skills
- ii. Job-specific technical skills
- iii. Entrepreneurship Skills
- iv. Teamwork skills
- v. Calculating and working with numbers on building plans
- vi. Creative and critical thinking
- vii. Time management skills
- viii. Ability to work independently
- ix. Preparation of Estimates (Projects costs)
- x. Negotiation skills.

## **Part 2. DBTI Case Study: an analysis of both primary and secondary data**

### **2.1 Introduction**

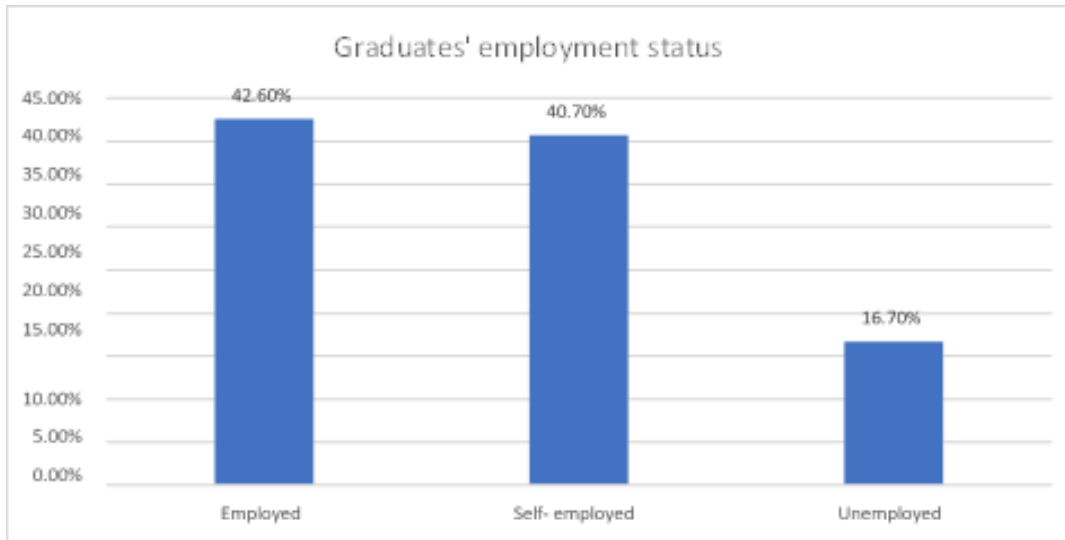
Embarking on a thorough exploration of a survey administered to graduates of the Don Bosco Technical Institute, this segment delves into a meticulous investigation aimed at unravelling the competencies and skills cultivated during their vocational and technical training at the institution. This section delves into the comprehensive findings regarding the employment landscape, migration trends, and the essential attributes required for the successful employment of Don Bosco graduates across the Bono, Bono East, and Ahafo regions of Ghana. It is important to note that the presentation does not merely isolate the outcomes within each individual region; rather, it amalgamates them to underscore the overarching significance of Don Bosco's training endeavors and their profound relevance within the job market of these three vital regions.

This survey provides a holistic understanding of the knowledge and proficiencies imparted by Don Bosco, spanning various sectors such as agriculture, construction, and information technology. By casting a spotlight on the diverse dimensions of skills acquisition, this inquiry brings forth a comprehensive perspective on the extent to which Don Bosco's training equips its graduates for fruitful integration into the dynamic and evolving job market.

### **2.2 Market and employment situation of Don Bosco Trained Graduates**

#### **2.2.1 Don Bosco graduates' employment status**

The study sought to investigate if the graduates of Don Bosco Training Centre who were interviewed during the survey were employed after graduation from the training at Don Bosco. Categories considered included graduates employed in wage employment, those self-employed, as well as those unemployed. Figure 2.1 presents the employment situation of the graduates.

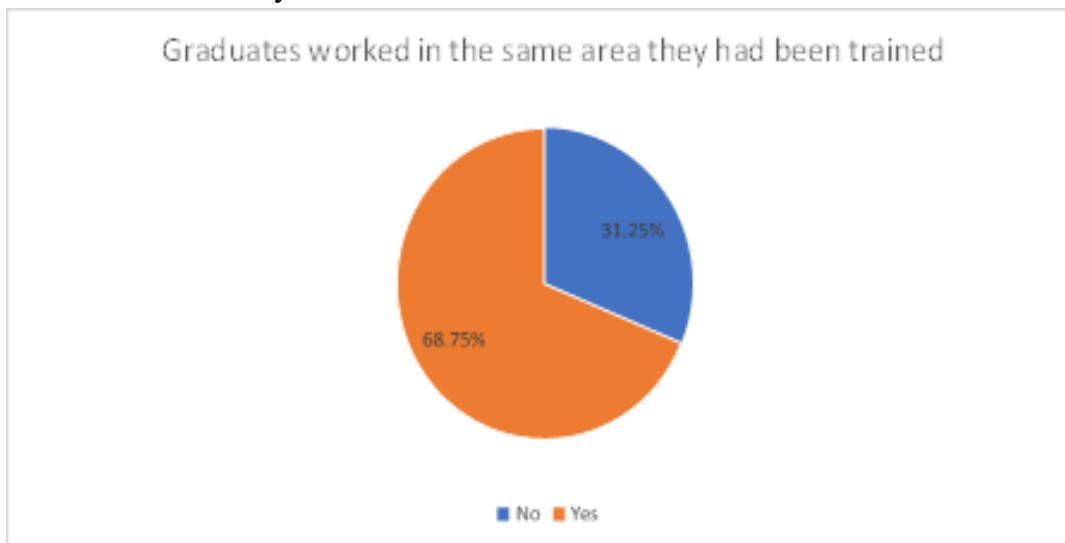


*Figure 2.1: Survey results on graduates' employment status*

As shown in Figure 2.1 above, an observation reveals that 42.60% of trainees who concluded training from 2018 to 2021 secured wage employment. It is quite interesting to note that 40.70% opted for self-employment, while approximately 16.70% did not find employment. Among the unemployed, some are pursuing further education at higher levels. Apart from one graduate who expressed a desire for further education and was awaiting paternal assistance, the remaining graduates are either employed or engaged in advanced training initiatives.

### 2.2.2 Alignment of graduates' work with their training areas

The survey sought to establish if the graduates from Don Bosco Training Centre were working in the same area for which they had been trained.



*Figure 2.2: Survey results on the alignment of graduates' work with training areas*

Figure 2.2 shows that over 68% of the graduates worked in the areas of training from Don Bosco. However, the remaining graduates (31.25%) who pursued different career paths mentioned they are actively applying the skills acquired at Don Bosco in their current roles. For instance, some are utilizing computer skills for data management in agriculture and construction settings. Others are employing their woodworking and construction expertise to address issues on their farms or even make enhancements to their workplaces, such as adding new floors.

### 2.2.3 Years spent before employment by graduates of Don Bosco

The number of years spent before securing employment after training at Don Bosco Training Centre were investigated and the key findings are illustrated in Figure 2.3 below.

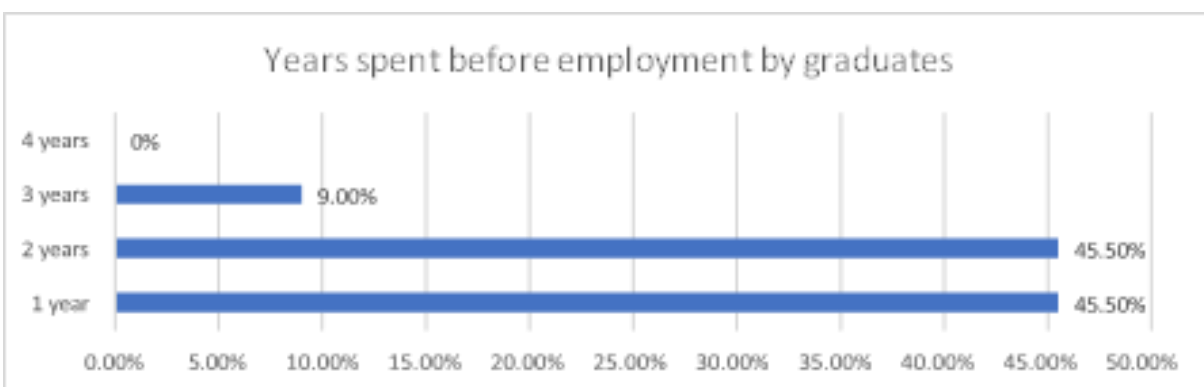


Figure 2.3: Survey results on the number of years spent before employment by graduates

The survey results, as depicted in Figure 2.3, indicate that 45.5% of graduates secured employment within the first two years after completing their training. About 9% of respondents found jobs during the third year, while none of the working respondents reported finding employment beyond four years after graduation.

### 2.2.4 Income of Don Bosco graduates in relation to the minimum wage

The survey was interested in finding out what income graduates of Don Bosco got in relation to the minimum wage in Bono, Bono East and Ahafo regions.

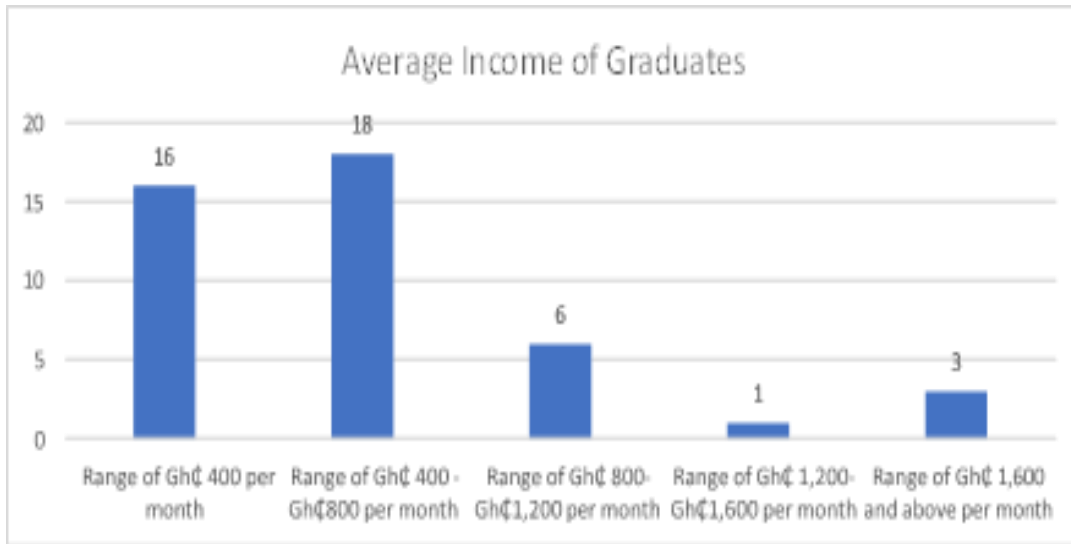


Figure 2.4: Survey results on average income of graduates

The survey on graduate income from Don Bosco included responses from 44 individuals employed in the Bono, Bono East, and Ahafo regions. Out of these, 16 graduates reported a monthly income of Gh¢400.00 or lower, while 18 out of the 44 employed graduates earned between Gh¢400.00 and Gh¢800.00 per month. Additionally, the analysis highlighted that 3 out of the 44 graduates had a monthly income of Gh¢1,600.00 and above, as depicted in Figure 2.4 above.

### 2.2.5. Whether graduates were willing to migrate to cities and other countries

The survey sought to find out whether graduates from Don Bosco have appetite for migration to cities and other countries, the report in Figure 2.5 below displayed the output.

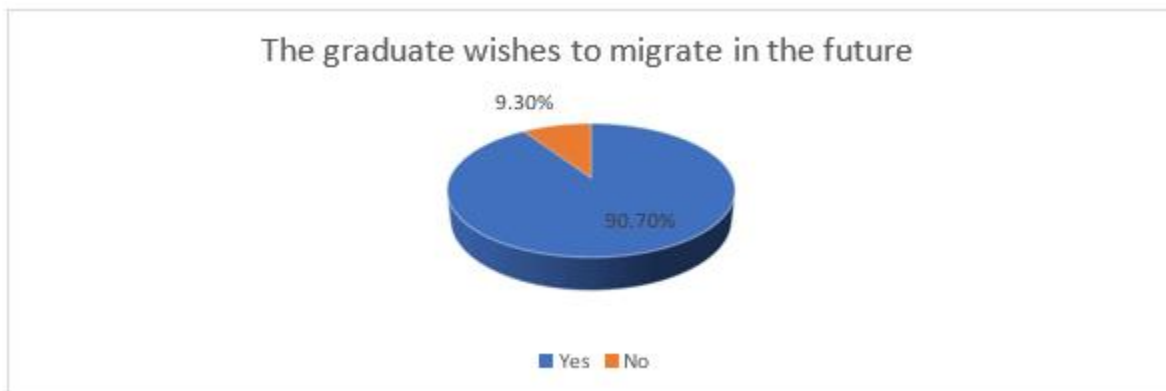


Figure 2.5: Survey results on graduates' desire for migration

From the respondents' viewpoint, it was demonstrated that 90.70% of the graduates from Don Bosco wished to migrate to cities and other countries majorly for more job opportunities, and few

of the respondents for better salary. This indicated that graduates from Don Bosco are ready to work and willing to travel anywhere on the globe to meet that demand. According to the graduates of Don Bosco, the major issue is not salary but sustainable job/contract.

### 2.2.6 Insights on the effectiveness of the Don Bosco Technical Training Programs

The training sought to analyze the effectiveness of the training of the Don Bosco Technical Institute in the job market. Figure 2.6 below shows the effectiveness of the training.

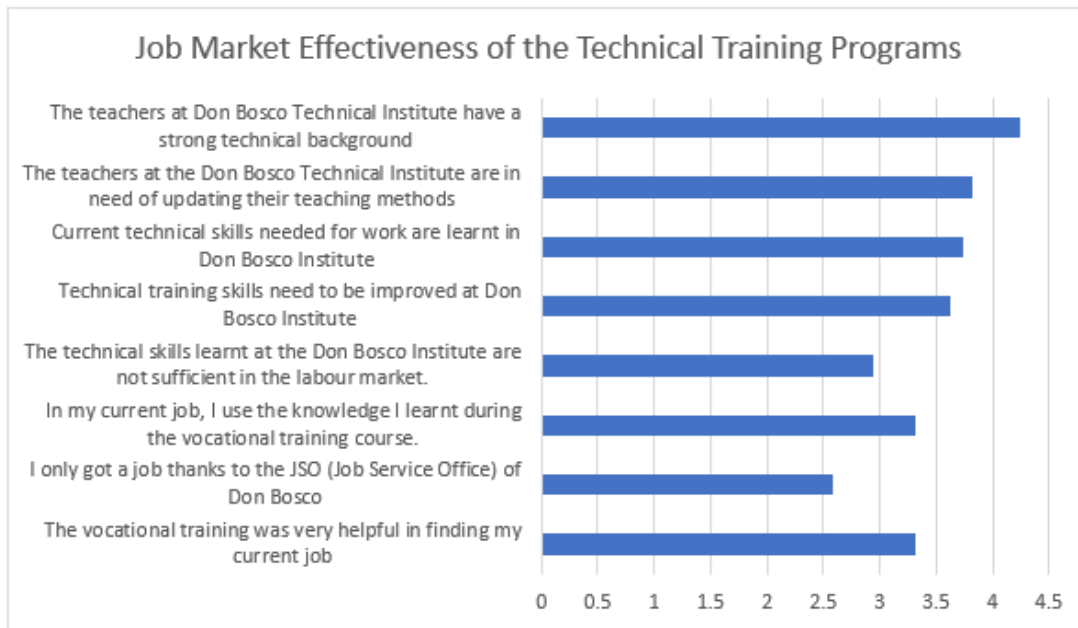


Figure 2.6: Survey results on job market effectiveness of the technical training programs

The data analysis in Figure 2.6 depicted the effectiveness of the training programs at Don Bosco Training Centre, the graduates agreed that vocational training was very helpful in finding their current jobs, an option that was overall rated 3.3, above the average of 3. Even though the technical skills learnt at the Don Bosco Institute appear to not be sufficient in the labour market, it was acknowledged (3.3 rating) that skills acquired at Don Bosco were used to perform the current job. There is clearly the need to improve the training programs at Don Bosco, as there was significant request (4.2 rating) that trainers at Don Bosco upgrade their skills to meet the current labour market demands. There was also a small but significant concern that Job Services Office did not contribute to finding the current job they do.

It is worth highlighting that while overall feedback on the institute's educational programs was positive, specific questions brought to light critical issues that will be addressed in the concluding remarks.

### 2.2.7 Whether vocational training helps to acquire soft skills

The survey sought to find out whether vocational training helps to acquire soft skills needed for employment into the labour market. Figure 2.7 below demonstrate how vocational training helps to acquire soft skills. The benchmark for the analysis was a rating of 3, meaning that a rating beyond the benchmark indicates that there is the need for the skill.

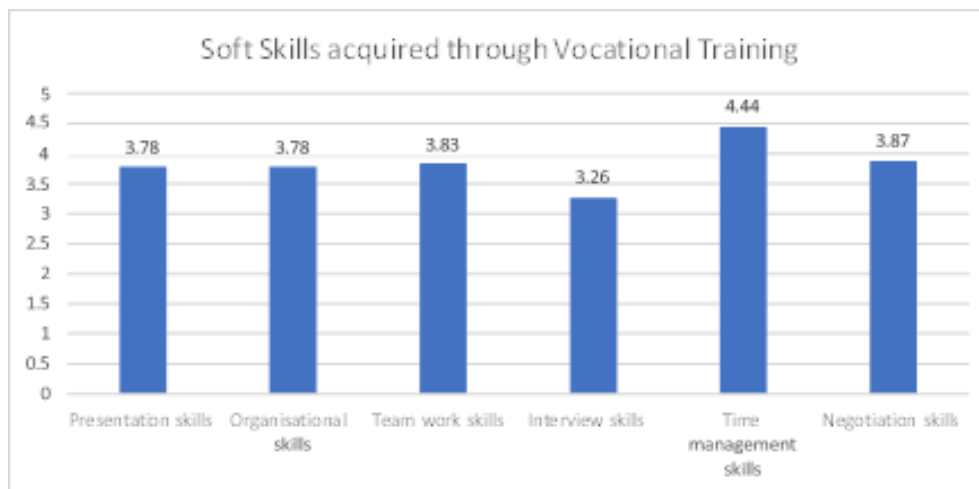


Figure 2.7: Survey results on what soft skills were acquired during vocational training

The findings from the investigation as shown in Figure 2.7 above proved that presentation skills, organizational skills, time management skills, interview skills and negotiating skills that the Don Bosco Training helped graduates to acquire was critical for graduates to defend their job, to present their contracts, organize resources, and obtain the right contract. Apparently, teamwork skills came to aid to the respondents in their career. Significantly, time management tops the list with a rating of 4.44, demonstrating that it is highly prioritized in the labour market. The respondents raised the argument that time management helped to work on time and produce more output with short times. It generally agreed that vocational training helped graduates acquired soft skills necessary for the job market.

### 2.2.8 Whether vocational training helps to acquire value skills

The survey sought to find out whether vocational training helped Don Bosco graduates to acquire value skills needed for employment into the labour market. Figure 2.8 below demonstrates how vocational training helps to acquire value skills. The benchmark for the analysis was a rating of 3, meaning that a rating beyond 3 indicates that there is the need for the skill.



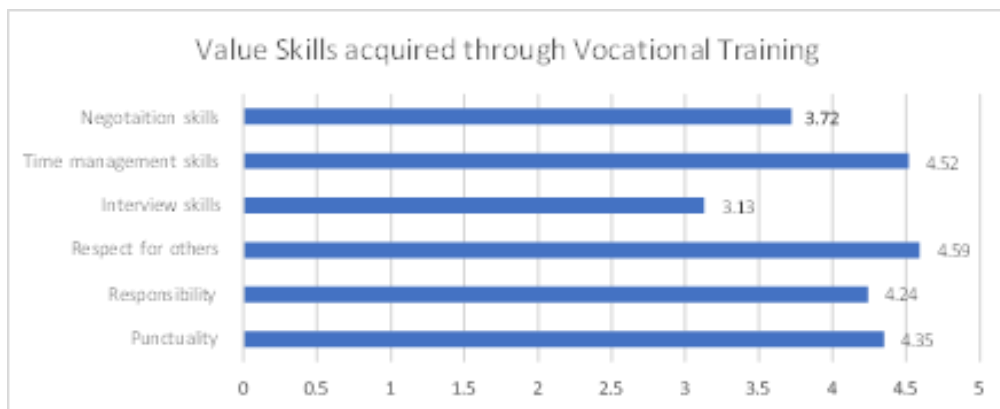


Figure 2.8: Survey results on what value skills were acquired during vocational training

The findings as shown in Figure 2.8 above proved that value skills were required in the job market. Interview skills were rated low but still ranked above the average of 3. The highest rating was ‘respect for others’ which was rated 4.6 on average. Other comments proved that most students did not carry along manners into the job market. Meanwhile it was raised that working with others calls for mutual respect. This suggested that training institutions must give priorities to value education as effective component of the training offered to the youth.

### 2.2.9 Whether vocational training helps to acquire life skills

The survey sought to probe into whether vocational training helped Don Bosco graduates to acquire life skills needed for employment into the labour market. Figure 2.9 below demonstrates how vocational training helps to acquire life skills. The benchmark for the analysis was 3, meaning that any output above it is an indication that there is the need for the life skill.

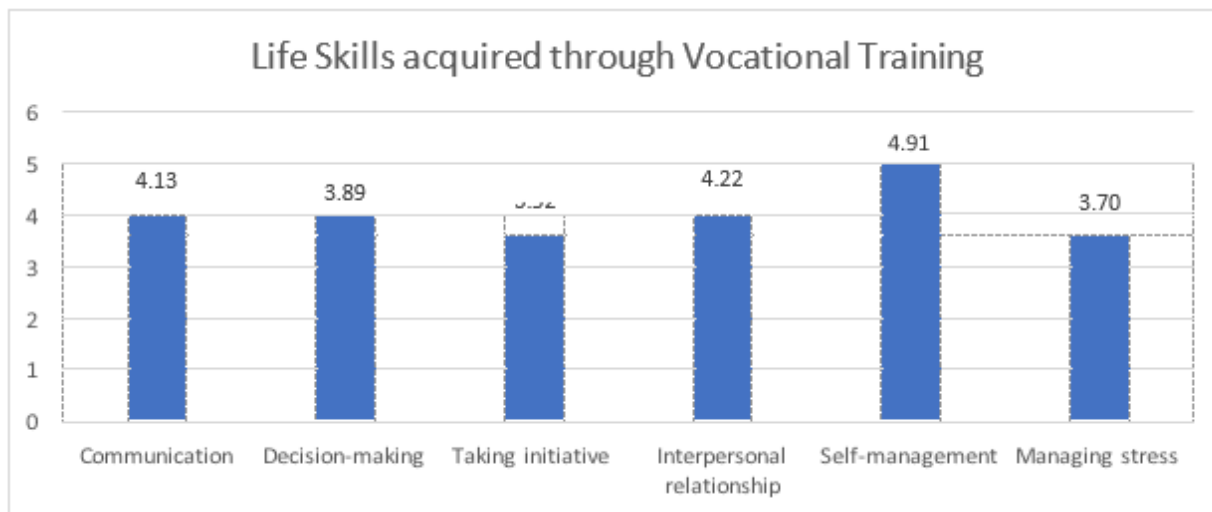


Figure 2.9: Survey results on what life skills were acquired during vocational training

The survey as shown in Figure 2.9 above indicated that life skills were required in the job market. Communication skills, interpersonal skills and self-management skills were rated above 4 among which self-management was the highest with a rating of 4.9. This is an indication that teachers must add also soft skills training to the process of training the trainees in the hard skills: they must not neglect the soft skills, like life skills and values. Holistic education for transformation includes training of the head, the heart, and the hand. The heart is majorly involved when training life skills and values for effective integration into the society.

### 2.2.10 Whether vocational training helps to acquire computer skills

The survey sought to investigate whether vocational training helped Don Bosco graduates to acquire computer skills needed for employment into the labour market. Figure 2.10 below indicates how vocational training helped to acquire computer skills. The benchmark for the analysis was 3: any output above the benchmark is an indication that there is the need for the skill.

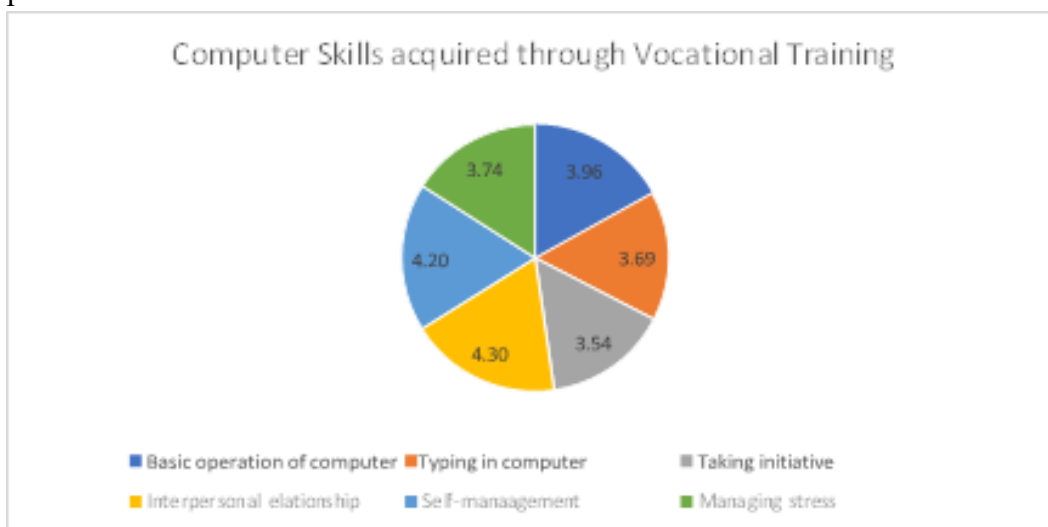


Figure 2.10: Survey results on what computer skills were acquired during vocational training

The data analysis from Figure 2.10, which examined the importance of computer skills, revealed that interpersonal relationship skills (4.3) and self-management (4.2) ranked highest, followed closely by basic computer operations (approximately 4). Notably, stress management (3.7) and typing (3.7) were both rated similarly. The significance of computer skills for sustaining the demands of the job market is undeniable. As a result, training institutions should prioritize comprehensive computer education. Education tailored to meet labor market needs should encompass the transformation of cognitive, practical, and emotional aspects, as evidenced by the study's findings.

### 2.2.11 Don Bosco teachers need to update teaching methods

The survey sought to probe into whether Don Bosco trainers needed updating their teaching methods. Figure 2.11 below has a benchmark of 3. The significance of the benchmark shows that any mark below 3 is rejected and above 3 is accepted as illustrated below.

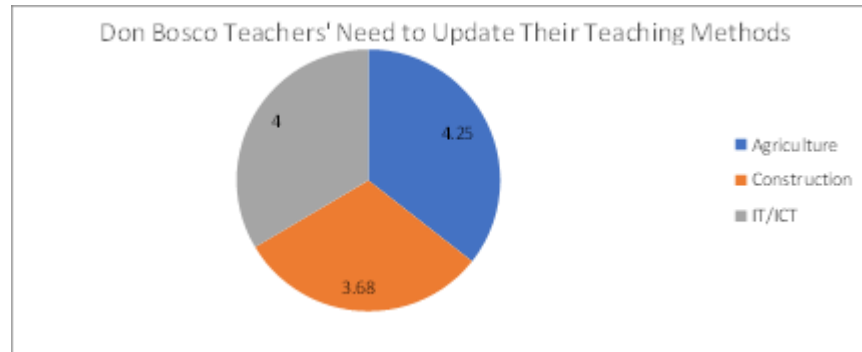


Figure 2.11: Survey on whether Don Bosco teachers need to update their teaching methods (from 1 to 5)

As the illustration from the data in Figure 2.11 above, teachers in agriculture (4.25), construction (3.68) and IT/ICT (4) strongly needed to update their teaching methodology to be able to bring their knowledge about the current changes in the labour market to a sufficient level to prepare young learners to meet the requirement of the labour market employment. Efficiency in training will guide learners to align themselves with the best practices of the job market, enabling them to seize employment opportunities in their vicinity. While the following Figure 2.12 illustrates the strong technical background of teachers at Don Bosco Technical Institute, there remains a need for continuous enhancement of their teaching methodologies.

### 2.2.12 Don Bosco teachers' technical background

The survey sought to probe into whether Don Bosco teachers have a strong technical background. Figure 2.12 below represents results that have a benchmark of 3, meaning that any mark below the benchmark is rejected and above is accepted.

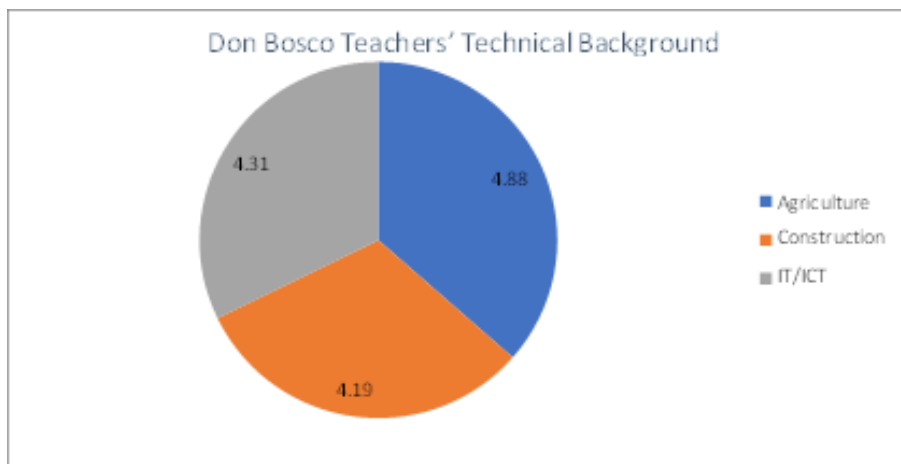


Figure 2.12: Whether Don Bosco Technical Institute teachers have a strong technical background (on a scale of 1 to 5)

The survey demonstrated that all the Don Bosco Technical Institute teachers have a strong technical background. Based on the output from the survey, teachers in the Agriculture Department scored particularly high at 4.88, followed by IT/ICT and Construction departments with scores of 4.31 and 4.19 respectively. This robust technical foundation among Don Bosco's teachers was evident.

Despite their strong technical background, the youth participants emphasized the importance of ongoing training in teaching methodologies. The dynamic landscape of education demands innovative approaches to ensure effective teaching and learning, aligning with labour market requirements for sustainable employment and job placement.

## Conclusion

In conclusion, it is very important to note that even as the world talks about youth unemployment and Ghana is not excluded from youth unemployment, technical jobs are available in the labour market for youth who are competently trained in those technical areas of study. The skills that are learnt in the Don Bosco Technical Institute are relevant in the job market but most of the job requires upgrading of technical skills. The skills that required upgrading were learnt by most of the graduates from the work environment. It is also notable that those who get employment are graduates who are able to learn quickly.

The data analysis in Figure 2.6 depicted the effectiveness of the training programs at Don Bosco Training Centre: the graduates agreed that vocational training was very helpful in finding their current jobs. It was evident in the survey analysis that even though the technical skills learnt at the Don Bosco Technical Institute were not sufficient in the labour market, the respondents acknowledged that skills acquired at Don Bosco were used to perform their current jobs. At the time of this research, there is the need to improve the training programs at Don Bosco and there is significant request that trainers at Don Bosco should upgrade their skills to meet the current labour market demands. There is significant concern that Job Services Office contribute limitedly to finding the current jobs that the graduates do. This could further be studied to find out how graduates found their current jobs.

To effectively train the youth to constantly meet the need of the evolving job market needs, training institutions must align training modules with the labour market to transfer the new best practices easily and quickly to the training institutions. Constant labour market survey must be the solution in this regard since there is constant change in the labour demand especially in the Agriculture, Construction, and IT/ICT fields.

One significant output which must influence training decision has to do with training in IT/ICT. The evidence to IT/ICT training was that even as economic conditions were affecting the Construction and Agriculture sector, IT/ICT was still booming. Graduates who were working in IT/ICT were not affected by the economic downturns. Training in IT/ICT played a pivotal role in advancing youth employment opportunities.

It was conspicuously indicated that life skills are required in the job market. Communication skills, interpersonal skills and self-management skills were rated above 4. Among these, self-management was the highest with a rating of 4.9, meaning that that effective self-management contributes significantly to achieving higher personal accomplishments. Recognizing the significance of self-management, it becomes imperative to incorporate this aspect into the training

process, emphasizing a competence-based approach that integrates cognitive, emotional, and practical skills for a comprehensive preparation to enter the workforce.

Furthermore, the survey revealed a noteworthy inclination among most graduates to seek job opportunities in other areas of the country or abroad. Addressing this trend necessitates the creation of local employment prospects within their communities. Conducting awareness campaigns on the risks of irregular migration and disseminating information about the opportunities of regular migration can be a valid initiative as well to support young people in search of a better future.

## Recommendations

We have successfully highlighted the significance of Don Bosco training for the youth, along with identifying training areas that can enhance effective integration into the labour market. However, it is imperative to take into account the following considerations:

- i. In the agriculture sector, the two predominant traits with high future demand are greenhouse farming and poultry production skills. This emphasizes the necessity for directing investments towards training young individuals in acquiring the essential skills for greenhouse farming and poultry production.
- ii. There is the need to align competencies required in the labour market with the training modules in Don Bosco Technical Institute. To achieve that, there must be a further survey targeting the work types and skills currently needed and future needs of the companies in the Bono, Bono East and Ahafo regions.
- iii. The teachers of Don Bosco Technical Institute must be given further capacity building training in ‘Teaching Methodology’ in particular and values and other life skills to be able to place such knowledge at the disposal of the trainees.
- iv. Training institutions should prioritize comprehensive computer education to align with the labour market demand.
- v. It is essential for Don Bosco training to prioritize practical teaching, necessitating the provision of adequate training materials.
- vi. The activities of the Job Service Office must be improved to serve trainees and graduates more effectively.
- vii. The link of Don Bosco and the companies must be improved for a more effective school-to-work transition.
- viii. More intervention and awareness programs must be organized to dispel the notion of travelling elsewhere to seek for greener pastures. It was extensively displayed that graduates wish to travel for better job opportunities. To address the phenomenon of migration and its accompanying challenges, job opportunities must be provided for the youth in the Bono, Bono East and Ahafo regions. This must be the effort of the government of Ghana and other interested bodies.

## Bibliography and list of secondary sources

- Labour market survey market and employment situation, upcoming economic and employment tendencies, and future training needs in 25 African countries, DON BOSCO Tech Africa (2019)
- Labour Market and Stakeholder Analysis in the Bono, Bono East and Ahafo Regions of Ghana. Research Report. Dr. Paul Osei Brafi. GIZ (2022)
- World Bank (2021) Ghana Rising – Accelerating Economic Transformation and Creating Jobs, Washington, DC: The World Bank.
- Ghana Statistical Service (2014), Job Creation Report, Ghana Statistical Service, Accra.
- Youth Employment Programs in Ghana: Options for Effective Policy Making and Implementation. International Development in Focus. Dadzie, Christabel E., Mawuko Fumey, and Suleiman Namara (2021) Washington, DC: World Bank.
- African Center for Economic Transformation (2022), Barriers to Young Women’s Employment in The Future World of Work in Ghana, ACET, Accra.
- Ministry of Food & Agriculture, Republic of Ghana, <https://mofa.gov.gh/site/>
- Ministry of Works and Housing, Republic of Ghana, <https://www.mwh.gov.gh/>