



SELINUS UNIVERSITY
OF SCIENCES AND LITERATURE

**A Skills-induced Economic Growth
Strategy for
Small Island Developing States**

By
Michelle Sofie Charles

A DISSERTATION

Presented to the Department of
Business and Media
program at Selinus University

Faculty of Business and Media
in fulfillment of the requirements
for the degree of **Doctor of Philosophy**
in Workforce Development

2023

DECLARATION

I hereby declare, that this dissertation, entitled A Skills-induced Economic Growth Strategy for Small Island Developing States, submitted towards the fulfillment of the requirements for the award of Doctor of Philosophy, at the Selinus University, Faculty of Business and Media, is my original work.

The contents therein, except where referenced, are written and presented by me and have not been submitted for any other degree or professional qualification.

Date: December 2023

STUDENT SIGNATURE: *Michelle Sofie Charles*

Student-ID: N° UNISE1775it

ACKNOWLEDGEMENT

This endeavour would not have been possible without the assistance of Dr. Salvatore Fava. Your guidance and feedback were greatly appreciated.

I express my sincerest gratitude to my mother Paulminia Blanchard for instilling in me the value of education. She has encouraged and supported all my educational endeavours and this one is no exception.

My sister, Janique Nadiah Charles, a PhD candidate herself, is the motivation and inspiration behind this study. Her passion and attitude towards her own studies, strengthened my resolve to pursue this qualification. I am extremely grateful for her guidance, feedback and encouragement.

I am deeply indebted to Stephen C. J. Julien. The confidence continuously expressed in my ability, along with his encouragement, support and feedback, propelled me towards achieving this goal.

My children, Jamaiq and Sjodin, epitomize patience and understanding. For that I am thankful.

TABLE OF CONTENTS

DECLARATION

ACKNOWLEDGEMENT

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

CHAPTER ONE	1
INTRODUCTION TO THE STUDY	1
1.0 INTRODUCTION	1
1.1 BACKGROUND TO THE STUDY	1
1.2 ECONOMIC GROWTH TRENDS OF FOUR OECS TERRITORIES	3
1.3 PROBLEM STATEMENT	6
1.4 OBJECTIVES OF THIS STUDY	7
1.5 RESEARCH HYPOTHESES	8
1.6 SIGNIFICANCE OF THIS STUDY	8
1.7 SCOPE OF STUDY	10
1.8 LIMITATIONS OF STUDY	10
1.9 CHAPTER OUTLINE.....	11
CHAPTER TWO	13
LITERATURE REVIEW	13
2.0 INTRODUCTION	13
2.1 LABOUR AS A CONSTUCT OF ECONOMIC GROWTH	13
2.2 BUILDING WORKFORCE CAPACITY FOR ECONOMIC GROWTH.....	17
2.3 EDUCATION AND HUMAN CAPITAL DEVELOPMENT	19
2.5 HOW EDUCATION REFORM CAN SUPPORT SKILLS TRAINING AND BY EXTENSION WORKFORCE DEVELOPMENT.....	27
2.6 THE RELEVANCE OF TVET IN A DYNAMIC GLOBAL ENVIRONMENT	35
2.7 SUMMARY OF LITERATURE.....	36
CHAPTER THREE	39
RESEARCH METHODOLOGY	39
3.0 INTRODUCTION	39

3.1	RESEARCH METHODOLOGY	39
3.2	RESEARCH DESIGN	40
3.3	STUDY POPULATION.....	41
3.4	SAMPLE SIZE AND TECHNIQUE	42
3.5	DATA COLLECTION METHOD	45
3.6	DATA ANALYSIS METHOD	47
3.7	ETHICAL CONSIDERATIONS	48
3.8	RESEARCH LIMITATIONS	48
3.9	CONCLUSION.....	50
CHAPTER FOUR		51
FINDINGS and DATA ANALYSIS		51
4.0	INTRODUCTION	51
4.1	GROUP ONE: Policy Makers and Administrative Officers	53
4.2	GROUP TWO: Technical Officers.....	60
4.3	GROUP THREE: TRAINING PROVIDERS.....	68
4.4	GROUP FOUR – Industry Partners and Employers	78
CHAPTER FIVE		89
DISCUSSION OF FINDINGS		89
5.0	INTRODUCTION	89
5.1	DISCUSSION GROUNDED IN DATA FINDINGS	90
CHAPTER SIX		96
CONCLUSION		96
6.0	INTRODUCTION	96
6.1	ECOSYSTEM FOR A SKILLS-INDUCED STRATEGY FOR ECONOMIC GROWTH.	99
6.2	CONCLUSION.....	107
BIBLIOGRAPHY		109

LIST OF TABLES

- Table 1.1.1: OECS Territories' Size and Population as at 2017
- Table 1.1.2: Economic Growth Figures/Real GDP Growth
- Table 1.1.3: Contribution to Economic Growth by Indicators (%) -2017
- Table 1.1.4: Labour Force by Occupation (%) – 2017
- Table 4.1.1: Responses to: *There is not much more that can be done to improve the economic growth of my island*
- Table 4.1.2: Responses to: *Has your government considered TVET as a strategy for improving economic growth?*
- Table 4.1.3: Responses to: *Investing in skills development will not result in improved economic performance for my island.*
- Table 4.1.4: Responses to: *My island has the capacity to develop the technical and vocational skills of our citizens.*
- Table 4.2.1: Responses to: *teachers are well trained to teach technical, vocational and occupational areas*
- Table 4.2.2: Responses to: *The government does not invest sufficiently in TVET and skills training*
- Table 4.2.3: Responses to: *Employers and industry partners well the CVQ*
- Table 4.3.1: Responses to: *Skills training is adequately funded by the government*
- Table 4.3.2: Responses to: *as a result of covid-19 and climate change, there has been an increase demand for skills training*
- Table 4.3.3: Responses to: *There is a strong linkage between my training center and industry partners and employers*
- Table 4.3.4: Responses to: *Employers do not refer their employees to my center for training*
- Table 4.3.5: Responses to: *Industry partners and employers understand the CVQ*
- Table 4.4.1: Respondents by Sector
- Table 4.4.2: Responses to: *How confident are you in the ability of local skills training providers*
- Table 4.4.3: Responses to: *I will support the accreditation of firms as work-placement companies*
- Table 4.4.4.: Responses to: *Governments should incentivize firms to become work-placement companies*

LIST OF FIGURES

- Figure 2.1.1: Aggregate production Functions with GDP Per Capita as the output
- Figure 4.0.1: Respondents by Country (group 1)
- Figure 4.0.2: Respondents by Category
- Figure 4.1.1: Responses from Ministers to: *There is not much more that can be done to improve the economic growth of my island*
- Figure 4.1.2: Responses to: *A labour market needs assessment has been conducted within the last five years.*
- Figure 4.1.3: Responses to: *A labour market needs assessment has been conducted within the last five years (by Country)*
- Figure 4.2.1: Responses to: Respondents by country (group 2)
- Figure 4.2.2: Responses to: *The education system has the capacity to integrate skills training into the curriculum*
- Figure 4.2.3: Responses to: *The education system has the capacity to integrate skills training into the curriculum (by country)*
- Figure 4.2.4: Responses to: *Our schools are well equipped to facilitate TVET*
- Figure 4.2.5: Responses to: *TVET is widely perceived as second-tier education for the non-academic*
- Figure 4.2.6: Responses to: *The relationship between industry partners and education is a strong one*
- Figure 4.2.7: Responses to: *There is a strong support for TVET in my island*
- Figure 4.3.1: Training Providers by country
- Figure 4.3.2: Responses to: *My country places sufficient emphasis on skills development*
- Figure 4.3.3: Responses to: *My country places sufficient emphasis on skills development (by country)*
- Figure 4.3.4: Responses to: *My country is well equipped to provide skills training*
- Figure 4.3.5: Responses to: *My center is well placed to provide training in non-traditional career fields*
- Figure 4.3.6: Responses to: *The success of our training is contingent on collaboration with industry partners and employers*
- Figure 4.3.7: Responses to: *The CVQ is a sought-after qualification in my country*
- Figure 4.3.8: Responses to: *The CVQ is a sought-after qualification in my country (by country)*
- Figure 4.4.1: Responses to: Respondents by country (group 4)
- Figure 4.4.2: Responses to: *I understand the philosophy of TVET*
- Figure 4.4.3: Responses to: *There is a strong relationship between by firm and training providers*
- Figure 4.4.4: Responses to: *What type of training provider will you use*
- Figure 4.4.5: Responses to: *How can you strengthen your relationship with training providers*
- Figure 4.4.6: Responses to: *I understand the structure of the CVQ*
- Figure 4.4.7: I am familiar with the NQF of my country
- Figure 6.2.1: Ecosystem of skills-induces strategy for economic growth

ABBREVIATIONS AND ACRONYMS

CARICOM	Caribbean Common Market
CoVE	Center of Vocational Excellence
CQF	CARICOM Qualification Framework
CVQ	Caribbean Vocational Qualification
EU	European Union
GDP	Gross Domestic Product
ICT	Information and Communication Technology
ILO	International Labour Organization
LNMA	Labour Market Needs Assessment
LVT	Labour Value Theory
NGO	Non-Government Organization
NQF	National Qualification Framework
NVQ	National Vocational Qualification
OECD	Organization for Economic Cooperation and Development
OECS	Organization of Eastern Caribbean States
SDG	Sustainable Development Goal
SIDS	Small Island Developing States
TVET	Technical and Vocational Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNEVOC	UNESCO Vocational Education
WB	World Bank
WTO	World Trade Organization

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.0 INTRODUCTION

Small island developing states (SIDS) can become more competitive if they improve economic growth through workforce development, utilizing a skills-focused approach.

This paper seeks to present an approach which, if adopted by small islands, can result in them becoming more globally competitive. As a consequence, SIDS will realize increased economic development stemming from increased employability and labour productivity. The focus will be primarily on the four (4) islands within the Organization of Eastern Caribbean States (OECS). These islands are Dominica, Grenada, Saint Lucia and Saint Vincent.

This first chapter encapsulates the background to the study, the problem statement, hypothesis, significance, scope, limitations and chapter outlines.

1.1 BACKGROUND TO THE STUDY

The challenges experienced by small islands are very similar the world over. The size constraint equates to limited natural resources and a small population size which limits the capacity of the human resource. Both factors traditionally restrict the contributions which can be made to economic development. The Caribbean Islands, especially those along the

Eastern Caribbean chain are just as susceptible to the challenges resulting from limited land mass and small population size. Limited land mass and a small population however, should not limit the economic developmental potential of small island states. The table below (*table 1.1.1*) details the population and land mass of the islands referenced in this thesis.

Table 1.1.1

OECS TERRITORIES SIZE AND POPULATION AS AT 2017		
COUNTRY	SURFACE AREA	POPULATION
Dominica	289.6 sq mi	72,172 (2021)
Grenada	132.8 sq mi	113,915 (2021)
Saint Lucia	238.2 sq mi	184,401 (2021)
Saint Vincent	150.2 sq mi	111,269 (2021)

Adapted from - <https://www.oecs.org/en/statistics-in-the-eastern-caribbean>

Paul M. Romer posits that economic growth occurs whenever people take resources and rearrange them in ways that are more valuable. (*accessed 25 December, 2022*). It means therefore, that on a national level, economic growth is the outcome of an increase in national output. A consequence of this is an increase in national income. Economic growth is therefore premised on gross domestic product (GDP).

In contrast, economic development, according to Inese Pelsa (2021), is an improvement of the quality of life and living standards of citizens. It encompasses a broader range of metrics which include not only Gross Domestic Product (GDP) but also improvements in literacy and life expectancy.

The aim of this paper is to present how an investment in skills training can not only improve the quality of life for individual citizens (economic development) but also how the returns on this investment will place small island states in a better economic position (economic growth). The focus is on facilitating sustained growth for skills training as a factor for building the capacity of the workforce and in so doing, improve economic growth and development.

1.2 ECONOMIC GROWTH TRENDS OF FOUR OECS TERRITORIES

Economic growth theories highlight the many ways in which present economic activity can contribute to future economic developments. Classical theorist such as Adam Smith and David Ricardo promoted the variables of labour, capital and land as being the factors of production, contributing to economic growth. Modern theorists posit that the main determinates of economic growth include, human resources, natural resources, technology and capital goods.

In the OECS, the main factors of production are land and labour. These we have already established as being limited. Table 1.1.2 below depicts the growth figures for four (4) OECS territories for the period 2017 – 2022.

Table 1.1. 2

ECONOMIC GROWTH FIGURES/REAL GDP GROWTH						
COUNTRY	2017	2018	2019	2020	2021	2022
OECS TERRITORIES						
Dominica	-6.6	3.3	5.5	-16.6	4.8	6.0
Grenada	4.4	4.4	0.7	-13.8	5.6	3.6
Saint Lucia	3.4	2.9	-0.7	-24.4	12.2	9.1
Saint Vincent	1.7	3.1	0.4	-5.3	0.5	5.0

Adapted from <https://www.imf.org/en/Countries/DMA#countrydata>

The tables below (1.1.3 and 1.1.4) takes a brief look at the sectors which contribute most significantly to economic growth in the islands and the related percentage of the workforce engaged in each sector.

Table1.1.3

CONTRIBUTION TO ECONOMIC GROWTH BY INDICATORS (%) -2017			
COUNTRY	SERVICES	AGRICULTURE	INDUSTRY
Dominica	71.1	15.3	13.6
Grenada	76.7	9.1	14.2
Saint Lucia	82.9	2.9	14.2
Saint Vincent	75.5	7.1	17.4

Adapted from Moody's Analytics - <https://www.economy.com/saint-lucia/indicators>

Table1.1.4

LABOUR FORCE BY OCCUPATION (%) - 2017			
COUNTRY	SERVICES	AGRICULTURE	INDUSTRY
Dominica	28	40	32
Grenada	69	11	20
Saint Lucia	53.6	21.7	24.7
Saint Vincent	57	26	17

Adapted from Moody's Analytics - <https://www.economy.com/saint-lucia/indicators>

Based the information presented in tables 1.1.3 and 1.1.4, it is clear that the islands are heavily dependent on the services sector. It must be highlighted that tourism is the biggest contributor to this sector. In Saint Lucia for example, in 2021, tourism industry contributed 48% to the GDP. In Saint Vincent, during that same period, that figure was 13.5 %. and in Grenada the percentage contributed to the overall GDP was 14.2%.

While the Caribbean represents a dream vacation to many, there are many global dream destinations which pose a threat to the advantages Caribbean islands experience in that sector. Four factors weaken the OECS islands position as a primary vacation destination. These are:

- Price: A Caribbean beach vacation is more expensive than similar beach locations around the globe.
- Cost: The expenditure relating to arrivals and tourist spending is dependent on income factors in the source markets. External shocks can adversely impact tourist arrivals.
- Airlift: The availability of flights from source markets affect tourist arrivals in the islands.
- Natural Disasters: The islands are located in a hurricane belt. One weather system can cripple an island's economy. Also, the impact of the Corona virus, bares evidence, that the tourism industry is highly susceptible to health disasters as well. The was evidenced by the restrictions on global travel and the devastating impact this had on the economies of tourism dependent states.

1.3 PROBLEM STATEMENT

Given the above, it makes economic sense for governments to diversify their service offerings. All the eggs in the tourism basket spells disaster for the islands of the region as it takes no more than one devastating hurricane to erode any economic gains made, thereby reverting the islands to an economic growth and development starting point.

It stands to reason then, that if governments, especially those in small states with little natural resources, few capital goods and technology which lags behind the rest of the world, invest in their human resource, one would see an increase in the contributions to the gross domestic product (GDP) and overall economic growth. This growth will stem from investment in a variety of targeted skill areas.

While much has been written on the contribution that skills training can make to economic growth and development, this research will provide recommendations which are specific to the small island states of the OECS. This targeted intervention proposes that local governments pivot from the traditional approaches to development and embrace more specific and targeted training and education reforms that will allow for the enhancement of key skills, which in turn will lead to greater employability and labour productivity. If small island states adopt a skills-focused approach to economic development, they can become more competitive.

1.4 OBJECTIVES OF THIS STUDY

The broad objective is to make a case for technical and vocational skills training as a consideration for increasing the economic growth capacity of small island states. This is through the development of the workforce capacity, allowing for the development of a culture of entrepreneurship as well as enhanced employability skills and increased productivity.

The specific objectives are to:

- a) Contrast what exists with regards to skills training in more developed countries with what obtains in SIDS and their contribution to economic growth
- b) Examine the current education landscape to determine the role education plays in the current construct and how it perpetuates a skills mismatch/skills gap
- c) Determine how education reform can contribute towards embracing technical and vocational skills as a pathway for economic development
- d) Identify areas of technical and vocational skills which will contribute to an enhanced workforce
- e) Explore the extent to which globalization makes this approach viable
- f) Recommend an approach which will facilitate a sustained focus on skills training and the corresponding contribution to economic growth and development

1.5 RESEARCH HYPOTHESES

H1: The human resource of small island states is inadequately trained and underutilized therefore the contribution to economic growth is negligible

H2: Focused skills training will lead to greater economic development

H3: Education reform will play a significant role in promoting technical and vocational training and its value to economic growth and development

1.6 SIGNIFICANCE OF THIS STUDY

It is anticipated, that upon completion, the findings of this study will be relevant and beneficial to:

a) Governments and Technocrats within the Agencies of Government

Elected government officials, come into office with a manifesto which they wish to implement once in office. High on this list of strategies are always policies for improving economic growth. These policies are implemented through and on the advisement of the technical officers within the various ministries. The findings of this study will be beneficial to agencies such as the Ministry of Finance and Economic Development, the Ministry of Education, the Ministry of Labour and the Ministry of Commerce. The findings will also be pertinent to the Departments of Innovation and Productivity. This is so as inter-agency collaboration can result in the kinds of economic gains that governments wish to accomplish.

b) The Ministry of Education and Education Institutions

The Ministry of education needs to play a very crucial role in the transformation of the education landscape. It will require a shift from the standard grammar type institutions to the introduction of technical and vocational centers. This research will help guide the discussion on the transformation of the sector to one which offers varying pathways for education and training excellence.

c) Industry Partners

There has been much frustration and discussion on the dearth of skills which exist on the islands. Many industry partners speak of a skills mismatch or a skills gap. Meaning that the requisite skills needed by industry are not available on the island. Targeted training will bridge this divide by catering to what the market requires.

d) Citizens, Parents and Students

For decades, technical and vocational education and training have been stigmatized as the pathway for slow developers and non-academic students. A fallacy which persists today. An outcome of this research will be a clearly defined pathway to finally dispel this misconception by targeting citizens in a manner that appeals to their passions, skills and abilities.

e) International Agencies and NGOs

Agencies such as the World Bank, International Monetary Fund and Caribbean Development Bank are also interested in the findings of

research such as this. The information contained therein will assist in making informed decisions especially on matters relating to funding for small island states.

1.7 SCOPE OF STUDY

Given that the focus of this paper is on small island developing states, the geographical scope will reflect data from the islands of Dominica, Grenada, Saint Vincent and Saint Lucia. However, greater emphasis will be placed on the island of Saint Lucia. Not only in regard to the economic indicators but also for the review of the education system.

Attention will also be paid to the economic growth and development indicators of the islands and other countries whose indicators will facilitate effective comparisons.

1.8 LIMITATIONS OF STUDY

While this is an area which has been written on extensively, there is dearth of scholarly works which focus primarily on the subject of islands of OECS. Research will be primary and limited to the information available within the islands.

Though this study attempts to consider the impact of this approach on small island developing states, geographically it is limited to four small islands in the

Caribbean. However, given that small island challenges are in some ways similar, the findings may ultimately be transferable to other island contexts.

1.9 CHAPTER OUTLINE

Inclusive of this first chapter, this study will comprise five chapters outlined as follows:

1.1.1 Chapter One – Introduction

This sub-division sets the context for this research paper. The reader is provided with the background to this thesis. Also included in this section is a brief introduction to the islands under study. Captured therein are the problem statement, the objectives, research hypotheses, significance of study, the scope and the limitations of study.

1.1.2 Chapter Two - Literature Review

This unit takes a comprehensive look at the literature surrounding skills training, workforce development and economic growth. One can expect to see aspects of classical, neo-classical, modern and endogenous theories of economic growth being highlighted.

1.1.3 Chapter Three - Research Design

This chapter will highlight the research approaches undertaken by the researcher. In essence it will provide the layout on how the data was obtained and analyzed.

1.1.4 Chapter Four - Analysis and Results

Chapter Four can be defined as the “heart” of this paper. This is where the results will be detailed alongside the evidence supporting the positions held.

1.1.5 Chapter Five - Conclusion and Implication of Study

This section concludes the research paper. In this unit one can expect to realize where the questions were answered and recommendations which will be beneficial to policy makers and other researchers.

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

The factors that contribute to economic growth have been advanced by many theorists. Likewise, the impact of a skilled workforce on economic growth and development. This chapter seeks to present the literature that addresses labour as a construct of economic growth and development. Consideration will also be given the relationship between education reform, skills development and economic growth.

The review of literature will focus on economic growth theories, concepts that link skills development to economic growth and development, and works that support the nexus between technical and vocational education and training, workforce development and economic growth.

2.1 LABOUR AS A CONSTUCT OF ECONOMIC GROWTH

Labour, defined as a measure of the work done by human beings, has always featured as one of the factors of production, alongside, land and capital. Adam Smith, David Ricardo and Karl Marx, advocated that the value of a commodity was determined by the number of labour hours invested to produce it. This Labour Value Theory (LVT) was an attempt by these classical theorists to explain why goods and services attract various market prices. (*Wolfstetter, E.*

1973). The belief was that, nations with large populations had a comparative advantage over less populated nations, as they possessed a larger labour force that could be used for the production of goods and services.

Over time, modern economic theories, such as the exogenous growth theory, posited that even nations with smaller population sizes can have a competitive advantage as external factors, such as advances in technology can drive economic growth. It is believed that factors such as innovation, research and development and education all contribute to a nation's production capacity. It means therefore that even small island states, through focused and strategic imperatives, can improve their production capacity. With targeted education reform, investments in research and development and greater emphasis on innovation, SIDS can find their niche. With the advances in technology today, the globalization of trade and the removal of preferential trading regimes, a small population size does not preclude small states from having a competitive advantage. Population size therefore should not be considered an impediment to SIDS increasing their productive output.

Sustained economic growth is the result of increases in labour productivity and the primary factor that determines labour productivity is human capital. Human capital has been defined as the accumulated knowledge, skills and expertise that the average worker within the economy possesses (*Steven A. Greenlaw, 2022.*) It is therefore expected that the higher the level of education, the higher the accumulated human capital and by extension, the higher the

labour productivity. It can therefore be posited that sustained economic growth is predicated on attaining higher levels of education.

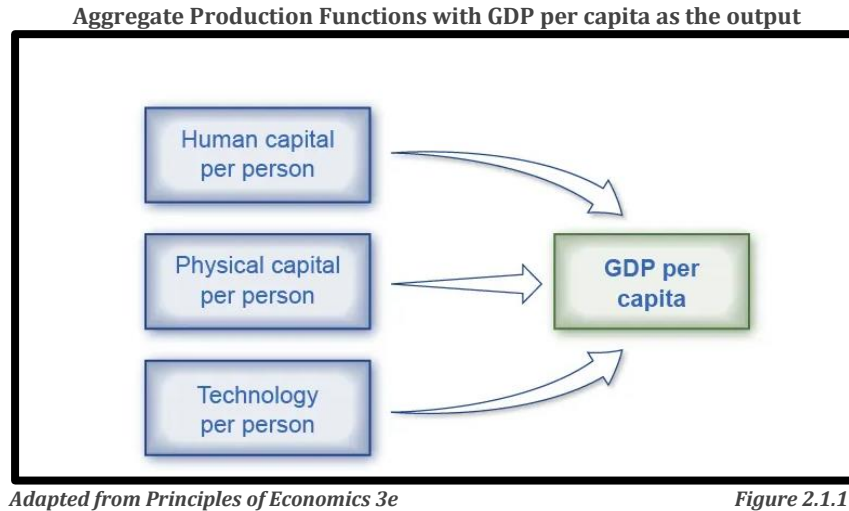
Two other factors that determine labour productivity and in turn contribute to economic growth, are technological change and economies of scale. Technological changes are a combination of invention and innovation, while economies of scale are the cost advantages that industries obtain due to size. For the purpose of this chapter, human capital as a contributor to labour productivity will be the primary focus.

As one reviews the literature relating to development economics and labour economics, it is realized that, while there is much literature on the individual subject areas, there is not much that references the nexus or interaction between the two. And even less on the Caribbean with reference to these indicators. It is important however, that the relationship between the two areas be established as therein lies a framework for the advancement of SIDS.

Development economics studies the transformation of emerging nations into more prosperous nations by identifying transformational strategies that address the nations' unique context. The strategy being mooted here is that small island developing states can alter their economic status by investing in technical vocational education and training (TVET) as a skills approach to workforce development and economic growth.

Labour economics on the other hand, is defined by the IZA Institute of Labor as the study of the labor force as an element in the process of production. The labour force comprises all those who work for gain within the labour market and also the unemployed who are seeking employment. Labour economics considers all that affects this demographic, including education. The labour force is a critical component of productivity and productivity is vital to economic growth. Hence one must focus on the capacity of the labour force as this will impact the level of economic growth and development in small developing states.

As one seeks to discuss figures of economic growth, it should be noted that it is not prudent or correct to compare the gross domestic product of countries with large population sizes to that of those with small population. A more accurate reflection of growth would be derived from a comparison of gross domestic product per capita. As is depicted in the diagram (*figure 2.1.1*) below, the inputs required for GDP per capita are human capital (skills, knowledge and experience), physical capital (plant and equipment) and technology (invention and innovation). This formula better represents the human capital input out of the total population.



2.2 BUILDING WORKFORCE CAPACITY FOR ECONOMIC GROWTH

In a July 2018 article, Wan-Lae Cheng et al noted that in the last thirty (30) years, globalization and technology-induced changes such as automation and digitization have irrevocably altered US industry and jobs. Further, the McKinsey Global Institute 2015 report on the impact of digitization on the US economy projected that the speed of technology skills displacement will double over the next decade. The report went on to state that fifty percent (50%) of workforce activities could be automated with existing technologies, but to date, only fifteen percent (15%) have been automated. As a result, more than thirty percent (30%) of US workers will need to change jobs or upgrade their skills significantly by 2030, and 65 percent of today’s primary-school students will hold jobs that don’t exist today.

The G20 2010 Training Strategy highlighted the fact that equipping the workforce with the skills required for the jobs of today and those of tomorrow

is a strategic concern in the national growth and development outlooks of all G20 countries. This apprehension has led to G20 leaders pledging to support robust training strategies to meet the challenges of fostering strong, sustainable and balanced growth in each country and globally. Of note and also emphasized in this 2010 Training Strategy is the notion that the globalization of markets is accelerating the diffusion of technology and the pace of innovation.

There are new and emerging career areas for which new skills and competencies are evolving. The islands of the Caribbean, which were primarily agrarian economies and now heavily dependent on tourism, will be left behind as jobs in these sectors become automated or non-existent and new careers emerge, unless there is a targeted and strategic intervention for responding to these global changes. A major challenge for SIDS will be pivoting to allow for greater responsiveness, agility, resilience and sustainability.

Andrew S. Downes, in a 2006 article entitled Caribbean Labour Market Challenges and Policies, notes *“the main challenges are youth unemployment, the mismatch between the educational system and the needs of the labour market, the creation of jobs, the low levels of productivity coupled with relatively high wages, the emigration of skilled labour from the region and inadequate labour market information.”* These challenges are still applicable today as they were seventeen years ago. It is pellucid that for the Caribbean islands to excel, there must be congruence between the labour market needs and the skillsets that learners graduate with.

There are however scholars who propose that human capital has no promoting effect on labor productivity and that the role of human capital is exaggerated, and the actual impact is not significant (Bils & Klenow, 2000). Whilst some other scholars, like Manuneas (2006) believe that the relationship between human capital and economic growth is uncertain. Human capital proponents on the other hand, advance the notion that education prepares people for the world of work, and that not only does it help them get a job, it also helps them do the job, James Davis (2019).

The literature however is replete with evidence and examples of the gains to be had by investing in the development of human capital. The experiences of more developed countries such as Germany and the Netherlands make clear that there is hope for small island developing states. Of course, these gains can only be attained, when the decisions to improve human capital are aligned with other developmental strategies, such as educational reforms and investments in research and innovation.

2.3 EDUCATION AND HUMAN CAPITAL DEVELOPMENT

Daniel F. Runde et al (2017) posits that a key input and determinant of human capital development is access to quality education. It is believed that education can equip a national workforce with the skills, knowledge, and creativity to compete in the knowledge- based global economy. Runde goes on to state that *“basic literacy and numeracy are starting points, but specialized skills, training, and educational institutions are needed to take full advantage of opportunities in*

the knowledge economy.” He believes that as countries develop and incorporate the best existing technologies into their economy, tertiary education becomes particularly important as a driver of invention and innovation. This position is further supported by (Schultz, 1963; Becker, 1964) who suggest that education has a positive causal effect on student ability, which in a competitive labour market translates into higher earnings.

It therefore imperative that as countries seek to move up the ladder economically, there needs to be a system capable of producing the appropriate human capital through effective primary, secondary, and then tertiary education programs.

For small island developing states, the challenge is in establishing an education system that graduates learners with the skills and knowledge necessary for growth of a modern economy. Producing the right kind of human capital requires an education framework that supports a broader economic development plan that aligns with industry needs. When a country’s education system improves, labor force skills increase and incomes rise.

It is obvious that education is recognized as a precondition for economic development and growth. It is noted, that in order to succeed in the 21st century job market, citizens must graduate with more than just academic knowledge. They will require the skills, confidence, and creativity to meet the challenges of a changing world (Anna Sudderth.) The influence of globalization

cannot be ignored as it necessitates that countries compete with each other to remain economically successful. Therefore, if SIDS are to produce the quality of human capital necessary for growth, their education systems must support economic strategies and contribute to meeting labour market needs and providing for the careers of the future.

Samuel E.N. Okoh, () in his essay - Education as a Source of Economic Growth and Development, highlighted *“that the progress of a nation depends on the progress of its people and that unless the nation develops its human potentialities, it cannot develop much economically.”* Okoh further states that *“the basic problem of most developing countries is not poverty of natural resources but the underdevelopment of their human resources. Hence, their first task must be to build up their human capital, and that means in human terms the improvement of education and skill.”*

A 2016 article written by Wang, Y. and Liu, S. recognized human capital as the key to addressing international competition. Wang cited China as being the world’s largest developing country and notes that in order for China to improve its national power, it must decide on what kind and which level of education should be the priority of the educational development strategy. Wang, in his writings asked two fundamental questions: What is the relationship between education and economic growth? What kind of education makes the largest contribution to economic growth? It has already been stated that any country which seeks to attain sustained economic growth must look to the quality of its human resource.

Still, libertarian economists such as Bryan Caplan hold a contrary philosophy. In his book, *The Case Against Education: Why the Education System Is a Waste of Time and Money* (2018), Caplan argues that *“much of higher education is very inefficient and has only a small effect in improving human capital, contrary to the conventional consensus in labor economics.”* Caplan further states that *“the primary function of education is not to enhance students' skills but to certify their intelligence, conscientiousness, and conformity—attributes that are valued by employers.”*

Caplan is a proponent of the Signaling Theory of Education, developed by Michael Spence. This theory presents an alternative to the Human Capital Theory of Education and assumes that candidates obtain an education to signal to employers their quality. Employers then draw inferences about the levels of education of workers. This education does not necessarily translate to the required skills or abilities required by the employer as it does not prepare people for life and work. Hence higher levels of education do not result in increased human capital. In fact, Caplan's contention is that education is eighty percent signaling and only twenty percent human capital development.

Jonathan R.W Temple, in his 2001 article entitled *Generalizations that Aren't? Evidence on Education and Growth*, published in the *European Economic Review*, indicates that the empirical evidence that education matters for growth is surprisingly mixed.

2.4 TECHNICAL AND VOCATIONAL SKILLS DEVELOPMENT AND ECONOMIC GROWTH

Khan (2020) noted that skills development is of paramount importance for fast-tracking economic growth, reducing absolute and relative poverty, and transforming society. Economic development cannot be promoted without the inculcation of technical and vocational competencies within the workforce. It has been stated that vocational training and skills development are considered critical factors of human capital development, as they impact productive capacity, lifetime earnings and quality of life.

According to Booth (1996), professional training and skill development enable the human more productive and increase their earnings which help in expansion of the economy. This position is further supported by Amjad (2005) who believes that skills development and vocation training impact national productivity and competitiveness. He concludes that an educated and skilled labor force assist countries in the transformation of their work from the labor intensive to skill intensive.

This is the trajectory that small islands are to pursue. The Caribbean workforce in particular is not competitive within the knowledge and skills-based global economy. Evidence suggests that the workforce consists of mainly workers with low level skills, making it difficult for firms to innovate and increase productivity. These companies recognize that “an inadequately educated

workforce” is their most serious obstacle to improving their performance. (Adriana Valencia et al, 2019.)

Navneet Boodhai () contends that a critical challenge that faces the Caribbean region is the development of a competent workforce for sustained economic growth in the global economy. She further states that human resource development, through well planned education and training initiatives can contribute significantly to promoting the interests of individuals, enterprises, economy and society within the region. She proposes that by helping individuals gain access to decent work and sustainable jobs, and escape poverty and marginalization, technical and vocational education and training (TVET) can have a positive impact on the region’s economic development.

The World Bank, in a 2021 Skills Development Report, posited that the development of skills can contribute to structural transformation and economic growth by enhancing employability and labor productivity and helping countries to become more competitive. In 2023, through collaborative efforts of the World Bank, International Labour Organization (ILO) and UNESCO, the Building Better Formal TVET Systems Principles And Practice In Low- And Middle-Income Countries report was produced. The report made pellucid that low- and middle-income countries were not benefiting from the promises of TVET and that is due to the broken link between technical and vocational education and training (TVET) systems and labor markets.

It has already been highlighted, that given TVET's focus on workforce development, it has the potential to contribute to employment and productivity, thereby supporting economic transformation. This 2023 report juxtaposes the experiences of countries, such as the Netherlands and Germany, with well-established TVET system against the realities of low to middle income countries. While the gap is glaring, it also demonstrates the possibilities for small island states.

Patrinos and Psacharopoulos (2020), believe that as workers are equipped with better and more skills, current and future workers are prepared for productive jobs and entrepreneurship. This of course benefits the entire economy. An increase in human capital is contingent on the development of skills, inclusive of technical and occupational. As the workforce becomes better skilled in areas that align to labour market needs, a transformational shift in economic growth is anticipated.

This position is further supported by the World Bank (2018) and ILO, WTO (2017) publication which states that the provision of skills through TVET can promote economic transformation. It is noted that investment in a skilled workforce will enable productivity growth that will result in additional public and private investments in education and training which will ultimately support the sustainable development of economies.

Moreover, investment in a skilled workforce can spark a virtuous cycle where quality skills enable productivity growth that results in more and better jobs for the current workforce; in turn, this generates further public and private investments in education and training and can ultimately support the sustainable development of economies and societies—a benefit for future as well as current generations.

The contribution that TVET can make to economic development is articulated in the Sustainable Development Goal – four (SDG -4), which speaks to “ensuring inclusive and equitable quality education and lifelong learning opportunities for all” and “promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all” (OECD 2019 and UNESCO 2016).

Margarita Pavlova in her 2014 publication, *TVET as an Important Factor in a Country’s Economic Development*, stated that education and training for productive employment is vital for economic and social development. TVET is viewed as a tool for productivity enhancement and poverty reduction in the Asian region.

Halden A. Morris (2010), in writing for the *Caribbean Educational Research Journal*, asked the question, “*Will Technical and Vocational Education and Training (TVET) Guarantee Economic Development of Caribbean Islands?*” He noted that for decades many arguments have been advanced for TVET as a driver for the economic development of developing countries. He contends that this argument seems valid when juxtaposed against the progress made by

countries such as Singapore, Japan and Malaysia, that have invested significant capital in TVET as a key ingredient in planning their economic development. Against this backdrop, Caribbean islands have taken steps to reform their education and training curriculum to include TVET components, hoping on the promises of TVET.

It has been determined, that for Caribbean countries to meet the parameters of growth and development, they need to exhibit a high degree of dynamism, entrepreneurial spirit and incorporate research in their TVET pursuits (Halden A. Morris, 2010). The challenge however is that though some people hold the view that TVET is one of the avenues through which economic stability and growth can be achieved, many are yet to be convinced of the power and ability of TVET to do so especially in light of the fact that the infrastructure to undergird this strategy is not in place. Added to this is the notion that TVET is a second-tier educational offering.

2.5 HOW EDUCATION REFORM CAN SUPPORT SKILLS TRAINING AND BY EXTENSION WORKFORCE DEVELOPMENT

An EU Commission report on reform support, highlights the fact that *“Skills are a crucial driver of the EU’s competitiveness and innovation capacity and a key determinant of social cohesion and personal well-being.”* The report goes on to state that *“...ongoing technological transformations and fast economic restructuring require people to engage in continuous learning throughout their*

lifetime. Member States are thus engaging in reforms to improve the capacity of their education and training systems to deliver high quality education and ensure their citizens have constant and equal access to it.” (accessed 20th February, 2023).

The above clearly shows the emphasis developed countries place on skills training, the recognition given to it as a response to the need for economic restructuring and the role of the education system in fostering this competitiveness and innovation agenda. Recognizing that the benchmark for education in the Caribbean is set against the educational standards of metropolitan countries, Keith Holmes (2001) expressed that it’s a daunting challenge to transform colonial education systems to meet the needs of Caribbean societies. The small island Caribbean states must continue to reform their education offerings if they are to become competitive in a 21st century global space.

When considering education reforms in low income countries, TVET reforms rank in the top five priorities for policy makers. This points to the fact that increasingly, low income and middle-income countries, recognize the benefits of investing in TVET.

Robert Gregory, in his 2006 working paper entitled: Reforming Education and Skills Training Systems, questioned the readiness of the Caribbean education system to meet the 21st century labour market skills requirement. He noted

that the development strategies necessary for growth “*represent a radical shift from primary agriculture and assembly-type industries, which generated a demand for low-value, low-skilled jobs.*” He further went on to state that “*the region has not yet ‘adopted the appropriate ideology nor implemented the technology to create workforce transformation through education and training.’*” In his view, the Caribbean secondary education syllabus appears to focus on the requirements for matriculation in higher education rather than on employability of graduates and productivity.

It has been observed, that education reforms in the Caribbean are usually driven by international trends promulgated by international donor agencies such as the World Bank and UNESCO. Both agencies are currently pushing a TVET agenda in the region, causing regional governments to pay closer attention to the relationship between skills, training, workforce development and economic growth.

It has been observed that globally, nations are placing greater emphasis on reforming their education offerings to include technical and occupational training. The government of New Zealand has set its sights on creating a strong, unified vocational education system that is sustainable and fit for the future of work, delivering what learners, employers and communities need to be successful. It is still however a major challenge in all G20 countries to simultaneously enhance the responsiveness of education and training systems to these changes in skill requirements and to improve access to training and skills development.

In 2014, the Caribbean Common Market (CARICOM) launched its TVET strategy for workforce development and economic competitiveness. The rationale was that the strategy would serve to guide the action plans of member states as they implement the Caribbean Vocational Qualification (CVQ) and strengthen delivery of Technical Vocational Education and Training. The intent is that the strategy would provide for a cohesive framework to develop, improve and coordinate TVET across the Caribbean region.

Emery J. Hyslop-Margison in his 1999 journal: *An Assessment of the Historical Arguments in Vocational Education Reform* noted “*Early in the 20th century, vocational education was a concern of educators in the United States as schools struggled to meet labor force needs during the shift from an agrarian to an industrial economic base.*” Still theorists such as Foster (), criticized the prioritization of TVET. He questioned the nexus between the vocationalizing of education and labour market needs. His position is that “*the academic/vocational divide created under colonialism remained intact in the post-independence period, and that academic qualifications were perceived to lead to more and better opportunities in the labour market,*” thereby making a case for academic qualifications over vocational skills training. The World Bank too, very early in their funding of TVET, also questioned the cost-effectiveness of vocational education and rate of return on investment. (UNEVOC 2013).

Over time however, and recognizing the impact that TVET has had on other world economies such as the Netherlands, Germany and other high-income

countries, the World Bank research began to show trends on how investments in TVET will lead to economic development. A 2023 World Bank publication on Education for Development makes a compelling case for TVET reforms. Victoria Levin et al, propose that skills development through technical and vocational education and training (TVET) holds immense promise for empowering youth and contributing to sustainable economic transformation. In their article, they noted some key symptoms that highlighted the broken link between TVET and the labour market. They noted that the foundational skills of TVET learners are often weak, both at the point of entry and graduation.

Another key observation was that in low and middle income countries, there is very little support for TVET teachers. These teachers have limited or inadequate pedagogical skills and they lack industry experience. These deficiencies adversely impact their ability to deliver high quality training, thereby negatively affecting the practical skills demanded by the labour market.

Levin et al (2023) posit that there is urgent need of TVET reforms in low and middle income countries and that this is necessary to unlock their potential to create better jobs, increase productivity while sustaining economic transformation. One of their key recommendations for reversing that reality is to focus on education reforms that elevate TVET from the stigma of being a second-tier education track and promote it as a pathway that graduate the high quality and relevant skills appropriate to the demands of the labour market.

Such a transformation would require small island states like those of the Caribbean region to focus their reform on three main areas. Attention must be paid to enterprises and learners, the islands must prioritize foundational and relevant technical skills and countries must invest in developing an integrated ecosystem, with flexible pathways, work-based learning, quality resources, including well-trained teachers.

The World Bank Economists recognize that there are some interventions that small island states can engage in almost immediately to commence their economic transformation and these can translate into quick wins. First and foremost, countries must target priority sectors which present opportunities for them. The immediate next steps are; first to leverage technology for course design and program delivery and secondly, train TVET teachers and administrators. These reforms will result in enhanced accessibility, relevance and efficiency of TVET.

Across the European Union (EU), there is a movement to support the establishment of Centers of Vocational Excellence (CoVEs). These centers foster innovation and excellence in technical and vocation education and can be considered an extension of the traditional education system. CoVEs feature prominently in the EU's policy agenda for TVET as they support the reforms in technical and vocational education and training, thus ensuring the acquisition on quality skills and competencies, which in turn allow for quality employment and sustainable economies.

Given the prominence of CoVEs on the TVET reform agenda, it is apparent that metropolitan countries recognize the importance of skills training. Hence, the need to reform technical and vocational education to allow for greater linkages that will drive economic growth.

In New Zealand, the Ministry of Education promotes CoVEs as part of their Reform of Vocational Education noting they will create a unified vocational education system with strong industry leadership and collaboration between organizations. This approach can only auger well for increasing human capital, enhancing workforce development and improving productivity.

In the Caribbean, states have recognized the need to reform their educational systems. However; according to Robert Gregory (2006), the region *“has not yet adopted the appropriate ideology nor implemented the technology to create workforce transformation through education and training.”* He notes that “the Caribbean secondary education syllabus appears to focus on the requirements for matriculation in higher education rather than on employability of graduates and productivity.” This therefore is seen as a critical impediment to the islands’ poor economic performance. In an effort to remedy this deficiency, Gregory proposes reforming education and skills training systems though the following approaches:

- Align education with development strategies, employment and productivity
- Prepare students for the transition to productive employment

- Transform skill-sets to high-skill, high-value ones
- Expand access to secondary education and lifelong learning

Proper functioning TVET systems graduate learners with not only the skills for current careers but also create an agility that allows for adaption in the future as needs change. Effective TVET structures promote employability and productivity. However, in low and middle income countries, the above scenarios do not exist as the education system at the secondary and post-secondary levels, do not focus on what firms and students need (WB, ILO, UNSECO, 2023).

The Building Better Formal TVET Systems Principles and Practice in Low-and-Middle-Income Countries Report (2023), highlights the need for the education reforms needed in low income countries to “promote integrated ecosystems with flexible pathways between TVET and general education.” In an effort for low income countries to realize the benefits of TVET, their local education systems must be dynamic and embrace work-based learning and local government must invest in quality resources including teachers and infrastructure. The education sector must allow for the smooth integration with the formal, non-formal, informal and college training in the promotion of lifelong learning.

Research conducted by the World Bank, the International Labour Organization and UNESCO, key partners in education development, indicate that education and skills training systems can help equip current and future workforce with

the skills they need for productive jobs and entrepreneurship. Governments and developmental agencies all push for education reforms that support skills development within a human capital context. This is because the fundamental justification for skills development remains the same and is grounded in the contribution that different kinds of skill can make to economic growth (DFID, 2008; World Bank, 2011).

It is therefore important for SIDS to begin to strategize and prioritize skills development as a growth indicator if they are to move the needle on workforce development and economic growth.

2.6. THE RELEVANCE OF TVET IN A DYNAMIC GLOBAL ENVIRONMENT

Globalization, advances in technology, climate change and more recently, even the COVID-19 pandemic have all transformed global labour markets. The skills needed to succeed at work are evolving. In order to integrate into the now more competitive global space, where a premium is placed on skills, SIDS need to place an emphasis on skills training. This is critical as the occupational requirements are fluid and require a workforce that is agile and can move between occupations and economic sectors. This approach is also necessary, as with SIDS limited natural resource base, consideration must be given to developing the human resource capacity to allow for the export of skills, allowing for the realization of increased remittances. Globalization has made it such that skills acquisition is no longer for the local market but to provide utility for the global market.

The climate change agenda necessitates the development of new skillsets to support the thrust towards reducing the carbon footprint. And while SIDS' contribution to climate change is minimal when compared to more developed countries, they are among the ones most critically affected. It means that SIDS must, through skills development find ways to build agility, resilience and sustainability.

According the 2017 AIP Conference Proceedings 1887, 020076 Report, TVET is steadily gaining popularity at the global debates and on government priorities for education and national development agendas. TVET is also gaining popularity and considered a driving force for sustainable development.

2.7 SUMMARY OF LITERATURE

In conclusion, the literature presented, for the most part supports the position that workforce development, though a skills training undertaking contributes to economic growth. The writings of Morris (2010) and Navneet Boodhai () place into context the Caribbean position and support the view that small island states can indeed benefit from investments in skills training as a strategy for bolstering their economic competitiveness.

There are others such as Holmes (2001) who hold the view that it will be a daunting challenge for Caribbean islands to transform their education systems

given their colonial educational foundation. Gregory (2006) also contends that the Caribbean region has not yet adopted the appropriate ideology nor have they implemented the technology to create the workforce transformation through education and training.

Robert Gregory (2006), contends that the region *“has not yet ‘adopted the appropriate ideology nor implemented the technology to create workforce transformation through education and training.’*

Still, theorists such as Bils and Klenow (2000) and Temple (2001) hold the view that the role human capital in promoting economic growth is exaggerated and really has no significant impact. Manuneas (2006) believe that the relationship between human capital and economic growth is uncertain.

Jonathan R.W Temple, in his 2001 article entitled Generalizations that Aren't? Evidence on Education and Growth, published in the European Economic Review, indicates that the empirical evidence that education matters for growth is surprisingly mixed.

While these views are critical of the role of human capital and skills development on economic growth and development, the experience of and results exhibited in more developed countries, clearly highlight the benefits of skills training and the impact it has on the development of human capacity and economic growth. The overall position, buttressed by the research of

international agencies such as the World Bank, the International Labour Organization and UNESCO, among others, provide evidence that low income economies can benefit from the promise of skills training as do the more developed countries.

The literature is pellucid in highlighting that there is merit in the theories advanced in support for increasing human capital in consideration for improving economic growth and development in small island states.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 INTRODUCTION

In this chapter, the researcher will present the methodology utilized for data collection and analyses of findings within this study. The research methodology will seek to present answers and provide clarity in determining whether or not SIDS can reposition themselves to benefit from the economic gains to be had from skills investment.

Here, the procedures, processes, tools and techniques utilized will be highlighted along with the pros and cons of each method. The chapter will focus on the research design, study population, sample size and techniques, data collection, ethical considerations and limitations of the research

3.1 RESEARCH METHODOLOGY

Patel and Patel (2019), defined research methodology as a way to systematically solve the research problem. This is undertaken through the collection of data using various techniques, providing an interpretation of the data collected and drawing conclusions about the research data. In essence, the research methodology presents the actions taken by the researcher in studying the research problem, along with the logic behind it. It is the blueprint of the study, where the actions adopted by the researcher in the study of the research problem along with the purpose driving these actions, will be chronicled.

Through the application of scientific procedure, the researcher will seek to determine whether Small Island Developing States (SIDS) can reposition themselves to capitalize on the gains to be had from skills investment.

3.2 RESEARCH DESIGN

The research design can be defined as strategy chosen to assimilate the various components of the study, in a comprehensible manner, that allows for effectively addressing the research problem. McCombes, (2019) describes it as a framework designed to incorporate methods and procedures to collect, measure and analyze data. According to Saunders, et al. (2012), the definition of research design is a plan aimed at answering a specific research question. This research design definition concerns proper research data and brings together several components, strategies, and methods to collect data, analyze and interpret it. In simple terms, the research design basically describes how the researcher will investigate the problem which is germane to the research.

The reliability and quality of your research depend upon several factors such as determination of target audience, the survey of a sample population, choice of technique and methods for research, and analysis of results. The answer to all these questions is the research design (Pavan Vadapalli, 2022).

The research design for this paper incorporates qualitative and quantitative research elements. According to Vadapalli (2022), qualitative research is used to discover ideas, explain numbers and formulate predictions. Qualitative

designs provide solutions to questions that consider how and why an event is occurring. This type of research depends on open-ended questions for surveys and definitive answers that are not always quantifiable.

Qualitative research involves the studied use and collection of a variety of empirical materials – case study, personal experience, introspective, life story, interview, observational, historical, interactional, and visual texts – that describe routine and problematic moments and meanings in individuals' lives. (Denzin and Lincoln 2005:2)

The quantitative design aims to answer queries such as who, what, where, how many, and when? With a quantitative research design, the questions are close-ended which facilitates the quick transformation of the outcome into statistics, graphs, charts, and numbers.

3.3 STUDY POPULATION

For the purpose of this study the population sample was derived from four (4) Caribbean islands, namely Dominica, Grenada, Saint Lucia and St. Vincent. Given that the entire population cannot be respondents in this research, sampling was utilized to gather the data that is representative of the target population. In this case, the target population would be TVET stakeholders. The study sample therefore comprised TVET stakeholders grouped in four broad categories. The categories included: Policy and Administrative Officers, Ministry of Education, Training Providers and Industry Partners/Employers.

- **Policy and Administrative Officers:** This group targeted mainly Ministers of Education in the four territories, and well as Permanent Secretaries, Deputy Permanent Secretaries, Chief Education Officers and TVET Councils
- **Ministries of Education:** The sample population within the Ministries would include, Planning Officers, Deputy Chief Education Officers, Planning Officers, TVET Officers, School Principal
- **Training Providers:** The population of which would comprise the TVET training providers in each of the islands inclusive of tertiary and post-secondary schools and lifelong learning institutions.
- **Industry Partners/Employers:** This group encompassed the firms and businesses that worked in TVET occupational areas.

3.4 SAMPLE SIZE AND TECHNIQUE

Given the specific nature of the research being conducted, the sample population had to comprise individuals within the TVET sector and TVET stakeholders. Respondents were drawn from the four Caribbean territories of Dominica, Grenada, Saint Lucia and St. Vincent. Recognizing that everyone within these two broad groups could not make up the target population, four groups of respondents were determined by the researcher. The research sought to get the opinions of Policy and Administrative Officers, Ministry of Education staff, Training Providers and Industry Partners/Employers. The intent was to get at a minimum 20 respondents and a maximum of 25

respondents from each sub grouping. The sample population size would therefore be between eighty (80) and one hundred (100) participants.

In an effort to identify the participants, a combination of purposeful sampling and snowball recruiting was used to for this study. Samuel J. Stratton (2021) proffers that purposeful sampling and snowball sampling are non-probability sampling techniques in which the researcher uses sampling that does not provide for each member of a target population to participate in the study but rather, participants are directly selected by the researcher (purposeful sampling) or are referred to the researcher (snowball recruiting). Purposeful sampling can be further sub-divided to include Expert Sampling, which better mirrors the researchers approach for this study. Expert sampling is employed when the information required is rooted in a specific type of expertise. In this case, TVET stakeholders.

As with every type of sampling technique, there are drawbacks to the methods used in this study. By employing non-probability techniques, the probability of selection is unknown, thereby some candidates will have a higher chance of selection, while for others the probability of selection will be 0%. With that being the case, purposeful sampling may eliminate important subgroups from the study. Another down side to this approach is that the findings of the study cannot be extended to the general population and can only apply to the research participants. Also, with non-probability sampling, one is not able to determine sample error or the precision of data relative to the target population.

The unique and specific nature of the sample may render the validity of results questionable. This is because some groups are excluded, thereby creating doubt about the small sample population being able to provide sufficient representation of the target audience. One must also consider the influence of the researcher's personal judgement and bias in choosing the respondents. These factors tend to introduce data invalidation risks and biasness.

Despite the above, there is value to using purposeful sampling. Given the smaller pool of candidates, the researcher will realize time and cost efficiencies as this technique requires less effort to undertake, less time and less money. The information and responses received from purposeful sampling tend to be of a higher quality as they are usually expert-derived and are specifically relevant to the research being undertaken.

The other approach utilized in this study is snowball recruiting. This is a practice in which research participants are asked to assist the researcher in recruiting additional participants. This method had to be engaged especially when reaching out to Training Providers and Industry Partners/Employers on the islands of Dominica, Grenada and St. Vincent. The researcher depended on the personally identified from the Policy and Administration, the Ministries of Education and Training Providers groupings to refer participants who fall within the categories of Training Provides and Industry Partners/Employers.

Similar to the purposeful sampling technique, snowball recruiting does have its limitations. In this case, sample bias can creep in as respondents may be more likely to refer people who share their perspectives and experiences. This can also result in the sample not being representative of the larger population.

On the positive side, snowball recruiting is particularly useful when seeking to study populations that are hard to access. Recognizing that participants are recruited through referrals, it is easier to establish trust and build rapport which can result in more accurate data. This approach is also a good technique for studying populations that have not been extensively researched.

3.5 DATA COLLECTION METHOD

Data collection methods can be described as practices and procedures used to gather information for research purposes. Some common techniques include surveys, observations, experiments, interviews, questionnaires and focus groups. Data collected via any of the abovementioned methods can be analyzed and used to uphold or repudiate research hypotheses and draw conclusions about the study's subject matter.

For the purposes of this paper, four (4) different questionnaires were administered electronically to the respondents. The questionnaires were designed specifically to address the varying experiences and opinions of each group.

Recognizing that the target population resides in differing countries, and noting the constraints of time and financial resources, the use of questionnaires was the preferred approach given the advantages that this method offers. A significant advantage is that questionnaires allow for the collection of data from large populations at once, in a short space of time. Additionally, they allow for the analysis of trends and patterns across subgroups within the population, enabling the researcher to identify variations and make more nuanced interpretations.

Questionnaires also facilitates uniformity on data collection. The pre-determined options presented allow for standardized responses. This eliminates ambiguity, ensures consistency and facilitated easier analysis and comparison of responses. The questionnaires utilized incorporated the use of multiple-choice questions, drop down boxes and rating scales. Some open-ended questions were also included. Standardized responses allow researchers to quantitatively measure and categorize data, making it easier to identify patterns, trends, and relationships among variables (Nigel Lindemann, 2023.)

The questionnaires for this research was developed using Google Forms, an application that allows for the dissemination to a large population, using a free and user-friendly interface. This mechanism made it possible to distribute the questionnaire via electronic means and facilitating easy access by the user, as it can be completed on a mobile phone, table or computer.

Another advantage of using this method is that the questions can be customized to reflect options such as multiple-choice, linear scale, short answer, paragraph and check boxes, type responses. The biggest shortcoming however, is that respondents must have an internet connection.

3.6 DATA ANALYSIS METHOD

While a variety of techniques can be adopted for the analysis of data, the researcher opted for the use of IBM SPSS (formerly Statistical Package for Social Sciences). Responses from the questionnaires administered were coded and analyzed thematically using SPSS. Microsoft Excel was also used to generate graphs and charts to allow for a pictorial understanding of the data. These preferred methods allowed the researcher to calculate descriptive statistics like frequency distributions and percentages, which according to Kothari (2012), described the characteristics of the collected data.

As per the guideline proposed by Swanson and Holton (2005), the analytical process compressed the four steps of data preparation, familiarization, coding and the generation of meaning.

Given that different questionnaires were administered to different stakeholder groups, the responses were analyzed separately and kept within each response category. The expectation is that, common themes would emerge, highlighting similarities in the perspectives of the respondents.

3.7 ETHICAL CONSIDERATIONS

Pritha Bhandari (2021) notes that ethical considerations in research are a set of principles that guide your research designs and practices and that researchers must always adhere to a certain code of conduct when collecting data from people.

In the conduct of this research, general ethic guidelines were followed. Every respondent was provided with a cover letter which introduced the researcher and detailed the research being undertaken and the purpose.

Respondents were asked to participate and informed that their responses would be treated with confidentiality and used solely for the purpose of this thesis. Participants were not obligated to respond and had they opted not to, there would be no form of reprisal taken. By participating, respondents agreed to the terms proffered.

3.8 RESEARCH LIMITATIONS

Research limitations can be viewed as theoretical or practical inadequacies of a study that fall outside of the researcher's control. As with many other studies, the reported results of this research should be considered in the light of some limitations.

Conducting research across islands, in different territories can prove to be challenging especially if the researcher is not going to be physically present in the space, as in this case. In the data collection stage, the researcher placed heavy reliance on professional linkages and networks in the islands of Dominica, Grenada and Saint Vincent. As has been highlighted, snowball recruiting was one of the techniques used to identify participants. It means therefore that the inherent weaknesses in this method will be a feature in this research. This approach would have introduced elements of bias resulting in a reduction of the representativeness of the sample, therefore making it difficult to generalize the findings.

Another limitation that should be highlighted stems from the sample size. Though a total of one hundred and thirteen (113) respondents participated and the questionnaire specifically targeted persons with TVET expertise or TVET stakeholders, it was challenging acquiring a large enough sample size in each of the four categories targeted and administered across the islands. With the exception of industry partners/employers, the broader population of TVET experts and TVET policy markers is not a very large one. For example, when targeting policy makers and administrative officers, the target groups would comprise mainly, Ministers of Education, Permanent Secretaries and Deputy Permanent Secretaries, Chief Education Officers, Deputy Chief Education Officers and other Senior Education Officers. The total population for this target group would generally not exceed thirty (30) respondents. The same obtains for Ministry of Education personnel, given the limited number of positions that are specific to TVET. The islands too are small and the number of training agencies that cater specifically to skills training, excluding secondary

schools and colleges, are few. While the largest group of respondents are from the industry partners/employers category, the sectors they operated in are varied with a small sample size per sector. It means therefore, that determining if a particular outcome is a true finding may be difficult, given the small sample size.

However; a small sample size should not be seen as a limitation in and of itself. The fact that this research focuses on a specific and expert niche, the population size would inadvertently be small. Though the sample size is small, given that characteristics of TVET and skills training are similar in small island states, the results obtained may offer information that is new and useful to the targeted groups.

3.9 CONCLUSION

This chapter laid out succinctly the methodology employed to garner data pertinent to the research question posed. The chapter is broken down into sub-topics that discuss the research methodology, the research design, population, sample size and technique. Consideration was also given to the data collection, data analysis, ethical considerations and limitations to the study.

CHAPTER FOUR

FINDINGS and DATA ANALYSIS

4.0 INTRODUCTION

In this chapter the findings of data collected over a two-week period will be presented. Through the employment of questionnaires, this study sought to determine whether Small Island States (SIDS) could reposition themselves to capitalized on the economic gains to be had from an investment in skills training.

Respondents are from the four Caribbean islands of Dominica, Grenada, Saint Lucia and St. Vincent. In total, one hundred and thirteen (113) people completed the questionnaires (*figure 4.0.1*). This can be considered a good sample size given that this is an expert niche and the overall population size would not be a very large one.

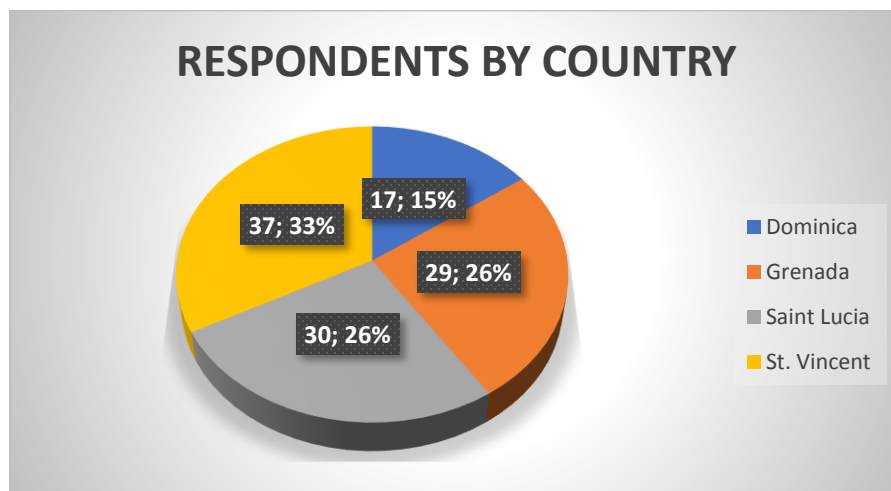


Figure 4.0.1

Respondents were categorized into four main groups of TVET stakeholders (figure 4.1.2). A different questionnaire was administered to each group.

- Group one (1) comprised policy makers and administrative officers within the Ministries of Education in each of the four islands.
- Group two (2) sought the perspective of other technical officers within the Ministries of Education with direct responsibility for TVET.
- Group three (3) considered TVET training providers
- Group four (4) comprised industry partners and employers and

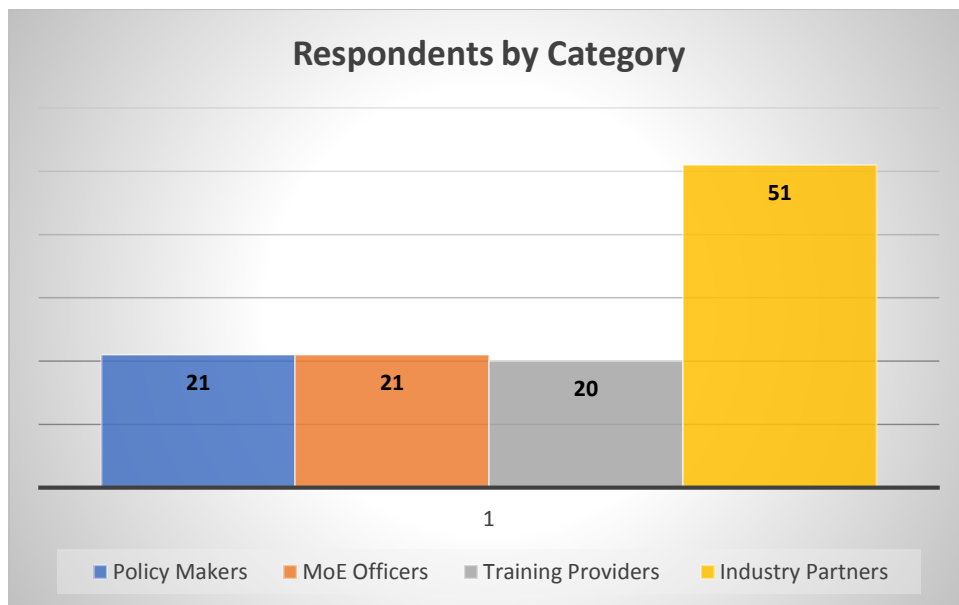


Figure 4.0. 2

IBM SPSS and Microsoft Excel were the applications utilized for the analysis of the data gathered from the questionnaire. The data and analysis will be presented separately for each of the four stakeholder groups previously identified.

4.1 GROUP ONE: Policy Makers and Administrative Officers

A total of twenty-one respondents completed this questionnaire. The targeted respondents included Ministers of Education in the four islands, as well as Permanent Secretaries, Deputy Permanent Secretaries, Chief Education Officers, Deputy Chief Education Officers, Planning Officers and other high-level administrative officers responsible for the implementation of policies within the Ministries.

Of the twenty-one respondents, three (3) were Ministers of Education. Given that they sit at the highest level of decision making in their country, it was important to note their responses to some of the questions asked.

When presented with the declaration, *“There is not much more that can be done to improve the economic growth of my island,”* the ministers all disagreed, with two strongly disagreeing with the statement. The general sentiment is that more can be done to improve the economic growth of the islands (*figure 4.1.1*).

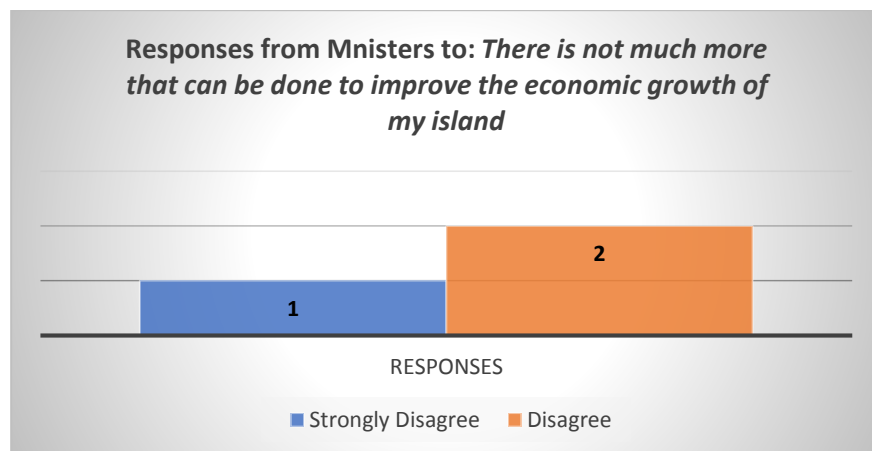


Figure 4.1.1

In response to *"Investing in skills will not improve the economic performance of my island"*, all of the ministers disagreed with the statement, with two of them strongly disagreeing, and the other disagreeing. Based on these responses it is pellucid that at the highest decision-making level, within the governments, it is agreed that an investment in skills training can contribute to improved economic growth.

The responses of the Ministers also reflect the sentiments of the broader grouping, with 38.1% of the 21 respondents disagreeing that *"there is not much more that can be done to improve the economic growth of my island"* and a further 61.9% strongly disagreeing with the statement. This is illustrated in table 4.1.1 below.

There is not much more that can be done to improve the economic growth of my island					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	8	38.1	38.1	38.1
	Strongly Disagree	13	61.9	61.9	100.0
	Total	21	100.0	100.0	

Table 4.1.1

Respondents were also asked whether their governments have considered TVET as a strategy for improving economic growth. One hundred percent of the respondents responded in the affirmative (*table 4.1.2*).

Has your government considered TVET as a strategy for improving economic growth?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	21	100.0	100.0	100.0

Table 4.1.2

Based on the responses to the declaration that *“Investing in skills development will not result in improved economic performance for my island”* it is clear that hundred percent (100%) of the respondents agree that investing in skills will improve the economic performance of their islands (*table 4.1.3*).

Investing in skills development will not result in improved economic performance for my island.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	9	42.9	42.9	42.9
	Strongly agree	1	4.8	4.8	47.6
	Strongly Disagree	11	52.4	52.4	100.0
	Total	21	100.0	100.0	

Table 4.1.3

The literature has shown, that nations must be strategic in their attempts to invest in skills development, in pursuit of economic growth. States must be in a position to identify and prioritize the skills needed in their markets. Consideration must also be given to the skill requirements on a global scale as well as global trends and career areas of the future.

Sanyog Bhattarai (2020), in his webinar on Labour Market Need Assessment for Demand Driven TVET, noted that *“Assessing the real needs of enterprises, industry, or community is one of the most important tasks for TVET institutions*

because the technical and vocational trainings are only successful if the real needs have been identified of the job market. Needs assessment is the first step when developing curricula and designing training courses.”

Recognizing the importance of identifying the labour market needs and appreciating that skills investing should be based on the demands of the market, respondents were asked whether a labour market needs assessment had already been conducted in their islands. Figure 4.12 depicts graphically the responses. Based on the primary data collected from the questionnaire administered, 52% of respondents have indicated that a Labour Market Needs Assessment has not been conducted within the last five years.



Figure 4.1.2

When tabulated by territory, the data gathered was a delineated what obtains in each island. It was clear that in Saint Lucia, a labour market needs assessment has been conducted within the last five years. Where as in Grenada,

it has not. The data from Dominica and St. Vincent showed that the respondents' knowledge was dissimilar with some respondents indicating that there was and others stating that there was not (Figure 4.1.3).

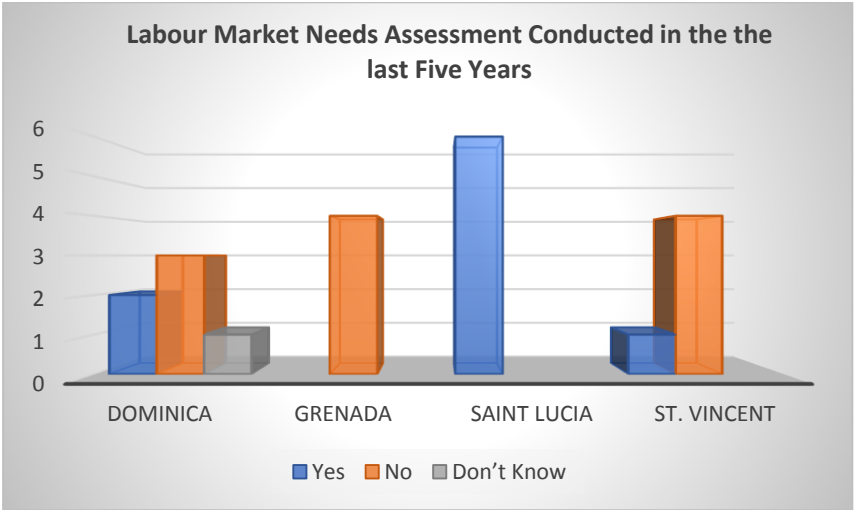


Figure 4.1.3

Given the conflicting informing, there was need to consider secondary data in an effort to ascertain the status of the islands as it relates to the conduct of a labour market needs assessment. It was found that the latest market needs assessment for Saint Lucia was carried out in 2020 and for Grenada, 2014. There was no evidence that a labour market needs assessment had be conducted for the islands of Dominica and St. Vincent within the last five years.

It was deemed necessary to determine the islands' state of readiness if they are to pivot towards embracing specific and targeted training and education reforms that will allow for the enhancement of key skills, which in turn will lead to greater employability and labour productivity. Hence, respondents were asked to respond to this statement, which is at the core of this study: “My island has the

capacity to develop the technical and vocational skills of our citizens.” As can be seen in table 4.1.4 below, 100% of the respondents held the view that their island had the capacity to develop technical and vocational skills of their citizens.

My island has the capacity to develop the technical and vocational skills of our citizens.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	11	52.4	52.4	52.4
	Strongly Agree	10	47.6	47.6	100.0
	Total	21	100.0	100.0	

Table 4.1.4

It is therefore recognized, that, at least from this demographic, that investing in technical and vocational skills training or creating an enabling environment for TVET to thrive, will auger well for the improvement of economic growth within the four islands. Respondents also indicated that the islands have the capacity to develop the technical and vocational skills of the citizenry.

Based on the responses to the other questions, there was a general consensus that while governments have considered skills training as a strategy for economic growth and there seems to be the capacity to develop that sector, there are also other factors that need to be taken into consideration.

First and foremost is the need for a labour market needs assessment that will guide policy decisions on what TVET skills areas need to be concentrated on and also what education reforms should be implemented. Respondents all agreed that greater financial investment needed to be made in TVET and that the amounts of last ten years were far from sufficient. 100% of respondents all

agreed that covid-19 and climate change have mandated the need for technical skills in non-traditional areas. Based on the responses, as a result of these two globally impacting phenomena, a number of areas were deemed necessary for investment, if these islands are to become resilient and improve productivity as a catalyst for economic growth and development. Some of the areas highlighted include:

- ❖ AI, augmented reality, computer technology, digital media, animation, graphics, content creation, web site development
- ❖ Eco Tourism and hospitality
- ❖ Entertainment management and creative industries
- ❖ Healthcare
- ❖ ICT, including Digital Technologies e.g. Coding, robotics, block chain,
- ❖ Renewable energy
- ❖ Resilient construction
- ❖ Skills in green, blue and orange economy sectors
- ❖ Solar panel repair
- ❖ Sustainable Agriculture and agro-processing
- ❖ Tourism and hospitality
- ❖ Waste management and recycling

4.2 GROUP TWO: Technical Officers

This group of respondents were chosen as they are the ones responsible for operationalizing the policies determined by the policy makers. They are the ones to implement the strategies for the enhancement of the TVET sector in their territories. A total of twenty (20) respondents completed the survey (figure 4.2.1).

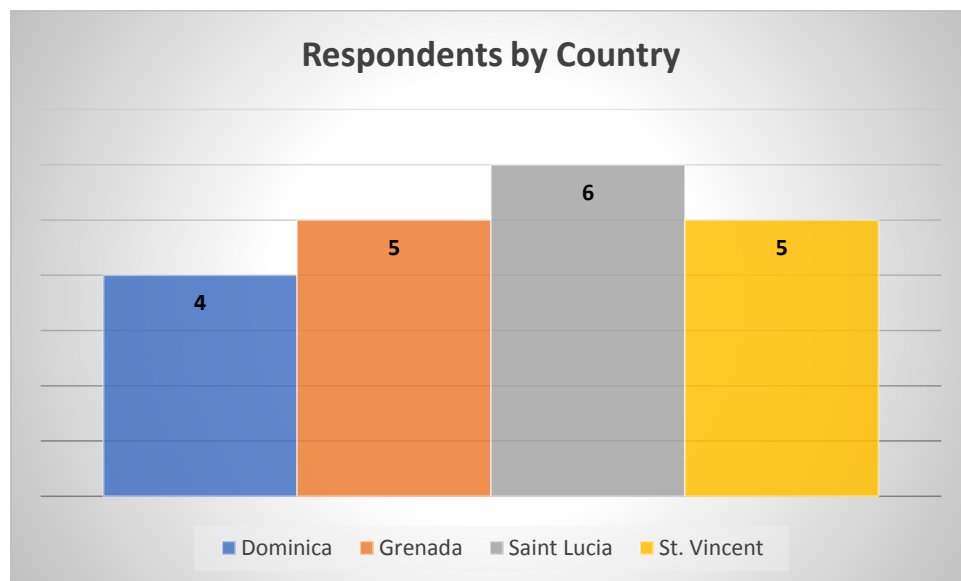


Figure 4.2.1

This group of respondents comprised Education Officers for TVET, Curriculum Officers, Senior TVET Officers and Planning Officers. The sample size may seem small, but it is appropriate given that these align with the number of individuals in limited posts within the Ministries.

As a follow-up from the questions posed to the policy makers, and in light of the fact that the first group of respondents were generally of the view that the islands had the capacity to adopt a skills approach for economic growth, respondents of group two were asked whether the education system has the

capacity to integrate skills training into the curricula. As is depicted in figure 4.2.2 below, 65% of the respondents, held a negative view, with 11 of 21 respondents disagreeing and 2 of 21 respondents strongly disagreeing that the education system had the capacity to integrate skills training into the curriculum.

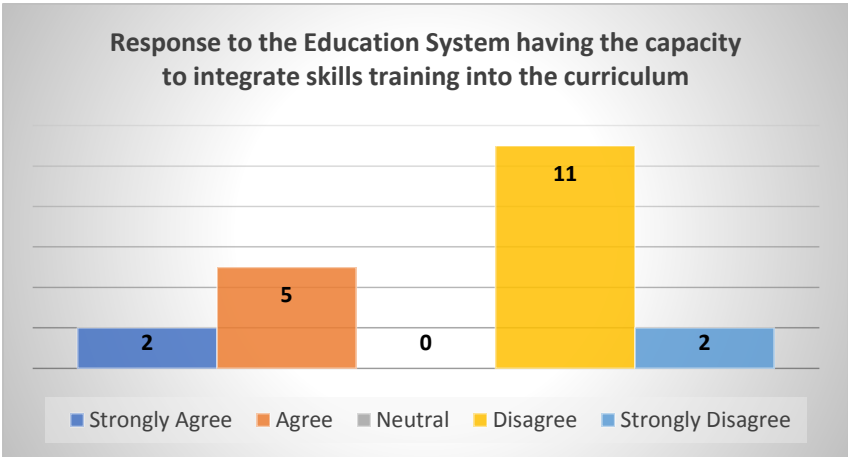


Figure 4.2.2

The initial results warranted a deeper dive into the data, to determine whether there was consensus across the islands or whether some islands were in a better position than others. As can be seen from the chart below (figure 4.2.3), respondents from Saint Lucia seem more inclined to believe that their system has the capacity to include skills training into the curriculum. Dominican respondents however were of the opinion that their system was not in a position to do so. The respondents from Grenada and St. Vincent, we not aligned in their views given that among the Grenadians, 80% felt that their system did not have the capacity to do so, while in St. Vincent, 75% of the respondents, did not think that their system had the capacity for including skills training into the curriculum.

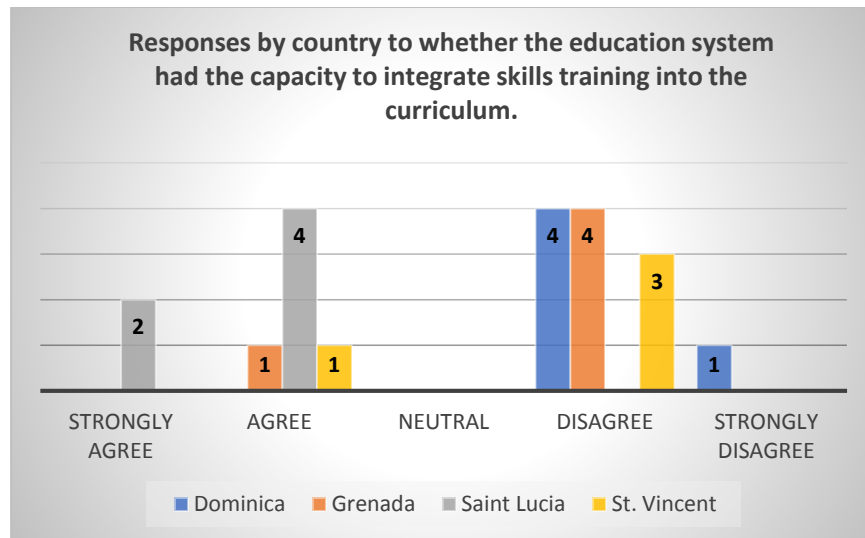


Figure 4.2.3

Based on the responses, only 35% of respondents indicated that their country had the capacity to integrate skills training into the curriculum.

In an effort to determine the ability of the islands to reposition themselves to benefit from an investment in TVET, one must consider various factors that would give an indication as to whether or not this is possible. These factors would include the capacity of the education system to support the previously mentioned education reforms as well as the relationships with industry partners as they play a crucial role in the promotion and acceptance of skills training. Germane to this is also the level of investment by the governments and the willingness of citizens and students to embrace this pathway.

In that regard, respondents were asked to comment on the statement “teachers are well trained to teach technical, vocational and occupational areas.” An overwhelming majority did not agree with the statement (*table 4.2.1*). Only

15% of respondents agreed that teachers were well trained to teach technical, vocational and occupational areas.

Teachers are well trained to teach technical, vocational and occupational areas					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	3	15.0	15.0	15.0
	Disagree	9	45.0	45.0	60.0
	Strongly Disagree	8	40.0	40.0	100.0
	Total	20	100.0	100.0	

Table 4.2.1

Figure 4.2.4 below, depicts the opinions of the respondents on the matter schools being well equipped to accommodate TVET instruction. Only two respondents out of 20 were in agreement with the statement posed.

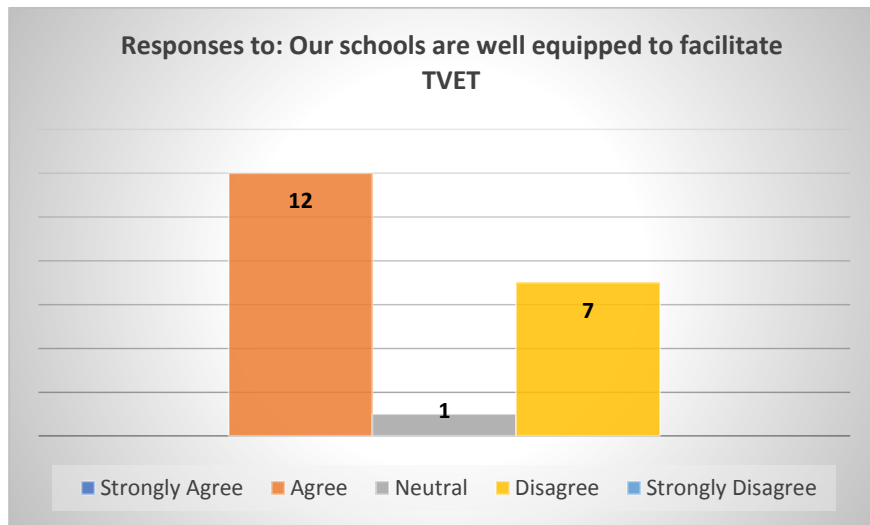


Figure 4.2.4

When quizzed on the level of government investment in skills training, respondents all agreed that government's spend was insufficient. Nineteen (19) out of 20 respondents held that position (*table 4.2.2*).

The government does not invest sufficiently in TVET and skills training.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	12	60.0	60.0	60.0
	Disagree	1	5.0	5.0	65.0
	Strongly agree	7	35.0	35.0	100.0
	Total	20	100.0	100.0	

Table 4.2.2

Two stakeholder groups critical to the promotion and acceptance of technical and vocational education and training are trainees and industry partners. For any country to benefit from an enhanced skills sector, the workforce to be trained must accept and believe in the value it brings and understand how their efforts can contribute to economic development and growth. In the same way, industry partners must see themselves as partners in this growth trajectory. If skills training is to be demand driven, industry partners have a great stake in determining the labour market needs and by extension the training priority areas. Also, facilitators and trainees must be immersed in industry if they are to teach and learn in order to maintain industry standards. The role of industry is further extended to include the use of their facilities as training areas that accommodate apprenticeships, internships and immersion exercises, all critical to the successful completion of technical, vocational education and training.

It is against this backdrop, that respondents were asked to respond to “TVET is widely perceived as second tier education for the non-academic” and “The relationship between industry partners and education is a strong one.”

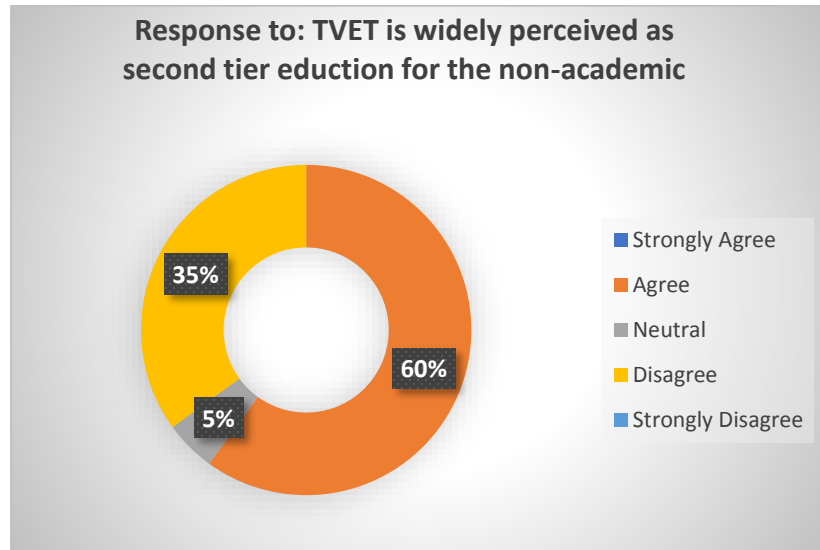


Figure 4.2.5

There was a general consensus among all respondents from each of the four islands that TVET is perceived as second tier education for non-academics (figure 4.2.5). This means that there is a stigma attached to this educational pathway, that makes it not a first choice for learners. This would result in persons shying away from such training as they would not want to be labeled as “not academic.”

This finding is further strengthened by the response to “Not many students and lifelong learners pursue Caribbean Vocational Qualifications (CVQs).” 20% of respondents strongly agreed with this position, while 80% agreed. 100% of responses affirmed that not many students and learners sought to pursue CVQs.

Further, when asked to respond on the relationship between industry and education, none of the respondents felt that there was a strong relation between the two groups. 95% of respondents expressed that sentiment. The other 5% held a neutral position (figure 4.2.6).

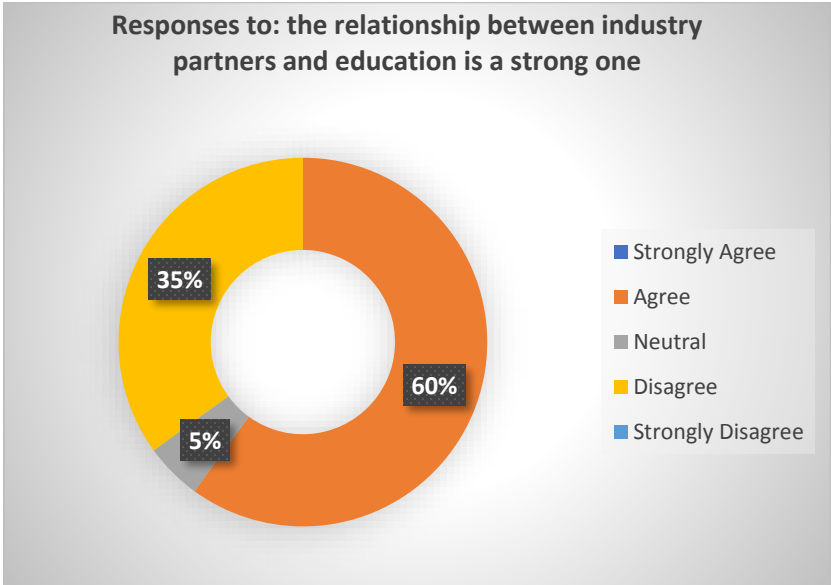


Figure 4.2.6

Additionally, based on the responses provided, to compound the weak relationship between industry and education, industry partners do not welcome CVQs. This is a perception that can be verified when the responses from industry partners are analyzed (table 4.2.3).

Employers and Industry Partners welcome the CVQ.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	2	10.0	10.0	10.0
	Disagree	14	70.0	70.0	80.0
	Neutral	3	15.0	15.0	95.0
	Strongly Disagree	1	5.0	5.0	100.0
	Total	20	100.0	100.0	

Table 4.2.3

Despite what can be interpreted as adverse sentiments for the embracing of TVET, 60% of respondents still felt that there was a strong support system for TVET on the islands (figure 4.2.7). This could be derived from the pronouncements made at the policy level about skills development for growth and the show of some investment in the sector.

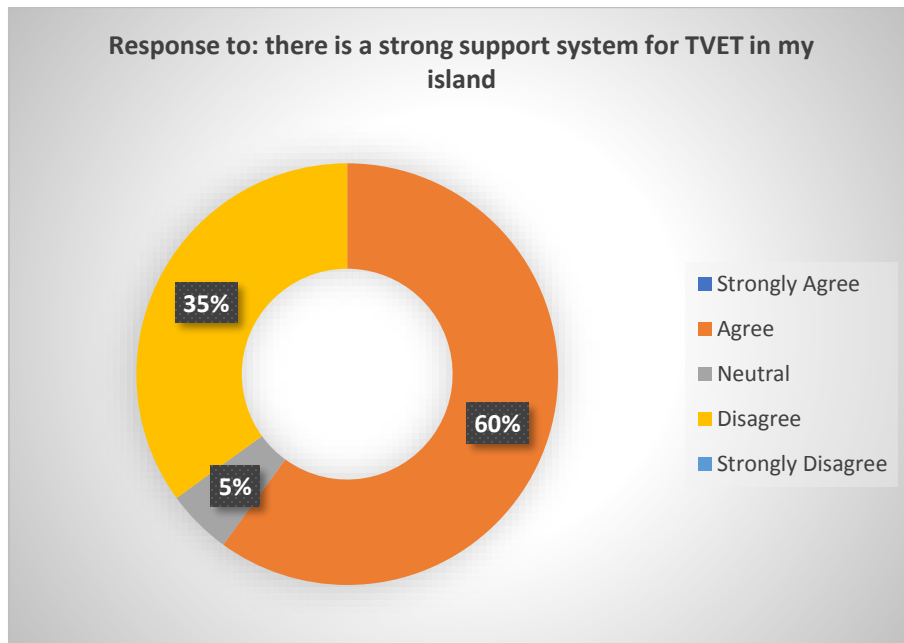


Figure 4.2.7

All respondents believed that covid-19 and climate change have impacted the skills need over the past five years. This may present an opportunity to consider non-traditional occupational areas that can resolve the challenges or needs made more glaring by the impact of these phenomena.

100% of respondents were optimistic that the islands will benefit significantly if additional resources are made available for skills training. They are also all of the belief that an investment in skills training will result in improved economic growth for their island.

4.3 GROUP THREE: TRAINING PROVIDERS

The International Labour Organization (ILO) defines TVET training providers as secondary schools, vocational training institutions or post-secondary educational institutes managed by public, private or civil society organization, that organize off-the-job training for apprentices, as well as provided relevant theoretical knowledge to complement on-the-job training at the workplace.

TVET providers play an important role as the main and logical providers of skills training for the labour force. Their input is necessary for revitalizing and upholding the attractiveness of businesses and industries in a country (Abdullah: 2013). It is therefore important that their perspectives be captured in this study.

A questionnaire specifically designed to capture the views of this segment, was completed by twenty respondents from the four islands (as can be seen in figure 4.3.1 below.)

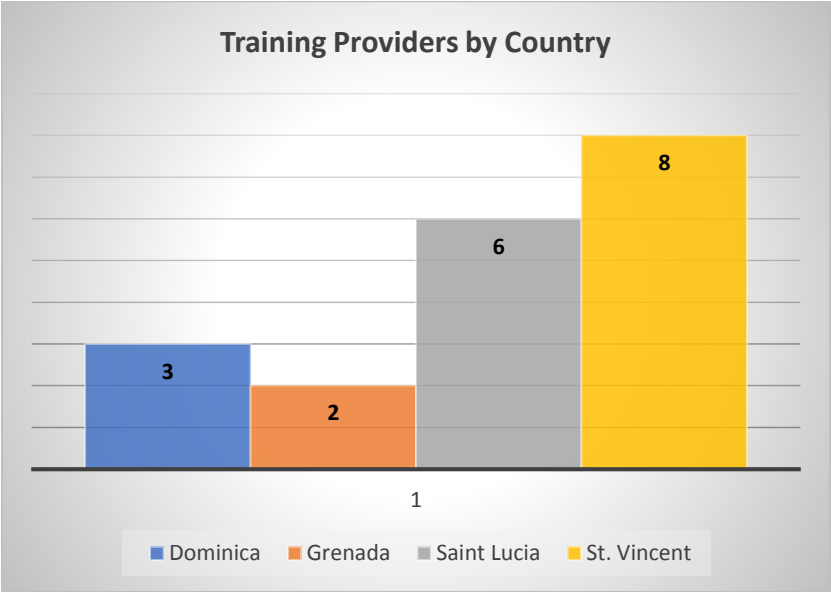


Figure 4.3.1

In order to accurately determine whether SIDS can reposition themselves to benefit from the economic gains to be had from skills investment, respondents were asked to comment on the statement *“My country places sufficient emphasis on skills development.”*

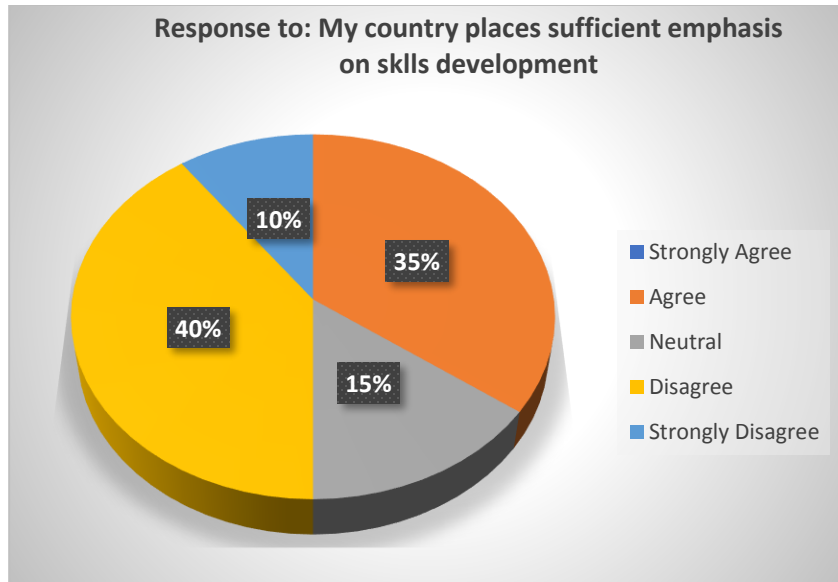


Figure 4.3.2

Given that the responses as depicted in figure 4.3.2 above, responses appear to be split down the middle with 50% indicating that sufficient emphasis was being placed on skills developed and the other 50% disagreeing with the statement. It would be prudent to do a deeper dive to determine whether the responses reflect a per island perspective.

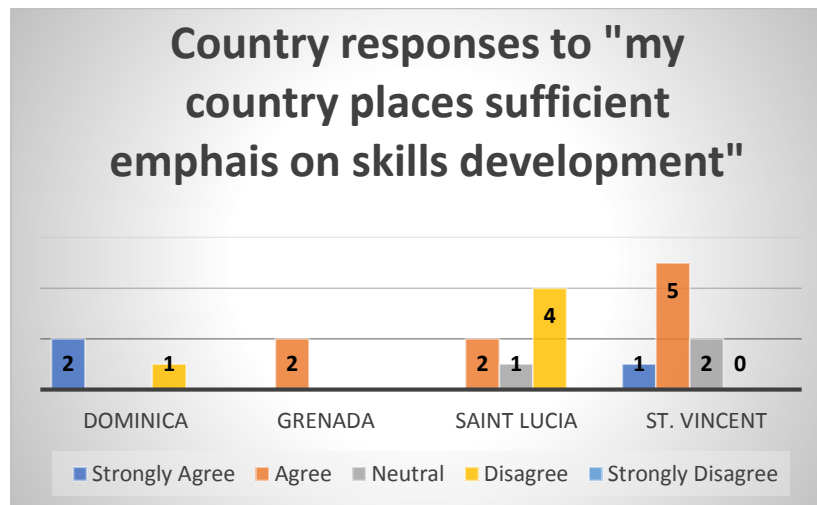


Figure 4.3.3

As can be seen in figure 4.3.3, 100% of Grenadian respondents agreed that sufficient emphasis was being placed on skills development. 57% of Saint Lucian respondents disagreed with the statement, while 63% of Vincentians agreed. Two-thirds or 66% of Dominicans strongly agreed. It would appear then that, with the exception of Saint Lucia, it is generally felt that sufficient emphasis was being placed on skills development.

When asked to comment on whether “Skills training is adequately funded by the government,” only 35% of the respondents agreed that it was. Though 10% held a neutral position, it is still noteworthy that 55% believed that it is not, (table 4.3.1).

Skills training is adequately funded by the government.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	7	35.0	35.0	35.0
	Disagree	9	45.0	45.0	80.0
	Neutral	2	10.0	10.0	90.0
	Strongly Disagree	2	10.0	10.0	100.0
	Total	20	100.0	100.0	

Table 4.3.1

The next three questions aim to determine the capacity of the training facilities to offer the requisite trainings. When asked about the ability of the staff to offer TVET training, 100% of the responses were affirmative. This means that from an instruction point of view, training providers held the position that they were capable and possessed the ability to offer training to the workforce.

When asked about the adequacy of the equipment used to provide training that meets industry standards, only 55% agreed that their center was well equipped to provide industry standard training (figure 4.3.4).

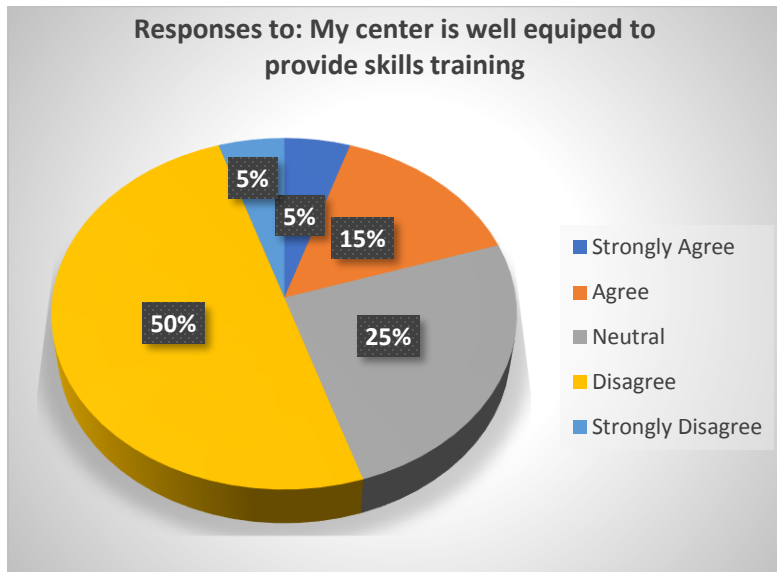


Figure 4.3.4

The covid-19 pandemic and climate change have been cited as two major phenomena that have changed the skills landscape. These two factors have resulted in the creation of new world challenges that require innovation approaches to resolve. This requires new skillset to solve the global problems. 85% of the training providers affirmed that there has been a demand for skills training in non-traditional skill areas (table 4.3.2).

As a result of covid-19 and climate change, there has been an increase demand for skills training.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	6	30.0	30.0	30.0
	Disagree	1	5.0	5.0	35.0
	Neutral	2	10.0	10.0	45.0
	Strongly agree	11	55.0	55.0	100.0
	Total	20	100.0	100.0	

Table 4.3.2

However; when asked if they were prepared to provide training in non-traditional career fields only 15% felt that they were capable of providing training in the non-traditional career areas. 55% of respondents indicated that their centers were not well placed to provide training in non-traditional areas (figure 4.3.5).

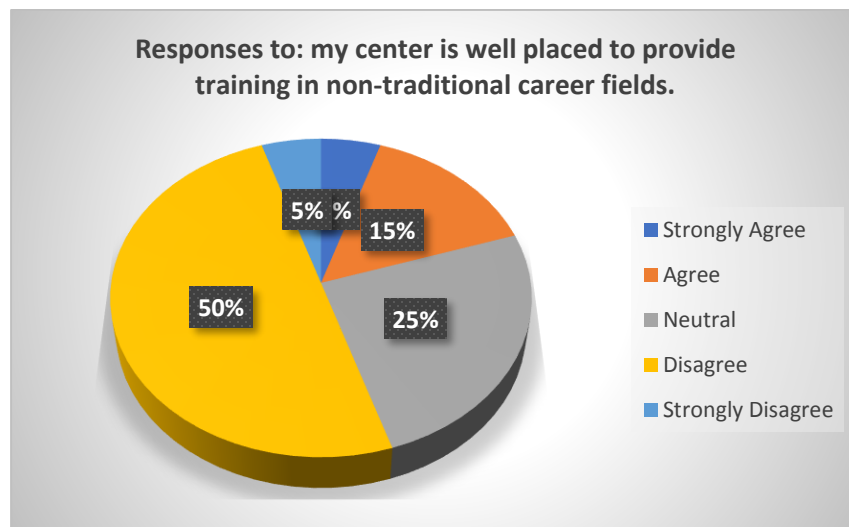


Figure 4.3.5

The following are some of the skill areas sought after at the training facilities:

- ICT skills: - computer maintenance
- AI Education
- Digital skills: - gaming, animation, digital media
- Air Conditioning and Refrigeration
- Hospitality
- Massage therapy
- Culinary Arts
- Building Technology
- Care of the Older Adult

The success of any skills training programme is reliant on there being a strong linkage between industry and the training institutions. This is absolutely necessary as trainees must be exposed to industry best practices as they seek to develop competencies in their occupational area. It is also agreed that industry partners must see themselves as an extension of education and provide support for apprenticeships, internships and immersion exercises.

In an effort to determine the relationship between training providers and industry partners, the training providers responded to the following declarations:

The statement *“The success of our training is contingent on collaboration with industry partners and employers,”* elicited an eighty percent (80%) positive response rate from respondents. 10% of respondents held a neutral position, while 10% disagreed (*figure 4.3.6*).

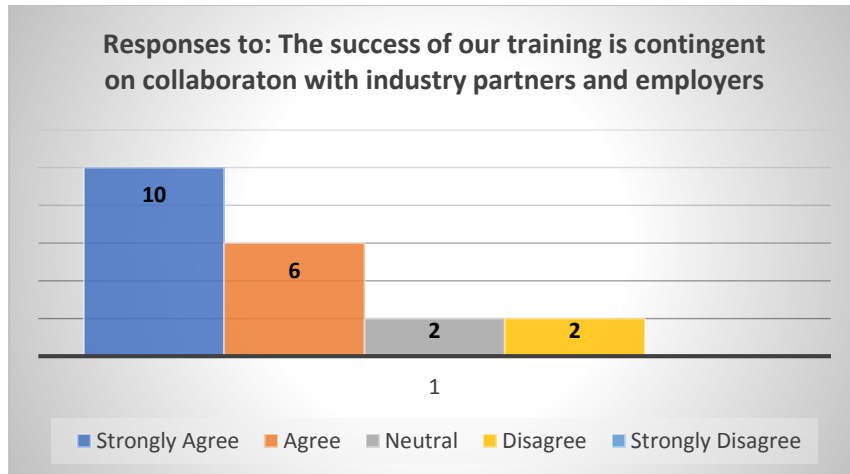


Figure 4.3.6

While respondents agree that the success of their training is contingent on collaboration with industry partners, when quizzed about their relationship with industry, the feedback was split down the middle with 50% being positive. 25% was neutral and 25% indicated that the relationship with their industry partners was not a strong one (*table 4.3.3*).

There is a strong linkage between my training center and industry partners and employers.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	5	25.0	25.0	25.0
	Disagree	5	25.0	25.0	50.0
	Neutral	5	25.0	25.0	75.0
	Strongly agree	5	25.0	25.0	100.0
	Total	20	100.0	100.0	

Table 4.3.3

Training providers were also asked to respond to the statement “*Employers do not refer their employees to my center for training.*” 50% of respondents indicated that employers did. 25% were neutral while the other 25% agreed

that employees did not send their employees to be trained at their facility (table 4.3.4).

Employers do not refer their employees to my center for training.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	4	20.0	20.0	20.0
	Disagree	6	30.0	30.0	50.0
	Neutral	5	25.0	25.0	75.0
	Strongly agree	1	5.0	5.0	80.0
	Strongly Disagree	4	20.0	20.0	100.0
	Total	20	100.0	100.0	

Table 4.3.4

Recognizing that the training offered at the training facilities in the region is geared towards graduating learners with the Caribbean Vocational Qualification (CVQ), the researcher thought to prudent to determine whether this is a qualification that is recognized and accepted by employers and industry partners and whether it is sought after by the workforce.

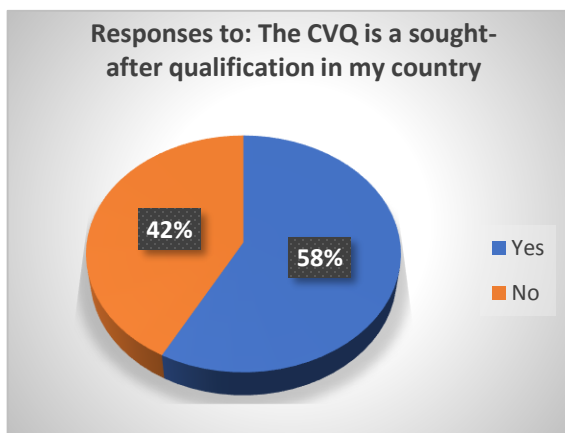


Figure 4.3.7

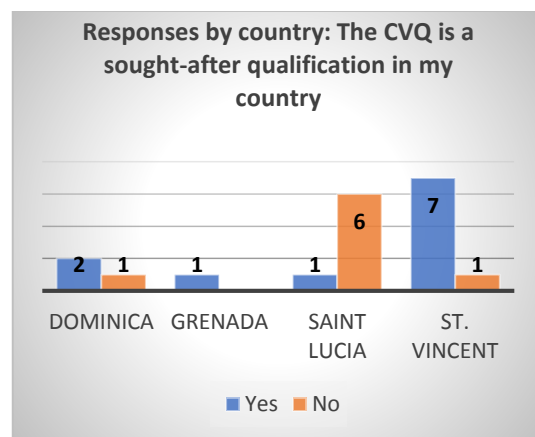


Figure 4.3.8

58% of respondents are of the opinion that the CVQ is a qualification sought after in their country. Probing a little deeper revealed that this was generally the perspective in three of the islands. However; in Saint Lucia, 86% or six (6) of the seven (7) respondents stated that the CVQ is not a sought-after qualification (figures 4.3.7 & 4.3.8).

Further, based on the responses, (table 4.3.5), it is apparent that less than 50% of training providers hold the view that employers and industry partners understood the Caribbean Vocational Qualification, offered by their facility.

Industry partners and employers understand the Caribbean Vocational Qualification (CVQ).					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	9	45.0	45.0	45.0
	Disagree	3	15.0	15.0	60.0
	Neutral	8	40.0	40.0	100.0
	Total	20	100.0	100.0	

Table 4.3.5

In summing up the responses from this stakeholder group, it appears that there is a strong belief that training providers seem to possess the capacity to conduct skills training from the instruction stand point. However; the equipment at the centers are not adequate to allow for training that meets industry standards. It is opined that covid-19 and climate change have given rise to new and different challenges that in turn require new skills to resolve. Training providers

however, do not think that they have the capacity to instruct in the emerging skill areas.

While it is agreed that the success of training exercises hinge on collaboration with industry partners, respondents are split on the strength of their relationships with this critical group.

Despite the gaps, 100% of respondents believed that governments must invest in skills training in order to improve our economic growth figures.

4.4 GROUP FOUR – Industry Partners and Employers

In their work on Private Sector Engagement for Quality TVET, the UNESCO International Center for Technical Vocational Education and Training (UNESCO-UNEVOC), recognizes that the private sector plays an important role in promoting quality TVET, both as an employer and as a training provider. In this post-covid-19 era, industry contributes significantly to ensuring that TVET is demand-driven and future-focused. It is therefore of paramount importance to include this significant stakeholder group as part of this study.

Fifty-one respondents from the four islands (*figure 4.4.1*) representing a broad cross-section of sectors (*table 4.4.1*), completed the questionnaire designed specifically to capture their input in the discussion on whether SIDS can reposition themselves to benefit from the economic gains to be had from

investing in skills training. This population size is acceptable, given the topic under discussion. When compared to the number of respondents in the other three categories, it is noted that the figures in some way mirror the broader small island society; with less policy makers and administrators, limited and fixed TVET positions, few training providers and a larger number of employers and industry partners.

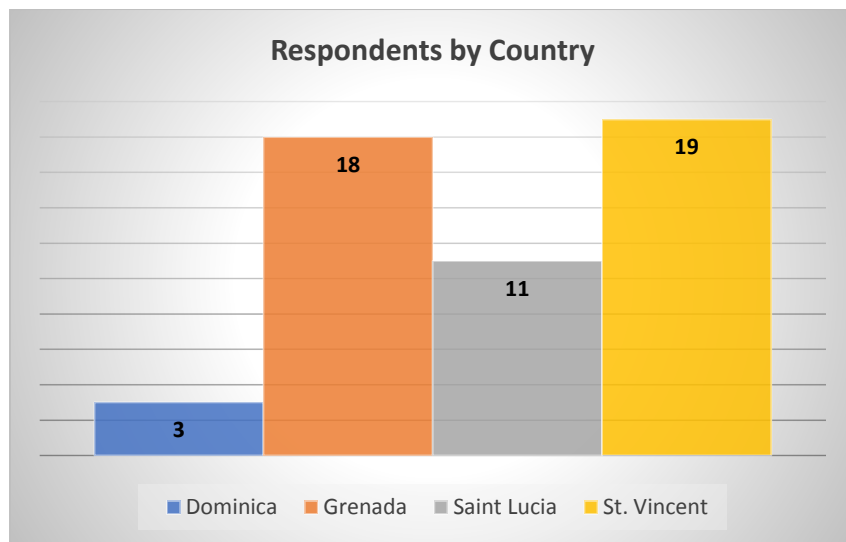


Figure 4.4.1

Respondents by Sector					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agriculture	8	15.7	15.7	15.7
	Automotive	4	7.8	7.8	23.5
	Construction	6	11.8	11.8	35.3
	Cosmetology	1	2.0	2.0	37.3
	Distribution	1	2.0	2.0	39.2
	Healthcare NGO	1	2.0	2.0	41.2
	Hospitality	4	7.8	7.8	49.0
	ICT and Creativity	4	7.8	7.8	56.9
	Media	1	2.0	2.0	58.8
	Medical	1	2.0	2.0	60.8
	Production/ Manufacturing	6	11.8	11.8	72.5
	Services	13	25.5	25.5	98.0
	Shipping agency and brokerage	1	2.0	2.0	100.0
	Total	51	100.0	100.0	

Table 4.4.1

While scholars and theorists promote the role of industry as partners in skills training, the researcher thought it necessary to determine whether industry understands what is expected of them. Respondents were asked to comment on their understanding of TVET. As can be seen in figure 4.4.2, 69% of respondents commented affirmatively, that they understand the philosophy of TVET. 21% stated that they were not quite sure what it was and another 10% indicated that they did not.

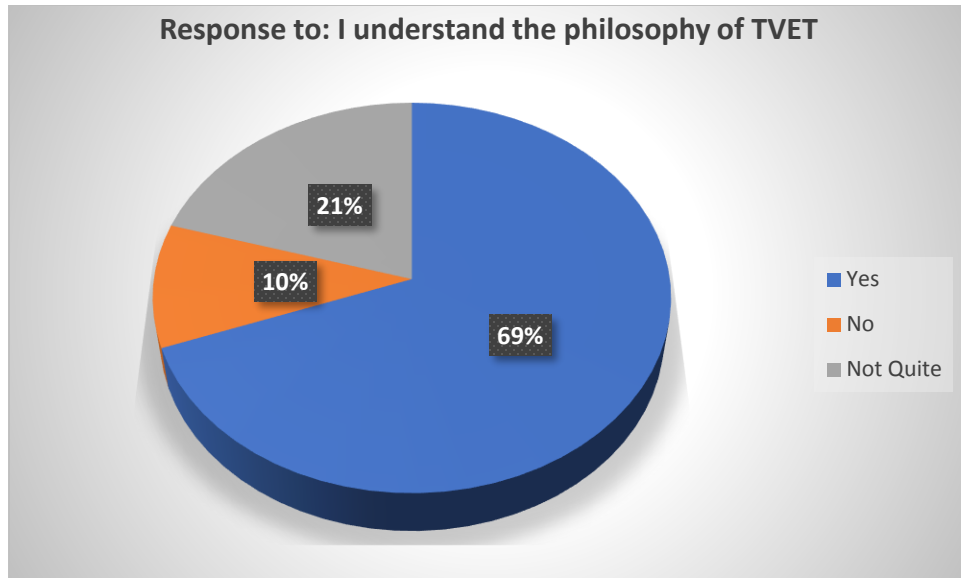


Figure 4.4.2

Having already justified the importance of there being a strong linkage between industry and education, respondents were asked to comment on the statement *“there is a strong relationship between my firm and training providers.”*

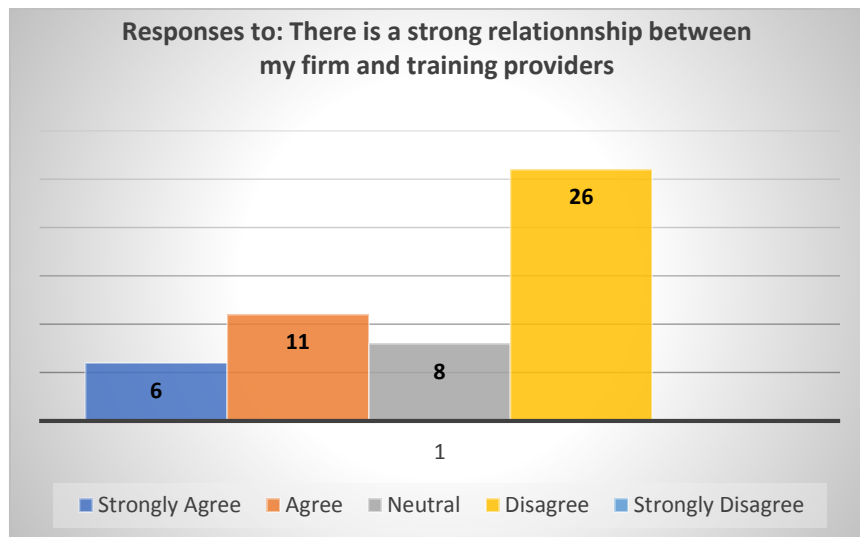


Figure 4.4.3

As delineated in figure 4.5.3 above, only one-third of industry partners were in agreement with the statement. 26 or 51% of respondents did not have a strong relationship with training providers. Further, through use of a linear scale, with 5 being the highest and 1 being the lowest, respondents were required to rate their level of confidence in the abilities and services of the local skills training providers. It was observed that forty-two (42) of the fifty-one (51) respondents expressed confidence in their local training providers (table 4.4.2).

On a scale of 1 to 5, with 5 being the highest, how confident are you in the abilities of local skills training providers?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	3.9	3.9	3.9
	2	7	13.7	13.7	17.6
	3	20	39.2	39.2	56.9
	4	17	33.3	33.3	90.2
	5	5	9.8	9.8	100.0
	Total	51	100.0	100.0	

Table 4.4.2

As if to confirm the confidence reposed in the training providers, respondents, when asked “*What type of training provider will you use?*” forty-one (41), or 81% of industry partners indicated that they would use skills training providers to train their staff (figure 4.4.4). Given that respondents could opt for a combination of options, it was noted that twenty-eight (28) or 55%, would also consider in-house training as well.

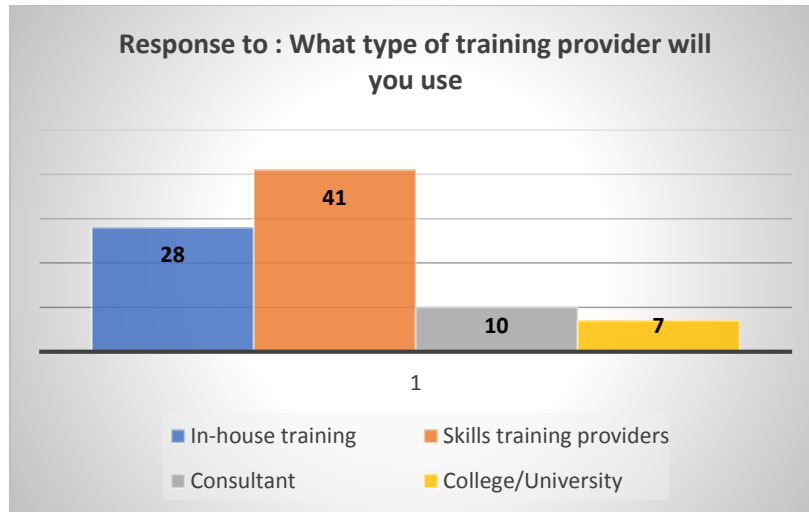


Figure 4.4.4

As a follow up to the above statements, respondents were provided with options for consideration and asked *“How can you strengthen your linkage with training providers?”* Respondents were provided with options and could have chosen more than one intervention. As is depicted in figure 4.4.5 below, six (6) of the fifty-one (51) respondents felt that there was no need for linkages between their firms and training providers.

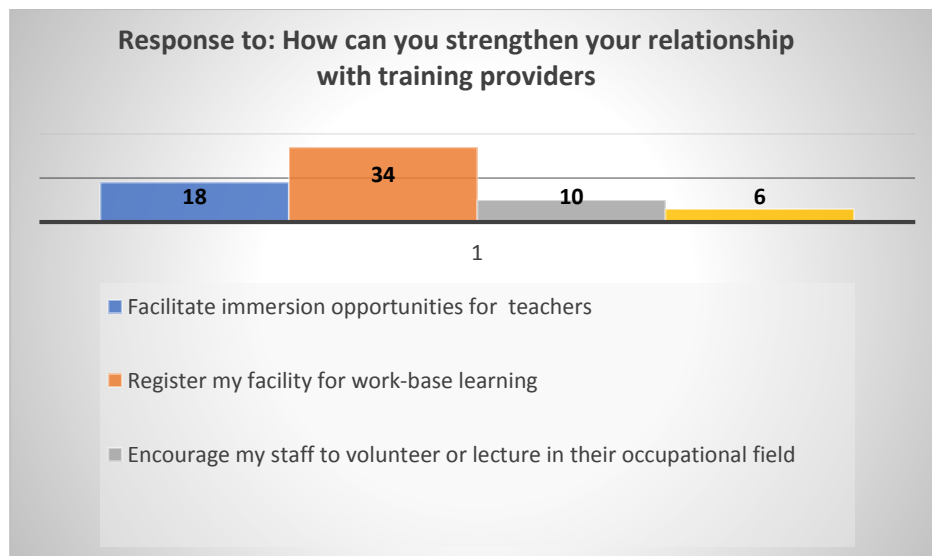


Figure 4.4.5

Forty-five (45) correspondents chose a combination of the three other options, as measures they can undertake to strengthen their relationship with the trainers. Two-thirds are of the opinion that registering their businesses as work-base learning centers will strengthen the relationship with training providers. Another eighteen (18) respondents are willing to consider accommodating immersion exercises for teachers.

Industry partners and employers highlighted the following as being the most difficult roles to fill:

- Accounting/Auditing
- Chefs/culinary/cooks
- Clerks
- Customer service personnel
- Database Administrator
- Farm labourers/
livestock farmer
- Food and beverage
- Graphic Artistes
- Machinery operators
- Masons
- Mechanics
- Product fabricators/product installers.
- Supervisors
- Technicians

The Caribbean Vocational Qualification (CVQ) represents the achievement of a set of competencies which define core work practices of an occupational area. It is a competency-based approach to training, assessment and certification (Caribbean Examination Council). It is the main qualification offered for skills training in the four islands. The researcher sought to garner the views of respondents on the CVQ.

Respondents were asked to comment on the declaration “*I understand the structure of the CVQ.*” As is depicted in figure 4.4.6, only fifteen (15) industry partners/employers or 29% of respondents, responded in the affirmative. The other thirty-six (36) or 71%, either responded negatively or were neutral.

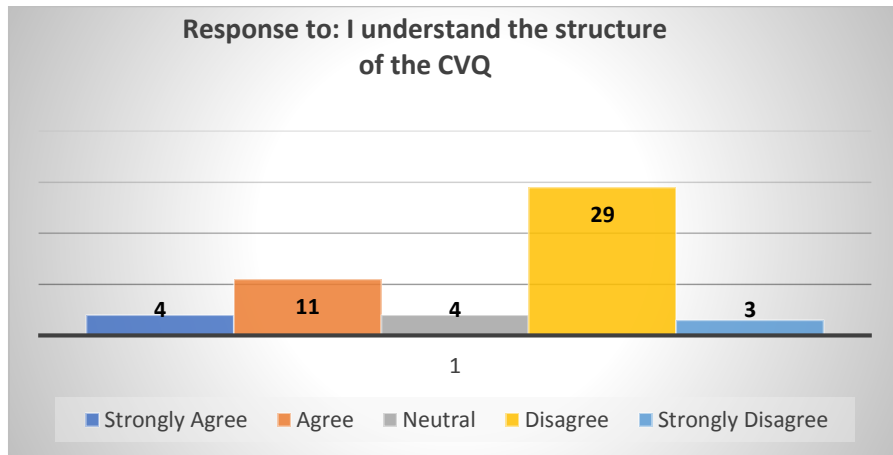


Figure 4.4.6

The National Qualifications Framework (NQF) is the system that records the credits assigned to each level of learning achievement in a formal way to ensure that the skills and knowledge that have been learnt are recognized throughout the country. The various levels of a CVQ will register within the NQF, making it easier for employers and industry partners to assess and compare qualifications. Respondents were to comment in the statement “*I am familiar with the National Qualifications Framework of my country.*” As can be seen in figure 4.4.7, an overwhelming majority of 73%, were not.

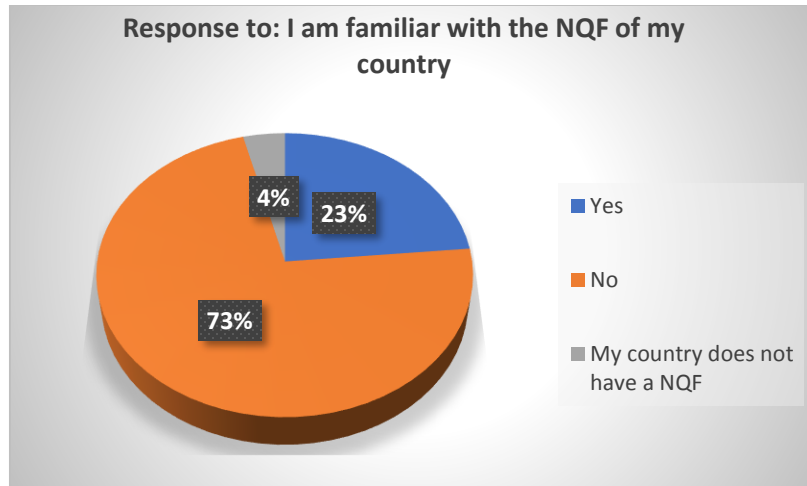


Figure 4.4.7

In an effort to determine whether industry partners and employers see themselves continuing to play a crucial role in the development of this demand-driven sector, they were asked to comment on the statement *“I will support the accreditation of firms as Work-placement companies.”* Work-placement companies promote the use of their facilities and staff to provide supervised work where the intern or apprentice will be given the opportunity to experience working in a specified role within the company. The placement allows for the development and assessment of skills and competencies. This accreditation would be a formal recognition of the firm as a partner in the enhancement of training provisions.

I will support the accreditation of firms as Work-placement companies.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		2	3.9	3.9	3.9
	No	1	2.0	2.0	5.9
	Undecided	9	17.6	17.6	23.5
	Yes	39	76.5	76.5	100.0
	Total	51	100.0	100.0	

Table 4.4.3

As can be seen in the table above (table 4.4.3), 77% of respondents supported firms being accredited as work-placement centers. Nine (9) respondents were undecided and only one (1) said no to this statement. Two (2) individuals did not respond.

Further the researcher was curious to find out whether firms would on their own, willingly accept being accredited or whether governments should provide incentives for them to do so.

Governments should incentivize firms to become work placement companies.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		2	3.9	3.9	3.9
	No	2	3.9	3.9	7.8
	Undecided	7	13.7	13.7	21.6
	Yes	40	78.4	78.4	100.0
	Total	51	100.0	100.0	

Table 4.4.4

78% of industry partners and employers believe that governments should incentivize them to become work-placement companies. While, 14% remained undecided, only 3.9% of the respondents held a contrary view (table 4.4.4).

In summarizing the findings of this stakeholder group, one can conclude that though there is not a strong linkage between training providers and industry partners, the latter is confident in the prior’s ability. This is supported by the data which highlights that industry partners are willing to have the local skills training providers train their staff. Industry partners are also willing to consider options for strengthening the relationship.

Industry partners and employers are not familiar with structure of the CVQ neither are they knowledgeable of their territory's NQF. While they will support the accreditation of firms as work-placement companies, they are of the view that governments would need to incentivize them to do so.

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.0 INTRODUCTION

The analysis of the data collected has brought to the fore many factors which are germane to the research topic. The researcher set out to determine whether small island developing states (SIDS) can reposition themselves to benefit from the economic gains to be had from skills investment. This is juxtaposed against the following hypotheses:

1. The human resource of small island states is inadequately trained and underutilized therefore their contribution to economic growth is negligible.
2. Focused skills training will lead to economic development.
3. Education reform will play a significant role in promoting technical and vocational training and its value to economic growth and development.

Specifically, the researcher has opted to consider the case of four Caribbean islands, namely Dominica, Grenada, Saint Lucia and St. Vincent. This chapter will present an exposition of the findings.

A welcome spinoff of this study, is that it engenders a cross analysis of data, taking into consideration, the varying perspectives of four stakeholder groups. The researcher is therefore able to analyze the broader communal themes and also conduct a deeper dive into specific data findings resulting in a more comprehensive exposition.

5.1 DISCUSSION GROUNDED IN DATA FINDINGS

An undeniable fact stemming from the data captured, is that skills training is a priority for the government of the four island states. At a macro level, the benefits to be acquired from an investment in skills training, is well recognized and appreciated.

The challenges however, appear to stem from the incapacity within these islands to provide the type and quality of training which would satisfy the labour market needs, increase employability and labour productivity and by extension, increase the national output figures. These challenges exist for a myriad of reasons, among them being the rigid grammar type school system and curriculum that promotes academic instruction and stigmatizes skills training as an alternative pathway for non-academic learners. This is further compounded by teachers who unfortunately not only lack the understanding of and experience in industry practices but who also are not trained to teach using a competency-based approach. This situation is further exacerbated by inadequate facilities and amenities and weak linkages with industry partners.

Based on the data of the first group, Policy Makers and Administrative Officers, one can surmise that at the highest levels, there is a general consensus for the inclusion of skills training among the portfolio of strategies to be employed in order to stimulate economic growth and development.

Recognizing this, governments have invested in skills training, through their allocations in the annual Estimates of Expenditure for Education. Further, the respondents were unanimous in their responses and made clear that the financial investments in skills training are insufficient to narrow the gap between the workforce skills demanded by the market and what is actually supplied by the education system. This sentiment is echoed throughout the responses from the other stakeholder groups.

Further to this, it was evident that an investment in skills training would result in improved economic growth and development figures. Policy makers and administrative officers agree that the subject islands are poised to embrace a new paradigm and policy direction by adopting skills training as a bona fide strategy for economic growth and nation building. However, this sentiment is at variance with the opinions of the technocrats who are charged with the duty to implement or operationalize the transformation, as they opined that their countries have yet to give effect to those institutional changes which would usher a paradigm shift in attitudes towards skills training.

Ministry of Education Officers who have direct responsibility or oversight for TVET as well as training providers recognize that the current education system does not possess the structures necessary for skills training and that some reform will be necessary if the promotion of this pathway is to be effective. Of even greater concern is the fact that the lessons of the pandemic and climate change have rendered it pellucid, that the skills required must be future-focused and training must incorporate elements of adaptability and resilience. This brings into sharp focus the gaps in the curricula, the ineffectual skillsets of persons expected to lead this change in classrooms and training facilities and the lack of a labour market needs assessment (LMNA), which is crucial for determining the skills required by the market.

The school system in the subject islands remain anchored to a 19th Century British model of grammar type schools. By this model, persons would only be encouraged to acquire a skill as an alternate life path if they were unable to assimilate or succeed in the traditional academic-focused instruction. Though respondents indicated that TVET is promoted as an educational pathway, further research highlighted that in many instances it is deemed an “*alternative*” pathway (UNESCO UNEVOC, 2013). This phraseology in part contributes to the stigma associated with skills training, causing it to be perceived as a second-tier education, a perception that is supported by the data gathered. The research has revealed that this stigma, though still present, appears to be slowly waning as the numbers who seek training are increasing; specifically post the Covid-19 pandemic.

Another crucial finding relates to the knowledge and perception of the Caribbean Vocational Qualification (CVQ) in the islands. While this is the most common skills qualification provided, it is undersubscribed. Indeed, this may be correlated to the lingering perception that skills training is deemed a second-tier education. However, given what has been gleaned from the data, very little is known about the CVQ. Industry partners and employers in the majority stated that they were unfamiliar with the CVQ and its structure. How then can this qualification be pursued if it is not among the requirements for employment? To accomplish this, policy makers must give strategic prominence to skills training and the earnest promotion of CVQs.

This promotion should not only surround making the CVQ a qualification of choice, but more importantly, one must show how it fits into the National Qualifications Framework. This information is important to both employers and trainees as it would clearly reveal what the skillsets are at each level and demonstrate how one can progress from one competency level to another. For persons who may wish to matriculate to other learning institutions, the path for matriculation would be clearly defined.

When one considers the education system and its ability to adapt and adopt a skills focused approach to education, the Ministry of Education respondents made clear that their teachers are not well trained to provide this kind of training and they lack the capacity to integrate skills training into the curricula. They stated as well that their facilities are not adequately equipped to deliver on such training.

Training providers on the other hand, who operate outside of the school system, were confident that they could provide the requisite training, though admittedly their facilities were not the best. The sentiments of industry partners are aligned with training providers as a vast majority of them presented that they had confidence in their training ability and would send their employees to be trained there. These industry partners were also receptive to the idea of opening up their facilities in order to strengthen the development of skills.

Based on the information garnered, industry partners recognize that they could become a critical partner in skills enhancement on the subject islands and are willing to accommodate immersion exercises for teachers. This of course will improve their ability to offer training that meets industry standards.

Additionally, industry partners are willing to becoming work placement centers, facilitating the transfer of technical and employability skills to learners. This is consequent to their appreciation of the dearth of proper equipment and facilities, auguring well for skills development in the islands as the relationship between industry partners, education and training providers will be strengthened.

It is important to highlight that the literature promotes the view that a labour market needs assessment (LMNA) should inform the development of skills in any territory. Of the four islands surveyed, only one, Saint Lucia, had conducted

a LMNA in the last five years. Grenada's assessment was done a decade ago, and as can be anticipated, the labour market needs have changed. Due to the phenomena of climate change and covid-19, it has become imperative for LMNAs to be conducted in order to ascertain the training needs of the country and the level of investment required.

This research has highlighted the emergence of a number of new skill areas which are now in demand. Many of these new skill areas appear to be driven by advances in technology and the need to build resilience and sustainability in small economies (the latter stemming from the effects of climate change and the global covid-19 pandemic). Policy makers have proposed that some of the new skill areas for investment would reside within the green, blue and orange economies. Areas such as resilient construction, sustainable agriculture, renewable energy, ICT and digital skills were some of the skillsets mentioned. Such an investment however should not be done independent of a LMNA, so as to maximize the use of the limited financial resources of the subject islands.

Given the above, one can conclude that the small island developing states show the potential to benefit significantly from an investment in skills training. However, if strides are to be made towards adopting this approach as a catalyst for improved employability and productivity, a rigorous restructuring of critical sectors will need to be undertaken. The final chapter of this study will highlight some of the interventions needed for this paradigm shift.

CHAPTER SIX

CONCLUSION

6.0 INTRODUCTION

In this chapter, the researcher provides the conclusions drawn from the analysis of data, that sought to determine whether small island Developing States can reposition themselves to benefit from the economic gains to be had from an investment in skills development.

There are some critical elements (figure 6.2.1) that determine the chances of success for what the researcher has dubbed, the skills-induced strategy for economic growth. This skills-induced economic growth strategy is defined by the researcher as an approach for promoting economic growth through the strategic investment in the development of a nation's human resource, so that the labour force would be better positioned to satisfy the demand for skills and abilities required in the labour market. By improving the quality of human capital, skills-induced economic growth aims to create a more productive and innovative workforce that can attract new businesses and industries, increase efficiency and competitiveness, and increase overall economic output and prosperity.



Ecosystem of skills-induced Strategy for Economic Growth (figure 6.2.1)

The researcher has concluded that these elements comprise the ecosystem of a skills-induced strategy for economic growth. They are specific and observable accomplishments that are necessary for meeting the goal of improved economic growth figures in small island developing states.

- **Labour Market Needs Assessment** - will define the skills needed within each sector and also highlight global trends that influence skill needs; determining government priority sectors for investment.
- **Strategic Industry Partnerships** – through strengthened linkages, industry partners and employers have the potential to become an extension of governments and an ally to education.

- **Education Reforms** - that incorporate diverse curricula which promotes technical and vocational training as a viable education pathway. Reforms must also consider, the role of industry, recruitment practices, and the multi-use of training facilities.
- **Conducive Learning Environment** - to include infrastructural upgrades, safe learning spaces with state-of-the-art industry standard equipment.
- **National Qualification Framework (NQF)** - that formally records each level of learning achievement to ensure that the skills and knowledge learnt are recognized and accepted throughout the country, allowing employers and industry partners to assess and compare qualifications with ease. The NQF gives credibility to the various skills qualifications including CVQs and NVQs.
- **Marketing and Advocacy** - tools for reimagining and rebranding TVET, disseminating information and creating positive messages that appeal to the labour force.

If the findings from this research are mapped against the elements of the skills-induced strategy for economic growth above, insight into the feasibility of SIDS being able to reposition themselves to benefit from the economic gains to be had from an investment in skills development, will be determined.

6.1 THE ECOSYSTEM FOR A SKILLS-INDUCED STRATEGY FOR ECONOMIC GROWTH

6.1.1 LABOUR MARKET NEEDS ASSESSMENT (LMNA)

A LMNA must be one of the first interventions that a government should undertake, if it is serious about adopting a skills-induced strategy for economic growth. In the small island developing states of the Caribbean, resources are limited, hence, at the policy level, decisions on skills training should be informed by evidence of the need. A comprehensive LMNA will address matters relating to the broader employment ecosystem including a highlight of the skills gaps, global trends and employer and employee behaviour. The LMNA will provide recommendations on the skills to be developed based on the market needs, local and global trends and new and emerging areas for investment. Skills development will then become demand driven rather than supply driven.

The research has revealed this shortcoming in the subject islands. With the exception of Saint Lucia, there has not been a recent LMNA carried out in the islands. It means therefore, that current investments in TVET are not grounded in empirical evidence that informs the financial and investment decisions made at the policy levels. Therefore, it is imperative that a comprehensive labour market needs assessment be conducted to inform the policies which will dictate the application of

resources. LMNAs should be carried out every five years in an effect to keep abreast to market changes.

6.1.2 STRATEGIC INDUSTRY PARTNERSHIPS

Recognizing that governments are limited with regards to the financial investments that can be made in skills training, efforts should be made to strengthen the linkages between industry and education. Industry partners need to see themselves as allies in TVET transformations. Equally, they must be recognized as an extension of government. Firms should be encouraged to be accredited as workplace learning facilities, a status that would signal to governments, trainers, and the labour force, their commitment to the enhancement of skills for workforce development.

Strengthening that relationship provides the opportunity for industry to be involved in curriculum development and have a lead role in structuring skills training. Potential employees also get to marry classroom learning with real world experience through work-based learning, using industry standard equipment and become exposed to the workplace culture.

The advantages of this strategic alliance with industry partners are immense and auger well for employers and training providers as it provides an opportunity for establishing a clear connection between

education and the real-world work setting. This aids in the development of a pool of skilled prospective employees for the company and the sector. For employers, there is the reduction in recruitment and training costs. For training providers, the strengthened relationship with industry partners allows for their students to be exposed to state-of-the-art equipment and technologies and creates an environment that facilitates the re-tooling and up-skilling of teachers and trainers.

This critical success factor is missing from the SIDS context. The research shows that the linkage between industry and education is a weak one, and if successes are to be had from an investment in skills, this relationship is absolutely necessary.

6.1.3 EDUCATION REFORM

The International Labour Organization (ILO) has noted that as a country's education system improves, so does its labour force skills. The development of the human capital required to enhance economic growth is contingent on an education framework that supports a broader economic development plan aligned with industry needs.

Governments, policymakers and technocrats must untether from the education system that promotes a one-size fits all learning structure. This is what currently obtains in the small island developing states and it has a detrimental effect on the acceptance of skills training by the wider labour force. In this case, the prioritized pathway is the grammar type,

traditional academic instruction, structured to graduated academics rather than skilled individuals. It is imperative that TVET be promoted as a viable education pathway and not a *“less-than”* option for those who are supposedly not academically inclined. This should be coupled with the acceptance and promotion of the Caribbean Vocational Qualification and National Vocational Qualification as a pre-requisite for employment.

Curricula within the education institutions need to be more dynamic to allow for the inclusion of competency-based learning. It is important that industry plays a role in the development of such curricula, thereby incorporating the participation of industry partners in the training process. Curricula should also be responsive and flexible, to allow for adaptations to industry demands, external shocks and innovations. The recent COVID-19 pandemic and climate change have made it compulsory that instruction also focuses on building sustainability and resilience, two critical factors necessary for the long-term survival of the vulnerable small island developing states. As part of this education reform process, the development of a robust yet dynamic, curriculum is mandatory.

The requirements for teachers and trainers cannot be the same as that which obtains in a grammar school system. TVET instructors must be immersed in the practical aspects of the occupational area that they teach. For this to happen, the linkages between education and industry must be strengthened, allowing for transfer of knowledge and skills from

industry to educational institutions. Competency-based education and training must be a core requirement for instruction as a TVET provider.

Education reforms would require changes to the recruitment policies for teachers within a TVET institution. No longer can a certificate from a Teacher Training College be sufficient, but the requirement should also include minimum experience in industry practice. The education sector would need to consider the engagement of adjunct staff, a practice not common in the subject islands. The adjunct staff should be recruited from industry and can work alongside other teachers in the classroom, bringing in the industry perspective.

It is well accepted that small island developing states have limited resources, making it very challenging to maintain training facilities. It is therefore practical for policy makers and the Ministry of Education to consider the utilization of schools as evening training facilities for out of school training programs. Within the four islands, schools generally shut their doors at the end of a school day, with the equipment within having only daytime use. Part of the education reform should address the use of said facilities for evening training programs for upskilling and re-tooling the workforce. Training facilities should be multi-use, catering for the post-secondary learners.

Given that the education sector within the islands is not robust enough to allow for the aforementioned, it is obvious that targeted education reform is necessary, if a skills-induced strategy for economic growth is to succeed.

6.1.4 CONDUCTIVE LEARNING ENVIRONMENT

As governments seek to prioritize skills training for economic growth and development, training institutions must be upgraded to deliver on that objective. The research has shown that in the SIDS, the facilities used for training in technical and vocational areas are not properly equipped to offer training that meets industry standards. Equipment in the labs and workshops are decades old and require upgrading. The age-old infrastructure that houses most training institutions, (schools, training centers) are in dire need of retrofitting and rehabilitation. Infrastructural upgrades are necessary. For example, the electrical infrastructure at many institutions cannot support the electrical needs of modern labs, where most pieces of equipment are high voltage and consumption of electricity is significant.

Training facilities must physically appeal to the potential learner. The learning environment must be safe, aesthetically attractive, well-furnished and house equipment that mirrors what exists in the real-world work setting. In that way, learners will be confident that they are work-ready and competent in the skillsets that employers seek.

Based on the sought-after skills revealed by this study, training institutions must now consider the integration of technology both into instruction and through the use of modern equipment that facilitate the development of skills in the new emerging career areas. It is also imperative that the islands look closely at the skillsets they wish to develop and invest in creating learning spaces that will produce the desired results.

6.1.5 RATIFIED NATIONAL QUALIFICATIONS FRAMEWORK

The importance of a National Qualifications Framework (NQF) has already been espoused. This structure categorizes and compares the complexities and demands of various qualifications. The NQF makes it possible to understand the levels of skills and competencies associated with different qualifications. While only one of the islands under study appears to have a ratified NQF, this does mean that the other islands are further disadvantaged. There already exists in the region, the Caribbean Community (CARICOM) Qualification Framework (CQF). The four islands under review are all CARICOM member states. According to CARICOM, this framework is a model for enabling regional seamless human resource development. It means therefore, that the SIDS can adopt this framework to guide the understanding and equivalency of qualifications in their territories. The existence of this structure augers well of the islands in that it facilitates harmonization across the islands and even

where there exists a national qualification framework, as in the case of Saint Lucia, it is aligned to the CQF.

The adoption of a qualifications framework will give credence to the Caribbean Vocational Qualification (CVQ), making it more acceptable to both employers and potential employees, not only regionally, but at the international level as well.

6.1.6 MARKETING AND ADVOCACY

As with every new undertaking, the sharing of information is necessary for gathering public support and buy-in. It has already been postulated that skills training is undersubscribed, that CVQs are not the sort after qualification, that skills training is considered second-tier education and it is deemed an “alternative pathway”. This has resulted in the stigmatization of technical and vocational education and training. If this perception is not changed, then no amount of investment will make skills training attractive. Education institutions and training providers must engage in widespread advocacy to change the perception of TVET. This campaign should not be limited to highlighting the programs offered, but should also seek to educate prospective trainees and employers on the gains to be had from pursuing a competency-based education program. The appeal should highlight how skills training contributes to economic growth and development. Through advocacy, positive messages will be disseminated and the labour force will be better informed.

Marketing efforts will seek to rebrand and reimagine TVET, making it more appealing to the labour force. As the value of TVET is promoted, the stigma associated with skills training will gradually be eradicated and will be reimaged with messages of positivity and the promotion of entrepreneurship, employment opportunities and further education possibilities.

The outcome of a continuous and consistent skills crusade, will be a better informed labour force, who have bought into the philosophy of TVET and embrace it as a viable option for growth and development. Over time, the stigma will dissipate and technical and vocational education and training will run in tandem to academic instruction, providing learners with a differentiated learning experience.

6.2 CONCLUSION

Having sought to determine whether SIDS can reposition themselves to benefit from the economic gains to be had from skills investment, one can, based on the findings, analyses and discussion, state that they can. This pivot would however, require them to address the deficiencies in the ecosystem highlighted above and pursue targeted interventions that will facilitate the expected outcome.

An encouraging contributing factor is that at the highest level, there is a willingness and commitment on the part of governments and public sector stakeholders to invest in technical vocational education and training. This investment however should be based on informed evidence emanating from a comprehensive labour market needs assessment. From there, interventions will be specifically targeted towards the attainment of the pursued outcomes.

The findings of this research, supports the position that a lack of natural resources, limited land mass and a small population size should not restrict the economic growth potential of small island states. With focused interventions, SIDS will realize increased employability and labour productivity.

This paper sought to present an approach which, if adopted by small islands, will result in them becoming more globally competitive. The researcher holds the position that though the adoption of a skills-induced strategy for economic growth, which incorporates the six (6) key elements detailed above, SIDS can see an improvement in their gross domestic product per capita figures, making them more globally competitive, thereby improving economic growth and development.

BIBLIOGRAPHY

- Abdullah, Helmy: (2013):** The role of VET providers in training partnerships with industry in East Java, Indonesia <https://tvet-online.asia/1/abdullah-tvet1/> (accessed 11 November 2023)
- Adelman, I. (1965):** Theories of economic growth and development. 1965 No.2nd ed. <https://www.cabdirect.org/cabdirect/abstract/19661801984> (accessed 6 May 2022)
- Albin, P. S. (1970).** Poverty, Education, and Unbalanced Economic Growth. *The Quarterly Journal of Economics*, 84(1), 70–84. <https://doi.org/10.2307/1879400> (accessed 29 June 2023)
- Amjad, R., 2005:** Skill and Competitive Analysis: Can Pakistan Breakout of the Low-Level Skills Track. Paper Presented in AGM of PSDE, Islamabad. (accessed 21 July, 2023)
- Baryamureeba, Venansius, Nahamya. Wilfred Karukuza, (2014):** The Role of TVET in Building Regional <https://nru.uncst.go.ug/bitstream/handle/> (accessed 8 August 2023)
- Bashir Ahmad Khilji et al (2012):** *Impact of Vocational Training and Skill Development on Economic Growth in Pakistan*. World Applied Sciences Journal 17 (10): 1298-1302, 2012 ISSN 1818-4952 © IDOSI Publications https://www.researchgate.net/profile/Muhammad-Zaheer-Khan/publication/286990735_Impact_of_vocational_training_and_skill_development_on_economic_growth_in_Pakistan/links/601ad92245851589397d5eb3/Impact-of-vocational-training-and-skill-development-on-economic-growth-in-Pakistan.pdf (accessed 21 July, 2023)
- Berry, S. H., Burger, N., Dogo, H., Kumar, K. B., Malchiodi, A., Martini, J., Mengistu, T., Shatz, H. J., Smith, A. C., Usanov, A., & Yoong, J. K. (2014):** Methodologies for Data Collection and Handling. In *Designing a System for Collecting Policy-Relevant Data for the Kurdistan Region—Iraq* (pp. 33–52). RAND Corporation. <http://www.jstor.org/stable/10.7249/j.ctt6wq9bd.13> (Accessed 15 October 2023)
- Bhandari Pritha, (2021): Ethical Considerations in Research | Types & Examples** <https://www.scribbr.com/methodology/research-ethics/#:~:text=These%20principles%20include%20voluntary%20participation,when%20collecting%20data%20from%20others> (accessed 19 October, 2023)
- Bhattarai, Sanyog (2020):** Labour Market Need Assessment for Demand Driven TVET (webinar) <https://www.cpsctech.org/2020/06/labour-market-need-assesment-for-demand.html> (accessed 5 November, 2023)
- Bils, M. and Klenow, P.J. (2000):** Does Schooling Cause Growth? American Economic Review, 90, 1160-1183. <http://dx.doi.org/10.1257/aer.90.5.1160> (accessed 8 July 2023)

Boldeanu, Teodor and Constantine Liliana scu, (2015): Determinants of Economic Growth Bulletin of the Transilvania University of Braşov Series V: Economic Sciences • Vol. 8 (57) No. 2 - 2015 The main determinants affecting economic growth pdf <https://ashraffeps.yolasite.com/resources/EuroMed/Fall2018/The%20main%20determinants%20affecting%20economic%20growth> (accessed 6 May 2022)

Boodhai, Navneet (2023): Concept Paper For The Development Of A Caricom Strategic Plan For Vocational Education Services https://oldsite.caricom.org/documents/12634-concept_paper_vocational_education.pdf 9 (accessed 8 August 2023)

Booth, L. (1996): Acquiring Skills: Market Failures, Their Symptoms and Policy Responses. Cambridge: Cambridge University Press. (accessed 21 July, 2023)

Burunciuc, Lilia (2021): An Investment in Education Can Fuel the Caribbean's Growth <https://www.worldbank.org/en/news/opinion/2021/10/27/an-investment-in-education-can-fuel-the-caribbean-s-growth> (accessed 23 July 2023)

Caplan, B. (2002): Systematically Biased Beliefs about Economics: Robust Evidence of Judgemental Anomalies from the Survey of Americans and Economists on the Economy. *The Economic Journal*, 112(479), 433–458. <http://www.jstor.org/stable/798426> (accessed 15 July 2023)

Caribbean Community (2014): Caricom Regional Tvet Strategy For Workforce Development And Economic Competitiveness <https://caricom.org/caricom-regional-tvet-strategy-for-workforce-development-and-economic-competitiveness-to-be-launched/#:~:text=It%20provides%20a%20framework%20for,developing%20a%20highly%20skilled%20workforce.%E2%80%9D> (accessed 3 August, 2023)

Caribbean Examination Council (CXC): CVQ Overview: <https://www.cxc.org/examinations/cvq/> Accessed 12 November, 2023

Cockshott, P. (2019): Did Marx Have a Labour Theory of Value? *World Review of Political Economy*, 10(1), 69–84. <https://doi.org/10.13169/worlrevipoliecon.10.1.0069> (accessed 28 January, 2023)

Davis, J. (2019): *The Case Against Education* by Bryan Caplan [Review of *The Case Against Education: Why The Education System Is A Waste Of Time And Money*, by B. Caplan]. *The Radical Teacher*, 113, 118–120. <https://www.jstor.org/stable/48694734> (accessed 15 July, 2023)

Denzin, Norman K., and Yvonna S. Lincoln. 2005: Introduction. The discipline and practice of qualitative research. In *The Sage handbook of qualitative research*, ed. Norman K. Denzin and Yvonna S. Lincoln, 1–32. Thousand Oaks: SAGE Publications. (accessed 16 August, 2023)

European Commission: Skills, Education and Training
https://reform.support.ec.europa.eu/what-we-do/skills-education-and-training_en
(accessed 20 February 2023)

Findlay, R., & Grubert, H. (1959): Factor Intensities, Technological Progress, and the Terms of Trade. *Oxford Economic Papers*, 11(1), 111–121.
<http://www.jstor.org/stable/2661793> (accessed 28 January, 2023)

G20 Training Strategy <https://www.oecd.org/g20/summits/toronto/G20-Skills-Strategy.pdf> (accessed 7 May 2023)

Glewwe, P. (2002): Schools and Skills in Developing Countries: Education Policies and Socioeconomic Outcomes. *Journal of Economic Literature*, 40(2), 436–482.
<http://www.jstor.org/stable/2698384> (accessed 28 January, 2023)

Gonzalez, Gabriella C., Reema Singh, Rita Karam, and David S. Ortiz (2014): “How Education and Training Can Successfully Adapt to Changing Labor-Market Needs.” In *Energy-Sector Workforce Development in Southwestern Pennsylvania: Aligning Education and Training with Innovation and Needed Skills*, 27–32. RAND Corporation, 2014.
<http://www.jstor.org/stable/10.7249/j.ctt19w733k.10> (accessed 3 August, 2023)

Gregory, Robert (2006): Reforming Education and Skills Training Systems: Responding to the Demands for Increased Employability and Productivity of Labour in the Caribbean
https://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/---sro-port_of_spain/documents/meetingdocument/wcms_306208.pdf (accessed 3 August, 2023)

Habib, H. (1963). Human Capital Formation. *The Punjab University Economist*, 3(6), 17–33.
<http://www.jstor.org/stable/43774481> (accessed 29 June 2023)

Hoftijzer, Margo et al (2021): COVID-19 Highlights The Urgency Of TVET Reforms
<https://blogs.worldbank.org/education/covid-19-highlights-urgency-tvet-reforms>
(accessed 4 August 2023)

Holmes, Keith (2001): Whose Direction and Purpose for Education in the 21st Century Caribbean? Research Development Initiatives in Small States: A Case Study of Saint Lucia
file:///C:/Users/PS%20PC/Downloads/Whose_Direction_and_Purpose_for_Educatio.pdf
(accessed 3 August 2023)

Hu, S. C. (1976): Education and Economic Growth. *The Review of Economic Studies*, 43(3), 509–518. <https://doi.org/10.2307/2297229> (accessed 29 June, 2023)

Hyslop-Margison, Emery J. (): An Assessment of the Historical Arguments in Vocational Education Reform. <https://files.eric.ed.gov/fulltext/ED435825.pdf> (accessed 10 April, 2023)

ILO – Education and Labour Markets () https://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms_424077.pdf (accessed 8 July, 2023)

ILO Background Paper No. 4 (2017): A Skilled Workforce for Sustainable Growth: https://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/---sro-port_of_spain/documents/meetingdocument/wcms_543806.pdf (accessed 8 July, 2023)

ILO – SALISES Research Consultation (2017): The Future of work in the Caribbean: [/https://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/---sro-port_of_spain/documents/genericdocument/wcms_614940.pdf](https://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/---sro-port_of_spain/documents/genericdocument/wcms_614940.pdf) (accessed 8 July, 2023)

Inese Pelsa (2021): Development of Economic Theory – From Theories of Economic Growth and Economic Development to the Paradigm of Sustainable Development <https://hrcak.srce.hr/file/393858> (accessed 25 December 2022)

International Journal of Educational Development (2013): Education For Sustainable Development: Implications For Small Island Developing States (SIDS) https://www.researchgate.net/publication/259131717_Education_for_sustainable_development_Implications_for_small_island_developing_states_SIDS (accessed 3 August, 2023)

IZA Institute of Labor: <https://wol.iza.org/key-topics/what-is-labor-economics> (accessed 7 May 2023) <https://www.investopedia.com/terms/d/development-economics.asp> (accessed 7th May, 2023)

Jules, Tavis D., Mohandas, Hakim, Williams, Amani (2015): Education Reform Initiatives in the Caribbean Basin https://www.academia.edu/18164600/Education_Reform_Initiatives_in_the_Caribbean_Basin (accessed 3 August, 2023)

Khan, F. (2020): Economic Relevance and Sustainability of Technical and Vocational Education and Training Programmes: Case of Bangladesh. In S. S. Aneel, U. T. Haroon, & I. Niazi (Eds.), *Corridors of Knowledge for Peace and Development* (pp. 229–252). Sustainable Development Policy Institute. <http://www.jstor.org/stable/resrep24374.23> (accessed 29 June, 2023)

Levin, Victoria et al (2023): Unlocking The Promise Of Skills Development Through Technical And Vocational Education And Training <https://blogs.worldbank.org/education/unlocking-promise-skills-development-through-technical-and-vocational-education-and> (accessed 4th August 2023)

McCombes, S. (2019): Research Design: Types, Methods, and Examples. (accessed 15 October, 2022)

Mamuneas, T.P., Savvides, A. and Stengos, T. (2006): Economic Development and the Return to Human Capital: A Smooth Coefficient Semiparametric Approach. *Journal of*

Applied Econometrics, 21, 111-132. <http://dx.doi.org/10.1002/jae.813> (accessed 15 July 2023)

Moody's Analytics - www.economy.com/saint-lucia/indicators (accessed 26 December 2022)

Morris, Halden A. (2010): Will Technical and Vocational Education and Training (TVET) Guarantee Economic Development of Caribbean Islands? *Caribbean Educational Research Journal* Vol. 2, No. 1, September 2010, 104-112 Pg 104-112
<https://d1wqtxts1xzle7.cloudfront.net/39369433> (accessed 13 August, 2023)

Patel, Mimansha, Patel, Nitin (2019): Exploring Research Methodology: Review Article. *International Journal of Research & Review* 48 Vol.6; Issue: 3; March 2019:
http://www.ijrrjournal.com/IJRR_Vol.6_Issue.3_March2019/IJRR0011.pdf (accessed 17 September, 2023)

Paul M. Romer (2002):
<https://www.econlib.org/library/Enc1/EconomicGrowth.html#:~:text=Economic%20growth%20occurs%20whenever%20people,together%20according%20to%20a%20recipe> (accessed 25 December, 2022)

Pavlova, Margarita (2014): TVET As an Important Factor In A Country's Economic Development, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4262679/> (accessed 6 August, 2023)

Patrinos, H. A., & Psacharopoulos, G. (2020): Returns to Education in Developing Countries. In *The Economics of education* (pp. 53-64). Academic Press.
<https://www.sciencedirect.com/science/article/abs/pii/B9780128153918000045> (accessed 2 July, 2023)

Runde, D. F., Rice, C., & Yayboke, E. (2017): Education and Human Capital Development. In *Innovation-Led Economic Growth: Transforming Tomorrow's Developing Economies through Technology and Innovation* (pp. 1-7). Center for Strategic and International Studies (CSIS). <http://www.jstor.org/stable/resrep23182.6> (accessed 2nd July 2023)

Samuel E. N. Okoh (1980): Education as a Source of Economic Growth and Development-- An Essay. *The Journal of Negro Education*, 49(2), 203-206.
<https://doi.org/10.2307/2294969> (accessed 29 June, 2023)

Sibrata Das, Alex Mourmouras, Peter Rangazas (2018): Economic Growth and Development: A Dynamic Dual Economy Approach ISSN 2192-4341 (electronic)

Steven A. Greenlaw et al, (2022): 20.2 Labor Productivity and Economic Growth. In *Principles of Economics 3e*. OpenStax. ISBN-13: 978-1-951693-63-3

Stratton, Samuel J. (2021): Population Research: Convenience Sampling Strategies
Published online by Cambridge University Press:
<https://www.cambridge.org/core/journals/prehospital-and-disaster-medicine/article/population-research-convenience-sampling-strategies/B0D519269C76DB5BFFBFB84ED7031267> (accessed 14 October 2023)

Sudderth, Anna (): How Important is Education for Economic Growth:
<https://xqsuperschool.org/uncategorized/how-important-is-education-for-economic-growth/#:~:text=Decades%20of%20research%20confirm%20that,and%20higher%20gross%20domestic%20product.> (accessed 15 July, 2023)

Saunders, M., et al. (2009): Research Methods for Business Students. (5th ed.). London, UK: Pearson Education. (accessed 15 October, 2023)

Temple, Jonathan R.W. (2001): Generalizations that Aren't? Evidence on Education and Growth. *European Economic Review*, Volume 45, Issues 4–6, Pages 905-918, ISSN 0014-2921, [https://doi.org/10.1016/S0014-2921\(01\)00116-7](https://doi.org/10.1016/S0014-2921(01)00116-7) (accessed 15 July, 2023)

Trading Economics: <https://tradingeconomics.com/st-lucia/labor-force-with-advanced-education-percent-of-total-working-age-population-with-advanced-education-wb-data.html> (accessed 8 July 2023)

UNESCO Publication (2023): Education - Human and Institutional Capacities.
<https://www.unesco.org/en/sids/education> (accessed 3 August 2023)

UNESCO-UNIVOC: Private Sector Engagement for Quality TVET
<https://unevoc.unesco.org/home/Private+Sector+Engagement> (accessed 11 November, 2023)

UNESCO UNEVOC (2013): Revisiting Global Trends in TVET: Reflections on Theory and Practice. <https://www.tecnico profesional.mineduc.cl/wp-content/uploads/2016/08/Revisiting-Global-Trends-in-TVET.pdf> (accessed 6 August 2023)

Vadapalli Pavan, (2022): 5 Types of Research Design: Elements and Characteristics.
<https://www.upgrad.com/blog/5-types-of-research-design-elements-and-characteristics/>
Accessed 15 October, 2023

Valencia, Adriana, Acevedo, María Cecilia, Pavón, Fernando, Prado, Veronica R. (2019): Developing Skills for New Technologies in the Caribbean.
<https://blogs.iadb.org/caribbean-dev-trends/en/developing-skills-for-new-technologies-in-the-caribbean/> (accessed 24 July, 2023)

Waines, W. J. (1963): The Role of Education in the Development of Underdeveloped Countries. *The Canadian Journal of Economics and Political Science / Revue Canadienne d'Economie et de Science Politique*, 29(4), 437–445. <https://doi.org/10.2307/139333>

Wang, Y. and Liu, S. (2016): Education, Human Capital and Economic Growth: Empirical Research on 55 Countries and Regions (1960-2009). *Theoretical Economics Letters*, **6**, 347-355. doi: 10.4236/tel.2016.62039. (accessed 29 June, 2003)

Wan-Lae Cheng, Thomas Dohrmann, Mike Kerlin, Jonathan Law, Sree Ramaswamy
Creating an Effective Workforce System For The New Economy
<https://www.mckinsey.com/industries/public-and-social-sector/our-insights/creating-an-effective-workforce-system-for-the-new-economy> (accessed 7th May 2023)

Wolfstetter, E. (1973). Surplus Labour, Synchronised Labour Costs and Marx's Labour Theory of Value. *The Economic Journal*, **83**(331), 787–809.
<https://doi.org/10.2307/2230671> (accessed 28 January. 2023)

World Bank Report

<https://www.worldbank.org/en/country/oecs/overview#:~:text=Economic%20growth%20for%20the%20OECs,2.5%20percent%20during%202017%2D2019.> (accessed 25 December 2022)

World Bank, International Labour Organization, UNESCO (2023): Building Better Formal Tvet Systems Principles And Practice In Low- And Middle-Income Countries
<https://documents1.worldbank.org/curated/en/099071123130516870/pdf/P175566037a5e20650a657068b5152205bf.pdf> (accessed 5th August 2023)