

LOCAL CONTENT DEVELOPMENT AS  
A SUSTAINABLE NATIONAL ECONOMIC STRATEGY:  
LESSONS LEARNED FROM OMAN'S OIL & GAS INDUSTRY

By

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## **ABSTRACT**

### **LOCAL CONTENT DEVELOPMENT AS A SUSTAINABLE NATIONAL ECONOMIC STRATEGY: LESSONS LEARNED FROM OMAN’S OIL & GAS INDUSTRY**

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Given the pressures of global changes, productive approaches to use local resources present a pathway to sustain or improve living standards. One of these productive approaches is the Local Content Development (LCD) policy, which refers to government policy to promote local sustainable development. Local content development policy can enhance government processes, promote public-private partnerships, advance the business environment, and expand value creation. This dissertation addressed how Local Content Development is an opportunity for countries and organizations to adapt development to local conditions, assets, and talent.

This study aimed to evaluate the factors associated with the implementation of local content policy in Oman. The study used the oil and gas industry in Oman as an example of a typical Local Content Development policy that exemplified implementation factors, while the tourism industry is a case study of a target industry to replicate LCD policy. Research questions were answered using evidence collected from open-ended surveys with Omani stakeholders in government and business. Thematic analysis was used to compare concepts derived from literature with data derived from the survey.

The findings are based on the rich experiences of major companies and offer valuable input to inform policymaking for other sectors in the contexts of sustainable development. Findings show that the state role, leadership at all levels, stakeholder collaboration, governance and accountability, coherence with national policies, corporate communication, and local capabilities influenced implementation. The absence of these factors, however, hinders effective implementation.

This research showed that oil and gas LCD policy experiences provided useful insights on collaborative policymaking and policy implementation processes. Implementation factors are interconnected and applicable to a variety of settings. Replication may not be a complex task but more about leadership and human and organizational behavioral change. In the tourism context, LCD adoption and implementation provide sustainable solutions to enhance how the tourism industry benefits from economic growth. LCD enabling factors appear to exist in the tourism sector based on findings of this research and Omani regulations of Integrated Tourism Complexes the “ITC law”. The tourism industry needs leadership and champions to facilitate all other factors in a collaborative approach, as did oil and gas. More broadly, and taking into consideration implementation factors, companies can adopt and implement the Local Content Development framework to enhance their contribution to the local economy and towards the United Nations Sustainable Development Goals (SDG).

Overall, this research showed the value of adoption and implementation of Local Content Development as a policy tool to enhance the private sector role to improve social and economic conditions. Local Content Development is an adaptable policy tool and it supports sustainable development principles that seek to improve people’s lives, and that could be used for countries, provinces, cities, public, and private organizations, households, and individuals.

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# CHAPTER 1: INTRODUCTION

## 1.1 Background

### *Global issues*

Many regions represent paradoxes in terms of availability of economic resources and the way they are used to improve peoples' lives. Global changes that affect life include climate change, quality of life, inequality, and sustainability. Adding to this context is the role of policy to enhance living, working and economic conditions. To contribute to policy development this research addresses how global issues and sustainability combine through policy actions designed to serve each.

The Middle East and North Africa (MENA) are no exception. For instance, the economies of Saudi Arabia, Bahrain, United Arab Emirates, Kuwait, Qatar, and Oman have relied on oil and gas for growth for many years and now struggle to diversify their economies to be more sustainable. In contrast, Syria, Iraq, Libya, and Yemen suffer from civil wars and Jordan, Lebanon, Djibouti, and Tunisia experience economic challenges. The unpredicted disturbances such as the pandemic of coronavirus, which was first discovered in 2019 and causes a disease now known as COVID-19, further stress the economic and social conditions in the entire world. Given the pressures of change, productive approaches to use local resources present a pathway to sustain or improve living standards. One of these productive approaches is Local Content Development (LCD) policy, which refers to government policy to promote local sustainable development. Local Content Development policy can enhance government processes, promote public-private partnership, advance the business environment, and expand value creation. This dissertation addresses how Local Content Development is an opportunity for countries to adapt development to local conditions, assets, and talent.

## *Sustainability*

Sustainability as a notion in its essence refers to running the economy with adequate care for humans and the ecosystem. Sustainable development points to the governance processes of the economy that consider improving people's ways of life and protecting the environment. The cost of economic progress in many places has been pollution that harms people and the environment. Emas (2015) defines sustainable development as one that, "aims to achieve long-term stability of the economy and environment; this is only achievable through the integration and acknowledgement of economic, environmental, and social concerns throughout the decision-making process" (p. 2). The United Nations and World Bank sustainability guidelines emphasize the importance of diversifying the economy, developing other sources of income, and reducing youth and women's unemployment (United Nations, 2015; World Bank, 2020).

The United Nations' agreement signed by more than 150 countries urges all nations to promote "higher standards of living, full employment, and conditions of economic and social progress and development; and calls for international cooperation to address problems in economic, social, health, cultural and educational, and respect for human rights and fundamental freedoms for all without discrimination as to race, sex, language, or religion" (United Nations, 1945, p. 7). An example of international level cooperation in development includes the Millennium Development Goals (MDGs), which is a United Nation vision of development to fight poverty. MDGs guided national policies towards important development priorities such as eradicating poverty and hunger, universal primary education, gender equality, reduce child mortality, improve maternal health, combat diseases, environmental sustainability, and develop a global partnership for development.

MDGS remained the central development framework for the world between 2005 and 2015. Millennium Development Goals later transitioned to the Sustainable Development Goals (SDGs) for countries to pursue between 2016-2030 (United Nations, n.d.-a).

Local Content Development (LCD) policies are an important development strategy that can improve economic and social conditions of the country if designed and implemented carefully (Ado, 2016; AlHadhrami, 2016; Ovadia, 2016). Local content development refers to government strategies to increase use of local products, services, and workforce in various economic activities (Kolstad & Kinyondo, 2015; Tordo et al., 2013). Studies show that LCD helps in creating jobs, upgrading the skills of workforce and companies, transferring technology, and improving communities' well-being (Acheampong et al., 2016; Ovadia, 2016; Owusu & Vaaland, 2016; Tordo et al., 2013; White, 2017; World Bank, 2013). Local content development brings a holistic approach to development (Esteves & Barclay, 2011; International Finance Corporation [IFC], International Petroleum Industry Environmental Conservation Association [IPIECA], & United Nations Development Programme [UNDP], 2017). There is some evidence of the value of LCD in the Middle East and North Africa (MENA) region. Analysis of model petroleum contracts in Algeria, Egypt, Iran, Iraq (Kurdistan Region and Federal), Jordan, Lebanon, Libya, Syria, Qatar, Oman, Saudi Arabia and Yemen, suggest that despite similarities in motives, there is a lack of clarity on the legal framework on how LCD should be enforced, implemented, and reported, which may lead to legal issues between investors and host governments (Olawuyi, 2019b). Gulf countries—Oman, Qatar, Saudi Arabia and the United Arab Emirates (UAE) adopted and implemented the Local Content Development policy in the oil industry in different ways to achieve several development objectives including job creation, local sourcing of goods and services, and community development.

The used term in the Gulf countries is In-Country Value (ICV), and the strategy was first used in Oman in 2013 and then adopted by Saudi Aramco in Saudi Arabia in 2015 (Mooney, n.d.; Olawuyi, 2019b), and in 2017 by the Abu Dhabi National Oil Company (ADNOC) (Abu Dhabi National Oil Company, 2020), and in 2019 by Qatar Petroleum (Qatar Petroleum, 2019).

Implementation of LCD is often confused with similar concepts found in the business literature that aims to achieve similar development objectives, such as Corporate Social Responsibility (CSR) and Creating Shared Value (CSV) (Esteves et al., 2012; Frynas, 2005; Michael & Kramer, 2011; Ngoasong, 2014; Wójcik, 2016). This conceptual confusion and overlap results in variations of meaning and different usage of local content and CSR therefore difficulty in measuring and reporting successes (Shezawi & Rahman Khan, 2018). However, the common aim is to improve the economic and social conditions of society.

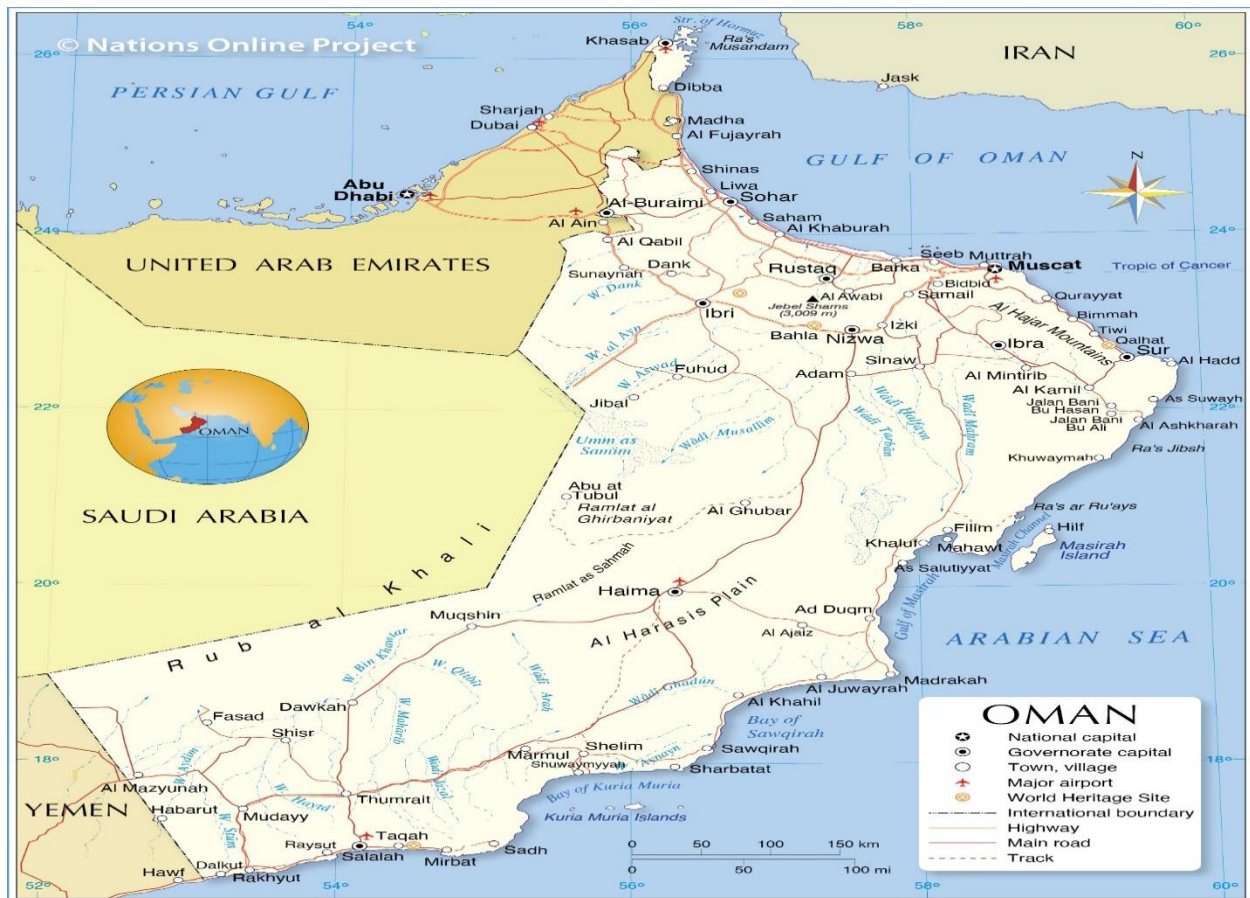
## 1.2 Problem Statement

This study of Local Content Development draws on the experience of Oman, that implemented an LCD policy in 2013 that serves as an example of local economic policy. Ohno (2013)—a Japanese economist—while studying high performing East Asian economies, highlighted the importance of policy learning and said, “To identify and modify the unique domestic conditions that hinder development of any latecomer country would require more serious analysis and harder policy learning than commonly practiced today” (p. 168).

## About Oman

The Sultanate of Oman is in the Middle East and shares borders with Saudi Arabia, the United Arab Emirates, and Yemen; it shares maritime borders with Iran and Pakistan as shown in Figure 1. The country is bounded by the Arabian Sea and the Gulf of Oman; at the Musandam Peninsula it borders the Strait of Hormuz and the Persian Gulf. With an area of 309,500 km<sup>2</sup>, the sultanate is smaller than Poland, or somewhat larger than the U.S. state of Arizona (The Nations Online Project, n.d.). Oman has a population of 4.7 million people in 2019, of whom Omanis number 2.6 million (56%) people with expatriates numbering 2 million (44%). The capital and largest city is Muscat (pop. over 1.5 million as of 2019) (National Centre For Statistics & Information, 2019). Arabic is the official language, and English is used in business.

Figure 1: Oman Map



Source: (The Nations Online Project, n.d.)

Before 1970, the major economic activities of Oman were trade, agriculture, and fisheries. The condition of human life was poor due to limited infrastructure, lack of health services, limited education opportunities, and a resource dependent economy (Al-Saqri, 2010; Critchfield, 2010). Residents of high-density population areas were able to access more services and experienced a better life than those in small cities and rural areas. After ascending to the Omani throne and the discovery, production, and exporting of oil, Sultan Qaboos bin Said led investment in education and social services and with a revived economy, Oman's quality of human life improved (Critchfield, 2010).

According to the World Bank report in 2008, only 13 countries including Oman have achieved considerable growth between 1967 and 2007. For instance, Oman's gross domestic product (GDP) grew at an annual rate of 10% during that time and the per capital GDP grew at 5% a year, reaching \$10,820 USD. Literacy rates jumped from 30% in 1967 to 81% in 2007 (Al-Saqri, 2010, p. 74). Oil earnings played a major role in the improvement of quality of life in Oman between 1970-2020. This growth has enabled the government to give benefits to the people in terms of public goods and social security and to modernize the economy.

Despite the economic growth, the Omani government realized that it is not sustainable to continue to depend on a non-renewable natural resource, made more uncertain due to volatile oil prices and growing capacity for renewable energy production. The challenge for national policy is that the economy and social welfare programs in Oman depend on oil returns. For example, electricity is 100% generated from fossil fuels; water comes from desalination plants powered by natural gas, and social welfare in terms of education and healthcare depend on oil revenues (The Central Intelligence Agency [CIA], 2009). Thus, if oil prices drop below cost of production, the Omani economy and social system will collapse.



### *Oman Long Term Planning*

The Omani government recognized the need for a diversification strategy in the first long-term economic development planning strategy in 1976 (Al-Saqri, 2010). To achieve a diversified economy, the Omani government's five-year plans focused on three major goals: income generating investments, reduce country's dependence on oil, and Increasing the involvement of private investors in the local economy (Al-Saqri, 2010). However, the key challenges facing the economy are ongoing and include accelerating the implementation of economic diversification programs, enhancing the business role in economic development, and the creation of jobs for citizens (Central Bank of Oman, 2018). The current state of these challenges suggests that progress has not fully met government expectations (Oman Supreme Council for Planning, 2016). In addition, these challenges have been the top priority of Oman's national economic development plan "Vision 2040", which is now under formulation (Oman Supreme Council for Planning, 2019).

To promote effective implementation of national policies, the Omani government launched the Tanfeedh Initiative—Tanfeedh is an Arabic word that means implementation. The Tanfeedh Initiative follows a participatory and comprehensive approach towards implementing national plans. This means all citizens have an opportunity to participate in various stages of planning and implementation. The initiative aims at connecting and synergizing the strategies of the sectors selected for growth by the Omani government, that include Manufacturing, Tourism, Transport & Logistics, Mining, and Fisheries, and to expedite the implementation of plans to transform sources of national income (Omanuna Portal, n.d.).

### *Local Content Development in Oman*

The government of Oman, acting through the Ministry of Oil and Gas (MOG), adopted and implemented the Local Content Development policy in the oil and gas (O&G) industry in 2013 in collaboration with key stakeholders (Secretary of the ICV Committee, 2013). The O&G industry uses the term In-Country Value (ICV) to mean Local Content Development and defines it as “the total spend retained in-country that can benefit business development, contribute to human capability and stimulate productivity in the Omani economy. In short, products made, and services provided by skilled Omanis” (O&G ICV Project Management Office, 2013b, p. 3). The aim of LCD is to contribute in local economic and social development in a collaborative approach, as mentioned in the industry LCD blueprint strategy 2013-2020 (Secretary of the ICV Committee, 2013). In addition, LCD blueprint strategy integrates the efforts of government and private sector companies in localizing the sector's increasing demands for goods, services, and jobs.

A further goal is to enlarge the industry's support of Oman's development effort towards economic diversification (O&G ICV Project Management Office, 2013b). LCD objectives include: 1) to increase in-country spending on local goods and services, and 2) to increase employment of Omanis (Omanisation), and 3) develop the skills of the national workforce. The evidence reported in the annual reports of several oil companies shows that LCD supported localization of industries and services. One of the prominent companies in 2019 reported localization of investment estimated at \$200 million USD with expected 1000 job opportunities and incubated that same year around six small and medium enterprises (SME) for capacity development (Ministry of Oil and Gas - Oman, 2019, p. 33).

The Local Content Development program implemented in the O&G industry has achieved several economic development goals including job creation, skills development, local sourcing, and supplier and community development (AlHadhrami, 2016; Oil Review Middle East, 2018; PDO, 2018a; Shezawi & Rahman Khan, 2018). At an LCD conference organized in 2019 in Oman, professionals from oil and tourism suggested that there is a growing national need to replicate LCD policies into new economic sectors to address unemployment and promote economic diversification (Alroya Newspaper, 2019). In addition, there is a lack of research on implementation aspects of Local Content Development policy, for instance, previous research on local content in Oman focused on policy specific outcomes such as jobs creation and entrepreneurship (AlHadhrami, 2016; Shezawi & Rahman Khan, 2018)

### 1.3 Research Goals

Oman identified tourism as one of the target sectors for development, which means attracting more investments to the country (Oman Supreme Council for Planning, 2019). The Omani government hopes to attract investment over 49 billion United States dollars (USD) and create over 500,000 jobs by 2040 through the Oman Tourism Strategy 2020-2040 developed by the Ministry of Tourism (Sultan Qaboos University, 2017; The Ministry of Tourism - Oman, 2015; The Public Authority for Investment Promotion & Export Development Oman [Ithraa], 2016). In addition, Oman plans to invest 10.39 billion USD in developing five new integrated tourism complexes (Simpson, 2018).

Integrated tourism complexes (ITC) are a form of Mixed-use Development (MXD) defined by Sicola (2017) as:

The grouping of multiple significant uses within a single site or building such as retail, office, residential or lodging facilities. Examples include office buildings that contain ground-level retail and housing, plus projects that have separate office, retail and multifamily properties. Clustering of at least three different uses such as office, retail, residential and/or hotel adjacent to or in close walkable proximity to one another. Uses can be contained in the same building or dispersed in different buildings that are adjacent to or close to one another (p. 28).

Nebel (2014) defined integrated tourism complexes (ITC) in the Omani context as:

New Developments that combine five elements: 1) hotels and leisure facilities for temporary resident with housing estates for permanent residents to meet the growing need for more residential units to accompany domestic trends; 2) architecture and landscape/nature/environment; 3) Omani local heritage with global modern style; and 4) tourism generating new job opportunities; and 5) Foreign direct investment (FDI) with local money (p. 57).

These promising investments in the tourism sector and other sectors are likely to create several economic development opportunities. Governments can guide these investments through the LCD policy framework to enhance the economic and social conditions of society. The Omani government has granted licenses for 17 integrated tourism complexes projects distributed in various regions in the Sultanate, in which investment amounts to over 10 billion USD (Sultan Qaboos University, 2017, p. 218).

A study conducted in 2016 by researchers from Sultan Qaboos University (SQU) on “The implications of Integrated Tourism Complexes (ITC) on Local Communities” suggests there is a lack of a clear mechanism to ensure such investments benefit society (Sultan Qaboos University, 2017). The study recommended the following changes in the community development plan of ITCs to include requirements for:

- A plan to increase participation of local community in the economic and tourism activity directly and indirectly
- Prepare a list of complementary business opportunities for the local communities and provide necessary support needed
- Portion of CSR to develop surrounding tourism attractions
- Focus of community services to develop tourism skills of local community
- 1-3% of annual profit to support general community infrastructure and donation to community organizations
- Support SME
- Priority for job and training to the local community (Sultan Qaboos University, 2017).

However, the LCD framework implemented in the O&G industry suggests an integrated and customizable solution to several developmental problems, which can be addressed by the market in tourism or any other economic sector. For instance, companies can apply the LCD framework to their existing business practices such as human resources development, supply chain, project management, and corporate social responsibility (Tordo et al., 2013; Williams, R., Hayes, 2013). There is a lack of research on Oman’s experiences in implementing In-Country Value policy and how such learning can benefit and inform economic development policymaking.

An evaluation of Local Content Development is essential for continued policy improvement, to enhance policy perceptions in the local economy, and, therefore, enhance the potential for replication. To address this gap, this study focused on two research goals, which are:

***Research Goal One:***

To evaluate the factors associated with implementation of Local Content Development policy in the Oil and Gas industry in Oman.

***Research Questions (RQ):***

RQ1: What are the internal and external institutional factors that affect the implementation of Local Content Development policy?

RQ2: What factors must be considered when replicating Local Content Development policy in non-oil sectors?

***Research Goal Two:***

To explore the possibility of replicating Local Content Development policy in Oman's tourism sector.

***Research Questions (RQ):***

RQ 3: What are sustainability practices in integrated tourism complexes in Oman?

RQ 4: What are perceptions of tourism stakeholders in Oman regarding oil and gas LCD policy?

RQ 5: What factors related to local content influence the tourism sector, specifically, in integrated tourism complexes (ITCs).

### *Data Collection and Analysis*

Research questions were answered using evidence collected from surveys with Omani stakeholders in government and business, with a focus on the oil and gas and tourism sectors. The literature on Local Content Development supported the development of the survey questions that were asked during 2020, taking appropriate precautions due to Covid-19 that shifted data collection to online rather than an in-person format.

### 1.4 Outline of The Dissertation

This dissertation contains six chapters. In Chapter One, I gave an overview of global sustainability issues, the demand for collaborations between government and private sector, and the need for sustainable development policies to improve people's lives. These needs may be served through Local Content Development as a practical policy solution for multi-dimensional development problems. My research responds to Oman's need for sustainable development, so I provide background information about the country and the way it plans and manages its economy and highlight research problems and main goals. In Chapter Two, I introduce a relevant body of knowledge and definitions of key concepts, terms, and relevant research on topics and aspects related to Local Content Development such as the theory of development, market free trade, national policy, and protectionism. In addition, this chapter highlights several development dimensions, including the concept of local content and the role of policymaking. Having established the theoretical framework that informs my research, the next section of the dissertation considers methodology and findings.

Chapter Three describes the research design, strategy, and methods used for data collection and analysis for the two parts of the research. Data collection shows the steps followed and tools utilized to identify and select population and samples, and the process and tools used to analyze data. In Chapter Four, I present the findings to the five research questions about policy implementation factors and how likely they are to be replicated in other settings.

The concluding chapters examine the significance and implications of the research. In Chapter Five, I discuss the findings and explain emerging policy principles and offer recommendations for policy makers, professionals, and researchers. Chapter Six concludes the study by summarizing the key findings and highlighting the research achievements, limitations and implications.



## CHAPTER 2: REVIEW OF LITERATURE

### 2.1 Introduction

Development aims to enhance the quality of people's lives by advancing various aspects of development, including economic, social, political, human, and cultural. Yet, the preoccupation with the economic side of development resulted in the neglect of environmental and humanitarian aspects. The negative effects of economic expansion include the depletion of natural resources, which makes up one of the most important elements of production. In addition, negative effects of economic development include the widening gap between the rich and the poor (Adams, 2009). Statistics reported by the United Nations showed that living standards have improved over the past three decades in China and India (United Nations Department of Economic and Social Affairs, 2019), but a large part of the world population lives in poverty, i.e., 3.3 billion people (Howton & Felsenthal, 2020). The planet's ecological footprint has been deteriorating because of over-consumption of natural resources (Science X, 2012).

In 1972, the UN conference on Human Environment in Stockholm carried forward environmental aspects into the global dialogue of development and sustainability. The meeting concluded that environmental requirements should not hinder economic development, instead, economic and environmental aspects should feature in development planning (Adams, 2009). Subsequent global conferences emphasized sustainable development for a better world through the Millennium Development Goals (MDGS), which remained the key development plan for the world between 2005 and 2015 and the Sustainable Development Goals (SDGs) for countries to engage in between 2016-2030. This trend influenced national policies for development.

Many governments have used Local Content Development to achieve sustainability goals. Yet, countries' experiences show different approaches for policy implementation (Tordo & Anouti, 2013). But these differences created opportunities for policy learning that could enhance countries' contributions to advance sustainable development. This chapter elaborates on the meaning of development and its relevant dimensions and the role of national economic policies to improve people's lives.

## 2.2 Development as a Concept

Development in the Oxford dictionary of social sciences refers to “economic and social change that brings qualitative improvement in the conditions of life” (Calhoun.C, 2002, p. 23). Development has gained considerable attention by scholars from different fields of study. Development is defined and applied in different ways to mean specific things. According to Pattanaik (2016) development aims:

To enhance the quality of people's lives by advancing various areas of development, including economic, social, political, human, and cultural. A country may realize the desirable changes in people's lives through the development of various sectors such as agriculture, manufacturing, and services, and through the efforts of many actors such as the State, market, international organizations, and non-profit organizations (p. 243).

Development further illustrated by Pattanaik (2016) in 7 dimensions as follows:

- Economic dimension i.e., income growth, distribution, and employment
- Human dimension i.e., knowledge and skills of the individual

- Social dimension i.e., well-being of individuals, families, communities,
- Cultural dimension i.e., heritage, traditions, and tourism
- Political dimension i.e., democracy, governance, inclusiveness, and participatory
- Gender dimension i.e., equal participation of men and women in development
- Ethical dimension i.e., humanistic, and compassionate approach to development

Countries use development to refer to long term planning, projects and policies initiated by a state to advance the social and economic conditions of its citizens. An example of national development plans include industrial policies as a part of “government intervention that shape the sectoral structure and the organization of industry” (Pong, 2009, p. 307). In the business context, development may refer to attracting new clients, developing new products, and expanding into new markets to grow business revenues and satisfy shareholders. Development is often presented as a positive change however, not all developments make positive changes. For instance, development may cause undesirable changes such as poverty and income inequality, injustice, and overexploitation of natural resources. Thus, many countries have raised concerns that for-profit-only types of development can damage the environment and produce inequality (Adams, 2009; Pattanaik, 2016).

### *Differences between Growth and Development*

Economic growth means an increase in wealth or resources and is measured through Gross Domestic Product (GDP), which is a monetary measure that shows the market value of all the final goods and services produced in a specific time. However, an increase in wealth or GDP does not necessarily mean improvements in human life (Adams, 2009; Chang, 2002; Pattanaik, 2016). Development on the other hand, is a process that aims to bring desired change or improvement in human life (Adams, 2009; Pattanaik, 2016). Development can be understood when we compare the state of something between two elements. For instance, development of countries means achievements made in major aspects of human life such as the economy (e.g., income, jobs), politics (e.g., equal participation), education (e.g., literacy level) and health (e.g., mortality rate) (Pattanaik, 2016).

These aspects can be tested to demonstrate and compare achievements between countries. Based on these comparisons the world has been subdivided into developed (or wealthy countries) and undeveloped countries (or poor countries). In developed countries the economy is industrialized, uses advance technology, generating jobs with a living wage, free access to health care and education, and citizens have political rights. In contrast, poor countries are quite the contrary (Ohno, 2013; Pattanaik, 2016).

## 2.3 The Evolution of Strategic National Policies for Development

Economic history sheds light on the transformation of national strategies for development (Zezeza, 2005). As Local Content Development is a form of national policy designed around controlling the location of production it is useful to first consider the nature of these strategies. Over many centuries, the major national economic system influenced national plans for growth and development include Feudalism, Mercantilism, Protectionism, and international trade. Each of these economic systems is further explained.

### 2.3.1 Feudalism

The feudal system prevailed in the 15<sup>th</sup> Century and is used to describe systems of elite-peasant socioeconomic and political arrangements in Europe, China, India, Japan, and Latin America (W. A. Darity, Jr., 2008). The elements of system included the following:

- The monarch, having in their possession the land and all the resources at their disposal. The monarch is like the state in our modern world, and leases land to trusted residents through a contract of loyalty.
- The titled aristocracy is like the government in today's world, is one of the people the monarch trusts, who then exploits and develops land to deliver benefits to the king in addition to providing security and military services.
- Knights are like enterprise developers, the aristocracy give them the lands to use in exchange for military protection for the monarch, the aristocracy, and their families.
- Peasants are the working poor. They have more rights than slavery, but their rights are restricted by the feudal system.

According to Darity Jr. (2008), the feudal system became the prominent framework that guides the social, economic, and political strategy in Europe and many other countries because the system succeeded in providing security and stability to elites. While the system established order and protection in society, injustice to the lower classes was clear with limited economic opportunities and political rights.

### 2.3.2 Mercantilism

Mercantilism is an economic theory practiced in Europe in the 16th to the 18th centuries. This system believes a limited supply of gold and silver in the world and is associated with the colonial period (Hashimzade et al., 2017b). Nations battle and race to get most of gold and silver to be successful and powerful. The system promotes state control and intervention in economic affairs and advocates protection of local industry by restricting international trade. Moreover, mercantilism exploited natural resources of other nations that were less developed such as America, Latin America, Africa, and Asia, and imposed unfair trade restrictions that helped economic and military powers, such as the British Navigation Act 1651, which controlled trade between Britain and its colonies (Chang, 2002). Mercantilism made colonial nations wealthy such as Britain, Spain, Portugal and left other nations disadvantaged as sources of raw materials and markets for finished goods, such as America, Latin America, Eastern Europe, Africa, Asia (Chang, 2002).

### 2.3.3 Protectionism

Friedrich List (1789–1846), an American economist born in Germany and Alexander Hamilton (1757–1804), the first U.S. secretary of the treasury and an advocate of central authority are fathers of the protectionism economic system (Chang, 2002. p. 61). Protectionism is a state “policy involving the restriction of international trade” for a variety of reasons that usually takes the form of protecting domestic production through tariffs, quotas and regulatory standards, which provide a significant advantage to a country’s businesses (Hashimzade et al., 2017c).

As stated by J. Duesterberg (2019), examples of increasing use of protectionist measures include U.S. trade strategy during the Trump administration that caused a \$35 billion USD Chinese export loss in the U.S. market. Britain’s exit from the European Union market is likely to incur a loss of 4% of output over 15 years as estimated by the UK government’s Office for Budget Responsibility (OBR) (Chalmers & Baczynska, 2020).

The arguments used by many countries for protectionism include retaliation, protection of consumers, protection of domestic industries and employment, and protection of national defense (Ferrara, 2013). For instance, countries use protectionism for retaliation—A trade war through raising tariffs i.e., “to punish foreign competitors and their governments for not following what the local government considers to be proper practice” (Ferrara, 2013, p. 166). On protecting domestic employment, the U.S. auto industry faced competition from Japanese companies in the 1980s, which led to the closure of American factories and the layoff of thousands of workers resulting in quotas to protect the auto industry (NBCUniversal Inc, 1982). In addition, companies that bring goods from abroad for sale are enjoying cost advantage as they produce in other countries where low wages and lack of work safety regulations (Ferrara, 2013).

Protecting consumers is through restrictions on goods that the country believe is harmful to the public. A country may restrict trade for national security, which includes steel industry, agriculture, energy technologies, and computer technologies (Ferrara, 2013). Many governments use protections for infant industries. The infant industry argument believes that foreign competition threatens domestic industries including defense, commercial industries, local markets, and labor.

If a nation leaves domestic industries without government intervention, these industries will fail and go bankrupt, and so the economy will be weak as it relies on other nations for its basic needs (Weir, 2013, p. 620). So, a nation has to control and regulate the economy by insulating domestic industries from competition (Chang, 2002; Manoilescu, 1931). Protectionism employed by the mercantilists played a role to developing domestic industries (Chang, 2002; Manoilescu, 1931). According to Manoilescu (1931), the priority for a nation's economy is to manufacture and distribute useful goods in home country. The nation's economy should not rely on external goods to satisfy its people's needs and should plan to manufacture goods itself. Thus, the economic factors available to the nation should strengthen domestic production as a priority (Manoilescu, 1931).

These protectionist arguments result in different protectionist policies—trade barriers or restrictions. Protectionist policies include tariffs and non-tariff. Tariffs can take several forms, the most common being an ad valorem tariff or tax i.e., applied as a percentage of the value of the product, and specific tax i.e., applied to physical quantity of the good being imported (Ferrara, 2013; The World Bank, n.d.-a).



Stated by Ferrara (2013), most practiced non-tariff barriers (NTBs) include:

- **Licenses:** given to businesses to import types of goods (Ferrara, 2013).
- **Import quotas:** is a limit on the volume of a particular import (Ferrara, 2013).
- **Voluntary export restraints (VERs):** is an agreement between an exporting and an importing country to limit the volume of exports (Ferrara, 2013).
- **Local content:** is a percentage of the domestic goods, either a part of the good itself or a part of the total value of the good. For instance, 20% of the components of an imported car; or domestic components represent 20% of the value of the imported car (Ferrara, 2013; Heum, 2008).
- **Export quotas:** is a limit on the volume of a raw material imposed on exports. The example, as cited by Ferrara (2013, p. 171), suggests that china imposed export quotas on rare earth materials used in communication, medical, and defense equipment.
- **Subsidies:** payments by governments to producers or consumers. Subsidies are designed to encourage an increase in output or to reduce costs and so reduce the market price of a good or service (Ferrara, 2013). In addition, bailouts—as defined by law (2016) is a “financial aid given to an economy or a company that is approaching collapse”. Many countries used subsidies after the global financial crisis, which aimed to help domestic firms and industries (Deardorff, 2012). Government subsidies created a challenge for free trade proponents such as the World Trade Organization (WTO) and International Monetary Fund (IMF) in the context of interfering with countries sovereign rights. Sovereign rights denotes the state may act in its affairs without hindrance or interference (Deardorff, 2012; Justin Beach, 2018).

- **Countervailing duties:** these are tariffs levied by the government in retaliation for subsidies or as antidumping measures against the importing country that subsidizes its exports in a way that affects market value of goods (Ferrara, 2013).
- **Public procurement of goods and services:** governments restrict access to public procurement market from competitors or impose quotas favoring domestic products and services (Ferrara, 2013).
- **Standards, testing, and certification:** this may take the form of government administrative guidelines and technical requirements, which create procedural burden to foreign companies. These requirements are for environmental protection, consumer safety, product labeling, packaging measurements, technical compatibility, and testing requirements (Ferrara, 2013). A relevant illustration is when countries ask for double testing of merchandise to assure conformance to standards (Deardorff, 2012).

These non-tariff barriers are examples of government policies that shield local firms and industries from competition. The World Trade Organization (WTO) and General Agreement on Tariffs and Trade (GATT) are against these policies because it restricts free trade (Deardorff, 2012).

#### 2.3.4 International Trade

International trade entered the economic literature through the work of Adam Smith (1723–1790), Ricardo (1772-1823), and John Stuart Mill (1806–1873) (Chang, 2002). The theory proposes that a nation benefits from international trade when it cannot produce imported goods because of comparative costs of production. In addition, free trade help nations when using low-cost import goods that go into domestic production (Manoilescu, 1931). To illustrate, that is when a country imports goods at a comparative cost and later sells at higher price.

Free trade benefits include: “increasing the number of goods available to consumers, cost of goods through competition, allowing nations to benefit from comparative advantage, and providing domestic industries with expanded markets for their goods” (Ferrara, 2013, p. 166).

According to Weir (2013, p. 619) “neither protectionism nor free trade tends to be a pure model in practice”. The debates on protectionism versus free trade are ongoing, with competing views on both sides. Governments represent the proponents of protectionism because of economic reasons i.e., job creation, protect-and-develop domestic industries and because of political reasons i.e., consolidate political influence. In addition, industrialized countries, and trade organizations such as the World Trade Organization (WTO) and the International Monetary Fund (IMF) are against protectionism because it distorts international trade. The United States and Britain and many developed countries established their domestic industries using protectionist measures and continue to use policies that privilege some products. In some cases, national policies changed to free trade once domestic industry was established (Chang, 2002. p. 24).

The purpose of summarizing the major national economic approaches (feudalism, mercantilism, protections, and free trade), is to establish the use of national economic policies that focus on protectionism and free trade. Protectionism and free trade span a spectrum with protectionism at one end characterized by state control and regulation for growth and success, while the other end of the spectrum suggests the state must not interfere in the economy and must advocate free trade for growth. The middle of the spectrum is a moderate view in which the state plays a major role to determining the level of intervention in the economy. There are other important dimensions to support whether protectionism and free trade are good policy for the economy. The next section considers the development dimensions and how they might shape state policies.

## 2.4 Development Dimensions

In the 1970s, environmentalists in industrialized countries raised concerns around economic development's impact on the environment. They called for a discussion of environmental issues among other topics, including the negative effects of economic development and a shift in attention to focus on sustainability.

### 2.4.1 Sustainable Development

Sustainable development (SD) as defined in the Brundtland Report 1992: “is development that meets the needs of the present without compromising the ability of future generations” (United Nations, 1992, p. 41). Sustainable development is a broad concept and deals with three key aspects of development: economics, environmental, and social. In the early 1970s, environmentalists in industrialized countries realized the negative impact of economic development. As a result, a series of international forums discussed the environmental aspects of development (Adams, 2009), such as the UN Conference on Human Environment in Stockholm 1972, World Conservation Strategy (WCS) 1980, Brundtland “our common Future” 1987, Caring for the Earth 1991, Rio Conference 1992, and Earth Summit Johannesburg 2002.

The UN conference on Human Environment in Stockholm in 1972 was the first to carry forward environmental aspects into the global dialogue of development. The conference promoted a new perspective on economic development. The differences in the development priorities of industrialized and non-industrialized countries were the paradox in this meeting. For example, industrialized countries' concern concentrated on the environmental aspects, while non-industrial countries were concerned about eradicating poverty.

The non-industrial countries showed skepticism as the conference may propose restrictions that affect their economic growth, which contributes to eradicating poverty but not in a sustainable approach. The meeting concluded that environmental requirements should not hinder economic development, instead economic and environmental aspects should feature in development planning (Adams, 2009). After this meeting, environment, and poverty were established in international debate on sustainable development in third world countries. The later global sustainability meetings focused on discussing ideas to make development more environmentally and socially friendly. The ideas were about eco-development, which advocates making environmental restrictions on development so that government and industry need to adjust their strategies and policies to meet environmental requirements.

As noted at the start of this chapter, an example of global collaboration in development includes the Millennium Development Goals (MDGS), which remained the key development plan for the world between 2005 and 2015. Thereafter Millennium Development progressed to the Sustainable Development Goals (SDGs) for countries to engage in between 2016-2030 (United Nations, n.d.-a). The SDGs include 17 sustainable development goals with 169 identified targets as shown in figure 2. The 17 goals show the most vital issues affecting the world. (United Nations,n.d.-d).

Figure 2: United Nations 17 Sustainable Development Goals (SDGs)



Source: (United Nations, n.d.-b)

### 2.4.2 Economic Development

Economic development improves the health of the economy and plays a central role in the lives of billions of people in the world. Economic development influences dimensions such as the human, social, political, and cultural (Pattanaik, 2016). Economic development transforms a variety of resources such as financial, human, and natural resources to meet the needs of societies. Economic activities can be divided into 4 key sectors:

- Primary sector (e.g., resources extraction and production, farming, and fishing)
- Secondary sector (e.g., manufacturing, utilities, construction)
- Services sector (e.g., trade, retail, financial services, leisure and hospitality, communication, IT, transportation),
- Knowledge sector (e.g., education, training, the development of technology, and research and development).

Progress in economic development judged by a rise in percentage of GDP; i.e., market value of the finished goods and services produced in a specific time, and /or increase in income created in the economy measured by Gross National Income (GNI). Economic development also measured by a reduction in poverty, unemployment, and inequality in income distribution. Economic development demands regular consumption of resources, which may lead to depletion. In fact, rapid economic growth and an increase in population generates pressure on the ecosystem, which poses threats to the quality of life for the current and future generation. For example, various forms of economic activities result in air and water pollution, which causes health issues. Economic growth depletes resources that cause biodiversity problems and deforestation that damages the surroundings (Pettinger, 2017).

Economic development creates wealth, but this is not evenly distributed across countries or society, so that today there are one billion people living in extreme poverty. Those people need access to emergency healthcare, education, clothing, electricity, gas for cooking, and safe water, and suggest that unrestrained consumption creates problems for humanity and the environment (Adams, 2009; Sachs, 2005).

### 2.4.3 Human Development

The human being is the greatest asset in a nation. Human well-being means happiness or healthy state in its broader sense. Human well-being is the goal of development and is the capital that a nation relies on for development. If human well-being is not improved through better income, education, health, access to political rights and freedom, then development is unsustainable. Arvin (2006, p. 510) defines human development as “the gradual process of evolution and differentiation that occurs in the well-being of individuals over their life spans”. Expanding choices is one of the key goals for human development. The more choices a nation creates for its citizens in terms of income, health, education, and political rights contributes to the well-being of the individual.

Human development progress is commonly measured through the Human Development Index (HDI), which started in 1990 by a Pakistani economist Mahbub ul Haq and an Indian social economist Amartya Sen (Rosa, J. C., & Asher, 2012). Human Development Index (HDI) is a summary measure that assesses long-term human progress in three areas: a long and healthy life measured by life expectancy, access to knowledge and learning by mean years of schooling, and a decent standard of living measured by Gross National Income (GNI) per capita (United Nations Development Programme, 2020).



According to (Ohno, 2013, p. 168), Japan's economic success resulted from availability of a considerable number of educated people. Japanese human capital was a powerful source for the Japanese government and in the economic development that adopted and implemented a variety of policy measures from start to completion.

#### 2.4.4 Social Development

The word social is defined as “concerning or belonging to the way of life and welfare of people in a community” (K Dictionaries, 2013b). People in the community include vulnerable groups such as the aged, youth, the disabled, minorities, and indigenous peoples. The Research Institute for Social Development (UNRISD) defined social as “public interventions that aim to guarantee adequate and secure livelihoods, income and well-being, and that enable all individuals to strive for their own life goals” (para. 1). Unlike human development, which focuses on the individual, social development means development that is sensitive to the inclusive society's needs at large i.e., no one left behind, and in aspects of living—income, health, education, housing, peace, and freedoms. An example of social development dimensions includes topics such as food security, social protection, health insurance, community development.

When social development fails, social unrest prevails, and that is a concern for many governments in the world. A transparent example of this happened during the Arab spring in 2011, when people in Tunisia, Egypt, Libya, Syria demanded the basics of human dignity and their governments failed to satisfy those needs. The UN puts emphasis on helping governments devise and integrate social policies under the UN 17 sustainable development goals (UNRISD, n.d.-a).

Sachs (2005) mentioned in his book, *The End of Poverty*, examples of development programs, which first started at the village and extended to reach many areas in the world. These examples show how development influences different aspects of social life. For example, the Rockefeller Foundation supported Mexico's development of high yield varieties of wheat. As a result, Mexico became an exporter of grain. Second example is the eradication of smallpox, an epidemic disease that killed millions of people. The World Health Organization scaled-up smallpox vaccinations, which helped to end the disease that killed millions of people.

Third, the village phone program in Bangladesh implemented through micro-financing in which a villager borrow money and provides phone access. This program has created phone access to thousands of people and a livelihood for many. Sachs (2005) suggested that the key ingredients of development programs are technology, leadership, and finance.

#### 2.4.5 Tourism Development and Sustainability

Tourism as defined by Sharpley & Telfer (2014), is:

“A social phenomenon determined by the activities and attitude of its participants and possessing the following characteristics: leisure activity and away from routine work, tourism consumption highly influenced by tourist's cultural background, dependent upon physical (natural or man-made), social, and cultural attributes of a destination” (p. 18).

The tourism industry developed substantially over the last three decades and become a global phenomenon that represents an important source of income for many countries such as France, the UK, and other developing countries in Africa and South Asia (Sharpley & Telfer 2014).

In addition, tourism is one of the largest and fastest growing industries globally driven by “growing global economy, growing middle class, rapid urbanization, affordable travel, technological advances, and new business models” (World Tourism Organization, 2020, p. 6). According to the World Tourism Organization (2020, p. 4), tourism generated 1.7 trillion USD in 2019. This revenue helps many countries create jobs and support local economies thus tourism acts as a catalyst for development.

The tourism industry is fragmented and interlinked to some extent through a broad value chain comprising the following sectors: Legislative institutions (e.g., government agencies), accommodation providers (e.g., hotels and camping), travel services (e.g., bookings and tours), food and beverage services (e.g., restaurants and cafes), transportation services (e.g., air, land, and sea), cultural and recreational services (e.g., historic buildings, parks, and museums); educational institutions (e.g., universities, vocational centers); and multi-use projects (e.g., landmarks, marinas, and shopping malls). Because of the enormous size of the industry, achieving sustainability is so critical to ensure a sustainable flow of economic, environmental, and social benefits.

#### *Sustainability of the Tourism Industry*

Tourism industries realize economic growth by integrating and transforming natural, physical, cultural, and financial capital. The magnitude and the dependency of the tourism industry on natural capital is essential. For instance, a significant part of the industry cannot operate without the support of ecosystem services. Thus, it is imperative that development recognize and incorporate sustainability aspects.

The United Nations general assembly declared 2017 as an international year for sustainable tourism, which the World Tourism Organization defines as “Tourism that takes full account of its current and future economic, social, and environmental impacts, addressing the needs of visitors, the industry, the environment, and host communities” (World Tourism Organization, n.d.). Rosenow and Pulsipher (as cited by Hardy et al., 2002) view sustainable tourism as a way to “preserve towns, not exceed carrying capacities, enhance environmental and heritage values and educate tourists” (p. 481).

For mindful tourists, sustainable tourism means visiting a place intending to cause little damage to the environment (e.g., reducing energy and water use), contributing to the local economy (e.g., buying local products and using rural-based tour companies), and respecting local people and their heritage. For tourism service providers (e.g., hotels, airlines, tour companies, museums, parks and entertainment venues), sustainable tourism means adopting practices that conserve energy use, protect the environment, distribute tourism wealth locally, employ local people, and ensure equality in service provision and access to tourism sites. For governments, sustainable tourism means creating policies and regulations to ensure sustainability of the tourism industry through collaboration and engagement with tourism providers and communities.

Hall (2011) criticized sustainable tourism because it presents inconsistency. On one hand, sustainable tourism has spread among industry, government, academia, and policy actors. It is a problem because of the continued environmental effects of tourism. Tourism development that over-consumes ecosystem services will run into difficulties in the long run. The following cases are highlights of unsustainable tourism in Cambodia and Costa Rica as described by (Becker, 2013b, 2013a). Cambodia used tourism as a development and recovery strategy from the Vietnam War that devastated the country in the 1970s.

The United Nations World Tourism Organization (UNWTO) helped in setting up tourism management and strategy for the country. But a new president took charge of the country in 1997 following a coup, resulting in poor management of the tourism resources such as the ancient city of Angkor (Becker, 2013b). The underlying causes of poor management of the tourism resources in Cambodia are (Becker, 2013b):

- Corrupt government. For instance, they decide at the very top with little community input and grabbing land and selling property to the elite and bribing the court.
- Tourism regulations not enforced.
- Overdevelopment of hotels near temples such as in the modern town of Siem Reap.
- Poverty and unemployment are worse around tourist areas, Angkor.
- Poor waste management to accommodate number of tourists.
- Live music, karaoke, massage parlors and bars and drugs everywhere.
- Tourist crowd - no limits to the number of people allowed in the tourist site in Angkor.
- Tourist guide cannot deliver complete tour because of tourist overcrowding.
- Visitors climb over the ruins of Angkor causing deterioration of stonework.
- Hotels import 70% of their needs from outside Cambodia. Little training for the locals and foreigner gets the high wage paying jobs.
- Commercialization of historical sites such as genocide sites and mass attacks and creating superficial education to foreign visitors.

Another example, Costa Rica is a country with no army since 1948 and a tradition of conservation of trees and animals. Costa Rica has been a center of academic tropical research because of its biodiversity.

Leadership contributed to the economy and the people of Costa Rica. For example, naturalists and scientists are tour guides and national parks preserved the environment, however, the rate of deforestation was high because of the new presidents in the 1970s and 1980s.

Besides that, the word “Green” is interpreted differently by the tourism industry, so that a forest could be destroyed to build a hotel yet receive a green certificate (Becker, 2013a). The underlying causes for unsustainable tourism are (Becker, 2013a):

- Environmental degradation and economic leakage caused by international mining and logging companies. For instance, in southwest of Costa Rica, international mining companies bought lands and have polluted the water streams and killed wild animals. International logging companies were to clear land until Costa Rica named it a national park in 1975.
- Increase of green washing in tourism; i.e, a tourism “establishment tries to appear environmentally friendly while hiding damaging activities” (Collins, 2014a). The green washing benefited green certificate providers and not the environment.
- The business of cattle contributed to the problem by clearing lands to export beef to the United States because of growth. The cattle business resulted in communities working in ecotourism losing their jobs.

These two cases show how tourism development could become unsustainable. The state role has been key to promote responsible tourism and cause damage, as we have seen in Costa Rica and Cambodia’s cases. But, when the political environment is corrupt, it becomes challenging to support sound development.

To make sure development is sustainable it is essential to incorporate assessment. The United Nations World Tourism Organization (UNWTO) published a guidebook for indicators of sustainable development for tourism destinations. This guidebook presents over 700 indicators across 13 issues (Obst, 2016). Other international organization that uses sustainability measures in tourism include the European Tourism Indicators System (ETIS) (European Commission, 2016). The following sections illustrate sustainability indicators linked to tourism industry, the tourists, and the community.

### *Economic and Environmental Sustainability Indicators for Tourism Industry*

The tourism industry achieves well-being when it can generate revenues, satisfy tourists, promote effective use of energy in tourism facilities, maintain the quality of air, water, soil, wildlife, and other cultural and environmental resources, and build and sustain human and physical capital. Relevant economic indicators to measure well-being of tourism industry have been developed by the European Commission (2016) and are presented in table 1. Indicators for economic value focus on tourism flow (volume and value), tourism enterprise performance, quantity and quality of employment, and local sourcing of goods and services by tourism enterprises.

Table 1: Sustainability Indicators of The Tourism Industry – Economic Value

Section B: Economic value	
Criteria	ETIS core indicators
B.1 Tourism flow (volume and value) at destination	Number of tourist nights per month
	Daily spending per same-day visitors
B.2 Tourism enterprise(s) performance	Average length of stay of tourists (nights)
B.3 Quantity and quality of employment	Direct tourism employment as percentage of total employment in the destination
B.4 Tourism supply chain	Percentage of locally produced food, drinks, goods and services sourced by the destination's tourism enterprises

Source: (European Commission, 2016)

Environmental indicators to measure environmental impact of the tourism industry as shown in table 2, which emphasizes reducing transport impact, climate change, solid waste management, sewage treatment, water management, energy use, landscape, and biodiversity protection:

Table 2: Sustainability Indicators of The Tourism Industry – Environmental Impact

Section D: Environmental impact	
Criteria	ETIS core indicators
D.1 Reducing transport impact	Percentage of tourists and same-day visitors using different modes of transport to arrive at the destination
	Average travel (km) by tourists and same-day visitors from home to the destination
D.2 Climate change	Percentage of tourism enterprises involved in climate change mitigation schemes – such as CO <sub>2</sub> offset, low energy systems, etc. – and 'adaptation' responses and actions
D.3 Solid waste management	Waste production per tourist night compared to general population waste production per person (kg)
	Percentage of total waste recycled per tourist compared to total waste recycled per resident per year
D.4 Sewage treatment	Percentage of sewage from the destination treated to at least secondary level prior to discharge
D.5 Water management	Water consumption per tourist night compared to general population water consumption per resident night
D.6 Energy usage	Energy consumption per tourist night compared to general population energy consumption per resident night
D.7 Landscape and biodiversity protection	Percentage of local enterprises in the tourism sector actively supporting protection, conservation and management of local biodiversity and landscapes

Source: (European Commission, 2016)

The economic and environment indicators focus on the core operations of tourism but do not examine various sectors within the tourism industry, such as airlines, hotels, and recreation services.



### *Sustainability Indicators Related to Tourists*

Tourists consume products or services through their choices for spending. Well-being for tourists means satisfaction with tourism products, be it tangible or intangible, although this is subjective because they view satisfaction according to the positive or negative effects of the personal tourism experience (McCabe & Johnson, 2013). Subjective well-being occurs in variable times and circumstances throughout the tourists' experience. A good example of subjectivity is evident when tourists post their satisfaction/dissatisfaction with the tourism products through online platforms such as TripAdvisor and Booking.com. Relevant indicators to measure satisfaction with tourism experience as mentioned in the guidebook of The United Nations World Tourism Organization (UNWTO) are as shown in table 3.

Table 3: Satisfaction Indicators Related to The Tourist

<b>Sustaining tourist satisfaction</b>	<ul style="list-style-type: none"><li>➤ Level of satisfaction by visitors (questionnaire-based)</li><li>➤ Perception of value for money (questionnaire-based)</li><li>➤ Percentage of return visitors</li></ul>
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Source: The United Nation World Tourism Organization (UNWTO) (Obst, 2016)

Tourism indicators need to breakdown the level of satisfaction to include tourists' experiences with different places in a tourism destination. Tourist's well-being may relate to experiences during the tour. So, it is vital to understand tourists' value then to measure satisfaction with that experience, be it a hotel stay, boat trip, or hiking.

### *Sustainability Indicators Related to Local Community*

The well-being of a community stems, in part, from an economic perspective when tourism provides job opportunities, alleviates poverty, and open markets for local products. From a physical point of view, well-being of community means that tourism contributes to basic infrastructure such as roads and power, which benefit the entire community. From an environmental perspective, tourism is valued when it does little harm to the environment and does not create pressure on ecosystem services; and from socio-cultural perspective, tourism should respect local traditions and values to create an opportunity for cultural exchange. Relevant indicators to measure social impact are shown in table 4, which emphasizes community impact, health and safety, gender equality, accessibility, protecting and enhancing cultural heritage, local identity and assets.

Table 4: Sustainability Indicators Related to Local Community

Section C: Social and cultural impact	
Criteria	ETIS core indicators
C.1 Community/social impact	Number of tourists/visitors per 100 residents
C.2 Health and safety	Percentage of tourist who register a complaint with the police
C.3 Gender equality	Percentage of men and women employed in the tourism sector
C.4 Inclusion/accessibility	Percentage of rooms in commercial accommodation establishments accessible for people with disabilities
C.5 Protecting and enhancing cultural heritage, local identity and assets	Percentage of residents that are satisfied with the impacts of tourism on the destination's identity

Source: (European Commission, 2016)

One of the important indicators for well-being is the value of business opportunities available for the community and the number of community companies taking part in the tourism supply chain.

#### 2.4.6 Urban Development

Urban development includes three interrelated aspects — economic, physical, and social. The economics of urban development concentrates on creating investment opportunities to finance local economic development, which creates income for the city and the residents. In addition, economic policy decisions affect the distribution of industries across different cities and regions. The physical impact of urban development includes planning and design of street patterns, drainage, sewage, and transit facilities. The social aspects of urban development emphasize basics such as health care, education, and security. In addition, protecting the social life from threats posed by uncontrolled economic growth and climate change (International Social Work, 1966, pp. 7-11).

Urbanization is one of the major challenges for the world, according to the Human Settlements Programme (UN-Habitat) (2020). Today, 3.5 billion people live in cities, of whom 828 million people live in slums, with five billion people projected to live in cities by 2030. Urbanization is closely tied to immigration, with 763 million internal migrants and 244 million international migrants found in cities. In addition, refugees often seek shelters in cities. For instance, 25.4 million refugees and 40 million fled crises as of 2018 (UN-Habitat, 2020, p. 8). On the environmental perspective, the world's cities account for 60-80 percent of energy consumption and 75 percent of greenhouse emissions (UN-Habitat, 2020, p. 6).

These trends pose threats to sustainable development and have implication for urban growth and sustainability. Implications include pressure on water supplies, sewage, the living environment, and public health. Economists see this as an opportunity for urban growth and local economic development, but environmentalists and social scientists are concerned by the well-being of the ecosystem - water, air, land, clean physical environment, and the well-being of communities' life in the city i.e., availability of places for social interaction, physical activities, equality in jobs, housing, health, and education.

Jacobs & Appleyard (1987) described the fundamental problems of modern urban design contemporary to our time, they are as follows.:

- Poor living environment for example the surroundings of homes are dangerous, polluted, noisy and travel around these towns becomes stressful.
- Abnormal growth and loss of control. For example, large-scale developments consume lands and public agencies' controls cities. In addition, high urbanization results in vast districts and complexes i.e., large-scale housing projects, office and commercial buildings, and massive transportation systems. Therefore, people have a less sense of control over their homes, neighborhoods, and cities.
- Fragmentation of communities and places of work. For example, isolation of social groups from each other. And the spread of extensive monocultures, which is "a farming system given over exclusively to a single product" (Mayhew, 2015). In addition, specialized destinations reachable by long journeys. Example of these destinations include advanced industrial societies.

- Destruction of valued places for pursuing profit and prestige.
- Placelessness: which means “The condition of an environment lacking significant places and the associated attitude of a lack of attachment to place caused by the effects of modernity, e.g. commercialism, mass consumption, standard planning regulations, alienation, and obsession with speed and movement” (Rogers, Castree, & Kitchin, 2013, p. 71). People withdraw from community involvement to enjoy their own private and limited world.
- Rootless professionalism. For example, design professional produces superficial conception of place and most of the time spent persuading the clients.
- Large-scale privatization and losing public life because of the consumer society’s emphasis on the individual and the private sectors, which resulted in:
  - Increase crime in the street causing new form of city i.e., closed defended islands and wastelands of parking lots and fast-moving traffic.
  - Public transit systems and social gathering spaces have declined.
  - Public environment become empty desert. For example, public life dependent on planned formal occasions, mostly in protected internal locations.

The challenge for urban development is twofold, one concern is to satisfy conflicting needs of government, business, civil organization, communities, and the individuals, while the second challenge is to make cities sustainable. A sustainable city is one that embraces the differences of urban population's cultural values and makes the physical environment clean and safe. Citizens have political rights to take part in decisions affecting their lives, health, and well-being, so the city is responsible for basics needs such as food, water, shelter, income, safety, and work. The city promotes physical activity and social interaction. The urban design and planning of sustainable cities promotes a rights-based approach for the city's old as they age and provides equality in access to health services and care (United Nations Human Settlements Programme (UN-Habitat), 2020).

## 2.5 Local Content Development

At the start of this chapter, the focus was on the source of protectionist thought and how many developed and dominant countries adopted the policy of protectionism as a national economic policy before changing their policies to free trade as they achieved economic prosperity (Chang, 2002; Pattanaik, 2016). Industrialization policies set different priorities according to national economic realities and local conditions such as in East Asia countries—Japan, China, Malaysia, Taiwan and Singapore (Ohno, 2013; Tordo et al., 2013). Local content development combines the various dimensions of development and industrialization (Tordo et al., 2013) as noted in the following section.

### 2.5.1 Definitions of Local Content

The dictionary definitions of the words local and content are discussed here. Local means “relating or a particular place” or “A local chapter or branch of an organization” (American Heritage, 2011). Or “an inhabitant of a specified locality” (Collins, 2014b). A local person or resident or a local team (Random House, 2010) or “confined to a particular location or site” (Collins, 2002). Local refers to part of a whole. For instance, local is “concerned with a city or town or district rather than a larger area” or “belonging to a particular locality or neighborhood”. Here the opposite meaning of local is National, which is “concerned with an entire nation or a country” (Princeton University, n.d.). Other attributes of word local include: “community, nearby, and resident” (Collins, 2002). With regard to meaning of content, it refers to the amount of something, or things in something. For instance, in the value of China’s market, or the number of Chinese students in U.S. universities (K Dictionaries, 2013a). According to the Oxford dictionary of economics, local content means “The proportion of inputs to a product supplied from within a country” (Hashimzade, Myles, & Black, 2017a, p. 97)

Scholars' definitions of local content suggest other meanings in the literature. Kolstad & Kinyondo (2015, p. 2) defined local content as “domestic inputs (capital, labor, intermediate products) in the various parts of a value chain”. Other scholars suggest that local content differs from Local Content Development (Tordo et al., 2013). Local content as a principal considers local as percentages or value on imported goods, while Local Content Development focuses on “nurturing owned businesses that use local resources, use local workers at decent wages and serve local consumers. It means becoming more self-sufficient and less on imports” (Shuman as cited in Robinson, 2010, p. 2). Another meaning is the long-term nature of development of local companies from cradle to grave, development of local workforce skills and knowledge (Tordo et al., 2013). Katchova & Woods (2013) defined local sourcing as the consumers' preference to buy locally produced goods and services.

In construction context, Wells & John, (2010) defined local content this way:

Local content in infrastructure construction is taken here to include the involvement of local enterprises and labour in planning, design and construction services, as well as the local added value in transactions occurring throughout a contractor's supply chain. Local in this context is understood to mean national, but it could be defined to mean any geographic or administrative area. Infrastructure is defined to mean the physical assets needed for the delivery of a service, rather than the provision of the service. Procurement is broadly defined to encompass all stages from the identification of need to the delivery and subsequent maintenance of the asset (p. 65).



According to Tordo et al., (2013, p. 18) Local Content Development is regarded as an industrial policy (IP) that includes any measure to improve the economy that contributes to improved economic and social conditions. In addition, “Local content regulations is an integral part of the entire industrial policy and strategy designed to transform the industrial structure of the country” (UNIDO, 1986, p. 2). Research on economic development policies found that policies concentrating on business retention, human skill development, and infrastructure building delivered the best economic development result (Leigh & Blakely, 2013, p. 57). In addition, Leigh & Blakely (2013) further stressed that locally owned and operated businesses generate greater local economic activity than chain counterparts.

In this dissertation, the term Local Content Development is used interchangeably with In-Country Value and refers to a government or corporate policy that aims to achieve sustainable development through various programs, initiatives, processes including, local sourcing of goods and services, and capacity building of local workforce, suppliers, and communities (Acheampong et al., 2016; Ado, 2016; Hufbauer & Schott, 2013; Kolstad & Kinyondo, 2015; Ovadia, 2016; Senoo & Armah, 2015; White, 2017; World Bank, 2013). In short, Local Content Development aims to make sure that benefits expected from investments reach society in a planned manner. These benefits may include job creation for locals, using local suppliers, and buying locally produced materials but could extend to include social and environmental dimensions such as community wellbeing and programs to protect the environment.

### *Evolution of Local Content*

Local content emerged with the Industrial Revolution in which many countries saw high importation of raw materials, and a decline in the local share of value added in the goods produced (Grossman, 1981; United Nations Industrial Development Organization (UNIDO), 1986). As a result, countries introduced local content to extract value by reducing importation and then transforming this opportunity to help grow local industries (Grossman, 1981). Local content applied in sectors—healthcare, automotive, manufacturing, electronics, government procurements, and oil and gas. Thus, the range, design, and application of local content policies reflects the diversity of disciplines and literature on local content (United Nations Industrial Development Organization (UNIDO), 1986). Gilpin (1983, para. 11) notes that “In most developing countries, local content and other performance requirements adopted to ensure development of an industry that did not exist”. But as a trade-off for job creation and industrial development, countries with such laws have seen prices for the locally produced products soar.

A study conducted in the 1980s by the U.S. Commerce Department on the impact of local content regulations in the auto industry in 27 countries found that local content and other performance criteria led to much higher production costs and higher sticker prices. For example, Mexico’s required local content of 50% for autos manufactured in-country led production costs and price to be 50 percent greater than it has been in the United States (Gilpin, 1983, para. 13).

### *Local Content and Industrial Policies*

In the contexts of industrial policies, Andreoni (2017) and Tordo et al. (2013) mention events influenced these emerging industrial policies. In the period after the Second World War, many governments used protectionism to shield local firms and industries from competition. For example, protectionism in Asia included import-substitution and licensing of technology to local suppliers. In Brazil, oil companies were mandated by the Brazilian government to refine in Brazil. In Norway, government supported local firms to supply the O&G industry (Tordo et al., 2013).

In the 1980s, there was an increase in free trade sentiment in many countries after disappointment with governments' using industrial policies to promote development. An example of trade liberalization championed by the WTO and IMF included policies that introduced unified and competitive exchange rates, opening to foreign trade and foreign direct investment (FDI), privatizing, and deregulating (Tordo et al., 2013). In the 1990s, the crisis of free trade and Asian financial crises led to targeted policy interventions (Tordo et al., 2013). Asian economies such as Japan, South Korea, and Taiwan restructured their economies towards manufacturing, exports, and advanced technologies (Felipe, 2018).

In response to the COVID-19 pandemic, countries around the globe have implemented public health and social measures (PHSM) for epidemic control (World Health Organization, 2020). These measures included economic shutdowns and border lockdowns with most economic activities affected. Because of the impact of the movement of trade, many countries realized the importance of being able to locally supply necessary items, which led to considerations of de-globalization and the rise of protectionist measures (Kaplan Z., & McKenzie, 2020; Steven, 2020).

### *Local Content Research Emphasis*

The local content literature focused on analysis of the policy effects of a variety of variables such as production efficiencies and overall value-added in terms of jobs, supplier development, and social impact. In addition, research concentrated on local content effects by regions, multiple countries, country specific, by sector, and by activity as shown in table 5.

Table 5: Local Content Research Emphasis

Research Emphasis	Researchers
Across Sectors	(Hufbauer & Schott, 2013; Levett & Chandler, 2012)
Auto Industry	(Deringer, Erixon, Lamprecht, & Van Der Marel, 2018; Martinelli, 2016)
Electronics	(Belderbos, 1997)
International Trade And Operations	(Dixon, Rimmer, & Waschik, 2017; Lahiri & Mesa, 2006; Lahiri & Ono, 2003; Munson & Rosenblatt, 2009; Qiu & Tao, 2001; Takechi & Kiyono, 2003)
Renewable Energy	(Johnson, 2016)
Extractive Industries of Developing Countries	(Andrews & Nwapi, 2018; Seyed, 2013; White, 2017)
Oil and Gas Companies	Ngoasong, M. Z. (2014).
Project Management	(Seyed pedram Mireftekhari, 2013)
Procurement	(Esteves & Barclay, 2011)  (Wells, J., & Hawkins, 2010)

Table 5. (cont'd)

Research Emphasis	Researchers
Brazil	(Acheampong et al., 2016; Almeida & Martinez-Prieto, 2015)
UK	(Kashani, 2005a)
USA	(Dixon et al., 2018)
Iran	(Kazzazi & Nouri, 2012)
Norway	(Heum, 2008; Kashani, 2005b; Ryggvik, 2015)
Oman	(AlHadhrami, 2016; Shezawi & Rahman Khan, 2018)
Angola	(Hassel, 2015; Ovadia, 2012; Teka, 2012)
Ghana	(Ablo, 2015; Andrews & Nwapi, 2018; Senoo & Armah, 2015)
Nigeria	(Adedeji et al., 2016; Adewuyi & Ademola Oyejide, 2012; Ado, 2016; Atsegbua, 2012; Gbegi & Adebisi, 2013; Heum et al., 2003; James Unam & Unam Monday, 2015; Ovadia, 2013)
Africa	(Andrews & Nwapi, 2018; Klueh et al., 2007, 2009; Ovadia, 2016; Owusu & Vaaland, 2016)
Middle East and North Africa	(Olawuyi, 2019a)
Caspian Sea	(Kalyuzhnova, 2008)

Source: Developed by researcher

## 2.5.2 Types and Examples of Local Content Policies

Local content policies implemented at multiple levels as shown in table 6. At the national level, governments play the leading role in imposing local content; this approach translates into national, Local Content Development policy. Sector level, industry collaborate with key actors and lead development at sector level with active facilitation from the government. At company level, a company adopts local content to its business strategy and operations. Consumer level, an individual or household decision-making supporting local businesses could happen as they do their monthly shopping or once-in-a-lifetime purchases.

Table 6: Types of Local Content Policy

Illustration of types of local content policy					
Relevant theories /concepts	Who make local content policy? Why? How?	Implementation of local content?	What is being affected by the policy?	Who benefit?	Measurements of success?
Protectionism, International Trade, Sustainable Development, Industrial Policies, Local Content Development, Policy, and planning	<b>Government-led (horizontal)</b> <b>Who?</b> Political leadership, Policymakers <b>Why?</b> Jobs, self-sufficient, protecting infant industry, technology transfer <b>How?</b> Government investments/expenditures	Varies (e.g., Government department or dedicated office) monitors compliance with local content rules.	International trade, Companies operating in the local economy, local and international policy/agreement, Business environment (e.g., Prices), Economic productivity of specific sector	Local economy, Companies, Individuals, Community	% No of jobs by job category, % of spend with local firms, % of spend in local economy, % of spend in local training, No. of local firms receiving business trainings

Table 6 (cont'd)

Same as above, Corporate Social Responsibility, Creating Shared Value	<b>Sector-led (vertical)</b>  <b>Who?</b> Political leadership, Policymakers, Private sector's leader companies  <b>Why?</b> Company efficiency through local sourcing and hiring, contribute to local economic and social development, strengthen company reputation.  <b>How?</b> Sector investments/expenditures	It depends. Existing models show different approaches. Full time centralized project management office (PMO) works for some industries. Example of PMO Oman, Nigeria, Brazil, Malaysia	Same as above	Local economy, Companies, Individuals, Community	Same as above +, Number of local firms in the supply chains, Number of firms who receive capacity building support
Sustainable Development, Local Content Development, Corporate Social Responsibility, Creating Shared Value	<b>Company-led</b>  <b>Who?</b> Board/company leadership, Company staff  <b>Why?</b> Company efficiency through local sourcing and hiring, contribute to local economic and social development, strengthen company reputation.  <b>How?</b> Company investments/expenditures	Dedicated local content department or team supported by or integrated with supply chain, operations, projects, and CSR functions, guided by policy and strategy	Projects, companies, employees, communities	Local economy, Companies, Individuals, Community	Same as above
Consumer behavior	<b>Consumer-led</b>  <b>Who?</b> Household/family  <b>Why?</b> Support local business i.e., family, friends, and relatives' businesses ...etc.  <b>How?</b> Personal purchases	Self-driven	International trade, businesses, and communities	Local economy	Sense of self or national pride, Community ties

Source: Developed by researcher.

### *Local Content Policies in Different Countries and Sectors*

Over the last three decades several countries have issued local content policies and regulation as shown in table 7 (Hufbauer & Schott, 2013). The table shows the number of countries applying local content measures in different economic sector/product. The top three sectors include government procurement, information and communication technologies (ICT).

Table 7: Local Content Use by Countries in Different Sector

Economic Sector / product	Countries	No of Countries
Government Procurement	Australia, Brazil, Canada, China, Indonesia, Kazakhstan, Mexico, Paraguay, South Africa, Turkey, USA	11
Information and Communication Technologies (ICT)	Argentina, Brazil, Canada, China, France, Greece, India, Indonesia, Kazakhstan, Korea	10
Oil and Gas	Argentina, Azerbaijan, Brazil, Kenya, South Africa, Uganda, Oman, Saudi Arabia, Nigeria, Ghana	10
Transportation equipment	Argentina, Brazil, China, France, Nigeria, Russia, USA	7
Construction	Azerbaijan, Botswana, Brazil, Kazakhstan, Nigeria, Paraguay, USA	7
Textiles	Argentina, Azerbaijan, China, Indonesia, Nigeria, USA	6
Mining	Argentina, Brazil, Indonesia, Kazakhstan, Mongolia, Uganda	6
Basic metals	Botswana, China, Indonesia, Kenya, Nigeria, USA	6
Electrical Machinery	Canada, China, India, Indonesia, Ukraine, USA	6
machinery	China, India, Indonesia, Nigeria, Ukraine, USA	6
Laptops computers and related services	Argentina, Azerbaijan, China, Indonesia, USA	5
Fabricated metal products	China, India, Indonesia, Ukraine, USA	5
Metal ores	Argentina, China, Kenya, South Africa	4
Stone	Argentina, Kenya, South Africa, USA	4
Basic chemical	China, Indonesia, Kazakhstan, USA	4
communication equipment	China, India, Nigeria, Russia	4
Agriculture	Argentina, Brazil, China	3
rubber and plastic products	Indonesia, Kazakhstan, USA	3
Uranium and thorium ores	Argentina, Kenya, South Africa	3
Energy	China, India, Indonesia	3
retail trade services	India, Indonesia, South Africa	3
consumer foodstuff	Kazakhstan, South Africa, Switzerland	3
Glass Products	Kenya, Paraguay, USA	3
forestry	China, South Africa	2
Automotive	Argentina, Russia	2

Adapted from (Hufbauer & Schott, 2013)



#### 2.5.2.1 United States of America

In the United States, a good example of local content efforts is the “Buy American 1933 Act”. According to Hufbauer & Schott (2013) the Act aims to boost domestic employment and economic growth through infrastructure spending, protecting against unfair competition, and strengthening national security and promoting the iron and steel industries. Dixon et al., (2018) suggest that the Buy American Act aims to protect U.S. steel industries by channeling federal government expenditure for goods and construction projects towards U.S. suppliers. The Buy American Act has been targeting federal purchases, and those made by state governments. However, more recent development of the Buy American Act shows that the policy is now targeting federal indirect purchases by limiting input purchases made by companies supplying to government agencies. For example, in constructions, suppliers must use U.S.-produced steel and other U.S. manufactured inputs.

#### 2.5.2.2 United Kingdom

In the 1970s, British offshore exploration policy was reviewed because of the discovery of new major oil fields and the realization that local companies did not have a fair share of contracts. In 1973, new local content policies were issued. The offshore supplies office managed the policy, with financial resources made accessible for the UK supplies industry, and new auditing procedures for monitoring procurements made by oil companies. The UK had three objectives for local content: self-sufficiency in petroleum, security of supply, and involving the British supply industry in the UK petroleum sector (Kashani, 2005a).

In 1990, the UK changed the focus of local content to promote local exports (Klueh et al., 2009). On the effects of local content policy, Kashani (2005) showed that the UK had achieved the three objectives for local content policy but at a cost because local content regulation created inefficiencies in oil production activities due to inefficient use of inputs with alternative less expensive inputs used in oil activities. He further explained that there was a strong correlation between the share of domestic goods and services from the total procurement and production inefficiency, for example, when enforcing local content, inefficiency increases and when local content requirements are removed inefficiency was reduced (Kashani, 2005a).

#### 2.5.2.3 Brazil

The government played a major role in the oil and gas industry in Brazil, through the formation of Petrobras. In 1997, the industry opened for more international investors to work beside Petrobras and so the National Petroleum Agency (ANP) maximized local participations in these projects. The ANP specifies local content in the licensing round for the award of oil and gas exploration and production rights, and specific commitments set out in petroleum contracts. For example, in the oil exploration phase, local content is required to be 37% of the cost, and in the facilities development phase local content should be 55%. Brazil's local content policy is one of the strictest because of its harsh consequences for companies that do not follow the requirements (Tordo & Arfaa, 2011, p. 166). On Brazil's experience with local content, Almeida & Martinez-Prieto (2015) studied the impact of local content using economic models to simulate the impact risk on project for not meeting local content commitments.

The researchers created a scenario of a project that buys local goods and assigned a risk of 30% at the oil exploration stage and a risk of 55% during the development stage. They assumed: 1) the impact of 30% decrease on the profitability because of failure to meet local content commitments, 2) another 30% because of an unexpected cost for buying local products, and one year delay in production. The results showed an increase in the probability of net present value from 3% to 47%, and potential for decreasing the appetite for investment in Brazil and recommended that Brazil's local content adjusted. Another recommendation was to offer incentives for companies exceeding local content commitments. In addition, research suggested imposing local content at the oil development instead of oil exploration stage, because imposing local content at the oil development stage allows for a clearer project procurement list unlike the oil exploration stage, which entails high uncertainty of project procurement.

#### 2.5.2.4 Norway

In the 1970s, oil extraction policies were reviewed to capture benefits from increased investment in the industry. The local content policy was developed and implemented by state-owned companies Statoil and Nirska Hydro. These companies have been an enabler for Norwegian suppliers to enter the industry. In 1972, Article 54 of the Royal Decree of 1972 made explicit provisions for local content and mandated that purchases shall give preferences to Norwegian goods and services, provided goods and services were competitive in cost, quality, schedule, and service. They established a new office, managed these provisions, compliance, and international company's efforts to support local suppliers, encourage joint venture formations, research and development technology transfer, and reviewing contracting and tendering procedures. In 1990, Norway joined the European Economic Area (EEA) and so Article 54 of the Royal Decree became invalid as the policy was no longer compliant with EEA policies (Heum, 2008; Ryggvik, 2015).

#### 2.5.2.5 *Nigeria, Ghana, Mozambique and South Africa*

A number of African countries have adopted local content regulations, that White (2017) examined in Nigeria, Ghana, Mozambique and South Africa and concluded:

- 1- Oil producing companies have little interest in local content regulations and most existing local content rules in Nigeria, Ghana, Mozambique, and South Africa allow non-compliance. This is because of the belief that the industrial base in these countries has not yet developed and that non-compliance may hinder investment in industries that need high capital investment and long-term operations.
- 2- Developing local content regulations requires three key elements:
  - a. An analysis of local capabilities and supply chain of oil required.
  - b. Proper alignment between policies, legal framework, industrial development and organizations that work in the same line.
  - c. Continues engagement and collaboration with stakeholders in the industry.
- 3- Local participation in the supply chain of multinational corporations is important for the development of local capability. But experiences from these countries suggests a challenge because of the capacity of local firms. This is an area for potential policy intervention to encourage knowledge transfer between multinational corporations and local firms.

Furthermore, Senoo & Armah (2015) considered the effectiveness of local content policy in achieving the stated goals for the O&G sector in Ghana. The local content policy was adopted in 2011 and emphasizes job creation, training, and local sourcing of good and services. The researchers used a qualitative approach and collected primary data using semi-structured interviews with stakeholders in the upstream oil and gas industry.

Findings showed a misalignment between local content policy and the intended goals, targets were prominent given the economic and social conditions, local businesses capability and capacity do not meet oil and gas industry demand. This study did not measure the social and economic impact, but it looked at stakeholder's views and opinions on the effectiveness of the policy.

#### 2.5.2.6 Oman

Local content development in Oman is known as In-Country Value (ICV), and started with the O&G industry, which defines ICV as “the total spend retained in-country that can benefit business development, contribute to human capability development and stimulate productivity in the Omani economy. In short, products made, and services provided by Omanis (in Oman)” (O&G ICV Project Management Office, 2013b). This definition emphasizes capital and operational expenditures undertaken by national and international oil companies and the spending driven by the demand for goods, services, and jobs in the local market, and considered mainstream of In-Country Value (ICV) opportunities. ICV opportunities were identified, developed, managed, and realized using established category management and contract and procurement (CMCP) practices. The ICV definition highlights policy aspirations and long-term goals, which include an increase in a local market efficiency in terms of quantity and quality of local firms and workforce. Oman’s definition of ICV does not specify local content targets as other countries do such as Ghana and Nigeria (Klueh et al., 2009; Senoo & Armah, 2015). Oman's approach allows the market to respond to the requirements of ICV, thus stimulate innovation and strong value propositions among suppliers (Ovadia, 2016).

### *The In-Country Value Development Blueprint Strategy 2013-2020 and Company ICV strategies*

It is important to distinguish between industry wide ICV policy (the ICV Blueprint Strategy 2013-2020) and company ICV policy (individual company). Following sections I provide detail descriptions for both.

#### 2.5.2.6.1 The Oil and Gas ICV Blueprint Strategy 2013-2020 (Industry-wide)

Industry LCD policy refers the ICV Blueprint Strategy 2013-2020. The ICV Blueprint Strategy aims to develop a competitive and sustainable local supply market: goods, services, and skills in collaboration with government, industry, academia, and society, and by converging oil and gas operators' efforts to achieve maximum impact (Secretary of the ICV Committee, 2013). The ICV Blueprint Strategy focuses on 6 sustainable development pillars:

- Business development of SME, local companies, and encouragement of foreign direct investment
- Capital and finance to facilitate access to the financial products and services to local companies
- Contracting and tendering, which aim to increase local businesses participation in supply chain processes of oil companies
- Human resources to increase the competency level and productivity of the local workforce in technical and medium to high-end positions.
- Legislation & process improvement to facilitate business development
- Technology and innovation by investing in research and development, innovation, and technology transfer

The ICV Blueprint Strategy is underpinned by:

- The acknowledgment and appreciation of O&G industry’s experiences and contributions in delivering social and economic value in Oman through individual efforts of the oil companies (i.e., achieved through oil companies’ corporate social responsibility programs), which was prior to the inception of the ICV blueprint strategy in 2013. According to the ICV blueprint strategy, oil companies achieved 63% average Omanisation level (22,369 Omanis) by 2012, and “more than 80% of the O&G companies direct sourcing through local contractors, agents, and suppliers” (Secretary of the ICV committee, 2013, p. 8).
- Cross-industry–upstream, midstream and downstream In-Country Value analysis of supply and demand for workforce, goods, and services (i.e., analysis of “value of importations and expatriate’s compensation generated by the O&G industry supply chain activities over the period 2013-2020” (Secretary of the ICV committee, 2013). Analysis also included gaps in business environment.

The cross-industry analysis suggested 64 billion USD value of ICV opportunity to be addressed collaboratively by O&G industry between 2013 and 2020 through development initiatives in supply chain, workforce development, and initiatives to enhance business environment. These are further explained as following:

### *Supply Chain development*

Supply Chain development aim to increase local sourcing across the whole value chain with a focus to enhancing quality, launching new industries, expanding range of products and services by targeting SMEs, Local Companies, JVs, and FDIs in activities such as Services Assembly / Blending, Manufacturing & Fabrication Maintenance & Repair, and New technologies. Cross-industry analysis identified 53 investment opportunities to increase local sourcing.

As of 2019, 30 out 53 localization opportunities have been realized, which worth \$200 million USD and expected to create around 1000 job opportunities (Ministry of Oil and Gas - Oman, 2019). Over 30 investment opportunities outside of the blueprint strategies contributed to increased local sourcing as reported at the end of 2018 (Ministry of Oil and Gas - Oman, 2019). And as part of local business development or vendor development program, oil and gas companies limit competition for certain contracts to develop local vendors. These are called “set-aside contracts” (U.S. Small Business Administration, n.d.) or “ring-fenced contract”. At the end of 2018, 30 ring-fenced contracts were awarded by the O&G companies for local businesses development, including small and medium enterprises (Ministry of Oil and Gas - Oman, 2019).



### *Local workforce development*

According to the Secretary of the ICV Committee (2013), Local workforce development aim to:

Increase the competency level and productivity of local workforce, building intellectual capital in technical and medium to high-end professions by setting up training programs for short-term development and improving education for long-term development to internationally accredited standards” (p. 18)

The cross-industry analysis identified around 50000 required jobs for oil and gas industry activities by 2020, and the analysis suggested educating and training of 36,020 Omanis, as shown in figure 3 to be prioritized for development between 2013 and 2020 based on high demand, high value-added and Omanisation levels. Workforce development included defining industrial skills standards and assess the capacity and capability of education and training bodies (Secretary of the ICV Committee, 2013).

Figure 3: ICV Blueprint Strategy - Number and scope of training skills



Source: The ICV Blueprint Strategy 2013-2020

As reported by a national oil company that it generated 17, 027 job opportunities as of 2018 (PDO, 2019, p. 8), and the launch of sector's skill units, which bridges the gap between employment requirements and output of the education and training institution. And the launch of Joint Recruitment Portal (PetroJobs.om) to improving the consistency, integrity and transparency of the recruitment process across all O&G operators. Another major oil company reported 819 trainings delivered in 2019 (OQ, 2019. p. 44).

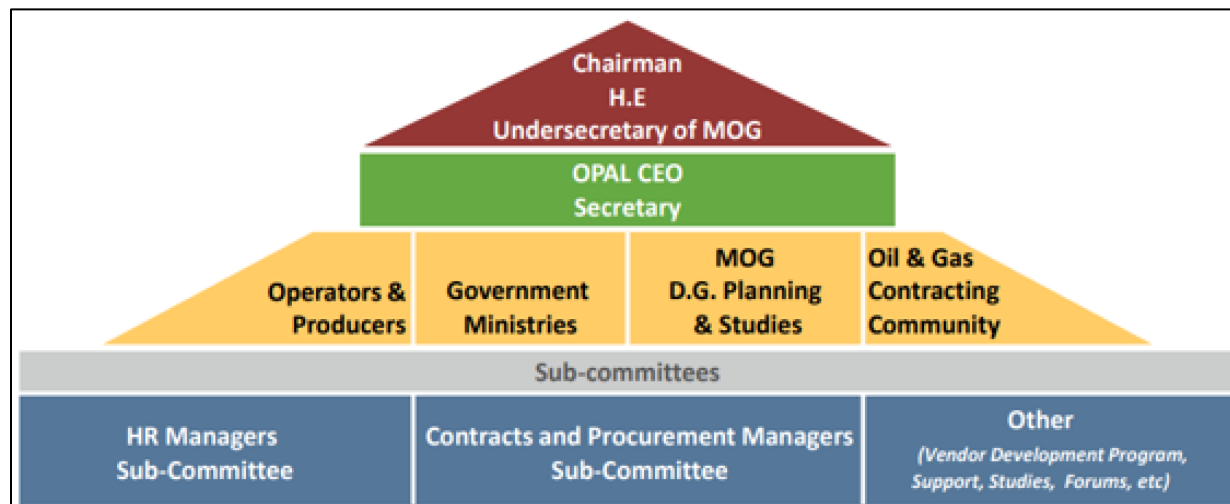
### *Cross-Industry Development Initiatives*

Cross-industry development initiatives aim to enhance the ICV development environment. These initiatives affect development of the blueprint strategy and include: human resources, technology and innovation, business development, capital & finance, contracting & tendering, and legislation and process improvement. Key milestones achieved included the standardization of ICV requirements in contracting & procurement of oil companies in 2013 and launch of joint supplier registration system (JSRS) to integrate oil companies' vendor registration process in one common platform, and to enhance the dissemination of information for business opportunities, and to facilitate business linkages.

### *The ICV Blueprint Strategy – Governance*

To make this collaboration work, the Ministry of Oil and Gas established ICV committee, operational sub committees, and a project management office as shown in in figure 4.

Figure 4: The ICV Blueprint Strategy – Governance



Source: The ICV Blueprint Strategy 2013-2020

### *ICV Committee*

Local content development committee chaired by undersecretary of The Ministry of Oil and Gas and full representation of CEOs of oil companies; their mandate is to oversee the overall policy implementation.

### *LCD Operational Sub Committees*

The O&G LCD committee are supported by operational sub committees: contract and procurement managers sub-committee and the HR managers sub-committee. LCD professionals working in these committees are employees of oil companies who have substantial experiences in the sub-committee subject area. Their bi-weekly meetings discuss implementation issues and progress and highlight areas of concern to the main LCD committee for high level decisions.

### *Policy Implementation Office Supported by Dedicated Professionals*

The coordination of various ICV activities is carried out by project management office (PMO). The office is located within the ministry premises. The role of PMO is to coordinate and report progress of local content implementation to the local content Committee and sometimes escalate issues pertaining local companies' development or development proposals. The PMO included the following positions, director, strategy and supply chain, training and employment, vendor development, and communication. The resources in the PMO are a mix of full-time ministry employees and other seconded employees from oil companies.

### *Implementation, Monitoring and Reporting*

Implementation of The ICV Blueprint Strategy 2013-2020 is through tendering system of each oil company. Oil and gas companies developed and adopted standard tools and templates to incorporate ICV into tendering processes so that all oil and gas operators in Oman evaluate ICV plans using the same evaluation criteria and weightings-sets for major contracts in the oil industry such as drilling rigs and services, procurement of products, equipment, materials, field production, fabrication and construction, engineering, consultancy, finance, insurance, and other forms of contract such as engineering, procurement, and construction (EPC) (Ministry of Oil & Gas, 2013)

### *ICV Plan*

Contractors are required by oil companies to prepare the ICV plan when submitting a bid. The organization or company requesting the ICV plan can use it in the contract award decisions besides technical and commercial bids. ICV bids are verified by members of the ICV team along with technical and commercial teams.

The ICV plan includes seven key elements, which serve as ICV proposal development guidelines for bidders during tendering and serve as a monitoring and reporting tool to measure performance and the value-added to the economy. The ICV seven elements include (Ministry of Oil & Gas, 2013):

1. **Investment in fixed assets:** this concern investments made in fixed assets in Oman by foreign or local firms in the past 3 years or their planned investment.
2. **Omanis in workforce** includes the percentage of Omanis in the workforce during contract execution. This is further broken down by job category, for example, the percentage of Omanis in executive jobs, management, supervisor, and entry level positions based on the dollar value of compensation.
3. **Training of Omanis** includes on-the-job training and any training programs delivered to Omanis. These elements capture the days/hours/dollar value spent on training.
4. **Local sourcing of goods** focusses on contractor's local procurement plans, most importantly is 10% preference for Omani products defined by The Ministry of Commerce and Industry's list of Omani products measured by value-added content criterion but may vary according to the agreement.
5. **Local sourcing of subcontracted services.** Same as above expect that 10% of scope by value of contract to local small and medium enterprises.
6. **Development of national suppliers.** Development can take multiple forms depending on the maturity of the national supplier. It involves large companies and partners working together with national suppliers.

**7. Development of national training, education and r&d institutions.** This focus considers how well the foreign or established local companies will upgrade national training institute to benefit the oil industry and how local universities and research institutes will strengthen their r&d capacity and output.

#### 2.5.2.6.2 Company ICV strategies

Company LCD policy, as shown in figure 5 refers to companies' own LCD related initiatives besides their commitments towards industry LCD policy. The company LCD policy is translated into business strategy and operations and will set up a new business unit to support LCD initiatives. Other companies introduce new LCD positions within the supply chain, human resources, and corporate social responsibility to handle day-to-day LCD related activities. Research shows confusion between LCD activities and corporate social responsibility (CSR) and how reporting on LCD is not systematic (Shezawi & Rahman Khan, 2018).

Figure 5: An Illustration of a Typical Company LCD Strategy

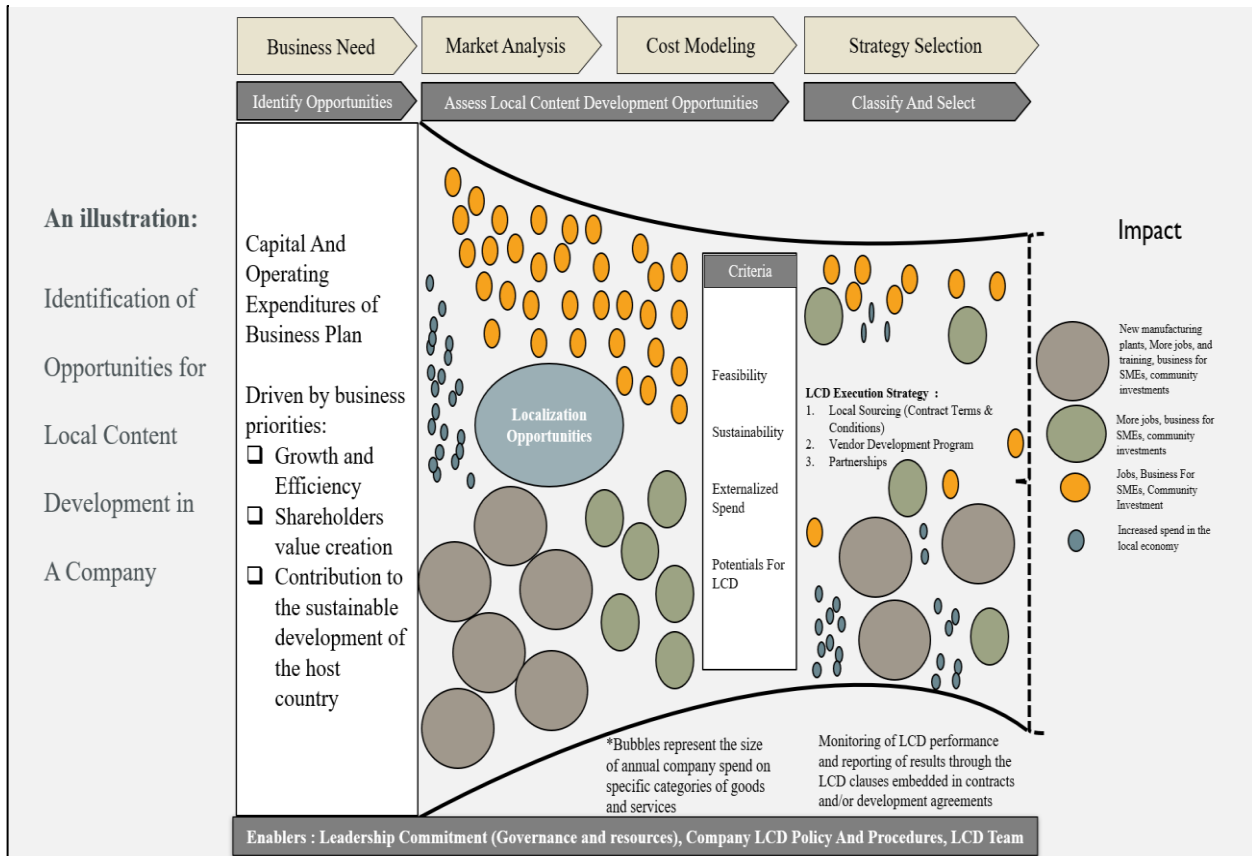
Target Groups	LCD Mission And Goals	LCD Objectives	LCD Strategies	Measurement	Outcome/Impact
Local Businesses	Local Sourcing of goods and services	Increase \$ spend in Local Sourcing of goods and services	Encourage knowledge transfer, JVs, direct contracting and sub-contracting with local companies.	\$ Spend in local sourcing	Competitive local supply of goods, services, and skilled workforce
Youth – Job seekers	Employment and skills development	Increase Employment at all job levels and skills development	Requirements for local Employment at all job levels and training for skills development	No. jobs created No. of certified trainees	
Communities	Local business/ Community development	Invest in support programs for Local businesses/Community development	Provide Access to information Business and technical Trainings Guided investment in community projects	\$ spend in support programs	Competitive local companies and improved well-being of communities

Developed by researcher

## Company LCD Implementation

There is no standard process for company implementation of company LCD. However, there are important steps in which companies identify localization opportunities. Figure 6 illustrates the steps to identify and realize LCD opportunities.

Figure 6: Identification of Opportunities for Local Content Development



Developed by researcher

A company's business priorities include growth and efficiency, shareholders' value creation, contribution to the sustainable development of the host country. These priorities translate into business plans, and in an allocation of capital and operating expenditures to support implementation. Company expenditures for operational activities i.e., procurement of goods and services and associated training and employment, represent LCD opportunities. LCD opportunities are assessed in different ways.

Criteria applied for assessment of LCD opportunities include feasibility i.e., whether these opportunities can be localized considering all conditions surrounding company operations, and is the demand high, medium, or low in the future, how much of spend is externalized, and whether the potential for development is high, medium, or low. Strategies used to realize these opportunities in oil and gas happen through tendering processes and development agreements in which oil companies embed LCD clauses in contracts and responsibility for LCD delivery is passed on to the contractor with close monitoring and support from oil companies.

### 2.5.3 Local Content Development and the Concept of Shared Value

Growing concern over the social and environmental impacts of economic growth and with corporate profits led to the implementation of social responsibility among some business leaders (Srivastava Dabas, 2012). Social responsibility reflects growing interest in the ethics of companies and their expected role in society. Social responsibility is an evolving concept that takes many forms and patterns reflected in the breadth of research on the topic (Avina, 2013; Porter & Kramer, 2006; Srivastava Dabas, 2012; Wamitu, 2014; Wójcik, 2016)

There are many similarities between local content and social responsibility policies, although there are differences in the application and methods (Ado, 2016; Shezawi & Rahman Khan, 2018). In addition, research shows that companies carry out local content policy within the framework of social responsibility, sustainability or other frameworks that serve the interests of the company, investors, customers and society (IFC; IPIECA; UNDP, 2017). Local content development converges and resembles the idea put forward by Porter & Kremer (2011): Creating Shared Value. They defined shared value as “policies and operating practices that enhance the competitiveness of a company” (Porter & Kramer, 2011, p. 66).



Creating shared value suggests that companies create social value while making profit and without undermining core business. The following shared value strategies are suggested by Porter & Kramer (2011):

- **Reconceiving products and markets.** The first strategy suggests that companies address social needs and add value to society through aligning development of new products or markets with social needs, so that a company profits from new products that serve community needs.
- **Redefining productivity in the value chain.** The strategy includes (Institute for Strategy and Competitiveness, n.d.-b):
  - Procurement that enhances supplier capabilities and efficiency
  - Energy, water, and resource efficiency across the value chain
  - Minimizing logistical intensity
  - Employee health and safety
  - Productivity and wages of lower income employees
  - Diversity of customers and the communities where a company operates.
- **Enabling local cluster development.** Cluster means a geographic concentration of related companies, organizations, and institutions in a particular field that can be present in a region, state, or nation (Institute for Strategy and Competitiveness, n.d.-a). Companies taking part and collaborate in cluster development initiatives increase their productivities, thus create value for communities in proximity to the cluster.

### *Multinational Corporations (MNCs)*

Multinational Corporations (MNCs) formulate their strategies to operate in an economy with local content requirements before making any financial decisions. (Ngoasong, 2014). As local content entails costs and change in operation models, the world's leading companies in oil and gas such as Chevron, ExxonMobil, Shell, BP and Total use a similar narrative to justify what business practice to undertake in response to local content rules (Ngoasong, 2014).

These strategies are: 1) direct engagement to renegotiate local content with governments, 2) establishing a legal compliance framework, 3) developing the business case for local content strategies, and 4) implementing corporate social responsibility (CSR) initiatives (Ngoasong, 2014). Moreover, Eikeland & Nilsen (2016), analyzed how local content featured in multinational corporations (MNCs), and argued that: 1) the design of contract strategies is important to increase local content effects on the local economy; 2) the unbundling of business linkage opportunities between MNCs and local firms; and 3) using pre-established framework agreements reduces local firms' participation in the supply chain of MNCs.

The literature showed that local content regulations focus on developing, planning, and managing economic opportunities to increase benefits to society. Policy implementation strategies influenced by interrelated factors such as availability of human, industrial, and institutional capabilities and synchronization with other development policies. Local content policies in emerging African countries in the oil industry have varied in their application of policy provisions (Ovadia, 2016). While, countries such as Brazil, Ghana, and Angola have local content regulation that are stricter (Tordo et al., 2013).

Researchers found local content policy provisions to include: percentages of input used (i.e., material, labor, and services), expenditures incurred (i.e., capital expenditures [CapEx] and operating expenditure [OpEx]), investment committed, technology transferred, equipment manufactured, and hours worked (Ado, 2016; Belderbos & Sleuwaegen, 1997; Esteves et al., 2012; Johnson, 2016; Kalyuzhnova, 2008; Rodriguez & Suslick, 2009; Tordo et al., 2013)

#### 2.5.4 Local Content Development and Sustainability

Local Content Development plays an important role in sustainable development (International Finance Corporation; International Petroleum Industry Environmental Conservation Association; United Nations Development Programme, 2017). Local content policies contribute to social and political stability through community development initiatives such as Corporate Social Responsibility (CSR), and social investment, and job creation (Ado, 2016). Two arguments support this claim: social compensation and political harmony. Social compensation is benefits paid by governments or corporations to affected communities that lost their livelihood or experienced damage because of development projects. Political harmony is when governments' actions meet the expectations of the communities. For instance, if unemployment is high, then a risk of social unrest and civil wars (Ado, 2016).

Local content policy contributes to ecological sustainability through technology transfer. Local content encourages technology transfer to local industries, which reduce or mitigate environmental issues, though, sometimes the transferred tech shifts polluting plants to a country, so results may be mixed. In addition, local content may promote development of local renewable energy industry, which then helps the country reduce gas emission.

Examples of countries that used local content to promote renewable energy include Canada, India, and Turkey (Ado, 2016). Locally sourced materials and products have many environmental benefits. They produce less waste by eliminating unnecessary transportation and delivery, so reducing of packaging used. Less packaging means less waste and less demand on landfill sites. Local sourcing has received significant attention in local content policy because of its role in local economic development.

Local content policy contributes to economic development through capacity building. Research suggests that local content policies improve the capabilities of local firms, people, and the overall business environment (Ado, 2016; IFC; IPIECA; UNDP, 2017; IPIECA, 2016a; Oil Review Middle East, 2018; Owusu & Vaaland, 2016; Rahman Khan, 2018; White, 2017).

An example of capacity building includes skills development programs such as industry collaborative assessment of vocational and educational needs (IPIECA, 2015). Another example of skills development programs is through defining skills competency as used in the Australian resources and infrastructure industry training package (Skills Competency Recognition Framework), adopted by industry and government to support workforce development (Sustainable Skills, n. d.).

Vendor development is an important example of capacity building programs. These initiatives include: prioritizing local businesses for upgrading, analysis of commodities for strategic sourcing, mapping of selected industries according to benefits and feasibility (IPIECA, 2015), supplier diversity, community equity ownership in supplier firms (PDO, 2018), and access to finance. Another advantage of Local Content Development is that it supports sustainable development goals (SDG) (Ado, 2016). Local content plays an important role in supporting sustainable development objectives (International Finance Corporation; International Petroleum Industry Environmental Conservation Association; United Nations Development Programme, 2017).

Kolstad & Kinyondo, (2015, p. 1) in explaining why countries use local content policy suggest that these policies “increase employment and upgrade the skills of workers, and improve productivity through transfers of technology from multinational corporations to local firms”. Tordo et al., (2013, p. 11) argue the local content aim evolved to include “supplying input to the local economy through transferring technology, creating local employment opportunities, and increasing local ownership and control”. In addition, local content policies have provisions that encourage the purchase of materials and contracts for services with local firms besides provisions that give preferences for local goods. With this approach, a country avoids being in a situation of “A balance of payments deficit” which means the country imports more goods, services and capital than it exports (Ado, 2016). Security concerns many governments to protect key sectors that contribute to national development such as energy, communication, defense, and transportation. Local content plays a greater role in this aspect by making provisions that ensure this interest of national importance is developed and protected.

The experiences of countries implementing local content policies suggest the following principles adopted to ensure sustainability of local content policy ( IFC; IPIECA; UNDP, 2017; IPIECA, 2016b)

1. Goals, strategy (plan for delivery), tactics and metric are country specific.
2. There must be a long-term, realistic vision and definition of success by government and companies.
3. A country's long-term goal should be to diversify the economy by growing domestic enterprises capable of offering internationally competitive goods and services.
4. Transparency is crucial (from bid rounds through to tendering).
5. Laws, regulations, and rules should develop consistently and support the process; special attention needs paid when different government bodies involved to ensure alignment.

A number of scholars have criticized local content. Hufbauer & Schott, (2013) discussed local content regulation from an international economic perspective and regard local content as a protectionist measure that violates specific world trade organization's (WTO) rules. Though it may seem appealing for governments it may not be the best economic policy solution to developmental needs. They argued local content distorts international markets and reduces international trade. In supporting their arguments, they provided evidence from case studies of countries adopting local content since 2008 that shows the policy raises costs, reduces opportunities for knowledge transfer, and increases opportunities for corruption. Kolstad & Kinyondo (2015) argued that active local content policies are costly and reduce future taxes for development. Evidence from African countries showed that with “an institutionally flawed context, local content used in a way that increases the power of the ruling elites and cementing the political structure” (Kolstad & Kinyondo, 2015, p. 9).

This perspective argues that local content is not the optimal solution to extract value from investment. An alternative to local content is to tax firms and use those taxes to promote industrialization and development in other ways. Concerns over local content effectiveness are increasing despite growth in use (Hufbauer & Schott, 2013; Kolstad & Kinyondo, 2015; Tordo et al., 2013).

To date, there has been little agreement on what makes up local content. Each country defines local content, which reflects the complexity. The debate continues around strategies for local content reporting, such as: 1) how to calculate value addition; 2) the role of the state in industrial policy; 3) using Local Content Development policy for diversification; 4) the criteria used to pre-qualify local companies to take part in tenders; and 5) the goods eligible for trade preference (Tordo et al., 2013). Local content policies have the potential to stimulate economic development, but application in some countries has achieved mixed results (Tordo et al., 2013). Challenges include (Tordo et al., 2013):

1. Countries with a limited economy find it difficult to develop a local supply industry at the pace, size, and quality necessary to satisfy the demand from petroleum and mining projects.
2. Domestic suppliers often struggle to find skilled workers, capital, and access to bids on larger contracts offered by oil, gas, and mining projects.
3. Society and community-based groups may perceive a lack of benefits and jobs.
4. Governments cannot assess the pros and cons of protecting a nascent industry and designing policies to ensure their competitiveness in the global market.

## 2.6 The Role of Policy

The policy is a law, regulation, procedure, administrative action, incentive, or voluntary practice of governments and other institutions. According to Weiss (1988, p. 7) “a policy refers to an officially accepted statement of objectives tied to a set of activities intended to realize the objectives in a particular jurisdiction”. Policies can be directed by governments and organizations to achieve a variety of objectives for instance, economic policies significantly affect production, technologies used, and who gets the output of an economic system (Folsom, 2011). A policy defines the goals and can guide decision-making and related activities to achieve the desired change. Without effective and well-designed policy, a country lacks clarity about direction and the elements necessary to achieve goals.

## 2.7 Policy Implementation

Policy implementation refers to mechanisms, resources, and relationships that link policies to program action (Mthethwa, 2012). Moynihan et al., (2012, p. 6) stated “implementation may present some of the most important opportunities for learning and imitation over time and across governments”. Dearing & Cox (2018) in explaining policy implementation stated “investigating the extent and the quality of implementing an innovation (i.e., policy) is at least as important as achieving the initial adoption of an innovation” (p. 187).



The seven dimensions that influence policy implementation include (Bhuyan et al., 2010):

- **The policy, its formulation, and dissemination** refer to the policy content, the nature of the formulation process, and dissemination.
- **Social, political, and economic context** refers to the various social, political, and economic factors outside of the policy that can either enhance or hinder effective implementation.
- **Leadership for policy implementation:** leadership and commitment are essential to ensure the follow through, resources, and accountability.
- **Stakeholder involvement in policy implementation:** stakeholder involvement in policy implementation and the nature of the collaboration among different stakeholders
- **Planning for implementation and mobilization:** the planning, resources, and capacity needed to facilitate policy implementation
- **Operations and services:** the coordination mechanisms, operational systems, and capacity of individuals and organizations charged with delivering services outlined in the policy
- **Feedback on progress and results:** gathering, disseminating, and using feedback to assess progress toward achieving results

Owusu & Vaaland (2016) studied managerial and behavioral perspectives of governments, firms, and institutions involved in implementing local content policies in extractive industries. They studied the enablers and challenges of implementing local content policies. The key findings suggest that successful implementation of local content depends on the collaboration of a range of actors such as institutions, local businesses, MNCs, universities, research organizations, international development partners, and donors. It is important these actors contribute their political and economic resources to achieve economic growth.

Kazzazi & Nouri (2012) focused on identifying and analyzing factors that contribute to successful implementation of local content policies. Their conceptual model helped in understanding the prerequisites for implementing local content policy from a theoretical point of view. Factors included:

- Local policies (e.g., public policies, industrial policies)
- Local infrastructure (e.g., information technology, local company's needs, standards, social infrastructure, educational infrastructure, institutional infrastructure, business development infrastructure)
- Local environment (e.g., macroeconomic environment investments and business environment)
- Local capabilities (e.g., local companies capabilities, education skills and expertise development, technology and know-how transfer capacity, research and development capabilities)
- Local content development (e.g., economic growth, industrial growth, spillover effects).

Kazzazi & Nouri (2012) argued that variations in implementing local content policy between countries are possible because local content implementation depends on each countries' economic, political, and social development conditions. White (2017) believes that policymakers need to understand the capacities and capabilities of the extractive industry's supply chains, seek coherence between policy, legal, and industrial development, and close interaction between governance institutions and entities and engaged in the industry. In summary, governments may assess their local conditions with these factors.

## 2.8 Policy Evaluation

Policy evaluation defined as “the systematic collection and analysis of information to make judgments about contexts, activities, characteristics, or outcomes of one or more domain (s) of the policy process” (Rossi, P. H, Lipsey, M. W., & Henry, 2009). Evaluation informs policy development, adoption, implementation, and effectiveness, and builds the evidence base for policy interventions. As stated by Weiss (1988), “policies with good results could be expanded, replicated, and programs with poor results will be modified” (Weiss, 1988). In addition, policy evaluation uses established methods of social science, which include observation, measurement, sampling, research design, and data analysis. These methods produce valid, reliable, and precise characteristics of social phenomena or behavior (Rossi et al., 2009). Evaluation research primary task is “assessing policy effectiveness and identifying factors that drive or hinder their effectiveness” (Rossi et al., 2009, p. 5). Rossi et al., (2009), emphasized the word “systematic” and argued that if policy evaluation not conducted, it will be prone to confirmation bias. For example, you may ask people and experts, and they highlight the good side of the policy and hide the rest of it. Rossi et al., (2009) mentioned that evaluation research provides rigorousness that is missing in informal activities.

Policy outcomes interwoven and complex, hard to see, meaning that it may be difficult to attribute an outcome of policy activities because elements react in diverse ways. Let us assume the local content policy has two objectives (e.g., increase local sourcing of goods and services, and workforce development) that contribute to same outcome (e.g., localization). So, in policy evaluation contexts and to improve future policy decisions, it is challenging to figure out which of the local content processes contributed more to achieve the outcome, because processes and associated resources to implement the mentioned objectives will be different in terms of costs, time, and labour hours. Therefore, evaluation needs more details about each objective and associated activities independently to better understand its contribution in achieving policy outcomes.

The decisions that follow an evaluation are important, so evidence needed to convince other people about the validity of conclusions, to confirm an impact, and understand features influential in leading to that impact (Rossi et al., 2009; Weiss, 1988). Evaluation is essential for local content, as argued by Tordo et al., (2013, p. 10) that “certain policy measures may carry unintended consequences; for example, they may lead to a fall in government revenue, or limit foreign investment in strategic sectors, or impair strategic interests”. Evaluation research has limitations as well. Because evaluation cannot attribute the change or effects to the policy only as other unknown factors could contribute. In addition, people cannot account together factors that caused their behavior to change or factors that lead to their success (Rossi et al., 2009). In summary, program effects should be assessed relative to the outcomes expected from it only, i.e., excluding activities not designed in policy implementation.

## 2.9 Diffusion of Innovations

Public policy, like local content policy, is created and implemented in many different countries. As Local Content Development has become popular, it has been applied in many countries, raising the question of what accounts for the diffusion of public policy. According to Rogers (2003, p. 5), “diffusion is the process in which an innovation is communicated through certain channels over time among the members of a social system”. The form of innovation varies and can be ideas, or processes, or policies, or practices, or solutions, or technologies (Dearing & Cox, 2018; Rogers, 2003). The word “diffusion” means the spread of alternative/new solutions, practice, or object perceived as new. Another meaning is that diffusion occurs when information on alternative solutions is exchanged by members in a social system. The social system refers to the members or units as individuals, informal groups, organizations with mutual intentions that confine the system (Rogers, 2003).

Members in a social system ask the fundamentals about an innovation, which includes: what is the innovation? How does it work? Why does it work? What are the innovation’s effects? What are advantages and disadvantages? (Rogers, 2003). The elements researchers have used to analyze how innovations spread include: 1) the innovation and associated attributes, 2) communication channel used, 3) time, (e.g., when decision-making unit moves from knowing an innovation, to an opinion, to an agreement to adopt or reject, to implementation and use of the new idea), and 4) the social system.(Rogers, 2003)

### 2.9.1 Diffusion Research and Organizations

Authorities, business organizations, cities, or other types can make innovations decisions. For example, a business organization may carry out corporate social investment policy based on a senior management choice or an official's authority decision. An individual employee in the organization may have limited or no say in this innovation-decision. Deciding in organizations on adopting innovations is complex, as it involves several individuals (Rogers, 2003). Diffusion research began with investigations of individual decision-makers, then changed to focus on organizations as a unit of adoption. Scholars transferred the methods of investigating innovativeness, developed earlier for individuals, to the study of organizations (Dearing & Cox, 2018; Rogers, 2003).

Early studies of organizational innovation helped explain the characteristics of innovative organizations (Rogers, 2003), which include the following organizational characteristics:

- Individual leader attitude towards change measured as positive or negative
- Organization structure :
  - Centralization: according to Rogers (2003) means “the more power is concentrated in an organization, the less innovative the organization is” (p. 412).
  - Complexity refers to organizations' members knowledge and expertise, which encourage them to appreciate the value of innovations (Rogers, 2003, p. 412)
  - Formalization: the rules and procedures help organizations implement innovations
  - Interconnectedness: employees with interpersonal network within the organization help ideas flow fast.
  - Organizational slack: availability of uncommitted resources to an organization

- Size: total resources, slack resources, employee's technical expertise, organizational structure.
- System openness: the link between members in an organization to external individuals.

### 2.9.2 Policy Diffusion

Researchers have examined policy diffusion as part of the diffusion tradition. For instance, these included two influential U.S. studies: A study of traffic-safety legislation among the states and an investigation of the policy diffusion of anti-smoking ordinances (Dearing & Cox, 2018). Other fields of policy diffusion have been in education, health, civil rights and gambling (Harriger, 2011).

Policy diffusion research provides important insights into how policy lays between diverse units. For instance, policy diffusion studies show that an innovation's success can be more significant than knowledge of actual outcomes (Dearing & Cox, 2018; Rogers, 2003). Studies show that contextual factors such as government policy and media help draw attention at the state level (Dearing & Cox, 2018), while there is evidence that policy attention and enactment in a bordering state's agenda-setting can be strong predictors of state policy adoption (Dearing & Cox, 2018). Research shows recognized innovations in cities can be promoted at the federal level and then re-introduced to the states as new policies (Dearing & Cox, 2018). Policy diffusion speeds up with higher governmental attention to a problem and its policy alternatives (Dearing & Cox, 2018; Maggetti & Gilardi, 2015), while intermediary actors, such as professional associations, also play an important role in diffusion processes (Dearing & Cox, 2018).

Harriger (2011) examined the complete diffusion process of the mandated school wellness policy (SWP) in the Davey independent school district in Texas where the policy was implemented to change the environment on child obesity. The complete diffusion process started with an understanding of policy decision-making process i.e., how the policy was made, and ending with an understanding of policy implementation i.e., how policy is implemented. Using the constant comparative method, Harriger analyzed the policy from a historical perspective to understand why the policy was enacted. The analysis of the policy initiation process helped in creating a context of the policy, and then using a case study and interviews with policy implementation stakeholders to understand processes involved in implementation.

The study found that though policy resulted in changes to the school environment, policy alone cannot achieve long-term success in addressing child obesity across the state (Harriger, 2011). This suggests a collaborative approach in policymaking involving stakeholders across the state could offer a more sustainable approach.

Another study conducted by Dearing et al., (2019) presented a conceptual model of diffusion of innovations research. The model comprises eight factors help explain why policy diffuse. These include context (i.e., economic, social, political conditions and national policies), innovations (i.e., the new policy), adopting communities (i.e., current, and potential adopters), strategies for scale up, influential agents (i.e., individuals and Organizations), partnerships (i.e., within and across organizations).



The model included eight factors that influence adoption of which four apply to our research:

### *The Innovation*

The innovation and its attribute that affects how innovation flow within i.e., an organization, and across system i.e., across sectors or nation. These attributes of innovation are:

- Costs and benefits (monetary and non-monetary) of an innovation. According to Dearing et al. (2019), perceived costs and benefits “is strongly associated with adoption” (p. 8).
- The effectiveness of an innovation; i.e., availability of positive references about an innovation, compel decision makers to adopt. Research shows, as stated by Dearing et al. (2019) “strong association between perceived effectiveness and adoption” (p. 8).
- Compatibility. A policy is coherent with strategy and needs of organizations. As stated by Dearing et al. (2019), compatibility is a critical attribute. For instance, future policy adopters recognize the fit between policy and their current practices, expectations and needs in forming a judgment.
- Simplicity. A policy is not complex and is easy to understand and carry out

### *Linking Agents*

Linking agents are those who play a key role in moving new ideas forward within and across organizations. As expressed by Dearing et al., (2019) “linking agents are an integral part of successful diffusion” (p. 10). Linking agents engaged in a range of tasks. Tasks of linking agents, as described by Dearing et al. (2019) include using their expert knowledge and ability to influence decision makers. Develop a proposal with actors who can cooperate to spread the innovation. They introduce innovations to potential sponsors, partners, or advocates, have relational access to key stakeholders, able to draw attention of decision makers and pass information, able to educate potential adopters on an innovations’ attributes such as compatibility with the goal of the potential adopter organization (Dearing & Cox, 2018).

### *Partnerships*

Achieving desired changes requires shared mission and collaboration of multiple stakeholders integrating each other’s powers, experiences, and knowledge. Partnerships are important in spreading new ideas. Partnerships promote adoption and implementation. Partnership could be established with companies that have continuing connections with communities, either to beneficiaries or to their business providers. Research implies that partnership could facilitate more implementations by many companies in many sectors (Dearing et al., 2019, p. 10). Dearing et al. (2019) in clarifying how partnerships work, suggest that a lead role played by an initiating organization or an individual i.e., the one responsible for making the policy who leads the team that debates it and later places it into decision-makers’ agenda.

### *Scale-Up Strategies*

Scale-up strategies defined as “processes for replicating a policy to reach more people with comparable benefits from the sustained implementations of a successful policy” (Dearing et al., 2019, p. 11). Four scale-up strategies: branching (e.g., implementation in new locations), affiliates (e.g., outsourcing policy implementation). A distribution network strategy (e.g., the lead organization uses infrastructure and distribution sites of other organizations such as government regional offices), and dissemination of information strategy (e.g., use of various media to spread the idea).

### *Adopting communities*

Adopting communities refer to the organizations and communities that adopt the policy. Policy adopting decisions could happen at multiple stages—from an authority to service providers and to end-users or from company leadership (i.e., decision-makers) to staff (i.e., implementors) and then to the client (customers/end-user). Policy implementation could differ from the original design to increase possibility for replication. Changes made to implementation to increase likelihood for its replication either by reinventing the policy or customize it to fit potential companies’ routines (Dearing et al., 2019 p. 13).

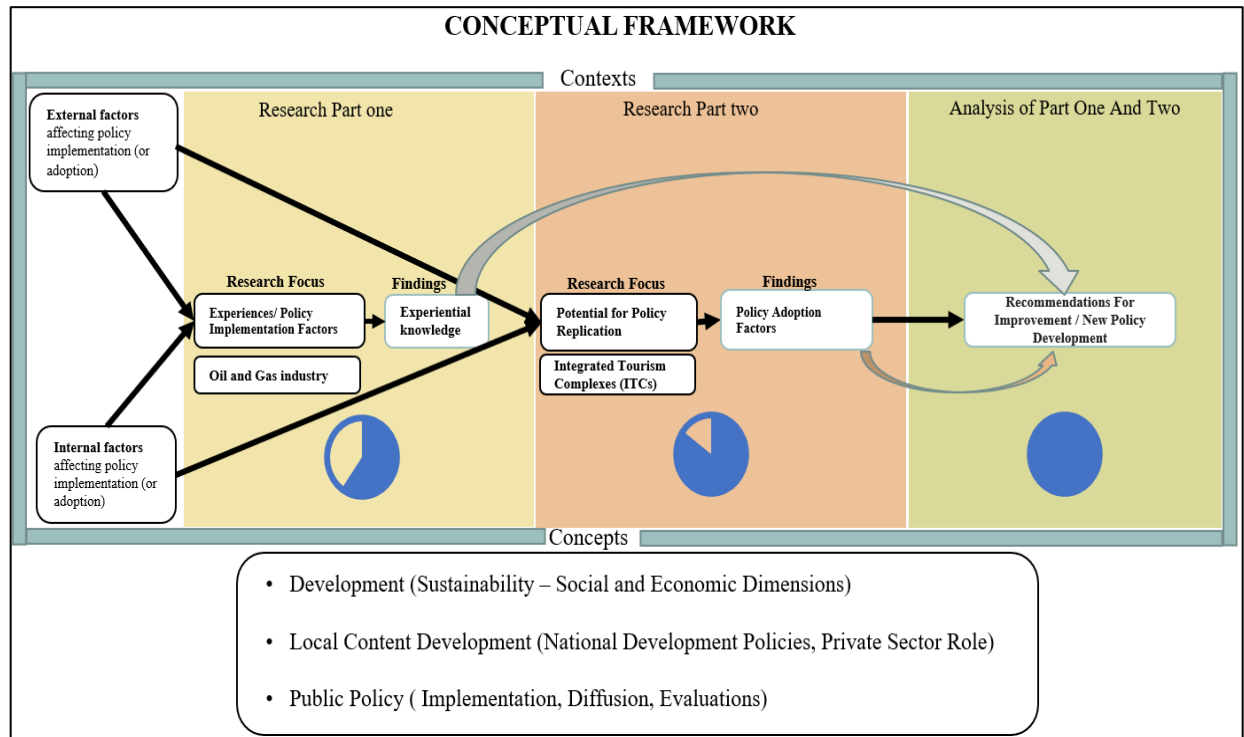
### *Contexts*

The prevailing economic and social contexts influence policy implementation (i.e., facilitate, reinforce, or hinder). Without context, the understanding is incomplete and cause choosing the wrong timing for introducing new policies into organizations (Dearing et al., 2019).

## 2.10 Conceptual Framework

In this section, the researcher describes the conceptual framework derived from the local content literature that guided the research process, as shown in the figure 7.

Figure 7: Conceptual Framework



Source: Developed by Researcher

### *Description of The Conceptual Roadmap of The Study*

Part one of the research focused on understanding the implementation of Local Content Development policy in the O&G industry. This research was informed by the theory of development, local content, and creating shared value along with their related variables, concepts, or strategies. In addition, public policy theory reinforces our understanding of the external and internal institutional factors that ease and hinder policy implementation (Bhuyan et al., 2010; Senoo & Armah, 2015).

Part two focused on exploring the potential to replicate local content into integrated tourism complexes. Integrated tourism complexes defined as “new developments that combine tourism such as hotels and leisure facilities and real estate such as housing units” (Nebel, 2014). Part two informed by the theory of diffusion of innovation. Policy attributes include relative advantage (i.e., the perceived costs and benefits by potential policy adaptors); compatibility (i.e., consistency of policy with the existing values, experiences, and needs of potential adopters); and complexity (i.e., perceived ease of policy implementation) (Rogers, 2003).

This conceptual model guided the data collection and analysis with the aim to reach an in-depth understanding of the policy implementation factors as perceived by stakeholders in the O&G industry, and an understanding of how Local Content Development perceived by decision-makers in the Integrated Tourism Complexes and what do they think needs done to facilitate policy replication. Such an in-depth understanding will inform policy recommendations.

## CHAPTER 3: METHOD OF ANALYSIS

### 3.1 Introduction

This research adopted a case strategy with analysis based on individuals; individuals from oil and gas; where the local content policy was first implemented in Oman, and individuals from tourism as a policy replication potential. Qualitative methods were employed with surveys for data collection and analysis (Yazan & De Vasconcelos, 2016). The case study is Local Content Development (LCD) policy that is a government and/or a company policy that promotes sustainable development including, sourcing of goods and services, employment and training, supplier development, and social investment. The case bounded by policy development processes including, policy formulation, strategy, implementation plan, and performance measurement. The focus of the dissertation addresses implementation aspects, as it provides insights relevant to policy replication in other sectors. In addition, the case bounded by industry (i.e., oil and gas and tourism), stakeholders (i.e., respective government, company), study site (i.e., Oman), and timeframe (i.e., 2013-2019). To answer research questions, the research followed three steps.

### 3.2 Data Collection Method for Research Part 1 (Oil & Gas) And Part 2 (Tourism)

I designed the data collection to be In-person interviews with individuals. But COVID-19 measures undertaken in many countries restricted in-person interactions, travel, access to research participants, and social-distancing, besides university-imposed limitations in conducting research with human subjects, influenced the decision on data collection plans. This research adopted a qualitative survey with open-ended questions as a data collection method for both studies using Qualtrics (a cloud-based platform for creating and distributing web-based surveys).

English is the official foreign language in Oman and used in business and to serve government development programs (Al-Issa & Al-Bulushi, 2012), and participants are educated and professionals and there was no expected language barrier so the English language adopted in the survey. The literature on method shows that qualitative survey is used in case studies and for analysis of meanings and experiences (Jansen, 2000). There is a difference between open surveys and a pre-structured survey. This dissertation adopted pre-structured survey in which I defined major topics based on local content literature before data collection begun, and I identified related topics/parent codes through the analysis of survey responses once data collection was complete (Jansen, 2000). In the open survey, however, major topics identified through interpreting survey responses (Jansen, 2000).

### 3.2.1 Questionnaire Design

The researcher attended a Qualtrics workshop on Thursday, November 21, 2019, at Michigan State University to learn to use Qualtrics to create online surveys. This was supplemental to the method courses taken in the PhD Program. The researcher followed these steps to prepare for data collection:

- Researcher developed first questions on internal and external factors of implementation of LCD and questions on policy replication based on the literature review, experiences working in the industry in the local content, and informal meetings with professionals in the field during researcher visit to Oman between december 2019 and January 2020.
- Draft survey questions prepared by researcher reviewed with members of the PhD guidance committee to ensure consistency and clarity.

- Researcher completed university required trainings related to conducting research with the human subject, such as overview of human research protection and ethics and regulations in human research.
- The researcher was approved for the survey and consent/invitation protocols from MSU's institutional review board (IRB) in March 2020.

I developed two different surveys to collect data from participants in the oil and gas and tourism. The focus for oil and gas was on past experience with LCD, while the survey for tourism focused on implementation potential. Both surveys went through several pilot tests with the researcher, colleagues, and members of the PhD guidance committee to ensure surveys functioned as intended.

Following are the steps taken in Qualtrics to design, test, distribute, and manage survey data.

### 3.2.2 Survey Questions

For the O&G survey, the researcher organized questions in seven sections: 1) personal information, 2) organizations' Local Content Development strategy, 3 and 4) implementation factors of Local Content Development policy, 5) opportunities for LCD policy adoption at national and regional levels, 6) the lessons and considerations for LCD policy enhancement, and 7) the coronavirus disease (COVID-19) and Local Content Development policy. Oil and gas survey and invitation letter are in the appendix A.



Descriptions of survey sections and questions are as follows:

- Section 1 included two questions. Question 1 asked for contact details—participant's name, email, phone company name, and job title. The researcher used this information for identification and follow-ups. In question two, the researcher asked to describe their professional responsibilities. Data then analyzed to show the jobs and experiences other sectors might consider in policy replication.
- Section two focused on getting an overview of the organization's Local Content Development (or In-Country Value). A survey question asked to describe the organization's Local Content Development (LCD) policy and its implementation, and to understand budgetary requirements for implementation, a survey question asked to show types of costs involved in policy implementation, and to understand LCD impact and associated factors, a survey question asked respondents to highlight impact and associated factors.
- Section three comprises three questions: what are the key internal challenges of LCD policy implementation, what were the effects these challenges have on LCD policy implementation? And how did you manage these challenges? The aim of asking these questions was to identify internal factors within the organization's control that may affect LCD policy implementation, and in which other sectors might consider in policy replication.
- Section four comprises two questions—one that focused on facilitators and the other on barriers to implementation of LCD policy. The aim was to show external factors (uncontrollable factors) that may affect LCD policy implementation, which other sectors might consider in policy replication.
- Section five comprises three opinion questions with the aim to understand opportunities for LCD policy adoption at national and regional levels.

1. Do you believe that the oil and gas LCD policy can apply to other sectors?
  2. Do you believe LCD policy can support Oman Vision 2040?
  3. Are there opportunities and space for collaboration within GCC countries in Local Content Development?
- Section six comprises two summary questions aimed at identifying key lessons and area of improvement. Overall, what were the major lessons in terms of LCD policy implementation? Looking back, would you suggest doing anything differently?
  - Section seven includes one question on whether the coronavirus disease (COVID-19) change anything on LCD policy implementation?

For the tourism survey, I grouped the questions in four sections: 1) personal information; 2) sustainable development practices and perception of the In-Country Value program; 3-4) internal and external factors of Local Content Development policy in tourism. Tourism survey and invitation letter are in the appendix B.

- Section one comprises two questions. The first question asked for contact details - participant's name, email, phone company name, and job title. The researcher used this information for identification and follow-ups. Question two focused on background and professional responsibilities to understand the hierarchy of participants.
- Section two comprises two questions. In the first question, the researcher asked whether ITCs in Oman involved in any sustainable development practices and to show the business practices and similarities with Local Content Development. The second question focused on decision-makers of ITCs on their perception of the In-Country Value program implemented in the O&G industry in Oman—a hyperlink to ICV program website provided with this question for information.

- Section three included one question to identify internal factors that may affect LCD policy adoption in tourism.
- Section four included one question to identify external factors that may affect LCD policy adoption in tourism.

### 3.3 Data Collection and Analysis

The research followed five steps for both studies to answer the five research questions, which include:

- **Step one (study population):** identification of target population from oil and gas and tourism
- **Step two (sampling):** identification and selection of companies / projects, and identification and selection of participants within companies/projects.
- **Step three (survey management):** managing the instrument
- **Step four (data analysis):** procedures used to analyze data
- **Step five (findings):** presenting of major themes generated from data analysis

#### 3.3.1 Step one: Study Population

The first stage identified the O&G sector firms in Oman, and the leading ITC projects in tourism.

##### *Oil and Gas*

The population for part one included stakeholders in the upstream and downstream sectors because local content implementation targets different players in these sectors. Stakeholders included the government as policy maker, and oil and gas companies as policy implementers. Oil and gas companies include licensed oil operators, service providers, construction, and manufacturing. The result was a list of contacts in the sector.

## *Tourism*

Tourism was identified as a major development sector in Oman's Vision 2040 strategy (Oman Supreme Council for Planning, 2019). In addition, Oman plans to invest \$10.39 billion USD in developing five new integrated tourism complexes (Simpson, 2018). These investments in tourism and other sectors are likely to create several economic development opportunities. I focused on mixed-use development projects, specifically integrated tourism complexes, which were chosen because of large investments, the degree of project planning for the multiple implementation phases and integration of land uses i.e., residential, commercial, and tourism. The Omani government has granted licenses for 17 integrated tourism complexes projects distributed in various regions in the Sultanate in which investment amounts to over 10 billion USD (Sultan Qaboos University, 2017, p. 218). To explore opportunities for LCD replication in tourism, the researcher targeted various stakeholders of integrated tourism complexes (ITC) in Oman. The study identified contacts in tourism sector to help reach ITCs.

### 3.3.2 Step two: Sampling

Given the need for input from business leaders and decision makers, a purposive sampling was adopted because this method enables access to a particular subset of people whose profile matches the research objectives (Yazan & De Vasconcelos, 2016). The sampling divided in two stages: identification and selection of companies, and identification and selection of participants within companies.

### *Identification and Selection of Companies and Participants - Oil and Gas*

Identification of companies was through 1) consultation with the Ministry of Oil and Gas LCD program management office, 2) use of researcher's work experience in policy implementation with the national oil company from 2013 to 2016, 3) and through researcher's professional network. criteria applied for selection emphasized that organizations were involved in policy implementation and accessible.

Participants were identified in consultation with policy implementation office at the Ministry of Oil and Gas and the criteria applied suggested that participants have at least 5 years of direct work experiences in Local Content Development.

I created a database of candidate organizations. The companies in the database represent a typical case for implementing LCD policy and have experience in the industry-wide implementation of Local Content Development policy. For instance, executive management of these companies are members in industry-wide policy steering committee and have established key positions within organizations to handle policy-related issues.

The researcher identified categories of organizations and participants. These categories represent a variety of experiences in the policy's implementation, which enrich the analysis and reduce self-selection biases. The four categories are: 1) government, 2) national oil company (NOC) and state-owned enterprise (SOE), 3) international oil companies (IOC), and 4) lead contractors. Description of these categories as follow:

### **Government**

Represented by the Local Content Development project management office (PMO) a dedicated office for the LCD program in the O&G industry. The office oversees LCD initiatives and reporting through coordination with oil and gas operators, industry wide LCD steering committee, and subs-committees.

### **National oil company (NOC) or state-owned enterprise (SOE)**

NOC or SOE is an oil company fully or majority owned by government. The company engages in extractive industries, produces most of Oman's oil and gas and plays an important role in supporting government development goals.

**Local oil companies**

These companies are privately owned local oil company and have participated in implementing LCD in Oman

**International oil companies (IOC)**

These are major players in the world, and they play an important role in Oman's oil and gas industry.

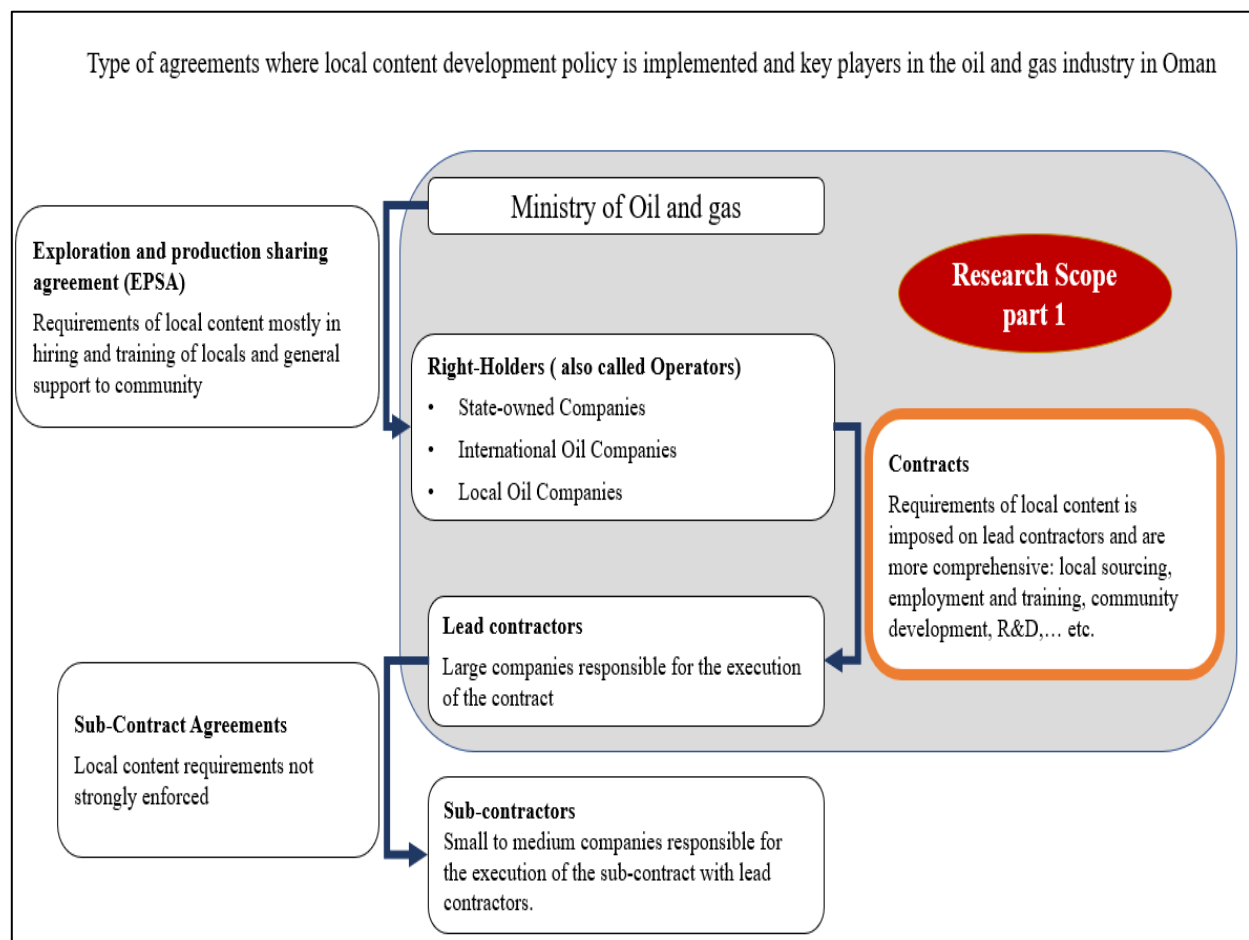
**Lead contractors**

Lead contractors are companies of different sizes and nationalities that execute the contract signed with major oil companies. Often, they are contractors and partners in implementing Local Content Development policy.

## *Types of Agreement in The Oil and Gas Industry Where Local Content Development Policy Apply*

As shown in figure 8, national, local, and international oil companies considered right holders or operators when they get into exploration and production sharing agreement (EPSA) with the government.

Figure 8: Agreements where LCD is featured and the relationship between Government, Operators, and lead contractors in the Omani oil and gas sector



Developed by Researcher

Local content features in the EPSA (i.e., in employment and training of locals and general support to the communities near oil fields) (Figgins et al., 2018), but EPSA was not the focus of this research.



This research focused on the industry collaborative policy of Local Content Development, which applies after the EPSA. For instance, implementing LCD happens through operators' tendering systems to contract out major activities (i.e., exploration, development, and production of oil and gas). Operators include local content (i.e., employment, local sourcing) as terms and conditions of the contracts with lead contractors. Lead contractors win contracts based on technical capabilities, sound commercial terms, and contributions in Local Content Development, so they execute the contract with local content commitments, and may subcontract to small and medium enterprises. Lead contractors play major roles in supporting operators to achieve Local Content Development goals, and so their experiences in policy implementation were important for this research.

In addition, many organizations in the O&G industry in Oman have established local content roles and appointed key personnel to handle day-to-day activities. However, there is variation in how these roles are defined within the organizational structure. The local content professional is a key role in the organization and usually collaborates and deals with decision-makers and professionals in the supply chain, human resources, corporate social responsibility, and related areas to facilitate the implementation of local content strategies. Therefore, this research selected local content professionals because they are better positioned to provide information to answer research questions and because they have a holistic view on implementation issues. The researcher visited Oman in December 2019 to establish research relationships with potential participants in the O&G sector. Several meetings were conducted in Oman with potential participants to explore willingness to participate in surveys and interviews around internal and external factors affecting implementation of Local Content Development policy and questions about policy replication.

20 individuals representing study population for research part 1 contacted and 16 responded. The study population included: 2 individuals representing the government, 15 individuals representing 9 oil and gas firms (i.e., large oil firms had over 2 individuals with specific LCD experiences, 13 responded, and 2 did not), and 5 individuals representing 5 large contractors' firms (3 responded, and 2 did not). I excluded other oil and gas firms as they do not represent a significant source of information to help answer research questions and as advised through consultations with oil and gas professionals.

#### *Identification and Selection of Companies and Participants - Tourism*

The Omani government has granted licenses for 17 integrated tourism complexes projects distributed in various regions in the Sultanate in which investment amounts to over 10 billion USD (Sultan Qaboos University, 2017, p. 218). 13 of 17 were active ITC according to the Ministry of Tourism, and this number represented the population to be contacted to participate in data collection. The approach to the tourism section of the study is exploratory as it was based on potential for LCD implementation, on contrast to the O&G sector that has extensive experience with the policy.

A snowballing approach was adopted for identification and selection of participants within ITC projects. In addition, the researcher visited Oman in December 2019 to establish research relationship with potential participants in the tourism sector. Several informal meetings were conducted in Oman with potential participants from tourism as a way to identify potential participants, to contact them, and check willingness to answer questions around policy replication. The under-secretary of the Ministry of Tourism offered to facilitate access to all decision-makers of ITCs. For instance, the Ministry of Tourism emailed invitations to ITCs to participate in the research.

### 3.3.3 Step three: Survey Management

Due to Covid-19 protocols, the survey was administered online in spring 2020. The data were stored and protected in the Qualtrics survey system, which was also used to collect data online.

#### *Oil and Gas Survey*

The researcher distributed surveys and collected data between April 2020 and July 2020. For oil and gas 16 out of 20 respondents completed the survey for a response rate of 80%. Some minor issues were encountered sending system-generated surveys to participants' emails, which caused delays in receiving and responding to surveys, although this was resolved by sending survey links to each participant. Several strategies were used to remind participants to complete the survey, including contacts by email, phone calls, texts, and WhatsApp. WhatsApp was also used for questions and clarification with respondents when needed.

#### *Tourism Survey*

The under-secretary of the Ministry of Tourism facilitated access to decision-makers of ITCs. It was valuable to have the ministry involved to show the importance of research and increase the chances of a higher response rate. An invitation letter was prepared for distribution that incorporated IRB protocols including a description of the research, its scope, and the importance of participation along with the researcher's contact details. The survey invitation was distributed by the under-secretary of the Ministry of Tourism by email via a director responsible for ITCs. The invitation was accompanied by a request from the Ministry to participate sent to 13 active ITCs as advised by MOT and accessible resulting in 8 out of 13 ITCs completing the survey.

### 3.3.4 Step four: Data Analysis Procedures

#### *Thematic Analysis*

To add rigor in data analysis, the researcher used thematic analysis with combined deductive and inductive approaches. Thematic analysis defined by Elliot et al., (2016) as the “coding of qualitative and textual material according to a prior list of topics. Themes are taken from existing literature or previous research knowledge”. The thematic analysis was used to compare concepts derived from literature with data derived from the survey. For example, a deductive approach used in organizing both surveys in sections informed by literature and the researcher's experiences, and the inductive approach is used later to derive data from texts (Dearing et al., 2019).

The researcher used the thematic analysis developed by (Braun & Clarke, 2006) to analyze data because of the organized structure and the clarity of the procedures in each step. These steps include (Braun & Clarke, 2006):

- **Familiarizing with data:** Reading and rereading the responses, noting initial first ideas.
- **Generating first code:** The coding of responses according to their focus/concept/topic across the entire data set.
- **Searching for themes:** Collating codes in potential themes
- **Reviewing themes:** Checking if the themes related to the coded extracts and the entire data set
- **Defining and naming themes:** Ongoing analysis refining the specifics of each theme and the overall story that the analysis tells, generating definitions and names for each theme.
- Producing the report of analysis

In addition, the researcher used qualitative data analysis tool ATLAS.ti 8 software to perform data analysis on qualitative data (i.e., transcripts, documents) that is then arranged and organized in systematic ways that help in coding, analysis, and data visualization. The data source was survey responses in English stored as transcripts in Qualtrics survey system (i.e., each response/transcript stored as a downloadable PDF document). Analysis was conducted for each part of the survey.

The following steps were performed in ATLAS.ti to prepare data analysis for each research project.

- Responses downloaded from qualtrics to researcher's computer and saved in folders project (i.e., oil and gas folder and tourism folder) and responses in pdf files sorted by names of company and participant (i.e., companyA, participant S).
- In ATLAS.ti the first thing the researcher did is creating new and separate projects (i.e., project 1: oil and gas survey data and project 2: tourism survey data)
- Responses were organized under each research project to begin the coding. In addition, researcher included other responses in the analysis. These were responses to clarification questions raised by researcher in relation to specific survey question. Responses were received by researcher through email and saved in qualtrics and included in the analysis. So, 32 documents used in the analysis in this dissertation (i.e., 22 documents for oil and gas and 10 documents for tourism).

The following steps were performed in ATLAS.ti to code data for each research project:

- Reading each document multiple times to get an overall feeling of the responses.
- Initial coding of the data reflected the patterns and repetition of concepts and topics expressed.

For instance, under survey section on LCD policy objectives, participants described policy objectives in different ways, for instance, using phrases such as job creation as a policy objective, another mentioned employment and training. So, each of these expressions was coded with 765 as child codes generated for oil and gas and 116 for tourism. This number of codes was not efficient for analysis, so codes were further refined and merged into broader categories or parent codes that represent the essence of the child codes. For example, child codes related to employment and training we placed in the category or parent code “workforce development”. The same method used for the remaining codes. As a result, 765 child codes of oil and gas were refined and merged to 13 parent codes and 59 associated child codes, and the 116 child codes for tourism refined and merged to 5 parent codes and 14 associated child codes. A full list of codes is in the appendix E.

- Codes were further analyzed and reviewed to generate key themes, which carries the meanings expressed. These themes were refined to provide a narrative generated from systematic analysis.
- Individuals' names were anonymous to ensure that all participants' identities were confidential

### 3.3.5 Step five: Data Analysis Major Themes

Major themes were based on analysis of parent codes identified in the coding. These parent codes contained child codes related in pattern, meaning, and topics expressed by participants. Now I present major themes of part 1 oil and gas and then part 2 tourism:

Major themes part 1—oil and gas included:

- **Theme1: local content policy development process.** This theme shows how policy developed and related factors that played a role in its development
- **Theme2: local content policy implementation factors.** This theme describes implementation processes used by different companies and related facilitators and barriers.
- **Theme3: perceptions on policy replication.** This theme suggests how the experience with LCD in oil and gas may be replicated across sector, national level, and regional.

The following tables 8-10 show sequences and connections between the main research goals and questions, data collection (i.e., survey questions) and data analysis (i.e., parent codes derived from coding) and how researcher derived the major themes.

I derived them one shown in table 8 from a specific coding related to policy drivers, implementation plans (i.e., strategies and resources used), impacts, and lessons.

Table 8: Oil and Gas Theme 1: Local Content Policy Development Process

Research Goals	Research Question	Survey Questions	Parent Codes Derived from Coding
To evaluate the factors associated with implementing Local Content Development policy in the O&G industry in Oman	RQ1 What are the internal and external institutional factors that affect implementation of Local Content Development policy since 2013?	Q1. Can you tell us about your work background and current professional responsibilities?	Strategy and Implementation
			Communication
			Supply Chain Development
			Workforce Development
		Q2.1 what is your organization's Local Content Development (LCD) policy and how did you implement it?	LCD Policy Goal: Supply Chain Development
			LCD Policy Goal: Local Business/Community Development
			LCD Policy Goal: Employment and skills Development
		Q2.2: what are the different costs involved in LCD policy implementation?	Supply Chain Activities
			Operational costs
			Employment and Training
			Stakeholder Engagements



Table 8 (cont'd)

Research Goals	Research Question	Survey Questions	Parent Codes Derived from Coding
To identify the factors associated with implementing Local Content Development policy in the O&G industry in Oman	RQ1 What are the internal and external institutional factors that affect the implementation of Local Content Development policy since 2013?	Q2.3 what are some success stories about your organization's LCD policy implementation? Briefly describe and highlight key factors specific to these stories	Increased local employment and trainings
			Increase policy adoption and implementation in Oman
			Supplier / Community Development
			Increased local spend on goods and services
		Q6.1 Overall, what were the major lessons learned in terms of LCD policy implementation?	Collaboration - Policy, Science, Industry and Society
			Long-term Investment and International competitiveness
			Policy Implementation Office Supported by Dedicated Professionals
			Implementation Endurance and Resilience
			Government leadership and Commitment of decision-makers in private sector
		Q6.2 Looking back, would you suggest doing anything differently?	Create LCD Regulations
			Increase Policy Awareness
			Expand LCD implementation
			Establish Robust Database
			More Development of National Workforce

Oil and gas theme 2 describes implementation processes used by different companies and related facilitators and barriers as shown in table 9.

Table 9: Oil and Gas Theme 2: Implementation Factors

Research Goals	Research Question	Survey Questions	Parent Codes Derived from Coding
To identify the factors associated with implementing Local Content Development policy in the O&G industry in Oman	RQ1 What are the internal and external institutional factors that affect the implementation of Local Content Development policy since 2013?	Q3.1 what are the key factors internal to your organization that have facilitated the implementation of your organization's LCD policy? i.e., what made the policy implementation work? please list and describe these factors and the effects they have on the implementation	Company leadership and Governance
			Supply Chain
			Resource Availability
			Corporate Communication
		Q3.2 what are the key internal challenges of LCD policy implementation? Please list and describe these internal challenges Q3.2.1 what were some effects these challenges have on LCD policy implementation? Q7.1 will the coronavirus disease (covid-19) change anything with regards to LCD policy implementation?	Resistance to Change
			Impact of Covid-19
			Lack of Local Capabilities
			Business Environment
			Lack of regulations
			Lack of data on market and supplier's capability

Table 9 (cont'd): Oil and Gas Data Analysis Theme 2: Implementation Factors

Research Goals	Research Question	Survey Questions	Parent Codes Derived from Coding
To identify the factors associated with implementing local content policy in the O&G industry in Oman	RQ1 What are the internal and external institutional factors that affect the implementation of Local Content Development policy since 2013?	Q3.2.2 how did you manage these challenges?	Policy Awareness campaign
			Strengthen Policy Performance Management
			Improve LCD identification strategy and processes
			Management support
			Develop Local Capability
			Dedicated team
		Q4.2 what are the key factors external to your organization that have hindered the implementation of LCD policy?	Collaborative approach and governance (Industry-wide)
			Decision-makers commitment
			Coherence with national policies
			Government policy
			Local market assessment

Theme 3 reflects opinions and suggestion on how LCD should replicate across sector, national level, and regional as shown in table 10.

Table 10: Oil and Gas Theme 3: Perceptions on Policy Replication

Research Goals	Research Question	Survey Questions	Parent Codes Derived from Coding
To identify the factors associated with implementing Local Content Development policy in the O&G industry in Oman	RQ1 What are the internal and external institutional factors that affect the implementation of Local Content Development policy since 2013?	Q5.1 Do you believe that the O&G LCD policy can be applied to other sectors? please explain	Replication across sectors
		Q5.2 The sultanate of Oman, through Oman Vision 2040, is committed to achieving the sustainable development goals (SDGs) in economic, social, and environmental dimensions. Do you believe LCD policy can support Oman Vision 2040? please explain.	Replication at National Level (Long-term economic planning)
		Q5.3 Some GCC countries are adopting LCD policy to support national long-term development plans such as Qatar 2030 and Saudi 2030. Are there opportunities and space for collaboration within GCC in the context of Local Content Development?	Replication at Regional level - Gulf Cooperation Council (GCC)

The Major theme part 2 – Tourism included:

- Tourism theme 1: sustainable development practices. This theme describes business practices used by integrated tourism complexes that are similar to Local Content Development and an indicator of how LCD might be used in the sector, this theme also incorporated how tourism leaders perceived oil and gas LCD policies, as shown in table 11.
- Tourism theme 2: policy adoption factors. This theme reflects opinions of decision makers of the integrated tourism complexes on the factors that could facilitate, or hinder, LCD policy diffusion as shown in table 12.

The following tables 11 and 12 show sequences and connections between the main research goals and questions, data collection (i.e., survey questions) and data analysis (i.e., parent codes derived from coding and frequency) and how researcher derived main themes

Table 11: Tourism Theme 1: Sustainable Development Practices and Perceptions

Research Goals	Research Question	Survey Questions	Parent Codes Derived from Coding
To explore the possibility of replicating Local Content Development policy in Oman's tourism sector	RQ3 What are current perceptions of the local content policy in the tourism sector as a strategy for national economic development?	Q2. Is your organization currently involved in any sustainable development practices in Oman?	Local Sourcing of Goods and Services
			Community Development
			Supporting Small and Medium Enterprises
			Employment
			Environmentally and Socially Friendly
		Q3. What is your perception of the In-Country Value program implemented in the O&G industry in Oman?	The Policy Contributes to the sustainable development of the country
			Characteristics of Oil and Gas industry
			Unaware of this program

Table 12: Tourism Theme 2: Policy Adoption Factors

Research Goals	Research Question	Survey Questions	Parent Codes Derived from Coding
To explore the possibility of replicating Local Content Development policy in Oman's tourism sector	RQ4 What factors influence adoption of local content policy in the tourism sector, specifically, in Integrated Tourism Complexes (ITCs)	Q4. what are the key factors, internal to your organization, that might affect the decision-making concerning the adoption of Local Content Development practices?	Company Leadership
			Company Supply Chain
			Relationships with Stakeholders
		Q5. what are the key factors, external to your organization, that might affect the decision-making concerning the adoption of Local Content Development practices?	National Strategy and Business Environment
			Local Capability

### 3.4 Summary

This chapter discusses the development of a case study. The study used the oil and gas industry in Oman as an example of a typical Local Content Development policy that exemplified implementation factors, while the tourism industry is a case study of a target industry to replicate LCD policy. Data collection used a survey with open-ended questions, with responses stored and protected using Qualtrics survey software.

The target population of oil and gas decision makers included Local Content Development policy stakeholders (i.e., government and companies) identified and selected through consultation with local content policy implementation office at the Ministry of Oil and Gas, criteria applied for selection emphasized that organizations were involved in policy implementation and accessible. Participants were identified in consultation with policy implementation office at the Ministry of Oil and Gas and the criteria applied suggested that participants have at least 5 years of direct work experiences in Local Content Development.

The study population for tourism included decision-makers of integrated tourism complexes based in Oman identified and selected through consultation with the Ministry of Tourism. Thematic analysis showed the major themes that helped to organize and prepare information for interpretation and discussion, forming the basis for a discussion of finding in chapter four.

## CHAPTER 4: FINDINGS

### 4.1 Introduction

The purpose of this study was to evaluate the factors associated with implementation of Local Content Development policy in the oil and gas industry in Oman and to explore the possibility of replicating the policy in Oman's tourism sector. The first three chapters of this dissertation offered an introduction to the global changes that affect life and sustainability, a review of literature around sustainable development and national policies, and the method used to answer research questions. Now, I present findings of research in two parts, first for oil and gas and then for tourism.

This research adopted a case study strategy with analysis based on policy stakeholders from oil and gas where the local content policy was first implemented in Oman, and then representatives of the major tourism projects as a policy replication potential. I employed qualitative methods with surveys for data collection and analysis (Yazan & De Vasconcelos, 2016). Individuals' names were anonymous to ensure that all participants' identities were confidential. Oil and gas findings served the following research questions.

1. What are the internal and external institutional factors that affect the implementation of Local Content Development policy?
2. What factors must be considered in replicating Local Content Development policy in the non-oil sector?



Tourism findings answered the following research questions:

3. What sustainability practices are used in integrated tourism complexes in Oman?
4. What are the perceptions in the tourism sector of the Local Content Development policy implemented in oil and gas in Oman?
5. What factors influence the adoption of the Local Content Development policy in the tourism sector, specifically, in integrated tourism complexes (ITCs)

#### 4.2 Findings Part 1: Oil and Gas

##### *Contexts*

Local content development in Oman is known as In-Country Value (ICV), and started with the O&G industry, which defines ICV as “the total spend retained in-country that can benefit business development, contribute to human capability development and stimulate productivity in the Omani economy. In short, products made, and services provided by Omanis (in Oman)” (O&G ICV Project Management Office, 2013b). This definition emphasizes capital and operational expenditures undertaken by national and international oil companies, and this spending is driven by the demand for goods, services, and jobs in the local market, and considered mainstream of In-Country Value (ICV) opportunities. ICV opportunities were identified, developed, managed, and realized using established category management and contract and procurement (CMCP) practices. The ICV definition highlights policy aspirations and long-term goals, which include an increase in a local market efficiency in terms of quantity and quality of local firms and workforce.

Industry LCD policy refers to industry-wide development initiatives to promote the In-Country Value within the O&G industry. This policy leverages the collective demand for workforce, goods, and services to influence market conditions and in-country investment. Implementation of these initiatives has been through tendering systems of individual companies in the O&G sector. These initiatives translated into an oil and gas LCD blueprint strategy 2013-2020 that highlights key impact areas, guidelines for implementation, governance, and reporting mechanisms. Company LCD policy refers to companies' own LCD related initiatives besides their commitments towards industry LCD policy. The company LCD policy translate into business strategy and operations and will set up a new business unit to support LCD initiatives. Other companies introduce new LCD positions within the supply chain, human resources, and corporate social responsibility to handle LCD related activities.

There is a growing need in Oman to replicate the O&G LCD model in other sectors to support sustainable development of the country.

Research Question #1: *What are the internal and external institutional factors that affect the implementation of Local Content Development policy?*

Research Question #2: *What factors must be considered in replicating Local Content Development policy in non-oil and gas sector?*




Stakeholders received survey links by email between April 2020 and July 2020. In total, 16 out of 20 Respondents completed the survey. In the next section, I present findings based on themes that emerged from the data analysis

#### 4.2.1 The LCD Policy

##### *LCD Policy Goals*

The findings, as presented in table 13, show that company LCD goals center on three broad themes that were derived from survey responses and comments. Table 13 shows the number of times LCD goals were repeated across responses.

Table 13: Findings- LCD Policy Goals

Groups	Name	Grounded	
[LCD Policy Goals]	◇ Development of Supply Chain		7
[LCD Policy Goals]	◇ Local Supplier/Community Development		5
[LCD Policy Goals]	◇ Employment and Skills Development		6

Source: data analysis software used by researcher (Altals.ti8)

The major themes include:

- 1) Supply chain development was the most commonly cited aspects of LCD and refers to requirements to increase local sourcing of goods and services through tenders of oil companies. As stated by respondent A, “this policy shall apply to the procurement of goods & services related to company requirements”. Another respondent mentioned that it “received ICV requirements in the new tenders” thus supply chain development become a part of the company's LCD goal. Another respondent stated, “to maximize the services through national register suppliers”. This respondent specified the location of companies as a criterion included in the supply chain development strategy. Another respondent specified the planning aspect of supply chain development as “coming up with new opportunities for new contracts extensions”.





- 2) Local business/community development refers to companies' programs to support local businesses, including small and medium enterprises, while community development refers to charity and philanthropy support- or as known in the business world as social investment, corporate responsibility programs, or creating shared value. As described by respondent B “contributing to sustainable development supporting the growth of Omani society and the development of local communities, to achieve a mutually beneficial and sustainable environment for carrying out oil & gas operations”. Research conducted in other countries shows consistent findings with the Oman results (Ado, 2016; Nwapi, 2016; White, 2017)
- 3) Employment and skills development. Employment refers to LCD requirements to increase the share of Omanis directly employed by oil companies and indirectly employed by contractors, as stated by respondent B, “the ICV initiatives focus on the Omanisation of skilled jobs”. Skills development refers to training programs for Omanis in high demand skills. As stated by respondent C, “investing in developing the local workforce, particularly the youth with a focus on technical skills training to international standards and accreditation”. Another respondent stated that LCD focuses on, “development of human capital in all projects/contracts”.

### *LCD Planning - Budget Considerations*

Survey responses revealed four budget considerations for LCD implementation—supply chain activities, operational costs, employment and training, and stakeholder engagement as presented in table 14, which shows the number of times types of budgets were mentioned across responses.

These responses reveal how oil and gas firms saw the main cost centers associated with LCD

Table 14: Findings- LCD Planning - Budget Considerations

Groups	Name	Grounded ▼	
[LCD Planning - Budget Considerations]	◇ Supply Chain activities		13
[LCD Planning - Budget Considerations]	◇ Employment and Training		10
[LCD Planning - Budget Considerations]	◇ Operational costs		9
[LCD Planning - Budget Considerations]	◇ Stakeholder Engagement		3

Source: data analysis software used by researcher (Atlas.ti8)

- 1) Supply chain funding includes the increasing contract costs associated with giving a 10% price preference to local goods and services, i.e., paying more for locally sourced goods and services performed by Omanis, and sponsoring supplier development programs, conducting supply and demand studies, and training for contractors. As stated by respondent Z, supply chain costs include “purchasing to allow certain margins for local products and services”. Other costs include 10% of contract value reserved for small and medium enterprises (SME). SMEs are registered in the government database and have been verified by the government that these SME are managed by full-time dedicated Omani entrepreneurs.
- 2) Operation costs associated with running the LCD department, employees’ training and development as stated by respondent E, “employees training and development to close competencies gap”. Another respondent stated, “employees’ salaries”, “monitoring & reporting tool management system”. And consultancy studies, as stated by respondent G, include “strategies, programs, market baseline, market intelligence”.





- 3) Employment and training funding is associated with the 1.2% training levy, which was introduced as an additional part of Oman's policy to sponsor trainings for Omanis. The 1.2% training levy is deducted from the net invoiced amount for contracts and purchase orders, as stated by one respondent that the government, "has mandated all operators to collect 1.2% training levy from the total value of [oil and gas] contracts" to fund local employment and training. Other workforce development funding includes the costs of infrastructure for training and development for the local workforce, and a "cost of Omanisation in contracts", meaning companies sometimes pay high salaries to employ Omanis as compared to expats.
- 4) Communication funding is associated with running LCD awareness and training events, internal and external stakeholder engagement, publications, and media. As stated by respondent D, this budget concerns "event costs such as suppliers and SME engagements, workshops, and road shows".

Findings show budgeting for LCD activities is a part of the policy implementation to cover costs related to operations, supply chain, workforce development, and communication. Further information was not collected to show the exact amount of money allocated for these activities, and that is because of the sensitivity of data.

### *LCD Planning - Skills and Experience of LCD Professionals*

To understand the skills and experience of LCD professionals as an indicator of what might be expected for other sectors, the current study found that most of those surveyed showed having the skills and experience relevant to LCD goals. Many survey respondents showed having skill and experience in strategy and implementation, communication, supply chain development, and workforce development as presented in table 15, which shows several times a skill repeated across responses.

Table 15: Findings- LCD Planning - Skills and Experience of LCD Professionals

Groups	Name	Grounded ▼	
[LCD Planning - Skills and Experience of LCD Professionals]	◇ Strategy and Implementation		10
[LCD Planning - Skills and Experience of LCD Professionals]	◇ Supply chain Development		7
[LCD Planning - Skills and Experience of LCD Professionals]	◇ Communication		5
[LCD Planning - Skills and Experience of LCD Professionals]	◇ Workforce Development		4

Source: data analysis software used by researcher (Atlas. ti8)

- The findings show that strategy and implementation responsibilities center on setting goals for LCD at the corporate level or project level as stated by respondent S, “develop ICV management framework and associated procedures to ensure ICV is timely reflected in project designs and is ‘engineered-in’ and in day-to-day operations”, and in the “identification, implementation, reporting of LCD opportunities” such as local sourcing and employment. Another respondent stated that LCD professional sets “annual LCD strategies, budgeting, planning, and training targets”. Other focused on assessment study “recommend and drive capability and capacity gap analysis internally and across the project on skill gaps and commodities (goods and services) gaps”.

- Communication skills include “build relationships with key stakeholders/local businesses, and financial stakeholders for required initiatives” as stated by one respondent. Another includes “engaging with other government departments as and when required (e.g., Ministry of Finance, Ministry of Industry and Commerce, Ministry of Manpower)”, which are important to facilitate implementation. Other communication skills focus on specific LCD goals such as “establish engagement sessions with the industry suppliers on the ICV opportunities and initiatives with focus on sme development”.
- Supply chain responsibilities include “assessing supply and manufacturing capabilities, tender evaluations, and clarification, review contracting strategy of major tender proposals and contracts”. Another stated experience in “providing a comprehensive pre and post contracting and commercial service to company”. Another stated specific task including, “collect related information for each contract from related departments”. Other LCD professionals have experiences in “analysis & development of in-country supply & manufacturing capabilities”. Interdepartmental also features as a skill especially “to find out the number of agreements created with local SME, LCCs [local community contractors - a community-based closed shareholding companies] & local service providers”.
- Responses show that job responsibility in local workforce development is centered on identifying local recruitment opportunities in coordination with corporate human resources and project teams to manage the delivery of Omanisation and a variety of other training programs as stated by one respondent, “coordinate with corporate HR to identify recruitment opportunities”. LCD professionals deals with, “HR [human resources] department, to find out the number of new recruitments in each project for nationals and expats as well as the training provided for nationals with number of hours and cost per head per course”.







Findings show a variety of experiences and skill sets possessed by LCD professionals in the O&G in Oman, which emphasizes skills in strategy and implementation, communication, supply chain development, and local workforce development.

### *LCD Policy Impact*

The findings show the LCD brought changes as described by stakeholders in the following areas: increased local employment and training, increase policy adoption and implementation, supplier/community development, increased local spend on goods and services as shown in table 16. The grounded column in the table shows the number of times a code was applied. For instance, increased local employment and training were applied 11 times across responses to the question on LCD success stories.

Table 16: Findings- LCD Policy Impact

Groups	Name	Grounded ▲	
[Policy Impact]	◇ Increase Policy Adoption and Implementation		7
[Policy Impact]	◇ Supplier / Community Development		9
[Policy Impact]	◇ Increased Local Spend on Goods and Services		10
[Policy Impact]	◇ Increased Local Employment and Trainings		11

Source: data analysis software used by researcher (Atlas. ti8)

### *Increased Local Employment and Trainings*

Findings show the O&G industry established two online platforms: one to manage recruitment “joint recruitment portal”, and the other on skills development “sector skill unit”. In describing the joint recruitment portal, Respondent J stated:

As part of improving the consistency, integrity, and transparency of the recruitment process across all oil & gas operators, it was agreed to establish a joint recruitment portal for the operators. This portal will be the one stop shop for the job seekers to find & apply for the vacancies of 8 operating companies. The key success of this project is determined by creating consistency in hiring across the oil & gas operators/companies within this portal. improve transparency with job seekers and applicants. Improve data accuracy, report generating tool, and data access when required.

On job creation, the findings show stakeholders reported LCD successes in terms of an increase in Omanisation level in different job categories, as stated by Respondent B “increased Omanisation in senior jobs”. Another mentioned the creation of more than “80K job opportunities to Omanis since 2011”.

On training, Respondent J mentioned:

In 2019, occupational standards center (OSC) under the Ministry of Manpower has issued the license for Oman society for petroleum services (OPAL) to establish first of its kind sector skills unit (SSU) for the O&G sector in Oman. The SSU, under the guidance of the OSC, is going to play a pivotal role in developing a competency- based skill development system in the Sultanate national occupational standards products implementation.

Respondent J Added:

Oman society for petroleum services (OPAL) Learning Hub Portal Enhancement ([www.oglearninghub.om](http://www.oglearninghub.om)), [launched] a platform aimed to serve and support training providers, Assessment Centers, Learners, companies, and funding agencies, it is an end-to-end automated workflow supporting registration, approvals, certifications, verification and pledging process.

Other achievements mentioned by Respondent J include the National Apprenticeship Programs that are designed based on the new Oman national Occupational Standards (ONOS). Respondent J mentioned:

These standards have been developed by subject matter experts from the Oil and Gas industry and approved by the Ministry of Manpower. Apprenticeships are a robust and proactive approach to a productive and engaged national workforce that ensures the development of individuals through a formal, paid, and long-term technical development programs that provides valuable combination of classroom / workshop and on-the-job learning experience. As part of the Apprenticeship implementations, three apprenticeship programs mapped to the developed National Occupational Standards; as following; Electrical Apprenticeship Program, Mechanical Apprenticeship Program, and HSE Apprenticeship Program

Respondent J further explained achievements of National Apprenticeship Programs:

To ensure the training has been delivered by a competent and qualified training staff and following an international standard, the following has been achieved; 8 approved HSE trainers, 8 approved HSE assessors, 4 approved HSE internal quality assures, 15 approved mechanical & electrical internal assessors, 5 approved mechanical & electrical internal quality assures

#### *Increase Policy Adoption and Implementation*

Policy adopting decisions could happen at multiple stages—From an authority to service providers and then to end-users, or from company leadership (i.e., decision-makers) to staff (i.e., implementors) and then to the client (customers/end-user). Respondents were asked about their company's LCD impact and associated factors. One Respondent stated:

Senior executive commitment and leadership initially had to 'sell' the concept of ICV to CEO, but once he got it, he became our greatest ambassador. 2) Consistency of message - we wrote ICV headlines for the CEO' monthly communication to all staff and contractors, to constantly reinforce that ICV was simply good business for the company and most importantly for the country. 3) Education - ran seminars /training for all levels of the organization. Half day for CEO and his directors. Full day for the director' direct reports/department heads and 3 days for contract holders/contract engineers/project/technical staff. 4) Established an ICV focal point (full time) in all directorates and they were supported by a dedicated ICV team, led by a serious "talent" i.e., future director and staffed by highly competent Omani individuals. 5) Established ICV focal points network and this network met monthly, every month for nearly 36 consecutive

months 6) To repeat - clear consistency of message from the most senior person in the company on a regular basis reinforcing the consistent message. Also gave all directors the 'ICV elevator pitch' so that when they were talking to staff or in the media, again a consistent message was being given, fully aligned with the LCD policy.

Findings also show that companies are changing their tendering systems to incorporate LCD as stated by Respondent R, “ICV in Tenders- it is now mandatory for all high value contracts to be evaluated against ICV plans [LCD affect contracts award decisions], then transfer into Monitoring & Reporting system”. Another finding shows that LCD “now being replicated in other sectors led by the Ministry of Commerce and Industry [in Oman]”.

#### *Supplier/Community Development*

Regarding developing local companies and local communities, the study found that LCD created many opportunities for local companies and local communities. It was mentioned in one response that LCD contributed to the “creation of 4 super local community contractors with 10K shareholders”. Super local community contractors (SLCCs) incubated by oil companies for 10 years; with first 5 years of incubation, SLCCs receive direct contracts from oil companies; and the second 5 years of incubation, SLCCs to bid competitively with other contractors. SLCCs are closed shareholding companies owned by individuals and families within the concession area. In another responses, it was mentioned an increase in the localization of several industries as stated by Respondent O “a lot of Opportunities in term of opening up manufacturing plants, support new businesses to add more capacity in the vendor development plan (VDP), and the establishment of many local companies in subtle specialties in the sector such as cementing and casing accessories”.

### *Increased Local Spend on Goods and Services*






The study found an increase in spending on local goods and services as a result of the local content policy. It was mentioned in one response “we purchase 90% of our goods locally. We purchase 98% of our services locally. We purchase 90% of our assets locally”. Another mentioned “services awarded to local companies touched 99%”. Other responses mentioned “we have improved the ICV% over the past few years from around early 30s to 46% in 2020 adding more value to Oman”. On SME spend, one respondent said that” SME spend growing year-on- year over the past 4 years [between 2016 and 2020]”.

I presented here an overview and an account of the experience of the LCD policy in the O&G sector in Oman, as mentioned in the responses. We found local content policy contributed to increases in local employment and training, increases in policy adoption and implementation, development of local supplier / community, and increased in local spend on goods and services.

#### 4.2.2 LCD Implementation (Facilitators, Challenges, Recommendations, Lessons)

Policy implementation refers to mechanisms, resources, and relationships that link policies to program action (Mthethwa, 2012). Respondents were asked to identify the internal and external factors that influence LCD implementation. Findings show that key policy facilitators at the industry level, as presented in table 17, included collaborative approach and governance (industry-wide), decision-makers' commitment, coherence with national policies, government policy, local market assessment.





Table 17: Findings- Facilitators at The Industry Level

Groups	Name	Grounded	
[External Factors - Industry Level]	◇ Decision-makers committment		8
[External Factors - Industry Level]	◇ Collaborative approach and governance (Industry-wide)		7
[External Factors - Industry Level]	◇ Coherennce with national policies		5
[External Factors - Industry Level]	◇ Government policy		5
[External Factors - Industry Level]	◇ Local market assessment		2

Source: data analysis software used by researcher (Atlas.ti8)

At the company level, as presented in Table 18, key policy facilitators included company leadership and governance, supply chain, resource availability, and corporate communication. First, I will present the industry level factors, which are external to the organization followed by the company factors, which are internal to the organization.

Table 18: Findings- Facilitators at Company Level

Groups	Name	Grounded	
[Internal Factors - Company Level]	◇ Company leadership and Governance		13
[Internal Factors - Company Level]	◇ Corporate Communication		4
[Internal Factors - Company Level]	◇ Resource Availability		6
[Internal Factors - Company Level]	◇ Supply Chain		6

Source: data analysis software used by researcher (Atlas.ti8)

### *Industry Level Facilitator 1: Collaborative Approach and Governance*

The oil and gas industry implemented LCD in collaboration with government as stated, “addressing LCD at an industry level and having it being led by the Omani Govt - Ministry of Oil and Gas”. This means LCD policy makers engaged early with stakeholders and worked together in policy formulation, workshops, and meetings. Respondents mentioned that group peer pressure facilitated implementation as stated in one response, “commitment from other larger organizations pushed the organization forward to demonstrate the same commitment to LCD”. The findings show that LCD governance was a key factor in implementation, as noted in the following response:

The unique collaborative approach. The industry upstream, mid-stream and downstream companies are part of the ICV program. The Ministry of Oil & Gas formed a steering committee chaired by H. E the undersecretary of the oil & gas. The committee has in its membership the CEOs and GMs of the main oil & gas operators. Early stages and continuous engagements between The Ministry of Oil & Gas, the operators, and the contractors have played a major part of the success of the program. The steering committee meets every quarter to review progress. Two sub-committees support the steering committee. The ICV C&P subcommittee and the ICV HR subcommittee

It was mentioned in the responses the influence of the “dedicated program management office” “... in The Ministry of Oil & Gas which acts as a single point of contact for ICV related matters and manages the ICV strategy development process”.



### *Industry Level Facilitator 2: Decision-Makers Commitments*

The study found that policy makers in the industry supported implementation as stated “dedication & priority given by Undersecretary of MOG”. Another stated, “The Ministry of Oil and Gas support and commitment. Both [Excellencies] are supportive and aligned”. One Respondent put it this way:

Stakeholder’s support and commitment are critical external factors that facilitated the implementation of ICV. Since the launch of the ICV, various stakeholders including Ministries, operators, and contractors have introduced different measures to integrate ICV as part of their policy and day-to-day business. For instance, most of the operators have established a dedicated ICV sections within their organization, which facilitated and accelerated the implementation of ICV. Even contractors have assigned a dedicated ICV staff to ensure commitment and alignment with the ICV initiatives.

### *Industry Level Facilitator 3: Coherence with National Policies*

Findings show that LCD is aligned with “The efforts of government in diversification of Oman economy”, which facilitated policy implementation. An example of these efforts as described in one response include, “Encouragement for business, the 10% worth of the tender evaluation”. Other government efforts include, for example, employment, and workforce development such as Omanisation, and support for business environment that include focuses on local manufacturers and SMEs, and policies related to social development such as charity and philanthropy support to communities.

#### *Industry Level Facilitator4: Government Policy*

It was mentioned in one response that “The Ministry of oil & gas clear directives on the ICV initiative from the start” facilitated implementation. Although LCD is not yet regulated, it is perceived as an order. This means that some stakeholders comply with the Local Content Development policies because of “government support and influence”.

#### *Industry Level Facilitator 5: Local Market Assessment*

Local market assessment aims to analyze market conditions in terms of supply and demand and the spending patterns of the oil companies. It was mentioned in one response that, development of an oil and gas ICV blueprint strategy was underpinned by “Carrying out [market capability and capacity assessment] MCCA to identify the ICV opportunities”, which facilitated implementation of the employment and training initiatives, supply chain initiatives, and cross sector development programs.

Now, I present the company level (internal) factors that facilitated the implementation of local content policies.

#### *Company Level Facilitator 1: Company Leadership and Governance*

The results show that leadership is one of the most important factors in implementation, followed by factors associated with it, such as supply chain management, the availability of resources, and corporate communication. As stated by one respondent, “Leadership commitment. All are aligned about ICV importance and walking the talk by having a steering committee and committed to attending all meetings and taking quick decisions”. One response noted that when leaders adopt LCD, they, “Made it as one of the organization's top business objective”.

Another Respondent said, “[Leaders consider LCD] as investment rather than cost” to the company, and that they incorporate LCD “in the organization process and procedures to build the required systems to manage the implementation of LCD”. It was also mentioned in one response that leaders, “Introduce LCD KPI’s in the business scorecard”.

#### Company Level Facilitator 2: Supply Chain

Many of the key LCD initiatives such as local sourcing and employment are delivered through supply chain functions of an organization. One response stated that companies make, “contracting and procurement processes changes to include LCD”. In explaining how company’s experiences and size of expenditure affect implementation as mentioned:

Know-how. The company has 50+ years of experience in the field so have extensive technical and economical experience, which were put to good use when developing and implementing ICV T&Cs [contract terms and conditions] and local businesses development.

Another respondent added:

Massive purchasing power. [The company] spend 80% of its budget through 3rd parties and is among the biggest spenders in the country, which provides a strong power to implement such program in its operations

Another Respondent mentioned how global supply chain operations affect company implementation of LCD:

[Since our company is] working in many countries around the globe, we are experiencing local contents requirement, so [we] have the experience with the local content requirements and saw the benefits of having good local contents through the supply chain, for example. So, there is internal requirement to support the local content initiatives, though there are no defined targets from global—but [at least] there are guidelines for the local contents.

Although supply chain companies can make LCD “requirements of the tender documents and part of the mandatory documents”, another respondent mentioned “the contract make it work, and the contract obligate the contractors to implement the LCD and regular audit is executed” so “if the contractor [does not] implement the LCD, the client may penalize the contractor”.

#### *Company Level Facilitator 3: Resource Availability*

Findings show that leadership helped to facilitate the company's “resources in term of budgets and people to run this journey and succeed”. An example of leadership action as mentioned:

Established an LCD focal point (full time) in all directorates and they were supported by a dedicated LCD team, led by a serious talent i.e., future director and staffed by highly competent Omani individuals

Another respondent added:

Management in relation to support agreed to establish ICV section and hired two persons to handle and manage its matter

#### *Company Level Facilitator 4: Corporate Communication*

Corporate communication includes internal and external communications available to the company that aims to create desired changes in staff and stakeholders in a specific domain. The study shows that corporate communication has been essential in implementing Local Content Development. It was mentioned in one response that “Staff are given good awareness training in implementing ICV”, another stated, “Intensive awareness [across different departmental levels within the organization]”. For example, as mentioned by another respondent as:

The company ran seminars /training for all levels of the organization. Half day for CEO and his directors. Full Day for the Director' Direct Reports/Department Heads and 3 days for Contract Holders/Contract Engineers/Project/Technical staff

What was more important in corporate communications as stated in the following was the:

Clear consistency of message from the most senior person in the Company on a regular basis reinforcing the consistent message. We wrote LCD Headlines for the CEO' monthly communication to all staff and contractors, to constantly reinforce that ICV was simply 'Good Business' for the Company and most importantly for the country. Also gave all directors the 'LCD Elevator pitch' so that when they were talking to staff or in the media, again a consistent message was being given, fully aligned with the LCD Policy.

I presented the results of the study regarding the internal and external factors affecting the implementation of the policy of developing local content in the O&G sector in Oman, as mentioned in the responses of the stakeholders.

External factors included a collaborative approach and governance (industry-wide), decision-makers' commitment, coherence with national policies, government policy, local market assessment. Internal factors included company leadership and governance, supply chain and resource availability. I now turn to a presentation of the findings regarding the challenges that the participants faced in implementing the policy.

### *Policy Challenges*

This study found, as shown in table 19, that resistance to change, lack of local capabilities, business environment, lack of LCD regulations, lack of data on the market, and supplier's capability were the strongest barriers to implementing Local Content Development in the O&G industry in Oman. Table 19 shows policy implementation challenges based on the number of times the barrier (i.e., code) was mentioned across survey responses.

Table 19: Findings- Policy Challenges/Barriers

Groups	Name	Grounded ▼
[Policy Challenges]	◇ Resistance to Change	 14
[Policy Challenges]	◇ Lack of Local Capabilities	 11
[Policy Challenges]	◇ Business Environment	 9
[Policy Challenges]	◇ Lack of LCD regulations	 8
[Policy Challenges]	◇ Lack of data on market and supplier's capability	 4

Source: data analysis software used by researcher (Atlas.ti8)

### *Challenge 1: Resistance to Change*

The majority of those surveyed mentioned that as a result of adopting LCD strategy, organizations had to go through several organizational changes, which hindered the effective implementation of LCD. Some of these changes related to the perceptions that LCD is costly as stated by one respondent, “most of the contractors think that implementing LDC is costly and hence, will affect the project cost” and that LCD requires additional work, which may cause project delays and all other consequences related to this aspect. Managers were concerned that LCD policies would limit their scope and add constraints to their decision making. As stated by Respondent E:

Introducing ICV in any organization implies changes in internal processes and procedures; consequently, this will also require prolonging the timeline of processes. Other than that, the most critical part of managing change is to manage people and different reactions.

Another Respondent explained further:

being a relatively new program within a structured organization, the initial stages had plenty of resistance from department managers due to lack of understanding & fear of interference into their Dept management systems -managing conflicting interdepartmental drives especially where the existing systems & culture opposed LCD -resistance to ‘more work’ added into operations

In a similar context about people change, another Respondent stated, “Managing different teams with different objectives and direction”, which is a more complex task. Respondent D provided detail explanation of how this challenge affects implementation:

Getting ownership for the policy across all technical functions and ensuring that the LCD policy is not seen as an initiative/project of the contracting and procurement function or LCD team. Technical functions (who are the budget holders and decision makers) need to see that they must have 'skin in the game' and own their part of the LCD within their business and assure it is aligned with the overall policy direction laid out by the CEO and that their actions complement and support the delivery of that policy.

In addressing this challenge, they used a communication strategy stated by Respondent D:

Technical people had to be convinced that [LCD implementation] was their responsibility. Yes, they are busy and important people, but if they do not get out of their air-conditioned offices and visit small vendors, support innovative entrepreneurs, and help develop national capability - it will never happen. An LCD or CP [Contract and Procurement] team cannot teach an entrepreneur how to meet exacting technical standards- only technical folks can do that.

These results show that resistance to change appears in various forms within the company through employees and procedures, managers concerned about their authority, and outside the organization in terms of stakeholders affected directly or indirectly by implementing the policy.



### *Challenge 2: Lack of Local Capabilities*

This study found that lack of an experienced workforce, lack of locally made product, and lack of competitiveness of local firms hinders effective policy implementation. As stated by Respondent M, “unavailability of experienced locals and high pay of salary is another challenge to implement LCD”. Another Respondent stated the contractors in the O&G industry “face challenges to find experienced local workforce”. Similarly, Respondent S reiterated lack of, “Omani fresh graduate capability”. This means difficulty to achieve LCD goal of increasing local employment due to human capital and labor market constraints.

On training issues, one Respondent put it this way:

Our high dependency on TCN (third country nationals) caused issues, particularly in the training of Omani vocational skills apprentices as the TCNs who supported the trainees and giving them the requisite OJT (on job training) soon realized that as they developed the Omanis, they as TCN would be out of a job. Only solution was to create 100% Omani OJT teams i.e., so Omani trainees were being supervised by an Omani supervisor and to put Western training supervisors in the field to ensure the trainees were getting the requisite amount of and correct training.

Issues with local products’ prices, quality and delivery time were also mentioned in the responses. As Respondent A said, “despite the encouragement to have local manufacturing, prices of local manufacturing or services remain a challenge compare to imported materials”. Another Respondent mentioned, “unavailability of the quality products locally made” affect LCD implementation.

Issues with awareness of LCD policy in the local market were mentioned in the responses as challenges. One Respondent said, “Shortage of ICV competencies in the industry. Effect: poor quality of performance leading to poor implementation” meaning that despite LCD policy has been running for 7 years, there are still “... many stakeholders downstream of the value chain are learning about critical LCD requirements especially in tendering, monitoring & reporting system” and this slows down policy implementations.

The policy challenges of developing local content in the O&G sector from the perspective of the stakeholders involved in implementing the policy. These challenges are within the company’s control, and some are out of control.

### *Challenge 3: Business Environment*

Business environment refers to forces that affect a firm’s ability to implement Local Content Development policy. Findings show that competitiveness of imports of workers, products, or goods with their domestic counterparts hinder effective LCD implementation in terms of local sourcing of goods and services. One Respondent said,

[When] observing bid values, international based companies with multiple products will reduce their prices to get the award. Whereas the local company comparatively new in the market with one product or single services will bid with the real value. Here is the unfair competition, which eliminate the local companies due to price difference

Another Respondent explained this issue further, the “International market is very competitive especially Asian products/services, where emerging local market cannot compete with them”.

Another said it is the “competition on prices from the neighboring countries and international market”. Another stated that besides these issues and, “The current economic situation (oil prices) making the demand less and profit margin very low”.

In another note, one Respondent mentioned other issues such as “Slow investment procedures” and “Slowness in getting permissions and required certification to start business, especially manufacturing” causing delays in LCD implementation. One Respondent said, “[There is] lack of Joint venture with international companies because they think LCD is additional cost to do business in the country”, which means LCD might be perceived as blocking foreign direct investment in the country.

#### *Challenge 4: Lack of LCD Regulations*

There are no regulations particularly designed to govern Local Content Development policy in Oman. However, Local Content Development in oil and gas is governed by other government regulations and policies such as Royal Decree 35/2003 (Article 11), which requires that “An employer shall employ Omani employees to the greatest possible extent “and the Ministry of Manpower's Omanisation targets per sector, and Royal Decree 1/79: Foreign Capital Investment Law Article 21 and Article 5 on 10% price preference for local products and priorities for projects that maximize value-added.

Findings of this study show there is lack of a legal framework and provisions designed to enforce compliance with local content, which hinders the implementation of Local Content Development programs. As noted as a concern by one Respondent, “Lack of law in implementation of ICV at the country level”. Another stated, “at the midpoint of the [LCD] journey it was worth to move the collaborative effort to regulation / law”.

One Respondent mentioned, “no law or regulation to support implementing LCD, only through the contracts it’s implemented”. These comments mean that each oil company sets LCD provisions and enforces these provisions based on the company's internal legal framework, which differs from other companies. In international agreement perspective, one Respondent said, “Unclear legal stance regarding LCD in the context of WTO, FTA and bilateral agreements”. Still, one Respondent reflected that, “even though implementation of ICV in oil and gas sector without law but the impact is huge, and the value retained in Oman since the journey is tremendous.”

#### *Challenge 5: Lack of Data on Market and Supplier's Capability*

The findings of this study suggest a lack of information about business opportunities available for local competition as one stated, “Absence of category management in the Ministry and most operators makes the identification of ICV opportunities more difficult”, this means lack of visibility of spending pattern of oil companies with different suppliers of different goods and services purchased in the O&G sector. In similar contexts, one Respondent said, “high LCD thresholds, missing plenty of opportunities” meaning that LCD emphasizes high-value contracts and less on lower contract value in which more opportunities for localization could be realized. Another issue related to the information needs of firms to enable them to implement LCD is described by Respondent E:

Lack of oil & gas database, which could support in building economic models to assess & measure the benefits of implementing LCD. In addition, to assess the supply & demand in the sector. Effect: difficult to measure the value retained in the country.

Another stated, “[lack of] LCD actual measurement across different suppliers/commodities”, which hinder policy implementation. These comments reinforce the need for information systems designed around LCD needs to facilitate firms’ compliance with the policy.

Here I have provided an account of the research findings related to the challenges of implementing local content policy in the O&G sector in Oman, as reported by stakeholders responding to the survey. These challenges involve resistance to change, lack of local capabilities, business environment, lack of LCD regulations, and lack of data on market and supplier's capability.

### *Impact of COVID-19*

Respondents were asked if COVID-19 affected LCD implementation and results show while “VOID-19” slowed down oil and gas operations due to low oil demand, the pandemic reinforced LCD importance to the country as stated by several stakeholders. As stated by Respondent R “From my opinion, this pandemic shows us how implementing LCD is important for the country since all boarders is closed. In this crisis we rely in local employee, product, and service and it is a strong evidence how LCD work”. Another Respondent stated, “No, on the contrary, this is the best time to implement LCD!”. It was also mentioned in one response that:

With the lock-down of borders, there is a limitation of transportation of products and it implies that to keep the business running local sourcing is the key. Moreover, with movement of so many expats back to their countries, it tells us that Omanisation is something that we need to consider not just for COVID-19 but as a norm.

Another Respondent put it this way:

The impact of the Corona virus pandemic has made it crucial for the ICV program to continue performing its roles during this difficult time to safeguard what has been achieved throughout the previous years. Stronger and faster efforts must be made to further develop a competent and sustainable local market to ensure uninterrupted operations during such unpleasant circumstances.

One Respondent asked about COVID-19 limitations said, “yes it will, and it will demand more robust economic modelling techniques to model the impact of COVID-19 and future equally devastating economic shocks”. In expressing how COVID-19 will affect manufacturing, Respondent N said:

Yes, many ways of work will change, local manufacturing will grow especially medical once. Many quick wins have been identified during this period to increase local products/services. We produced i.e., face masks, sanitizers, using local fabrication to modify/produce some spare parts, people working from home efficiently... etc.

The results mentioned related to the effects of the COVID-19 on the application of the Local Content Development policy in the O&G sector in Oman. Most of the results focused on the positive aspects of the pandemic to develop local capacities to face sudden challenges.

Now I turn to presenting results on the strategies followed by oil companies in dealing with challenges that impede implementation of the Local Content Development policy.

### *Strategies to Deal with Challenges*

To deal with implementation challenges, the findings show several strategies followed by oil companies including, as shown in table 8: running policy awareness campaign, strengthen policy performance management, improve LCD opportunities identification strategy and processes, seeking management support, developing local capability, and having a dedicated LCD team. Table 20 shows several times a specific strategy applied across responses. Findings for each strategy is further explained.

Table 20: Findings- Strategies to Deal with LCD Implementation Challenges

Groups	Name	Grounded ▼
[Strategies to deal with Challenges]	◇ Policy Awareness campaign	8
[Strategies to deal with Challenges]	◇ Strengthen Policy Performance Management	5
[Strategies to deal with Challenges]	◇ Management support	4
[Strategies to deal with Challenges]	◇ Develop Local Capability	4
[Strategies to deal with Challenges]	◇ Improve LCD identification strategy and processes	2
[Strategies to deal with Challenges]	◇ Dedicated team	2

Source: data analysis software used by researcher (Atlas.ti8)

### *Policy Awareness Campaign*

The value of a policy awareness campaign was emphasized several times by stakeholders as an effective way to deal with LCD implementation challenges. Besides that, others stated that continuous education, training, awareness sessions on LCD at various levels inside and outside the organization have helped in addressing several LCD challenges as stated by one Respondent, “ICV awareness and marketing through common internal communication channels such as MD [Managing Director] monthly message and town halls meetings”.

Another stated, “We adopted the change management model with extensive training and education program for the teams involved in the implementation process”. One Respondent mentioned they, “Increased number of awareness sessions, introduced the changes to management process, setting an internal target for end users and function heads and introduce LCD KPI’s in the business scorecard”. Another finding shows the importance of celebrating successes of LCD, when opening a new factory or completing a training program as mentioned by Respondent E, “Show case the result, partner the successes”. In sum, these comments show communication is essential in policy implementation.

#### *Strengthen Policy Performance Management*

Firms also face challenges of engaging employees to meet policy goals and managing the changes in work that compliance requires. This study shows that embedding LCD into the “... everyday work of staff and include LCD in their tasks and targets” helps to address staff resistance to change. Another finding in the same line stated that assigning LCD implementation ownership and accountability to staff was key to success.

The standardization of reporting and monitoring system across stakeholders has also helped in addressing communication barriers related to reporting LCD results as stated by Respondent B, “Developed an ICV Monitoring & Reporting system to maintain the data of all operators. This system connects to a dashboard in the Ministry of oil & gas”. In response to lack of LCD regulations to enforce LCD, one Respondent said, “get the operating companies to monitor the implementation through contracts”, meaning oil companies still have options within their internal legal framework to be more assertive in enforcing LCD provisions in contracts.



### *Improve LCD Identification Strategy and Processes*

This study also found that planning and analysis of project requirements created better realization strategies for achieving LCD objectives. One Respondent stated the need to, “Revisit the ICV process to be leaner and having proper planning to work in advance for LCD targets”. Another Respondent stated the need to make “Changes to [company] LCD strategy to capture low threshold [lower contract value but high localization potential] and introduce different method for setting targets and evaluation [such as] unbundle data for specific opportunities [i.e., unbundling larger contracts where possible]”.

### *Management Support*

To deal with mindset and change issues, one stated, “Sometimes paying slightly higher cost may lead to a longer-term gain, so we had to explain the benefits on top of LCD but following the Supply Chain process and reaching to a win-win situation”. Another stated “engagement with leadership team and end users who were mostly effected by the change”. One Respondent emphasized “the support given by the management was a key factor in overcoming the internal challenges”.

### *Dedicated Team*

Another finding is that having dedicated resources for LCD implementation is important, as stated by a respondent “ICD team was formed to handle and expedite the process of implementation”. Another Respondent mentioned that “LCD team stepping in and doing some required inputs to speed up progress”.

### *Develop Local Capability*

Another key strategy to address the issue with lack of local capability was to justify creating new companies from scratch, incubate, and nurture through supplier development programs. and encourage knowledge transfer, joint ventures, direct contracting, and sub-contracting with local companies as stated by one Respondent:

If we cannot find the right product in the local market - see if it is an opportunity to support creating SMEs in that area, like in the Proppant's case for the frac [Proppant are small particles used in hydraulic fracturing to increase the flow of oil from the well] there is an opportunity for SME and the company was ready to support and did some studies to find the proper raw material in the country.

Another Respondent advised,

We need to breakdown the silos that exist between Govt entities and to establish Oman as the destination of choice for FDI and Technology and attracting lead thinkers in new technologies.






Some local businesses rely on one company for contracts and not showing a willingness to develop or expand. In response, one Respondent mentioned one way to deal with that is by, “Advising local businesses to diversify their scopes with other operators [to reduce dependency for contracts with one operator]”.

I presented study findings on ways to deal with implementation challenges as described by stakeholders in the O&G industry in Oman. The findings showed several strategies followed by firms, including running a policy awareness campaign, strengthen policy performance management, improve LCD opportunities identification strategy and processes, seeking management support, developing local capability, and having a dedicated LCD team. now I move to present findings on ways to improve LCD policy.

### *Recommendations for Policy Improvement*

Respondents were asked about ideas for policy improvement. The findings show the following recommendations, as shown in table 9: expand LCD implementation, create LCD regulations, establish robust database, increase policy awareness, more development of national workforce. Table 21 shows the number of times a specific recommendation was applied across responses. Specific findings are further explained in the next section.

Table 21: Findings- Recommendations for LCD Policy Improvement

Groups	Name	Grounded ▼	
[Recommendations for Policy Improvement]	◇ Create LCD Regulations		6
[Recommendations for Policy Improvement]	◇ Expand LCD implementation		6
[Recommendations for Policy Improvement]	◇ Establish Robust Database		5
[Recommendations for Policy Improvement]	◇ Increase Policy Awareness		4
[Recommendations for Policy Improvement]	◇ More Development of National Workforce		3

Source: data analysis software used by researcher (Atlas.ti8)

### *Create LCD Regulations*

Findings show the need to create “Stronger regulations and rules from the government and better incentive System” one Respondent said. And that LCD shall be “defined to be comprehensive, legal and very clear and fit to all industries”, another Respondent iterated. another Respondent said, “The government shall create LCD regulation/policies”. Another stated, “some sort of national policy direction is required to regulate ICV”. Another respondent emphasized the importance of “having a law or mandate with clear objectives from governance perspective”.

### *Expand LCD Implementation*

It was mentioned in the responses the need to apply LCD in areas never applied before. For example, at industry level, Respondent A stated the need to, “establish a common procurement initiative to leverage and attract more investments, especially in the manufacturing”, and to “introduce LCD provisions in the Ministry of Oil and Gas Tender boards and Exploration and Production Sharing Agreements”.

At company level, Respondent C put it this way:

I would have been more 'forceful' to ensure that all LCD and CSR [Corporate Social Responsibility] / CSI [Corporate Social Investment] funding and investments were 100% aligned. CSI/CSR can no longer seen as purely philanthropic - that is doing a disservice to the recipients. We need to ensure that all CSI/CSR programs are closely aligned with LCD so that we ensure that the individuals who benefit from the CSI/CSR funding are taught how to be successful businesses and how to manage these businesses as part of a wider value chain that will contribute to national GDP Growth and create meaningful, skilled, and challenging, sustainable job opportunities for our youth

Respondent C added the need for, “a more 'socioeconomic impact' approach ensuring that everything we proposed tied back to impact on national GDP growth” meaning that LCD decisions/initiatives should be geared towards clearly showing impacts on GDP. Another Respondent suggested that, “services given from sub-contracts needs to apply their LCD as well”. Meaning that to achieve maximum impact, oil companies should expand the implementation of LCD to include subcontractors who are working with the main contractors.

Findings of this study show the need, “to have centralize authority overseeing implementation” as described by one Respondent, “[This authority can be resourced] to drive the pace and give independent support for implementation” and that more services companies could be part of LCD committees as suggested by another Respondent, “services companies to be part of the ICV committees, [which will help to] identify LCD opportunities that support the services companies and have their buy-in to the whole initiative”.

#### *Establish Robust Database*

Findings show that the O&G sector need to establish a database with information about market i.e., spending patterns of oil companies, top spend categories of goods and services, suppliers' capabilities, and business opportunities as mentioned by one Respondent, “Establish a comprehensive and dynamic database to facilitate identification and implementation of business opportunities”. Another Respondent stated, “More Market intelligence studies”, which will feed the database with information to assist policy implementation. And for efficiency, one Respondent recommended, “Spend more time and effort in designing an application that can utilize in implementing and managing ICV”.

It was mentioned in the responses the need to, “Scrutinize the ICV Blueprint Strategy” in order to “to review the achievements so far, evaluate the success and failure and come up with required improvements”. One Respondent recommended the use of tools for assessing economic impact of LCD initiatives, as described:

I would apply elements of CGE (computable General Equilibrium), [which uses actual economic data to estimate how an economy might react to changes in policy, technology, or other external factors], or [apply] Sectorial economic Impact Analysis techniques.

#### *Increase Policy Awareness*

Findings show the importance to continue policy awareness programs by “preparation of training material, and marketing” emphasized by one Respondent as a need for “more effective change management” to overcome resistance to change, another Respondent added. In addition, “Introducing ICV Certification” motivates those delivering LCD results to enhance policy perception and then increase the opportunity for expanding policy application. One Respondent emphasizes the importance of managing “stakeholders [and] more collaboration from government”, and more collaboration with “Ministry of Commerce to solve the issue of competition with external products” one Respondent said.

### *More Development of National Workforce*

As LCD developed into a new function in Oman, findings show the need for “Better development of Omanis” one Respondent said, and to “Build a national cadre of LCD experts” to contribute to the sustainable development of the country. Another Respondent put it this way:

Support & trust locals and give them another change. Believe in local products and service.

Additional pay for LCD is investment for future.

### *No Change Needed*





One comment expressed satisfaction with the current policy implementation, stating “I believe the pace and actions taken were appropriately driven”.

I presented study findings on Respondents' recommendations for LCD policy improvement, which included expanding LCD implementation, create LCD regulations, establish robust database, increase policy awareness, more development of national workforce. Next, I present findings on policy lessons.

## *Lessons Learned*

A survey question asked Respondents about key lessons learned from LCD policy implementation. The findings, as presented in table 22, show that collaboration - policy, science, industry and society, long-term investment and international competitiveness, policy implementation office supported by dedicated professionals, implementation endurance and resilience, government leadership and commitment of decision-makers in private sector have been key areas to draw LCD policy lessons. Table 22 shows number of times a specific lesson was applied across responses. Specific findings are further explained in the next section.

Table 22: Findings- Lessons Learned

Groups	Name	Grounded ▼	
[Lessons Learned]	◇ Collaboration - Policy, Science, Industry and Society		6
[Lessons Learned]	◇ Long-term Investment and International competitiveness		5
[Lessons Learned]	◇ Implementation Endurance and Resilience		4
[Lessons Learned]	◇ Policy Implementation Office Supported by Dedicated Professionals		3
[Lessons Learned]	◇ Government leadership and Commitment of decision-makers in private sector		3

Source: data analysis software used by researcher (Atlas.ti8)

### *Collaboration - Policy, Science, Industry, And Society*

The findings of my research show that “Collaboration between the Government and the oil & gas operators played a key factor in the success of LCD policy” one Respondent said. Another Respondent reiterated that, “Public and private partnership is a key success factor”. Collaboration in policymaking has been essential to get buy-in from a diverse set of stakeholders with different organization objectives such as government, private sector, academic, NGOs, and others.



One Respondent said, “collaborative decisions take longer to make however are more successful to implement due to the buy-in and involvement of the parties even if they have conflicting stakes”. Another Respondent mentioned that, “Not just collaboration but Quadruple Helix Collaboration- Govt, Academia, Private Sector and society collaborating as one”.

The way this collaboration worked was described by Respondent E, “The policy was not imposed but rather discussed and was agreed between the government and the industry”. One Respondent stated that LCD implementation is, “doable however it requires at a certain point significant collaboration”. One Respondent mentioned that some companies perceived this collaboration as government mandate and they saw benefits in terms of getting more business by complying with LCD requirements in tenders, Respondent said, “Personally what I saw that most of the services companies dealing with the Local content as mandates to secure business - so mainly the focus on meeting the requirements”.

#### *Long-Term Investment and International Competitiveness*

The findings show that the industry understands the motivation and benefits of LCD, as “LCD is a long-term investment and in the short term it may seem it comes with the cost; however, it may be the option for a sustainable future”, one Respondent said. Another Respondent mentioned that, “the fruits of national programs need time to ripen”. Findings show the importance of conducting a detailed assessment of local market capability and capacity. This assessment proved to be critical for effective LCD implementation because the assessment provides important information on whether goods and services are locally available and whether they can be supplied competitively on technical and commercial grounds.

One Respondent stated: “A proper diagnosis of the local market capacity and capability is important before settling any target”. Another Respondent emphasized that, “Implementation has to be built on international standards, but also has to lead to internationally competitive and sustainable solutions”, which means LCD should result in having local business able to win contracts outside Oman and local workforce able to get good paying jobs outside Oman.

The findings show that mindset change challenges are inevitable across the board, but solutions can be engineered to affect policy perceptions and behaviors of individuals and companies towards policy compliance. Internal and external organization's communication of various forms proved also to be effective but most important is the consistency of message and continuity, which has been surprisingly key to achieve maximum mindset change effect especially on the premise that, as one said, “LCD has to be seen as an investment in the country and accepting temporarily additional supply chain costs”.

#### *Implementation Endurance and Resilience*

Findings show that policy implementation especially when dealing with circumstances such as “non availability of local technology, expertise and raw material”, and the high “price [of local products or services] compared to imported goods” requires “continuous drive [which] was fundamental to success”, as mentioned in the responses. Findings also show that “Proper monitoring and reporting [and] use of third party to audit and validate reporting and compliance” was necessary.

### *Policy Implementation Office Supported by Dedicated Professionals*

Findings show that the “existence of the program management office [policy implementation office] as chair and regulator of the program has been a major factor of success” one Respondent said. It was mentioned in the responses that, “Centralized effort” supported by “dedicated resources” ... “with the personal passion and belief in the program is fundamental to its success”. In addition, “The people serving in ICV in the long term maintain the LCD capabilities (as an emerging function) as they keep the knowledge and grow into mastery of the Local Content” one Respondent added.

### *Government Leadership and Commitment of Decision-Makers in the Private Sector*

The findings show that, “leadership & championship from the highest level is pivotal to success both at national & organizational level”, one Respondent said. In addition, leadership at industry and company level proved to be key in adopting and implementing LCD policy as one Respondent stated “you need leadership commitment. If it is secured, the rest is easy”. Another Respondent stated, “it is all about taking bold decisions on where to spend organization budgets”.

In this section I presented study findings on key LCD policy implementation lessons as described by stakeholders in the O&G industry in Oman. Findings showed several lessons drawn from experiences implementing the policy between 2013 and 2020 that included: collaboration - policy, science, industry and society, long-term investment and international competitiveness, policy implementation office supported by dedicated professionals, implementation endurance and resilience, government leadership and commitment of decision-makers in the private sector.

#### 4.2.3 LCD Policy Replication

The second research question sought to understand the views of oil and gas stakeholders on LCD policy replication at three levels: across sectors, national level, and regional level. Each of these levels will be described.

##### *Replication Across Sectors*

Findings show all respondents believe the need to replicate the LCD policy. One Respondent said, “we have proved to have a successful model in the Oil & Gas, and this can be adapted to other sectors where applicable”. LCD replication is underway in Oman led by a ministerial committee to oversee the process as mentioned by one of the Respondents, “Fortunately its already under way and other sectors are being studied for ICV opportunities such as health and utilities”. One Respondent explained this further:

The LCD program of the oil & gas industry has been taken as a role model by several sectors. The ICV Program Management Office at the Ministry has engaged and presented to various government and private entities such as, The Ministry of Tourism, The Ministry Transportation & Communication, The Royal Court (Diwan), The Public Authority of Privatization & partnership, in addition to the Ministry of Commerce & Industries.

One Respondent said that, “[local content actions taken in the] Health sector in Oman [during] COVID-19 [showed that it is possible] to start with other sector”. In explaining arguments of how policy replication will play out across sectors, one Respondent stated:

Yes, it can be applied with some adjustments to suit the sectors. Given Oman’s oil and gas LCD program are a result of a collaborative committee that included some inter-sectoral entities, and the nature of operations within oil & gas includes facilities management, construction, infrastructure, energy generation and large- and small-scale plant and manufacturing- it already covers majority of the activities in the wider range of Oman’s economy. The program’s policy, framework, initiatives, and systems took about 6 years of development and took into consideration the varied stakeholders’ interests and input. Hence can be easily widely applied.

A more detailed explanation of the standards that need to be considered when replicating LCD across sectors as mentioned:

Totally. The principles are exactly the same. Whether it is oil and gas or Tourism, both must focus on import replacement of imported Goods and Services and skilled labor. This can only be achieved by ensuring in country manufacture is to the same international standards as imported goods and that our youth are trained to the same international vocational/technical standards as the expatriate workforce. This is equally important for sustainability as solely manufacturing to meet national demand is not enough, we need to create manufacturing that can also service the region/globally and the same for our youth, the value proposition to them is if you graduate to that standard, the 'World is your oyster'- you can work anywhere globally as you are as well qualified as the next person - you can become an expat worker in Qatar or Russia or UK.

One respondent mentioned that “other sectors consider the lesson learned and adopt best practices from the [oil and gas] sector to avoid redoing what is already available, and adjust to suit the [non-oil] sectors, which minimizes implementation time and results will take short time to see”. Another Respondent stated, “the same factors exist. Also, the results can be better as [non-oil sectors are] less complex”. In similar contexts, another Respondent said, “[policy replication] needs some sort of customization or update to fit other industries”. Another Respondent reiterated, “The 'process' [to develop LCD across sectors] is the same [as it was implemented in the oil and gas—collaboration, baseline study, leadership commitment... etc.], but each sector will have its unique requirements, which can be adjusted easily”.

#### *Replication at National Level - Long-Term Economic Planning*

To understand links between LCD policy and Oman’s long-term plan “Oman Vision 2040”, a survey question asked whether LCD supports Oman’s long-term plan. Findings show objectives of LCD and Oman Vision are not contradicting. One Respondent stated, “the ICV elements are part of the Oman Vision 2040 agenda. It supports Omanisation, training of local people, and promotes the economy”. Another Respondent said:

The LCD policy is fully aligned with Oman Vision 2040 as the main objectives focuses on diversifying the economy by developing a competitive and sustainable local market in goods, services, and local workforce. The partnership of the government and the private sector work hand in hand to ensure Oman Vision 2040 is achieved.

One Respondent said, “oil and gas has been ahead in this agenda for at least 5 years. So ICV can be a role model”. However, another Respondent stated that, “One sector can’t do LCD alone, it should be done at national level to have most impact” for example in “creating new jobs to support local vendors and service providers. Also, it is important for the country to depend in itself, people and local vendors' capabilities”. Another Respondent added, “[implementing LCD at national level will] give new opportunities to the investors in other areas other than oil and gas sector, will give the insight of Government expenditure and long-term plans”.

In similar contexts, one Respondent stated, “Without a shred of doubt. The LCD would be a key enabler to Oman Vision 2040, because it will focus on industrial and job localization besides SMEs' development”. Another Respondent thinks the opposite is true in terms of enablers, “both ICV policy and Oman Vision 2040 driving the same goals and aligned with [United Nations] SDG’s. Oman Vision 2040 is enabler for maximizing LCD because all LCD elements [goals] are [local sourcing of] goods or [development of] human capital”.

One Respondent mentioned the links between replication across sectors and achievement of Oman Vision 2040, “the Local Content - if implemented in many other sectors beside the Oil and Gas will help to achieve the goals of 2040”. Another Respondent said, “[LCD is] one of the vehicles to drive diversification of economy and to generate new jobs for Omanis”. To do that, one Respondent mentioned several steps:

Align the cross-sector LCD strategy development with Vision 2040 through close collaboration with all the key actors, especially the [Implementation Support and Follow-up Unit (ISFU)]

The Respondent added the need for more collaborations and long-term thinking:

Breakdown the silos that exist between Govt entities and establish Oman as the destination of choice for FDI and Technology and attracting lead thinkers in new technologies. And to look at what Oman can do to differentiate itself from its neighbors and build on its inherent strengths, capabilities including geostrategic and geopolitical.

The Respondent further explained the positioning of local workforce for the new economy

Educational models of the future will be characterized by a strong focus on the highest value-added knowledge in all sectors of society. Such knowledge in the innovation economy era will be software and algorithmic content. All the jobs of the future will be in one way or another related to these two fields. [Thus], set Oman up as a regional Champion in the Innovation Economy /Knowledge educational world by training data scientists, Engineers, and analysts.

Another Respondent stated, “Yes it surely can. take, for example, the workforce element of LCD, with the current high numbers of job seekers at different levels. Implementation of such policy can force organizations to take a serious action towards Omanisation and replacement of Expats”. Another Respondent stated, “the Oman’s oil and gas LCD program is the brainchild of Oman’s SDGs. It will continue to contribute towards those goals as it has already become the pivotal backbone of the national agenda”. One Respondent mentioned that, “LCD adoption would make us reach to our Oman Vision 2040 quicker since the focus is building the country and its internal resources to reach sustainability”.

Overall, the sense of responses to this application shows the value of replication, with some variation in approach.



### *Replication at Regional Level - Gulf Cooperation Council (GCC)*

Oman is a member of the Gulf Cooperation Council (GCC) that includes the countries of Bahrain, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates that share common interests around many economic issues as well as tensions based upon history and politics. LCD has now spread to the neighboring countries around Oman and is used by the Abu Dhabi National Oil Company (ADNOC) (PWC, n. D.) and by the governments in the Kingdom of Saudi Arabia (Mooney, n. D.) and Qatar (PWC, 2018) to support their long-term development plans “Saudi Vision 2030” and “Qatar national Vision 2030”. This study sought to understand stakeholders’ views in Oman about the opportunities to replicate Oman's LCD model across neighboring countries to achieve greater economic cooperation. This study found that opinions diverged due to the turmoil, economic transformations, and political differences that the region is experiencing. Some of these views are explained:

#### *Focus Inward First*

Findings show regional collaborations consume a lot of resources and time and now the priority for Oman is to replicate LCD gradually across sectors, national level, and then at regional level as stated by Respondent A, “I think at this stage, we need to focus on improving the outcome of our country before moving towards expanding the circle. Meaning, in Oman we have started with O&G sector, then we need to move gradually to other sectors, and thereafter look for collaboration opportunities outside our country”.

### *Scale of Economic Activity Matter*

Findings show the Gulf Cooperation Council countries can cooperate in bringing investments in the manufacturing of high-demand products in the domestic and foreign markets and to exploit the competitiveness and efficiency elements available in each country such as geographical locations in Oman and Saudi Arabia and other industrial, financial, and human capabilities in each country. LCD policy of GCC countries when independently applied, each country asks investors to localize manufacturing. This this may be inefficient and costly from investor's perspective because investors usually make the industrial investment in one country to serve the entire region. So, cooperation in LCD is needed to create value for the region, and if not, then LCD applied independently at each country is likely to pushback investors. As stated,

There are many opportunities for collaboration, for example expertise and views exchange. Also, they can collaborate to agree which type of products can be provided by each country, so no duplication. Also, they can lift tariffs/Taxes to GCC products to help compete with international products.

Another Respondent emphasizes the size of investment matters more for cooperation

[Regional collaboration in LCD is possible] To some extent, especially for big and huge investment where demand is high. The collaboration [should be] with proper planning either each GCC country can specialize in certain disciplines or for the same investment can distribute the supply chain manufacturing in different GCC country. For small investments and localize demand, the collaboration is difficult specially after new geopolitical issues between GCC countries.

Another Respondent shared the same view and stated that, “There could be some, but I believe the bigger economy can benefit more out of these collaborations, so focusing on a country level can add more specific value to each country”.

Another Respondent explained this aspect further in:

Given the sizes of the GCC economies and the interdependence, there are opportunities for collaboration in large-scale industries where economies of scale requirement for some manufacturing industries will render the need to tap into the regional markets for demand and some would only be feasible with the inclusion of 2-3 countries’ combined demands - each country has and can continue to build on the current strengths e.g. Saudi market size is bigger and some sectors have heavily relied on exports whereas Oman’s location would support the logistics of inland transportation from ports. -ideally, interdependently supporting one another has the potential of bringing about synergically success for each GCC country

#### *Britain's Exit from European Union*

The experiences of the European Union and Britain's exit from the EU, for example, questioned the possibility of achieving close cooperation to develop local content at the present time between the Gulf states, especially since political tensions remain as stated:

The best opportunity [for LCD regional collaboration] was the GCC Rail Network, but not sure where this has got to? [regional collaboration] will not be simple - look at the EU 60 years old and still having lots of problems e.g., (Brexit).

Respondent added:

The demise of Oil and Gas will force regional collaboration as countries simply cannot compete. How can this be started? Personal view is through collaborative efforts to repair the devastation to war-torn countries within the region (e.g., Yemen, Iraq, Lebanon). How can the principles of LCD/ICV be used to support the reconstruction efforts (e.g., Omani Companies collaborating with Yemeni companies to rebuild Yemeni supply chains, Omani Universities training Yemeni Doctors and nurses?). We will only get there through collaboration and for me the most powerful driver for collaboration is to assure your peaceful coexistence and if we do not assure that the youth of Yemen and other war-torn countries have jobs and a future, who knows what will happen in the next 10-20 years in the region.

#### *Timing Issues*

Findings show LCD regional collaboration might be challenging as stated, “Possible but difficult in implementation unless the GCC acts as the EU. The laws in GCC do not support inter-economies' partnership to a deep level. The competition and achieving own targets prevail in GCC common targets or laws”. Another Respondent stated, “Possibly, but [regional LCD] will require a lot of collaborative work, which because of the current Geopolitical circumstances, might prove difficult in the near term, but it remains an opportunity”.

### *Knowledge Sharing Opportunities*

Findings show that regional collaboration can take several forms, one that is doable in the near term is through knowledge sharing. One Respondent said:

Considering that some GCC have already developed their LCD policy (e.g., KSA, UAE) at a national level, perhaps it would be of great benefit to establish an annual ICV event at the GCC level with the objective of exploring ICV opportunities and collaborations among GCC, as well as facilitate sharing of knowledge and best practices. There is Continuous engagement and collaboration with neighboring countries to share best practices. For instance, the [LCD policy implementation office in Oman] was approached by a high-level representative from the Saudi Ministry Council to learn about the ICV adopted by the oil & sector, shortly later the Saudi Arabia has established the In Kingdom Total Value Add (IKTVA) program.

Other Respondents added:

For sure it will be good to learn and get the others experience in the same, for example Saudi they started IKTVA program for a while now and for sure they have gone through different challenges to create jobs for example, it will be also interesting if they manage to implement LCD in the other sectors and how they manage that.

I presented study findings on considerations for LCD policy replications across sectors, at national and regional level as described by stakeholders in the O&G industry in Oman. The findings were consistent about replication LCD across sector and at national level, but different opinions expressed about policy replication at regional levels.

Now I move to present findings of research part Two for Oman's tourism industry

### 4.3 Findings Part 2: Tourism

#### *Context*

The Omani government identified tourism as one of the target sectors for long-term development and growth between 2020 and 2040, and the LCD has been in the discussion by many tourism professionals as candidate for LCD replication. Investments in the tourism sector and other sectors are likely to create several economic development opportunities. These investments can be guided through the LCD policy framework to enhance the economic and social conditions of society. Oman Tourism Strategy 2020-2040 developed by the Ministry of Tourism in which the government hope to attract investment over 49 billion (United States dollars) and create over 500,000 jobs by 2040 (Sultan Qaboos University, 2017; The Ministry of Tourism - Oman, 2015; The Public Authority for Investment Promotion & Export Development Oman, 2016). Part two of the research explored the possibility of replicating Local Content Development policy in the tourism sector, and I focused on mixed-use development projects, specifically integrated tourism complexes, which were chosen because of large investments, the degree of project planning for the multiple implementation phases and integration of land uses (i.e., residential, commercial, and tourism).

The tourism-oriented survey was designed to answer research questions 3, 4 and 5:

3. What are sustainability practices in integrated tourism complexes in Oman?
4. What are perceptions of tourism stakeholders in Oman regarding oil and gas LCD policy?
5. What factors related to local content influence the tourism sector, specifically, in integrated tourism complexes (ITC).

Integrated tourism complexes defined by (Nebel, 2014) as

New Developments that combine five elements: 1) hotels and leisure facilities for temporary resident with housing estates for permanent residents to meet the growing need for more residential units to accompany domestic trends; 2) architecture and landscape/nature/environment; 3) Omani local heritage with global modern style; and 4) tourism generating new job opportunities; and 5) Foreign direct investment (FDI) with local money (p. 57).






The Omani government has granted licenses for 17 integrated tourism complexes projects distributed in various regions in the Sultanate in which investment amounts to over 10 billion USD (Sultan Qaboos University, 2017, p. 218). An invitation accompanied by a request to participate was sent to 13 active ITCs as advised by the Ministry of Tourism in Oman and were accessible during data collection timeframe resulting in 8 out of 13 ITCs completing the survey.

Next, I present findings based on themes that emerged from the data analysis.

#### 4.3.1 Sustainable Development Practices of ITCs in Oman

Findings, as presented in table 23, show that ITCs in Oman are involved in sustainable development practices that focus on local sourcing of goods and services, community development, supporting small and medium enterprises, local employment, environmentally and socially friendly practices. Table 23 shows the number of times sustainable development practices are tagged across responses.

Table 23: Findings- Sustainable Development Practices of ITCs in Oman

Groups	Name	Grounded	
[Q.2 Sustainable Development Practices]	◇ Local Sourcing of Goods and Services		7
[Q.2 Sustainable Development Practices]	◇ Supporting Small and Medium Enterprises		6
[Q.2 Sustainable Development Practices]	◇ Local Employment		6
[Q.2 Sustainable Development Practices]	◇ Community Development		3
[Q.2 Sustainable Development Practices]	◇ Environmentally and Socially Friendly		2

Source: data analysis software used by researcher (Atlas.ti8)

##### *Local Sourcing of Goods and Services*

Findings show ITCs locally source goods and services as one Respondent said, “ensuring the maximum material is sourced locally”. Another responded that they were “Giving preference to Omani goods and services”. One Respondent stated, “We use local products, concrete products, Steel, Cables, Transformers”. Another Respondent said, “we are procuring local and regional building materials, which reduces shipping and transportation routes and in return reduces carbon footprint”.



Another Respondent put it this way:

If the nature of the contract or a project is about procurement of product, we maximize and give preference for that local product and we can try to buy directly and indirectly. Directly through giving preference for local product, indirectly it means our sub-contractor [and] We put obligation to source local product until certain level.

### *Community Development*

Community development is an essential component in development projects. Findings show that ITCs, as one respondent said, “Initiate schemes to enhance the business and employment opportunities for the companies and residents in the project's vicinity area”. Another Respondent said:

[We] consider the local people and companies who live in the project's vicinity area for employment and contracts for the provision of goods and services. [We] prepare a community development plan to assess and understand how the company can participate in the development of the surrounding community. [one way that happens is through] social impact assessment.

In similar contexts, another Respondent mentioned that they, “Consider the local people and companies who reside in the vicinity of the project area for employment and contracts for the provision of goods and services”.

In addition, the following was mentioned:

Providing socio-economic benefits to all stakeholders, including stable employment and income-earning opportunities and social services to host communities, which in turn contributes to a higher employment rate for Omani nationals and growth of in-direct businesses.

### *Supporting Small and Medium Enterprises*

In Oman it is required by law to allocate 10% of contract value to Small and Medium Enterprises as part of government policy for diversification, confirmed by a Respondent who said, “In any project we are mandated to give 10% off the scope to local SMEs”. Another Respondent provided an example and mentioned the “Awarding of tenders to local consultants and contractors” as part of the 10% for SMEs. One Respondent explains this further and said they, “promote the SMEs through company operations. We engage and develop SMEs gradually in product or in services categories of our contracting and procurement [activities]”.

### *Local Employment*

Findings show ITCs provide “Local jobs for young Omanis” one Respondent said. Another Respondent defined the type of jobs as, “stable employment”. Another Respondent mentioned, “We follow recommendation issued by the government with regards to Omanisation rates”. One Respondent emphasized on type of project that determines employment, as stated, “if a project requirement [mostly] manpower we... emphasize the localization or Omanisation”. Another mentioned, “we consider the local people... living in the project's vicinity area for employment”.

### *Environmentally and Socially Friendly Practices*

The issues around sustainable tourism emphasizes protection of the environment and local heritage. One Respondent said, “respecting the socio-cultural authenticity of Omani’s by conserving traditional values and respecting their heritage”. Another Respondent mentioned using sustainability assessment methods such as, “BREAAM [Building Research Establishment Environmental Assessment Method] for sustainable building design. One Respondent mentioned achieving, “sustainable ecology in golf and marina” meaning conserving the productivity of the waters, the soil, and the ecosystem, and reduce the impact on the natural environment.

One Respondent explained it further:

From an eco-friendly standpoint, we are procuring local and regional building materials , which reduces shipping and transportation routes and in return reduces carbon footprint, we also avoid using toxic materials such a VOC’s in paint (volatile organic compounds) and most importantly, our contracting arm is situated onsite allowing minimal labor transportation to and from, which in return consumes less vehicular combustion additionally, all machinery and equipment is located onsite also greatly reducing our carbon footprint.

The Respondent added the following from an architectural perspective:

From a design and architectural standpoint and referring to eco-friendliness, our designs have adopted many traditional architectural elements found in Omani architecture, allowing the designs to blend in within their contextual urban boundaries while maintaining a contemporary flavor. From a technical standpoint, we have reduced windows and glazed facades in our designs to reduce air-conditioning loads, which decreases our energy consumption greatly. We have also optimized land use to reduce the amount of infrastructure needed, hence reducing energy consumption and water usage further.

These comments suggest that the major tourism investments already have a commitment to sustainability and to local sourcing. ITC adoption of sustainability practices is driven by the legal framework for investment in Oman's tourism sector, which includes Tourism law, ITC law, and environmental law (Al Tamimi & Company, n.d.). This research found that one of the tools used by some of the ITCs to inform sustainability practices is through Environmental (and Social) Impact Assessments (EIAs), which are prepared for projects with potentially substantial environmental and social impacts. ITC law requires developers of tourism complexes to submit a community development plan as part of the development agreement. The community development and Omanisation plans include local content activities such as giving preference to Omani goods and services, giving priority for employment and contracts, other capacity-building programs to persons and companies who reside in the vicinity of the Project Area.

#### 4.3.2 Implementation Strategies of Sustainable Development Practices

Findings show some sustainable development practices such as community development applies to large projects in Oman. As mentioned by one Respondent, “[we conduct social impact assessment] applicable to big project developed by the company”. Another Respondent said, “we tackle this [sustainable development practices] based on the contract level, based on the project level, based on the nature of that project [whether its manpower focused contract or goods and services]”. The Respondent added:

[We build sustainable development practices] in stage of the sourcing strategy of the contract. we understand the nature of that contract, we understand the concept of contract, we understand what the requirement for that contract is. [also] based on the quality. [For example] with [whom we are contracting], with international supplier or with local supplier or with SME. So, based on the complexity of the project and many other factors. [In addition] we have ring-fencing strategy [in which] we [source only from] local company. If it is with international company, we build the JVs and some collaboration between local partner and international partner.

It was also mentioned by respondents that implementation of these practices is in the tendering system of the company, as one Respondent said, “During Tendering process all contractors were asked to use Local products and Oman-based subcontractors”.

Another Respondent put it this way:

We look at sustainable tourism from two main angles; Firstly, viable long-term economic operations, providing socio-economic benefits to all stakeholders, including stable employment and income-earning opportunities and social services to host communities, which contributes to a higher employment rate for Omani nationals and growth of in-direct businesses. Secondly, respecting the socio-cultural authenticity of Omani's by conserving traditional values and respecting their heritage.

#### 4.3.3 Perceptions of Tourism Stakeholders Regarding Oil and Gas LCD Policy

A survey question asked tourism stakeholders about their perception of oil and gas LCD policy. Findings show the policy as used by oil and gas firms contributes to the sustainable development of the country and characteristics of oil and gas industry as shown in table 24, which show number of times a perception was mentioned in responses.

Table 24: Findings- Perceptions of Tourism Stakeholders about oil and gas LCD policy

Groups	Name	▲	Grounded
[Q3. Perceptions of Tourism Stakeholders about oil and gas LCD policy]	◇ Characteristics of Oil and Gas industry	■	2
[Q3. Perceptions of Tourism Stakeholders about oil and gas LCD policy]	◇ The Policy Contributes to the sustainable development of the country	■	2
[Q3. Perceptions of Tourism Stakeholders about oil and gas LCD policy]	◇ Unaware of this program	■	1

Source: data analysis software used by researcher (Atlas.ti8)

### *The Policy Contributes to the Sustainable Development of Oman*

Findings show LCD in oil and gas does influence other sectors, as one Respondent described, “LCD in oil gas is advanced and had a good track record”. Another Respondent provided a detailed explanation:

I believe this scheme will boost the O&G industry’s contribution to the socio-economic development of the country. It will stimulate the economic growth and contribute to sustainable development by promoting local human resource development and building local capabilities by increased local sourcing of goods and services. Similar ICV programs should be implemented in other sectors.

### *Characteristics of Oil and Gas industry*

Findings show that LCD positive outcomes could be attributed to the Characteristics of Oil and Gas industry. The oil and gas industry in Oman is characterized by the long duration of contracts, standards, and experiences, large investments, leadership commitment as one Respondent described in:

The nature of the O&G [activities] requires long-term contract [i.e., 5 to 7 years], which is fruitful for employment because in other industry the contract [duration is less compared to oil industry]. and if we are comparing with oil and gas, oil and gas been built by international oil companies and been standardized and matured.




On industry expenditures, Respondent added:

[The] spend in oil and gas operations is huge comparing to other industry. Its accumulative is around 60% or 70% of the income of the sultanate. So, the value of the contract makes oil and gas suitable for LCD. LCD is maximized via oil and gas operation, [and the industry] engages local companies, local SMEs, and [creates] local employment. [In addition to that], the leadership and commitment of the industry. [For instance], The Minister and players in oil and gas all drive LCD for benefit of the country.

#### 4.3.4 Internal Factors

Findings show that company leadership, company supply chain, and relationships with stakeholders influence policy adoption in tourism industry in Oman as shown in table 25, which shows number of times a factor was mentioned in responses.

Table 25: Findings- Internal Factors

Groups	Name	Grounded	
[Q4. Internal Factors]	◇ Company Leadership		3
[Q4. Internal Factors]	◇ Company Supply Chain		2
[Q4. Internal Factors]	◇ Good Relationships with Stakeholders		1

Source: data analysis software used by researcher (Atlas.ti8)

#### *Company Leadership*

Findings show that, “The company's policy and commitment to sustainability, Company's policy and commitment to Omanisation and development of local talents, and Availability of financial resources” as one Respondent said, are factors that may affect the decision-making concerning the adoption of Local Content Development practices.



Findings show that, “Reactive management style and no planning [to allocate resources] and time [likely to affect] adoption of Local content”. It was also mentioned that “motivation of employees to support the [LCD] initiatives, the [willingness of] emerging industry to embedding ICV [might affect LCD adoption]”.

#### *Company Supply Chain*

Findings show that incorporating LCD requirements in supply chain planning is an important factor in adopting LCD in tourism sector as one Respondent mentioned, “I can see the major factor internally is the planning where we need to be more efficient in this”. However, another Respondent said, “During Tendering process all contractors were asked to use Local products and Oman-based subcontractors and to submit a list of companies and products, which they would use for construction and that list had to be approved by us”. This shows the effect of LCD planning in tendering processes.



#### *Relationships with Stakeholders*

Findings show that good relationships with stakeholders influence adoption of LCD in tourism sector as one Respondent mentioned an example of cooperation between The Ministry of Transport and Ministry of Tourism, which resulted in creating The National Travel Operator (NTO) - an online platform to link Omani travel providers, such as transport services, hotels, and airlines, with customers in target markets. However, tourism industry is fragmented, and many stakeholders are involved to deliver the tourism experiences. It was mentioned that some relationships may affect LCD adoption in tourism, especially when stakeholders have different objectives.

#### 4.3.5 External Factors

Findings show that external factors that influence adoption of LCD in tourism include local capability, business environment, and national strategy. Table 26 shows number of times an external factor was mentioned in responses.

Table 26: Findings - External Factors

Groups	Name	Grounded	
[Q5. External Factors]	◇ National Strategy and Business Environment		3
[Q5. External Factors]	◇ Local Capability		3

Source: data analysis software used by researcher (Atlas.ti8)

##### *National Strategy and Business Environment*

Finding show other factors such as the need for a national strategy, as mentioned by one Respondent, “government's policies and rules and cooperation of local authorities” influence policy perception and adoption. Besides that, national strategy influences the business environment, which will enable the tourism sector to adopt LCD as stated by one Respondent, “oil price, sector challenges, recession, unemployment” influence the adoption of LCD in the tourism sector.

##### *Local Capability*

This study found that, “Experience and track record, Financial capability and Commitment to execute to the end” influence LCD policy adoption in tourism as one Respondent said. another Respondent mentioned that, “Country of origin (Preferably Oman), History in the country, Financial status of the company, previous experience with them, technical strength of the company” are key factors that might affect the decision-making concerning the adoption of Local Content Development practices. one Respondent mentioned that, “[when] experience of the local consultant doesn't meet the project requirement [LCD might not be considered]”.

#### 4.4 Summary

Findings from the survey with oil and gas LCD policy stakeholders and findings from the survey of tourism stakeholders were presented in this chapter. Oil and gas findings organized into themes. The first theme presented findings around LCD policy goals, plans, and policy impact. The second theme showed the internal and external factors that facilitate or hinder implementation, the challenges and related strategies, ideas for policy improvement, and lessons learned. The third theme presented policy replication perceptions across sectors, at the national level, and regional level (GCC countries).

Tourism findings also organized into themes. The first theme presented findings around integrated tourism complexes sustainability practices and implementation strategies used by integrated tourism complexes in Oman. The second theme showed findings around perceptions on oil and gas LCD policy. and the third theme presented internal and external factors that are likely to influence policy adoption in the tourism sector.

In the next chapter of this dissertation, I discuss the ideas that have emerged because of this study and offer recommendations for policymaking.

## CHAPTER 5: DISCUSSION

### 5.1 Introduction

This study of Local Content Development evaluated the factors associated with policy implementation based on the experience of Oman, that implemented Local Content Development policy in 2013 that serves as an example of local economic policy. The focus of the dissertation addressed implementation aspects, as it provides insights relevant to policy replication in other sectors. This research adopted a case strategy approach with analysis based on individuals from Oman's oil and gas sector where the local content policy was first implemented, and individuals from Oman's major tourism development projects as a policy replication candidate. The study sought to answer the following research questions:

#### Research Part 1: Oil and Gas

1. What are the internal and external institutional factors that affect the implementation of Local Content Development policy?
2. What factors must be considered when replicating Local Content Development policy in non-oil sectors?

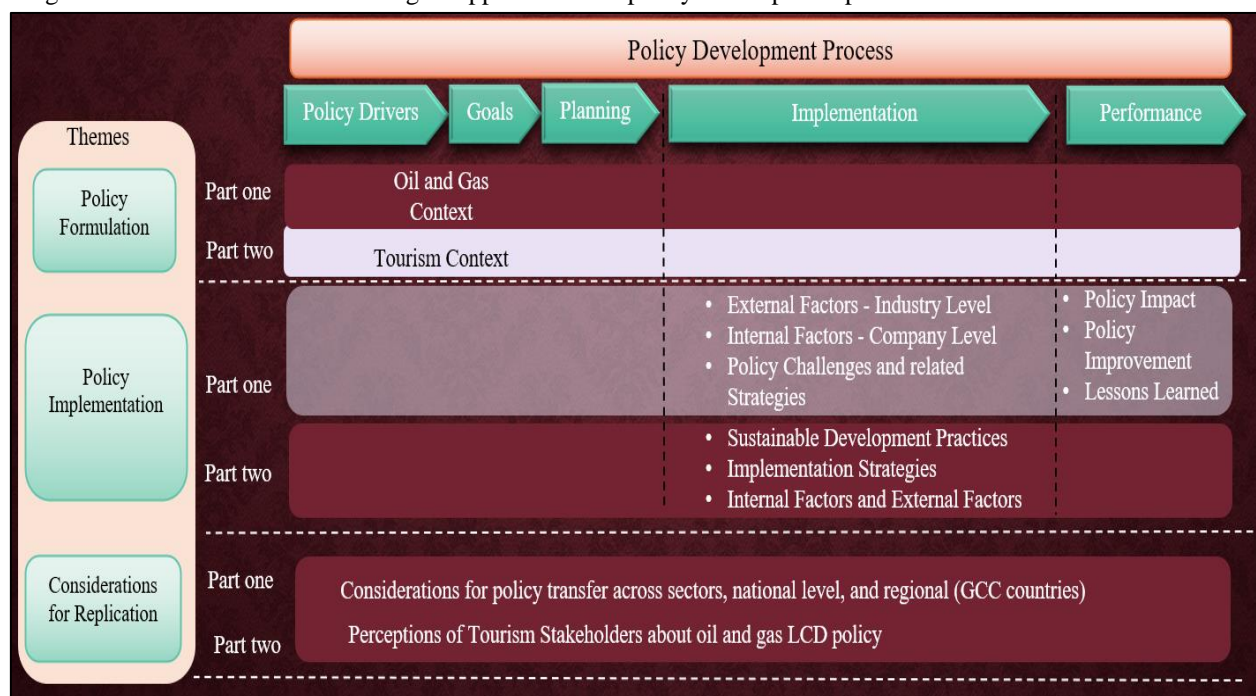
#### Research Part 2: Tourism

3. What are sustainability practices in integrated tourism complexes in Oman?
4. What are perceptions of tourism stakeholders in Oman regarding oil and gas LCD policy?
5. What factors related to local content influence the tourism sector, specifically, in integrated tourism complexes (ITCs).

To answer these questions, research was divided in two parts (Part 1: oil and gas and Part 2: Tourism) and qualitative methods were employed with surveys for data collection and analysis using conceptual framework developed for this study (see figure 7) (Yazan & De Vasconcelos, 2016). To add rigor in data analysis, the researcher used thematic analysis with combined deductive and inductive approaches. The researcher compared concepts derived from the literature with data derived from the survey. For example, a deductive approach was used in organizing both surveys in sections representing key topics informed by literature and the researcher's experiences and the inductive approach is used to derive data from texts (Dearing et al., 2019). Individuals' names are not presented in this dissertation to ensure that all participants' identities were confidential.

This chapter discusses the main findings for both research studies using themes and sub-themes shown in figure 9 (summarized) based on policy development processes, which organizes research data that emerged from the conceptual framework. Also, the chapter presents principles and associated recommendations based on the findings. Figure 9 shows major themes - policy formulation, implementation, and replication and sub-themes - policy drivers, goals, planning, implementation, performance) that will guide discussion and the recommendations.

Figure 9: Themes and related findings mapped based on policy development processes



Source: Developed by the researcher

## 5.2 Discussion Part 1: Oil and Gas

### *Contexts*

Local content development is not new in the O&G industry in Oman. Before 1998, oil companies adopted local content practices through their supply chain to develop local suppliers (PDO, 2016b). The oil companies' interventions to develop local suppliers varied in terms of intensity i.e., oil company intense support happens through incubation of local suppliers, which requires structured program, more committed resources, and longer time to see results. Other interventions of oil companies to improve supplier's capability focuses on gradually engaging local suppliers in the supply chain, i.e., by giving contracts in low risk /low complexity scope of work. Also, oil companies adopted local content practices through corporate social responsibility to create jobs, trainings, and economic opportunity for communities within vicinity of oil projects (PDO, 2016b). These were practices of individual oil companies and were not known as local content, rather social responsibility or supplier development.

To maximize impact, Oman's Local Content Development policy was initiated in 2011. The key policy drivers included the pressing needs to create jobs, to enhance the contribution of oil industry to the local economy, and to support economic diversification plans. Further, this policy reflects market and labor failures in Oman such as a lack of local supply of demanded skills, goods, and services (Al-Saqri, 2010; O&G ICV Project Management Office, 2013b). This means that local manufacturers and labor are underutilized or public and private sector in Oman struggle to address these issues (O&G ICV Project Management Office, 2013b; Oman Supreme Council for Planning, 2016).

Despite efforts since 1976 to diversify the economy, Oman until now relies heavily on oil revenues (Al-Saqri, 2010; Oman Supreme Council for Planning, 2016). These factors are consistent with Omani government reports and LCD literature in which issues of market and labor are highlighted as a key driver for change in policy directions (Central Bank of Oman, 2017; Oman Supreme Council for Planning, 2016, 2019).

### 5.2.1 LCD Policy Formulation

#### 5.2.1.1 Government Leadership and Commitment of Decision-Makers in Private Sector

One of the main foci for this research is the role of key individuals in an organization to champion and lead new solutions to address national development needs. As the findings show, these individuals have been instrumental in paving the way for LCD adoption and implementation. There are passionate government officials, CEOs, and managers working in different organizational divisions, consistent with other studies on policy implementation (Bhuyan et al., 2010) and on policy diffusion (Dearing et al., 2019; Rogers, 2003) and development programs (ColumbiaLearn, 2014). In addition, leadership in industry and at the company level proved important in adopting and implementing LCD policy. For example, one respondent stated “... you need leadership commitment. If it is secured, the rest is easy”. Another stated “... it is all about taking bold decisions on where to spend organization budgets”. This has been true in Oman’s LCD experiences. Other studies found similar results that emphasizes leadership influences policy implementation (Bhuyan et al., 2010).



In addition, the findings show that government support for the policy of developing local content contributed to facilitating the adoption and implementation of the policy. There is no doubt about the importance of the government's role in accelerating the pace of adopting development policies. Several studies have shown similar findings (Heum, 2008; Kashani, 2005a; Ryggvik, 2015). This reinforces the literature that identifies the importance of the government's presence as a supporter of policies to impart seriousness and confidence in policy uptake and implementation. In Oman's oil and gas industry, this may seem effective in driving the implementation but there is potential for misunderstanding and vagueness around LCD policy enforcement power in the absence of legal framework. From a regulatory perspective, LCD policy might need a legal framework to ensure clarity and support for its continuity.

#### 5.2.1.2 Collaboration - Policy, Science, Industry and Society

One of the most important features in the policy formulation process is stakeholder collaboration. The results showed that effective cooperation is achieved when the various sectors of society, such as government, industry, relevant educational institutions, and society are involved. This brings together ideas, experiences, knowledge, and trust. With oil and gas, the government facilitated policy development, and the industry led the implementation. The implication here is that a collaboration is important for the policy to be widely accepted, to maximize benefits, and for LCD to be sustainable and supported in the long run by stakeholders. Local content literature shares the same principle (Ado, 2016; Chatham House, 2019; IPIECA, 2016a). A similar finding is also found in the policy diffusion literature, which showed that collaborative policymaking involving stakeholders across the state could offer a more sustainable approach (Harriger, 2011).

In addition, the findings show that the collaborative approach to policymaking of LCD resulted in policy acceptance and uptake in the country. This finding suggests recent changes in organizations' practice and behavior to support sustainable development. For example, government officials and CEOs participate in LCD implementation, which shows senior executive commitment and leadership. The collaborative approach shows alignment of strategic stakeholders in implementation, which suggests effective governance structure are in place. The adoption and implementation of LCD policy by diverse stakeholders shows the importance of the LCD concept and shows that LCD brought changes in participants' knowledge, attitudes, skills, and aspirations.

In addition to that, this is clearer as recently the Omani government created an LCD steering committee at the Ministry of Commerce and Industry to oversee transferability of LCD into non-oil sectors. This finding is consistent with stakeholder theory, which emphasizes the interlinked relationships between an organization and its customers, suppliers, staff, investors, communities, and others who have a stake in the organization. Effective strategies integrate the interests of all stakeholders rather than counterbalancing one against another (Freeman, R. E., & McVea, 2001). Similar findings are also found in the policy implementation literature, which stresses stakeholder involvement in policy implementation (Bhuyan et al., 2010).

However, the unintended consequences of collaboration shows that while collaboration is important the process may delay important LCD decisions because of objections from stakeholders. A recommended action mentioned in the findings is that participation and collaboration in decision-making is required for implementing local content objectives, but the time this takes needs to be incorporated into planning.

To improve collaboration efficiency, a mechanism must be in place to allow for stakeholder feedback to be considered and then to impose binding decisions for all, especially regarding opportunities to develop local content in projects that have clear benefits for the country. This approach to implementation reduces the chances of delaying important LCD decisions by including stakeholder feedback early in the policy design phase

Oman's LCD policy has been running since 2013 it is not always understood and recognized. Many "stakeholders downstream of the value chain learning about critical ICV requirements especially in tendering, monitoring & reporting system". Another respondent stated that some suppliers, "have no experience in implementing LCD", which suggests a lack of LCD policy awareness, an issue that others have also identified as a barrier to LCD implementation. Suppliers new in the market or suppliers whose core business is not in oil and gas may lack expertise with the concept, or do not have awareness of the concept and the training to be effective.

#### 5.2.1.3 Coherence with National Development Policies

At the industry level, key external factors that facilitated policy implementation were: 1) LCD policy coherence with national development policies related, for example, to employment and workforce development such as Omanisation; and 2) coherence with policies related to support for the business environment that include a focus on local manufacturers and SMEs, and with policies related to social development such as charity and philanthropy support to communities. This coherence between LCD and national development policies is considered a key principle in LCD development as pointed out in the literature (Tordo & Anouti, 2013; United Nations Conference on Trade and Development (UNCTAD), 2017). Perhaps what made LCD acceptable in Oman is its applicability in various settings and the flexibility in design.

It is not clear whether LCD policy makers had been involved, too, in the formulation of other national development policies. The implication is that it is critical to align or integrate LCD with related national policies.

Another important finding was that the lack of a local content legal framework and provisions designed to enforce compliance hinder the implementation of Local Content Development programs. The subject of introducing a legal framework has two opposing views: one view suggests it is important to justify the costs to implement the policy and to ensure benefits are realized in a legally and structured and transparent manner (Ovadia, 2015). The opposing view suggests that the local content legal provisions may be stringent, vague, and affect international trade (Hufbauer & Schott, 2013; White, 2017).

#### 5.2.1.4 Cross-Industry Assessment of Demand and Supply

An essential input to planning was the collective knowledge and experience of the O&G industry in various areas of corporate social responsibility, workforce development, and supply chain/project development. Other significant inputs to planning were the cross-industry assessment of demand and supply and learning of best practices worldwide. The findings suggest the importance of understanding organization's expenditures, conducting local market capability survey, and cross-functional team visits to industrial bases to assess local market capability for key commodities to facilitate implementation. This finding is consistent with Chatham House's guidelines for governance in emerging oil and gas producers 2016 (Marcel, 2016) and the local content guidance document published by the global oil and gas industry association for environmental and social issues (IPIECA, 2016a).

However, the challenges the industry went through while implementing LCD offered the greatest lessons. Findings suggest that the lack of an experienced workforce, lack of local products, and lack of competitiveness of local firms hinders effective policy implementation and identified products and skills that need to be developed. The lack of local capabilities means two things: either costs of inputs for production is higher when sourcing or final price of manufactured products are higher than the price of similar imports. These results match those observed in earlier studies that suggest local some companies may not be capable and ready enough to meet the industry demand (Tordo & Anouti, 2013; White, 2017).

In international trade context, findings of this study suggest that high imports competition with their domestic counterparts hinders effective LCD implementation. Explanation was mentioned in the responses that bureaucratic procedures for starting a new business in Oman cause delays in LCD implementation. Another explanation could be lack of anti-dumping measures against imports subsidized by exporting countries that injures fair competition in the local market.

Findings also suggest a lack of information about opportunities available for local competition, lack of information about the capabilities of local firms, and lack of structured and uniform information on spending patterns of the oil sector on goods and services hinders policy implementation. This finding is consistent with those found in other studies (Ovadia, 2015). The surveys revealed the importance of studies and collaboration in data analytics are needed to facilitate implementation. This implies that when designing LCD policy, it is important to assess local capabilities, so that LCD intervention activities can be tailored to address gaps in the market, or at least the market assessment will provide insights where the competition is likely to affect LCD implementation. This could also mean that countries need to do an assessment, build up local capability, and then implement the LCD.

Experiences of one company emphasized conducting a detailed assessment of local market capability and capacity. This assessment proved critical for LCD implementation because the assessment provides important information on whether goods and services are available and whether they can be supplied on technical and commercial grounds. One stated: “A proper diagnosis of the local market capacity and capability is important before settling any target”.

Overall, to plan, more inputs would facilitate better management and decision making in Local Content Development. For example, increased market studies, applying economic modeling ensure policy resilience to future shocks, and incorporating socioeconomic impact assessment in the planning as it reveals important information that can align LCD implementation outcomes to national priorities. This suggests a holistic planning approach in the country. For example, environmental (and social) impact assessments (EIAs), which are prepared for projects with substantial environmental and social impacts as part of the permit process for projects in oil and gas. This assessment can be leveraged and/or expanded to include LCD elements. Esteves and Barclay (2011) argued that planning for local procurement is possible through an integrated social and economic impact assessment (SEIA) approach. The SEIA helps project managers in managing the social and economic issues associated with local procurement. Knowledge management is needed for the industry to ensure availability of information and to drive capability in this domain.

#### 5.2.1.5 Long-Term Investment and International Competitiveness

Most respondents shared the view that a country needs to aim for a self-sufficient economy in areas where it is efficient and competitive to do so, meaning that it leverages its strategic location, natural resources, human capital, and all other forms of productive assets. Strategic Local Content Development helps reduce reliance on all forms of unnecessary importation but the findings show that LCD outcomes take a long time to realize.

While it may take time to see results, starting late poses political, economic, social, and environmental concerns. This finding is consistent with arguments presented in protectionism literature, which suggested that the nation's economy should not rely on external goods to satisfy its people's needs and should plan to manufacture goods itself. Thus, the economic factors available to the nation should strengthen domestic production as a priority (Manoilescu, 1931).

From a sustainability point of view, LCD policy can be designed with a long-term view of engaging with priority sectors that can benefit more from public and private sectors' investments. LCD policy can target these investments that could produce largest backward and forward economic linkages, thus enhance employment and business opportunities in the local market. For instance, investment in oil and gas upstream projects creates forward linkages to downstream processing sectors such as refinery that adds value to the extracted oil and gas, and backward linkages of upstream sector deals with procurement of machinery and equipment for oil and gas fields. This finding is consistent with local content experiences of several countries as mentioned in the literature (Heum, 2008; Tordo et al., 2013) and The experiences of countries implementing local content policies suggest the following principles adopted to ensure sustainability of local content policy (IFC; IPIECA; UNDP, 2017; IPIECA, 2016b).

#### 5.2.1.6 Governance and Accountability

The formation of governance for policy implementation helps in organizing and clarifying the relationship between stakeholders, to achieve the objectives assigned to it. Findings suggest that LCD governance and organization structure was a key factor in policy implementation in Oman. Governance and organization structure are important in driving policy implementation and shows leadership commitment to the policy, sending an effective message that LCD requirements are going to be the norm to do business in oil and gas.

Policy governance and accountability for delivering results helped policy implementation, achieved by securing commitments and the creation of a unit at industry level supported by an executive committee and operational subcommittees in the targeted areas for development such as workforce development and supply chain development.

These committees were supported with experienced personnel who are considered LCD champions in their respective companies, as one respondent stated “... maintaining a core team of high caliber individuals with the personal passion and belief in the program is fundamental to its success”. This team’s knowledge and capability must be retained to ensure long-term success as stated “The people serving in ICV in the long term maintain the ICV capabilities (as an emerging function) as they keep the knowledge and grow into mastery of the Local Content”.

To ensure the long-term existence of the policy, there is a need to retain a national cadre of LCD experts and to establish a dedicated government unit overseeing overall LCD development and implementation across sectors supported by an information database that includes data on local capabilities, plus technology to facilitate identification and implementation of LCD opportunity efficiently.



## 5.2.2 LCD Policy Implementation

### 5.2.2.1 Company Size and Years of Experiences in Industry

The findings also suggest that companies' experience and knowledge of the market and the magnitude of its purchasing power facilitate implementation and affect the extent of its contribution to achieving the policy goals. This is important when discussing the important role that large organizations can take to improve economic and social conditions in areas where they operate. Now, this does not mean small and medium-size companies' role in promoting local content should be ignored. Usually, the number of SMEs is high in many economies, so when combining their purchasing power, it creates a lot more opportunities to promote local content.

The findings also suggest that larger and highly capitalized companies may be better positioned to implement LCD policy than smaller companies. One explanation may be that large oil and gas industries have the financial capability to invest in resources necessary for implementing LC in Oman, which may be a constraint for small-scale businesses. Large firms also have the buying power to warrant smaller firms adding to production capability and scale. Therefore, small-sized companies may require government financial support to implement LCD policies in Oman. Support may take the form of subsidized training, providing incentives for local sourcing.

### 5.2.2.2 LCD Planning - Budget Considerations

Findings suggest that LCD implementation budget allocations fall into four key areas: 1) Operation costs, which are associated with running the LCD department, employee training, and development, and consultancy studies; 2) workforce development costs associated with 1.2% training levy from contract value, infrastructure for training and development for the local workforce, and paying high salaries because of Omanisation requirements;

3) supply chain costs associated with increasing contract costs after providing a 10% price preference to local goods and services, implementing supplier development programs, conducting supply and demand studies, training for contractors; and 4) Communication costs associated with LCD awareness and training engagement, publications, and media. Depending on implementation component, these costs vary between different companies. One way for oil companies to reduce costs is to partner with other stakeholders to leverage their experiences and resources. An example of that would be to partner with SME development authority for capacity development programs. Consistent with this finding mentioned in policy implementation literature that emphasizes the planning, resources and capacity needed to facilitate policy implementation (Bhuyan et al., 2010).

#### 5.2.2.3 LCD Planning- Dedicated team

Other findings suggest that leadership helped to facilitate the company's resources to serve the policy objectives. An example of leadership action is the establishment of a dedicated department or a unit with full-time resources to manage LCD development in the company. These results are consistent with those of other studies and suggest that for effective implementation of LCD there is a need to create a dedicated department to oversee its implementation. (Klueh et al., 2009). In similar contexts, findings suggest stakeholders created new LCD departments, or added new LCD roles, or hired new LCD professional to manage different aspects of the policy.

In order to understand the skills and experience of LCD professionals as an indicator of what might be expected for other sectors, the current study found that most of the LCD skills correspond to the LCD objectives, which include skills in strategy and implementation, supply chain development, and local workforce development. The findings suggest that strategy and implementation responsibilities center on setting goals for LCD at the corporate or project levels, and in the identification, implementation, and reporting of LCD opportunities.

Second, the study findings also show that job responsibilities related to supply chain include assessing supply and manufacturing capabilities, tender evaluations, and clarification, review contracting strategy of major tender proposals and contracts. Third, findings suggest that job responsibility in local workforce development centered on identifying local recruitment opportunities in coordination with corporate HR and project teams, managing the delivery of Omanisation, and a variety of other training programs.

Overall, the implications here are that LCD responsibilities can be embedded in any organization that have similar functions, with coordination essential because data custodians are in other departments. A further implication is that interpersonal communication skills are critical and interdepartmental processes need to be aligned.

#### 5.2.2.4 LCD-Planning - Corporate Communication

Implementation of any major policy requires changes in many levels in the organizations. Most important is the change in mindset about LCD and its benefits, that usually starts with firm leadership making a strong statement in support of LCD and a commitment to making changes necessary to achieve local content goals. Many stakeholders mentioned that going through several changes hinders effective implementation of LCD. Some of these changes related to the perceptions that LCD is costly and requires additional work, which may cause project delays and all other consequences related to this aspect.

While management mindset change regarding LCD is important, staff resistance proved to be more challenging to effective LCD implementation. Explanation for staff resistance could be a due disruption of LCD new tasks, changing work patterns, requiring new standards and new expectations of accountability. This challenge can be met with a systematic corporate communication plan that is diverse in its forms and channels, which can bring about a change in the staff acceptance of additional job responsibilities stemming from the Local Content Development policy.

Responses also show that embedding LCD into staff performance contracts are effective ways to address resistance to change. Another finding suggests that assigning LCD implementation ownership and accountability to staff was crucial and established company rules and procedures. Similar findings are mentioned in the innovative organizations literature, which highlighted that the rules and procedures are one characteristic of innovative organizations that implement change (i.e., innovation here refers to LCD policy) (Rogers, 2003).

Most companies highlighted training and awareness sessions as effective communication tools to facilitate implementation. However, communication is not a onetime activity rather it should be seen as a continuing process to be more effective. Potential policy adopters may need to create a precise communication plan that ensures continuing engagement with stakeholders. Another effective way to facilitate implementation is by creating local content policy within the company and making it one of the core objectives, while reminding employees of the policy goals and success stories in the CEO's speeches to the employees, which proved to reinforce the Local Content Development policy among employees.

In addition, findings suggest that continuing education, training, and awareness sessions on LCD at various levels inside and outside the organization have helped in addressing several LCD challenges. Celebrating successes of LCD when opening a new factory or completing a training program were also noted.

#### 5.2.2.5 LCD Policy Goals and Strategies

In terms of implementation strategies of company LCD policies, findings suggest differences between stakeholders in their strategies for implementing Local Content Development policies. Stakeholders in oil and gas aligned company LCD strategies with industry LCD policy. The variations in LCD implementation strategies may be because of companies' financial capabilities, experiences, and availability of resources. Despite this, many companies introduced changes in terms of budget and contractual procedures, adding new roles and tasks, and hiring new employees and establishing dedicated departments. The present findings are consistent with local content guideline (IPIECA, 2015) and policy diffusion (Dearing et al., 2019 p. 13).

In terms of LCD implementation scope, there could be more opportunities through sub-contractors, common procurement, exploration, and production sharing agreements (ESPA). These mechanisms offer alternative possibilities to influence companies' behavior towards LCD adoptions. For instance, LCD can be applied through negotiation rounds of EPSA. Several countries are implementing LCD in this way to make sure LCD benefits are negotiated and agreed upfront before a country gets into long-term ESPA with an oil company (Tordo et al., 2013, p. 40).

However, in Oman LCD requirements are not included in ESPA, apart from requirements stipulated in oil and gas law for employment and training. Another way to influence companies' behavior towards LCD considerations is to apply LCD on low to medium value contracts. This may seem challenging, but this way more companies will encounter LCD requirements and so they will recognize what it is and start thinking about it. Another benefit out of this is that more companies will benefit from increased local sourcing activities because it has been applied on low to medium value contracts.

Most of the LCD goals focus on three development dimensions: employment and skills development, local sourcing of goods and services, and local business/community development. These results match those observed in earlier studies (Acheampong et al., 2016; Almeida & Martinez-Prieto, 2015; Kolstad & Kinyondo, 2015; Ngoasong, 2014; Ovadia, 2016; Owusu & Vaaland, 2016; Shezawi & Rahman Khan, 2018). This finding is linked to the market assessment conducted by the O&G industry to identify demand and supply gaps in terms of skills, goods, and services (International Petroleum Industry Environmental Conservation Association, 2016b; O&G ICV Project Management Office, 2013b). The implication is that supply and demand analysis are essential to determine needs and LCD goals and objectives.

#### 5.2.2.6 LCD Policy Goals - Employment and Skills Development

LCD programs produce outcomes in terms of employment skills, certification, and accreditation that are consistent with local and international standards and best practices. Results show that employment targets include all job levels from low skill to senior management. This is consistent with literature on local content (Tordo et al., 2013), human development (Rosa, J. C., & Asher, 2012), economic development (Pattanaik, 2016), industrial development (Ohno, 2013) and protectionism (Ferrara, 2013).

When this requirement poses a challenge for contractors, the industry collaborates with training providers and concerned organizations to address this gap. One program partnered oil companies and training providers to help contractors meet local employment requirements. Similar findings were found in the literature (IPIECA, 2015; Sustainable Skills, n. d.). The implication here is that LCD should target job levels that offer good paying jobs. The major concern with employment is the temporal nature of some projects where there is a peak demand for specific jobs at the development stage, but when the project becomes operational, the demand for those jobs is reduced. Therefore, careful workforce planning is needed to enforce employment requirement.

In terms of achievement, the O&G industry established two online platforms to manage recruitment with the “Joint Recruitment Portal” and skills development “Sector Skill Unit” across the industry, and Stakeholders reported increases in Omanisation for different job categories and many workforce development training programs delivered to youth job seekers. Overall, stakeholders seemed confident about these results, suggesting that LCD brings value in terms of local workforce development. This finding is consistent with other studies (AlHadhrami, 2016; Shezawi & Rahman Khan, 2018).

Unintended consequences, however, suggest that some of those who went through certification and training do not end up working in the same profession they have been trained on. While this may seem reasonable as investment in human capital, but may affect the industry as it needs these skills. In addition, findings suggest that some training programs delivered by non-Omanis are not effective because a non-Omani trainer fears being replaced by peer Omanis who just completed the training. This aspect deserves more attention in the literature as a social implication of local content workforce development.

#### 5.2.2.7 LCD Policy Goals - Supply Chain Development

The supply chain, whether in public or private sector institutions, is one of the key channels to deliver Local Content Development programs, especially those related to training, employment, localization of industries, and development of local suppliers (Ado, 2016; L. Johnson, 2016; Tordo et al., 2013; Wells, J., & Hawkins, 2010).

The findings of this study suggest the same trend exists in Oman's model and further reinforces this finding by indicating that most of what is required from a company is to activate LCD policy implementation with the required resources. This finding is consistent with policy implementation literature that showed that leadership and commitment are influential implementation factors to ensure the follow through, resources, and accountability (Bhuyan et al., 2010).

Supply chains take many forms, but an important factor is to have a department that can adapt the local content in its purchasing and contracting processes. Perhaps the experience of the O&G sector in supply chain operations allowed it to adapt local content to its daily procedures. In this context, another important finding showed integration of local content requirements with the company's operations or projects.

With this process integration, the company ensures that business operations include Local Content Development requirements so, for instance, when planning to enter a contract to purchase goods or services, LCD requirements are identified and strategized, and embedded as part of the tender documents. Other studies show similar findings (Esteves & Barclay, 2011), and policy diffusion literature, which suggest that companies make changes to implementation to increase likelihood for its replication either by reinventing the policy or customize it to fit potential companies' routines (Dearing et al., 2019 p. 13).



One finding shows that international oil companies responded positively to LCD requirements. This study found that international oil companies have experiences with LCD requirements because of their various operations worldwide. These findings are consistent with findings in other studies.(Ngoasong, 2014)

### *Supply Chain Challenges*

The fundamental dilemmas that companies may face when adopting Local Content Development policy includes increases of supply chain spending and the desire to contribute to sustainable development while achieving expected returns for company owner (s) and shareholders and increase productivity. This issue has been discussed in local content literature from an international economic perspective that LCD increases costs, reduces opportunities for knowledge transfer, and increase opportunities for corruptions (Hufbauer & Schott, 2013).

However, findings suggest that oil companies recognize the importance of considering these increases as “investments” with reasonable and desirable business and social value, and the importance of recognizing that it is challenging to quantify multiplier effects, and there is a supply efficiency gain in the long term when employing and sourcing locally. To ensure investment yield desired effects, the oil companies in Oman enforce accountability for local content delivery through contract agreements. This finding suggests changes in business practices towards contribution to sustainable development while making profit. This is finding is consistent with business literature (Porter & Kramer, 2006, 2011; Srivastava Dabas, 2012), and local content literature that highlighted similar trend with Multinational corporations (Ngoasong, 2014).

Another challenge is lack of local capability to produce goods and services commercially and technically acceptable, and strong price competition of foreign products with the non-local. Findings suggest that when goods and services cannot be supplied locally, the industry considers them as opportunities for Local Content Development. Four options are considered when localization opportunity arises in the industry. These include:

- First, creating and incubating a new local company to fill supply gaps in the industry. Evidence shows that this approach has been effective, especially when considering creating closed-community shareholding company in the areas affected by the oil projects. (pdo, 2016).
- Second, is to ring-fence a portion of the contract for the local market to compete, and usually this is done in partnership with large contractors in supplier development agreements.
- Third is to encourage existing local companies to diversify and expand in the areas where there is supply gap and high demand. Oil companies may facilitate input data such as technical specifications of products and upcoming tenders.
- Another strategy is to encourage foreign direct investment into opening new factories to supply the Omani market or beyond through economic free zones or creating of joint venturers with local companies.

Research findings suggest that supply chain development has been effective, and the following LCD important impacts were acknowledged in the responses.

- Requirements for Local Content Development are mandatory in tendering systems of major oil companies operating in Oman (O&G ICV Project Management Office, 2013b). Not only oil and gas, but several non-oil organizations have followed suit. For instance, that LCD is replicated in public sector i.e., LCD requirements features in government tenders for all sectors, including transportation and tourism (International Trade Administration, 2020). The oil companies' inclusion of LCD seven elements (see chapter 2.5.2), which served as LCD proposal development guidelines for bidders during tendering suggest this model encourages bidder's innovation and flexibility to submit competitive LCD proposals, which benefits the oil company (e.g., incentivizing and encouraging bidders to propose the best), the bidder (e.g., incentive to win contracts and contract extension, and society (e.g., receive benefits in terms of employment, trainings, sub-contracts). This is consistent with local content literature about Oman (Chatham House, 2019; Ovadia, 2016)
- Launching of a joint supplier registration system (JSRS) - a locally developed online platform for connecting buyers and suppliers in the O&G industry.
- An increased spend with local companies including SME (ICV - Programme Management Office, n.d.).
- The establishment of several new manufacturing plants to serve industry demand and beyond such as \$2.4 million facility of oilfield casing accessories manufacturing plant and Oman's first polymer manufacturing plant with investment of around \$20 million (Omanobserver, 2019).

- Enhanced capacities of many local companies through various supplier development programs of oil companies (Oil Review Middle East, 2018).
- The creation of four large community shareholding companies with over ten thousand shareholders (PDO, 2016b). SLCCs are closed shareholding companies with a capital of usd 24.6 million owned by individuals and families within the lands in which the Omani government owns the rights to produce oil and gas.

The government supported SLCC through national oil companies, which extended its support to SLCCS through buying equipment worth around 10 million dollars for each SLCC so they do not start off with a loan, and technical training for 3 years, full time consultants to coach SLCCs in HSE, governance, entrepreneurial and business skills, contract management, finance, and human resources. Additionally, there is a dedicated section within the national oil company to manage the entire SLCC process.

These results suggest LCD has changed market conditions and is perceived by stakeholders to have achieved expected results. These findings are consistence with those of other studies (AlHadhrami, 2016; Shezawi & Rahman Khan, 2018).

However, unintended consequences suggest that LCD policy may raise expectations for investors, local businesses, communities, and youth job seekers. If these expectations are not addressed properly, they may harm policy implementation. An example of rising expectations of LCD policy:

- Oil companies will offer plenty of suitable business opportunities for local competition
- Availability of up-to-date information on demand for goods and services, consolidated at industry level, and accessible. Meaning that investors are now more certain when using such information, which allows them to build feasibility studies to localize goods and services in the country.
- An abundant training and good-paying employment opportunities because of LCD policy.

These expectations were real and felt by the industry, as the finding suggests. Though some aspects were expected and taken care of by communicating in various business forums and engagements with suppliers, which highlighted LCD rules and standardization of LCD requirements in tendering processes of oil companies. Findings suggest, however, that there are still companies unrealistically demanding contracts in the name of LCD policy. As one respondent stated, one challenge we face is “reliance of some local businesses on our company scope only”.

#### 5.2.2.8 LCD Policy Goals - Local Business Development

Development of local suppliers, especially small and medium enterprises, are supported in Oman under the national project for the development of small and medium enterprises, which stipulates allocating 10% of the value of projects to SMEs. Findings suggest the Local Content Development policy focuses on, and seeks to develop, small and medium enterprises operating in oil and gas and beyond. This finding suggests the compatibility of the LCD and other economic policies in force in the country and also shows coherence.

Development of local suppliers was expected for the oil industry as they already have experience developing and nurturing SMEs in business and technical fields (Oil Review Middle East, 2018; PDO, 2016b; Shezawi & Rahman Khan, 2018).

Findings suggest some companies allocated resources to manage all SME related activities such as SME development, engagement, incubation, training, awarding contracts, reporting spend and progress. While government-owned companies consider SMEs as an investment in the country, however, the findings show that profit-oriented companies consider SME development as an additional cost in terms of time and money. This finding suggests making SMEs as a key component in LCD strategies and allocating resources to manage it. This finding is consistent with the recommendations of best practices in developing local content referred to in many of the previously mentioned research (Ado, 2016; IPIECA, 2011; Kazzazi & Nouri, 2012; Levett & Chandler, 2012; Senoo & Armah, 2015; Tordo et al., 2013; UNCTAD, 2017).

#### 5.2.2.9 LCD Policy Goals - Community Development

There are many similarities between local content and social responsibility policies, although there are differences in the application and methods (Ado, 2016; Shezawi & Rahman Khan, 2018). In addition, research shows that companies carry out local content policy within the framework of social responsibility, sustainability, or other frameworks that serve the interests of the company, investors, customers, and society (International Finance Corporation; International Petroleum Industry Environmental Conservation Association; United Nations Development Programme, 2017). The community development component of the LCD policy was a part of companies' corporate social responsibility, sustainability practices, or social investment (OQ, 2019; PDO, 2016a).

Community development as perceived in Oman refers to companies' general and specific support to improve the economic and social conditions of communities affected by company operations. The literature shows that these programs were not coordinated and implemented by different companies in unstructured manner, however, some programs were effective in delivering value to local communities in terms of training, employment, business opportunities and general investment in public benefit projects, perhaps a more coordinated approach between oil companies was necessary to deliver wider community impact (PDO, 2016b; Shezawi & Rahman Khan, 2018).

Findings show that companies have integrated community development programs into company LCD goals - beside other goals such as employment and training, and local sourcing of goods and services. In addition, LCD implementation plans targeted specific needs of communities affected by company operations and manage expectations that are likely to arise by all other communities outside the geographic boundary of company operation.

This is important because communities outside the geographic boundary of company operation demand equality and inclusiveness in terms of access to business opportunities and priority in employment and training. Community needs can be identified through engagement and consultation with recognized community leaders, scholars and citizens.

#### 5.2.2.10 LCD Policy Performance Measurement

Findings suggest that the common direct measurement of LCD by oil companies for employment and workforce development programs are: 1) the number of national jobs created, 2) and number of trainings delivered along with associated monetary value (e.g., salaries, spending on training). The LCD measurement of supply chain development programs includes the benefit added to the economy measured by the value of contracts awarded to locally registered suppliers, including ring-fenced contract scopes awarded for local supplier development and SMEs.

Other oil companies measure the value of community development programs. However, there is no unified approach to measure the impact across the industry, and these measures are reported by the individual oil operators (Shezawi & Rahman Khan, 2018).

The lack of policy performance measurement across the industry is because LCD performance data is generated and maintained by oil companies and their major contractors and subcontractors. Collecting such data in a unified manner across the industry is administratively challenging and may be commercially and politically sensitive from a company's standpoint and market competition perspective. This interpretation is aligned with those found in another research that LCD effect is difficult to quantify (Tordo & Anouti, 2013). The intangible achievement is difficult to measure, but the impact can be felt. When policy performance can't be measured accurately, doesn't mean to stop it. It is important to recognize these challenges and do something about them. These aspects of local content measures opened the door for critics hinting that if the measurement is vague, then the policy is vulnerable to corruption by the elite.

### 5.2.3 Policy Replication

The second question in this research was about the views of stakeholders on LCD policy replication at three levels: across sectors, national level, and regional level. These are discussed in the following sections.



#### 5.2.3.1 The Need to Replicate the Policy

Planning for LCD diffusion is underway in Oman and being led by a government committee to oversee the process. Several sectors are being studied as candidates for LCD such as tourism, healthcare and utilities. The current study found that most respondents believe LCD can be replicated in other settings, driven by the need to stimulate national economic development in terms of localization of jobs, goods, and services and development of workforces, rural communities, and small and medium enterprises. However, replication will need customization to fit each industry's unique requirements. One even considers that thinking about replication was necessary early on, for example, after the O&G sector began implementing the policy for a short period as stated, as one respondent noted, a “Few years after O&G [oil and gas] blueprint, should have started other sectors too”. In contrast, starting too early also has risks, unless the replication is informed by an adequate review of the O&G LCD policy, and mindful that policy implementation at the industry level takes a long time to produce results.

#### *Is LCD Policy Replication Possible in Oman?*

Oman’s experience with oil and gas local content policy is successful and an example for future development (AlHadhrami, 2016; Chatham House, 2019; Ministry of Oil and Gas - Oman, 2019; OQ, 2019; PDO, 2019; Shezawi & Rahman Khan, 2018). LCD policy stakeholders are diverse, representing various sectors of the economy, and were involved in direct and indirect activities to the O&G sector before and after the inception of the LCD policy in 2013. The indirect activities are related to other sectors such as construction, manufacturing, services, housing, travel, catering, and maintenance services. This means that policy stakeholders of indirect activities are aware of the local content requirements, and this may help replicate the policy in their respective sectors.

Awareness of the local content requirements, however, does not mean that other sectors are interested therefore needs assessment may be needed to ensure the policy is based on sound foundations.

This study found that comprehensive engagement with stakeholders has been essential to LCD implementation. As one respondent stated,

One of the key principles is to establish alignment and synergy between all the stakeholders to establish a shared vision and common goals, which will facilitate the implementation of LCD. In addition, continuous engagements between all the stakeholders are also very important to maintain momentum and continuous progress and growth in LCD.

Whether that same approach will work in other sectors depends on many factors such as leadership at industry and company level. In oil and gas, the Ministry of Oil and Gas and Petroleum Development Oman (PDO) played a key role in driving LCD in Oman. This suggests that championship is key to take the lead and push the boundaries of value creation across oil and gas sector and beyond. Similarly, other industries would need championship at government level to endorse and then at corporate level at implementation to show commitment.

Another important factor is use of benchmarking and a baseline study to determine the gaps and opportunities for development. The key lessons from Oman's oil and gas experience are that when gaps are identified they represent important input to define the value creation opportunities, but what this research has shown is to perform feasibility studies on these value creation opportunities help facilitate strategic decision making. This step imitates that of the supply chain activity that determines sourcing strategies or investment portfolio.

#### 5.2.3.2 Local Content Development and National Economic Plans

One aim of this research was to understand links between LCD policy and Oman's long-term plan "Oman Vision 2040". No differences in objectives were found in LCD and Oman Vision that are contradicting. As stated, "the ICV elements are part of the Oman Vision 2040 agenda. It supports Omanisation, training to local people, and promotes the economy". Both LCD and Oman long-term plan (Oman Vision 2040) aligned with the UN Sustainable Development Goals (SDGs) (International Finance Corporation; International Petroleum Industry Environmental Conservation Association; United Nations Development Programme, 2017; United Nations, n.d.-a). Now, the questions come how can LCD policy show that it is a reliable policy tool that a political leadership considers in implementing Oman Vision 2040? As one respondent stated, "LCD adoption would make us reach to our Oman Vision 2040 quicker since the focus is building the country and its internal resources to reach sustainability". Findings of this study suggest oil and gas LCD model can play a significant role in implementation of Oman Vision 2040. The Omani government may need to consider the lessons learned from oil and gas to enhance long-term planning.

#### 5.2.3.3 Gulf Cooperation Council Content Development

Oman is a member of the Gulf Cooperation Council (GCC) that includes the countries of Bahrain, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates that share common interests around many economic issues as well as tensions based upon history and politics. LCD has now spread to the neighboring countries around Oman and is used by the Abu Dhabi National Oil Company (ADNOC) (PWC, n. D.) and by the governments in the Kingdom of Saudi Arabia (Mooney, n. D.) and Qatar (PWC, 2018) to support their long-term development plans "Saudi Vision 2030" and "Qatar national Vision 2030".

This study sought to understand stakeholders' views in Oman about the opportunities to replicate Oman's LCD model across neighboring countries to achieve greater economic cooperation.

These countries have small domestic markets and could benefit from some specialization to serve all GCC countries via linked LCD policies. This study found that opinions diverged because of the turmoil, economic transformations, and political differences that the region is experiencing.

There are many common factors between the Gulf states, in particular, and the countries of the Middle East region. Among the greatest of these factors is the culture and to some extent the economic challenges represented by the diversification of sources of income and the urgent need to contribute to achieving political stability in the region.

The findings on this issue can be divided into two parts. In the first part, the findings show that there is cooperation between policy implementers in the O&G sector in Oman and their counterparts in the Arab Gulf states to exchange information on local content experiences and knowledge. In the second part, the results expressed ambitions to achieve economic integration among the Gulf states by adopting a policy of developing a common local content, or I foresee it to be called "Gulf content development policy". The literature on sustainable development and the experiences of the European Union calls for serious action on partnerships and cooperation to achieve sustainable development goals, whether partnerships at the one-state level from within or between countries (International Finance Corporation; International Petroleum Industry Environmental Conservation Association; United Nations Development Programme, 2017; United Nations, n.d.-a; United Nations Department of Economic and Social Affairs, 2019). The larger the circle of partnerships, the more complex the implementation, but the benefits are greater.

#### 5.2.4 Summary

The oil and gas LCD policy experiences provided useful insights on collaborative policy making and policy implementation processes. Implementation factors are interconnected and applicable to a variety of settings. Replication may not be of a complex task but more about leadership and human and organizational behavioral change. Now, I move to discuss the second theme of the research and then conclude this chapter with study principles and recommendation.

### 5.3 Discussion Part 2: Tourism

The Omani government identified tourism as one of the target sectors for long-term development and growth between 2020 and 2040, with the LCD in the discussion by many tourism professionals as candidate for LCD replication. Part two of the research explored the possibility of replicating Local Content Development policy in tourism sector, and I selected mixed-use development projects in tourism to answer research questions 3,4, and 5:

3. What are sustainability practices in integrated tourism complexes in Oman?
4. What are perceptions of tourism stakeholders in Oman regarding oil and gas LCD policy?
5. What factors related to local content influence the tourism sector, specifically, in integrated tourism complexes (ITCs).

In this section, I discuss findings drawn from stakeholders involved in the development of integrated tourism complexes (ITC) in Oman, which includes two important aspects: the current sustainable development practices by integrated tourism complexes (ITC) and their views on LCD policy adaptation in the tourism sector.

#### 5.3.1 Perceptions and Practices in Oman's Tourism Sector

This study found that ITCs in Oman are involved in sustainable development practices that focus on local sourcing of goods and services, community development, supporting small and medium enterprises, local employment, environmentally and socially friendly practices. These are similar practices to LCD, but named differently.

These findings further reinforce my interpretation that organizations seem to agree with the concept of Local Content Development because it is similar to familiar business practices such as CSR, workforce development, and supplier development. Which means, from the policy replication point of view, LCD is compatible with existing business practices, in other words, it should be easy promote LCD in the private sector to enhance contribution to the local economy. This finding is consistent with the literature on local content and corporate social responsibility (Ado, 2016; Avina, 2013; Ngoasong, 2014; Porter, M. E., & Kramer, 2006, 2011; Shezawi & Rahman Khan, 2018), and the theory of policy diffusion, which suggest that policy attributes such as compatibility of the policy (i.e., LCD policy) with the existing values, experiences, and needs of potential adopters (e.g., ITCs), help explain how policies may replicate in other settings (Rogers, 2003)

Findings show some sustainable development practices such as community development applies to large projects in Oman. One tool used by some ITCs to inform sustainability practices is through Environmental (and Social) Impact Assessments (EIAs), which is prepared for large projects with potentially substantial environmental and social impacts. Using EIAs is also suggested in research part 1 and in the local content literature (Esteves & Barclay, 2011) to enhance value creation. Other ITCs implement sustainable development practices in the tendering system of the company.

The Omani integrated tourism complexes law requires developers of tourism complexes to submit community development plans as part of the ITC development agreement. The community development and Omanisation plans include local content activities such as giving preference to Omani goods and services, giving priority for employment and contracts, other capacity building programs to persons and companies who reside in the project's vicinity area.

This finding suggests the LCD practices have been adopted in mixed-use development projects in tourism but may need to transition from an individual to collaborative implementation to maximize impact. The implication here is that apparently tourism ITC have the same basic grounds as the O&G in terms of established sustainability practices. What appears missing is the integration of sustainability components into an LCD framework and consider the steps taken by oil and gas industry to create industry level LCD policy, however, key components need to be identified such as leadership and championship to drive the LCD policy formulation process in tourism industry.

Based on the analysis of responses about ITCs perceptions of the O&G LCD model, findings suggest that LCD in oil and gas influences other sectors and contributes to the sustainable development of the country. In addition, the findings show that the characteristics of the tourism sector differ from the oil sector, in the sense that the oil sector is relatively older in terms of development, which contributes to the effective implementation of the Local Content Development policy. This finding implies that the replication of the policy is possible, but the policy replication should align and integrate with the reality and conditions surrounding the tourism sector. Based on theory of policy innovations, these findings reflect policy attributes such as compatibility (i.e., consistency of policy with the existing values, experiences, and needs of potential adopters); and complexity (i.e., perceived ease of policy implementation) ( Rogers, 2003).



### 5.3.2 Factors Likely to Influence Policy Adoption in The Tourism Sector

Findings suggest that company leadership, company supply chain, and relationships with stakeholders, national strategy and business environment and local capability influence policy adoption in tourism industry. These factors are consistent with those reported by stakeholders in the O&G industry and are important for Local Content Development policy adoption in tourism industry. These factors are further discussed:

#### 5.3.2.1 Leadership

Leadership is critical as highlighted by stakeholders of the oil and gas and tourism surveys. Leadership can be reactive or proactive in taking responsibilities towards improvement of economic and social conditions. Other studies show effects of leaders' careless decisions on sustainable development of tourism sector, which imply the importance role of leaders (Becker, 2013). Leadership style has not been investigated in this research but could be a valuable area for future research on how leadership styles influence policy adoption.

#### 5.3.2.2 Company Supply Chain

Findings show that incorporating LCD requirements in supply chain planning matters when adopting LCD in the tourism sector. When comparing the planning capability of the oil and gas and tourism, there is a drastic difference. For instance, the oil industry in Oman started before 1970, while tourism is still emerging. Since 1970, experienced international oil companies played a key role in building the oil industry and thus developed planning capability and transferred knowledge and technology in different aspects of managing the organizations, which likely affected different business processes as well, including supply chain planning and project management (Critchfield, 2010).

Tourism in Oman is relatively new and emerging; however, perhaps some tourism developers also have extensive international experiences and probably able to consider LCD elements such as workforce, goods, and services in advance when they plan for tourism development projects. This implies that it is not necessarily that planning capability will influence policy adoption, rather the leadership and championship that incorporate LCD into the nitty gritty of the planning process, which will influence policy implementation as shown in the oil and gas findings. However, local context is important here. For example, not all countries care about sustainable tourism and so may not feel the need to include LCD aspects into the planning process while countries such as Oman's Tourism Strategy 2040 considers sustainable development of tourism thus planning capability is an important factor that needs to be considered when designing LCD policy. This means incorporating LCD elements are important at the early stage of planning for tourism projects.

#### 5.3.2.3 Relationships with Stakeholders

Findings show that relationships with stakeholders influence adoption of LCD in Oman's tourism sector. Stakeholder engagement is critical, especially when stakeholders have different objectives. Apparently, this is challenging because of the enormous size of the tourism industry. The interconnectedness of the tourism industry calls for more efforts in terms of collaboration, communications, and more active role of government. This finding is consistent with other studies, which depicted tourism development strategy of Aspen, a ski resort town in Colorado's Rocky Mountains (Bosselman et al., 1999). As tourism grew in the city, the citizens were worried about the quality of their life and visitor impacts, so felt the need to have a growth management plan.

The first development plan resulted in increased second-home ownership, raising costs of housing, and an increase in the number of businesses serving tourists as opposed to serving local people. These issues were caused by a shift in population demographics. In the development of the second plan, the community learned that spending more time in planning and incorporating community views is important to mitigate similar issues. However, it took nearly two years to build the plan, which suggests they had challenges while building consensus among many participants (Bosselman et al., 1999), and shows the additional detail needed to implement an effective plan.

#### 5.3.2.4 National Strategy and Business Environment

Finding show other factors such as the importance of a national strategy, as mentioned by one respondent, “government's policies and rules and cooperation of local authorities” influence policy perception and adoption. Besides that, national strategy influences the tourism business environment, which will enable the tourism sector to adopt LCD.

Since tourism is a new sector set for growth, there are management and coordination challenges that affect the level of LCD adoption. The Ministry of Tourism is the regulator, but the tourism industry in Oman involves many sub sectors, which make is difficult to coordinate. This means applying LCD vertically on tourism sub-sector might prove practical at the beginning and then move to expand to other sub sectors, for example apply LCD across the accommodation sector, or food and beverage, or ITC and so on.

#### 5.3.2.5 Capacity and Capability of Local Firms

The findings the research also show that capabilities of local firms as an important factor that facilitates LCD adoption in the tourism sector. These findings suggest that the capability of local firms includes the following aspects that are important for LCD adoption: firms' commitments to execute projects, financial and technical capabilities, history in the country, and technical strength. While these elements are important in tender evaluations but findings from oil and gas emphasize developing strategies to improve the capabilities of local firms. For this aspect to work in tourism, the government may need to consider supply chain strategies adopted in the oil sector, which included setting aside contracts for local firms, ask major contractors to work with smaller firms, giving price preference for local firms. Another intensive development intervention would include creating and incubating new local firms.

#### 5.3.3 Summary

LCD adoption and implementation provide sustainable solutions to enhance how the tourism industry benefits from economic growth. LCD enabling factors appear to exist in the tourism sector based on findings of this research and Omani regulations of Integrated Tourism Complexes the "ITC law". The tourism industry needs leadership and champions to facilitate all other factors in a collaborative approach, as did oil and gas. Although tourism stakeholders' participation in this research cannot represent the overall tourism industry, we can infer that LCD ideas do not differ from those already practiced by organizations in various other industries through CSR and sustainability practices.

I discussed research part 1 and 2 in the previous sections. Now I move to present key principles and study recommendations based on the findings.

## 5.4 Principles and Recommendations

In this section, I present principles and recommendations for developing and implementing a Local Content Development policy based on the findings. This dissertation recognizes that each industry or country has its own development agenda and different combinations of factors of production and own development challenges. Also, some recommendations may be difficult to undertake, and that sufficient resources may not be available to undertake them all in the short term but, several are adaptable to meet specific organizational settings.

### 5.4.1 Principle 1: The State Role

The findings show that government support for the policy of developing local content contributed to facilitating the adoption and implementation of the policy. There is no doubt that the importance of the government's role in accelerating the pace of adopting development policies. This reinforces the literature that identifies the importance of the government's presence as a supporter of policies and to convey seriousness and confidence in policy uptake and implementation.

#### *Recommendation:*

The concerned government must lead policy formulation of Local Content Development with the participation of stakeholders.

#### 5.4.2 Principle 2: Leadership at All Levels

One of the main foci for this research is the role of key individuals in an organization to champion and lead alternative solutions to address national development needs. As the findings show, these individuals have been instrumental in paving the way for LCD adoption and implementation. These are passionate government officials, CEOs, and managers working in different organizational divisions.

##### *Recommendation:*

Appoint development-oriented leaders who have a firm belief in productivity and sustainable development, and committed to a country priority policy. The leader is the driving force who can create the conditions of Local Content Development that are missing. Leadership is required in all levels: government, businesses, municipality, universities, and agencies.

#### 5.4.3 Principle 3: Collaboration Policy, Science, Industry, and Society

One of the most important features in the policy formulation process is stakeholder collaboration. The results showed that effective cooperation is achieved when the various sectors of society, such as government, industry, relevant educational institutions and society are involved. This brings together ideas, experience, knowledge and trust.

##### *Recommendation:*

- Policy formulation should be carried out in collaboration between policy, science, industry, and society. Through negotiation, compromise, trust and sharing benefits. Critical to this is understanding and appreciation of stakeholders' influence for desired change.

- Insulate collaboration efforts from personal and political interests by establishing a mechanism to impose binding decisions for all, especially regarding opportunities to develop local content in projects that have obvious benefits for the country.

#### 5.4.4 Principle 4: Problem Identification - Gap Analysis

Findings suggest the importance of determining the root cause of the needs or problems to design effective policies. Needs or problems could originate from multiple sources, so this step aims to get the basics right before embarking on a policy journey.

#### Recommendation

- Identify the underlying problem in consultation with stakeholders by conducting a baseline study that focuses on spend analysis, supply/demand analysis, and market capability assessment. Analysis focuses on what the organization is currently spending for provision of goods and services annually. How much of that spend is local/non-local? What is the percentage of this spend for goods? And for services? What is the distribution of spend with each company we do business with? What is the total number of suppliers we spend this money with? Are those suppliers based in-country or abroad? What are the percentage of national employees and expats within the organization and with those we contract out with?
- Surveying of best practices in the problem area through reviewing research and arranging learning visits in other countries or inviting well-known experts in the field.

#### 5.4.5 Principle 5: Vision- Long-Term Investment and International Competitiveness

Strategic Local Content Development helps reduce reliance on many forms of importation and as findings show that LCD outcomes take a long time to realize. While it may take long-term to see results, starting late poses political, economic, social and environmental concerns.

##### Recommendation

- Create a vision for Local Content Development for a global region, a country, a city, an economic sector, public, and private organizations, units within an organization such as projects, supply chain, human resources, corporate social responsibility.
- Local content development policy must create local goods and workforce based on local resources (people and material) and skills, certification and accreditation must be consistent with national and international standards and best practices.
- Integrate all practices serving similar goals under UN sustainable development goals, and work with data-producing agencies i.e., national statistics authority or office to merge and align concepts that have similar meanings and goals yet prone to misinterpretation and inconsistently monitoring and reporting such as In-Country Value, Local Content Development, value creation, community development, corporate social responsibility, social investment and corporate sustainability, with globally accepted concepts and definitions. This alignment helps dissemination of knowledge and consistency in monitoring and reporting for better decisions.
- Standardize LCD in tendering and contracts nationwide to ensure consistency. This includes: establishing clear LCD definition and guidelines (sector-wise or company-wide) for integrating LCD requirements in processes of procurement, contracting and vendor selection, metrics and reporting.



- Create a central supplier database with search options by sector, by business name, by national and international classification codes of economic activities, by type of certifications, location. And options for organizations to create tenders/advertise for opportunities, online bidding and business networking.
- Establish central national business development center to integrate government and private sector efforts to attract investments, promote exports, local supplier development, research, and development, and innovation

#### 5.4.6 Principle 6: Coherence with National Development Policies

Coherence of Local Content Development policy with other government development policies that seek to achieve same goals as LCD such as SME promotion, employment, and training programs, industrial development schemes is important to facilitate effective implementation.

#### *Recommendation:*

Ensure LCD vision is aligned with development policies of a country by engaging concerned stakeholders to exchange information and clarify goals.

#### 5.4.7 Principle 7: Mindset Pledge to The UN Sustainable Development Goals

Most of the Local Content Development policies focus on employing and developing the skills of the local workforce, developing business opportunities and suppliers' capabilities, and contributing to community development. These policies are implemented by different departments or business units within a public or a private organization, which means the policies are compatible with many organizational structures and contribute to UN sustainable Development Goals. This suggests that adoption and implementation is not complex and could fit many organizations.

#### *Recommendation:*

- Public and private organizations across the country should adopt and implement Local Content Development considering Local Content Development principles. Expected changes include internal changes in terms of budget and contractual procedures, adding new roles and tasks in some departments for employees, and hiring and establishing specialized departments to follow up and implement the local content strategy. Budget considerations include:
  - Operation costs, which are associated with running the LCD department, employee training, and development, and consultancy studies if needed.
  - Workforce development costs associated with training, infrastructure for training and development for the local workforce, and paying high salaries comply with national employment policies.
  - Supply chain costs associated with increasing contract costs after providing a 10% price preference to local goods and services, implementing supplier development programs, conducting supply and demand studies, training for contractors: and

- Communication costs associated with LCD awareness and training events internal and external stakeholder engagement, publications and media
- Organizations that are partially adopting Local Content Development or related policies i.e., CSR must scale up implementation across departments/business units within the organization taking into account Local Content Development principles.

#### 5.4.8 Principle 8: Local Content Regulations

Findings suggest the need for a local content legal framework and provisions to enforce compliance. In addition, findings of this study suggest that competitiveness of imports of workers, products or goods with their domestic counterparts hinders effective LCD implementation.

#### *Recommendation:*

- Assess the need to create, coordinate, and integrate local content provisions with legal provisions of other national policies
- Collaborate with concerned government bodies and stakeholders to address imports price issues affecting local markets, national workforce development and small and medium enterprise funding and development

#### 5.4.9 Principle 9: Governance and Accountability

One of the most important pillars in implementation is the existence of a system and the formation of a governance for implementing the policy that organizes and clarifies the relationship between stakeholders. This system follows the procedures and principles that govern and direct the implementation of the policy to achieve the objectives assigned to it. Findings suggest that LCD governance and organization structure was key factor in policy implementation.

##### *Recommendation:*

- Create and institutionalize Local Content Development policy organization supported by law, regulations, and agreed practices among stakeholders. Policy organization to be charged with executive and operational accountability.
  - Executive accountability entrusted by the leader to a steering committee/council supporting the leader. Members in the steering committee are well-educated, highly experienced officials, scholars and business leaders that meet on bi-weekly or monthly to oversee policy implementations. A leader appoints a secretary to manage the administrative and logistics aspect of the steering committee meetings.
  - Operational accountability assigned to a team of professionals in a specific policy issue to conduct studies, give advice and proposals, champion implementations in their respective organizations. Members in operational committees are from the industry, and they commit a portion of their time each week to convene.
  - Policy implementation office/team coordinate all policy issues with steering committee and operational and external stakeholders. Members in the office can be full time or seconded from various organizations.

#### 5.4.10 Principle 10: Corporate Communication

Implementation of any policy requires changes in many levels in the organizations. Most important is the change in mindset about LCD and its benefits. Many stakeholders mentioned that going through several changes hinders effective implementation of LCD. Some of these changes are related to the perceptions that LCD is costly and requires additional work, which may cause project delays and all other consequences related to this aspect. While management mindset change regarding LCD is important, staff resistance proved to be more challenging to effective LCD implementation.

##### *Recommendation:*

Launch a local content communication campaign using the nudge approach by designing and presenting benefits of Local Content Development to society, in internal communications i.e., to create mindset change in employees so they are more acceptable and change their behaviors towards serving policy goals, and external communications to increase policy awareness amongst stakeholders so they are awareness and change behaviors towards complying to policy expectations. Nudging is a flexible tool, quickly adaptable and modifiable, with a low implementation cost and has been implemented in public policy.

## 5.5 Summary

This chapter discussed the main findings for both research part 1 and part 2 following themes and sub-themes that emerged from the conceptual framework. Also, the chapter presented principles and associated recommendations based on the findings. The Omani experiences of Implementation of Local Content Development in the oil and gas have served as a pilot project, and important impacts have been acknowledged, and several influencing factors evaluated discussed in this dissertation are consistent with related literatures. Now, it is the time to move to mobilization, institutionalization, broadening and shifting scope. Comprehensive and self-sustaining system of Local Content Development principles discussed above needs to be developed using local knowledge consistent to the UN sustainable development goals, implementing mechanism, and necessary resources backed by government leadership and vision. Mindset change is also needed. The Oman's oil and gas experiences showed that building effective institutions to fulfill the role of facilitator for LCD provides support for the implementation and so the same is needed to replicate the policy into other settings be it countries, sectors, organizations, cities, and so forth.

In the next chapter, I conclude the study with a highlight of the major findings, limitations, further research, and the implications.

## CHAPTER 6: CONCLUSION

A Local Content Development policy (LCD) represents a strategy to develop the domestic economy, improve government processes, promote public-private partnership, advance the business environment, and enhance value creation. The aim of this research was to evaluate the factors associated with implementation of Local Content Development policy in the O&G sector in Oman and to explore the possibility of replicating Local Content Development policy in the tourism sector. The research questions addressed were:

1. What are the internal and external institutional factors that affect the implementation of Local Content Development policy?
2. What factors must be considered when replicating Local Content Development policy in non-oil sectors?
3. What are sustainability practices in integrated tourism complexes in Oman?
4. What are perceptions of tourism stakeholders in Oman regarding oil and gas LCD policy?
5. What factors related to local content influence the tourism sector, specifically, in integrated tourism complexes (ITCs).

Data collection used a survey of oil and gas and tourism decision makers with open-ended questions. The target population of oil and gas included Local Content Development policy stakeholders (i.e., government and companies) identified and selected through consultation with local content policy implementation office at The Ministry of Oil And Gas, criteria applied for selection emphasized that organizations were involved in policy implementation and accessible, participants were identified in consultation with policy implementation office and the criteria applied suggested that participants have at least 5 years of direct work experience in Local Content

Development. The study population for tourism included decision-makers of integrated tourism complexes based in Oman identified and selected through consultation with The Ministry of Tourism.

## 6.1 Major Findings - Lessons and Considerations for Policy Makers

Findings were consistent with the literature and reinforce the common themes identified by scholars of Local Content Development. In addition, several new aspects were recognized in this study of Oman, such as a collaborative policymaking approach involving government, industry, academia, and society. The government was the leader and followed a participatory and balanced approach that influenced policy uptake and trust. The oil and gas industry, which is pressured globally and locally to enhance contributions in social and economic development in host countries, found local content policy as a suitable ground to takeoff and expand.

In addition, the role of key individuals (Policy Entrepreneurs) who were able to transform how organizations think about issues affecting the country, which resulted in shifting organizations agenda priority and then the country's public agenda towards sustainable development. Another aspect is that the more companies adopt local content the more jobs are created, the more local goods are purchased, the more money circulates in the economy at the end local content benefits the whole society. Without local content, there is a risk of economic leakage, lost jobs, and more unfair foreign competition with local businesses.



Taking into consideration implementation factors, companies can adopt and implement the local content framework to enhance their contribution to the local economy and towards SDGs goals. If the local capability does not exist, then local content can be designed to make local capability exist through knowledge transfers, public-private partnerships, and so forth, therefore long-term nature is ingrained in the local content concept.

The findings are based on the rich experiences of major companies and this offers valuable input to inform policymaking for other sectors in the contexts of sustainable development. This is not telling the government what to do. These are important considerations to inform policy development process.

Among the main lessons gained from the study are:

- The state role is important in facilitating the adoption and implementation of Local Content Development; therefore, the government must lead policy formulation of Local Content Development with the participation of stakeholders
- Leadership at all levels is required within government, businesses, municipality, universities and agencies. It is important to appoint development-oriented leaders who have a firm belief in productivity and sustainable development, and committed to a country priority policy and those will pave the way for LCD adoption and implementation.
- Collaboration between state, academia, industry and society brings together ideas, experience, knowledge, and trust that may be insulated from personal and political interests by establishing a mechanism to impose binding decisions for all, especially regarding opportunities to develop local content in projects that have obvious benefits for the country.

- Problem identification helps design effective policies. Needs or problems could originate from multiple sources. Problem identification should be in consultation with stakeholders and by conducting a baseline study that focuses on spend analysis, supply/demand analysis, and market capability assessment, and learning of international good practices in the problem area.
- A clear national vision is needed to drive systematic mindset change in the private sector towards Local Content Development. A vision aligns and compliments but should not compete with similar policy goals in the country. The vision should be supported with legal and policy frameworks based on a long-term public-private partnerships and investments directed towards local efficiency and international competitiveness. Without a policy vision or starting late poses political, economic, social, and environmental concerns, so the aim should be to reduce reliance on many forms of unnecessary importations, and to achieve growth using local resources and talents.
- Alignment of LCD vision with national development policies and with the UN sustainable development goals helps dissemination of knowledge and consistency in monitoring and reporting for better decisions. In addition, standardization of LCD requirements in tendering and contracts, at sector-wide or company-wide, also ensure consistency. Other important facilitators include a central supplier database, and central national business development center to integrate government and private sector efforts in development.
- LCD needs to be institutionalized to facilitate governance and accountability in implementation. A leader institutionalizes Local Content Development by creating an independent policy organization charged with executive and operational accountability and supported by law, regulations, and agreed practices among stakeholders.

Besides a dedicated policy implementation office/team that coordinates all policy issues with executive and operational committees and external stakeholders.

- In change management contexts, it may be valuable to include a local content communication campaign using the nudge approach. This is gained by designing and presenting benefits of Local Content Development to society, in internal communications i.e., to create mindset change in employees so they are more acceptable and change their behaviors towards serving policy goals, and external communications to increase policy awareness amongst stakeholders so they are aware and change behaviors towards complying to policy expectations

## 6.2 Limitations and Further Research

This study is a human endeavor that falls under the relativistic circle; thus, the research was limited in several ways:

- Data collection was designed to be in-person interviews with individuals. But covid-19 measures undertaken in many countries restricted in-person interactions, travel, access to research participants, and social-distancing, besides university-imposed limitations in conducting research with human subjects.
- Using open-ended online survey posed some challenges in data analysis. The online survey was practical and convenient for researcher and participants, but the quality of data was highly dependent on the respondent's writing and communicating their ideas. For example, some answers were brief and seemed abstract, which caused issues understanding what was meant, however, following up with participants helped confirm meaning. Future research could benefit from offering participants the option to record voice and upload beside typing.

- Because of time and resource constrain, this research did not include senior management and several other stakeholders who are involved in LCD policy implementation. Their knowledge is important to understand the fresh perspective of LCD implementation. Future research could benefit from including more stakeholders involved such as chief executives, owners of small and medium enterprises, super local community contractors, training institutes, training graduates, employees in within departments such as local content department, contract, and procurement, CSR/social investment, human resources, projects, corporate communications.
- The tourism study was limited in terms of sectors included in study. The study focused on integrated tourism complexes, which were chosen because of their large investments, the degree of project planning for the multiple implementation phases and integration of land uses i.e., residential, commercial, and tourism. Future research could benefit from including perspectives of concerned government, hotels, airlines, tour operators or could expand to cover other non-oil sectors such as agriculture and logistics.
- This study shed some lights into LCD performance, which suggest the LCD policy has made significant progress in creating jobs and training opportunities for the locals, awarding more contracts to local firms, and stimulating productivity in the national economy (Oil Review Middle East, 2018; PDO, 2016b, 2018b; Shezawi & Rahman Khan, 2018). However, this finding does not portray or reflect policy effects from a cost-benefit analysis perspective. Therefore, further research is needed for systematic and rigorous scientific-based understanding of LCD effects on public finance and society from multiple stakeholders' perspectives. Future research should focus on LCD goals in goods and services and Omanisation and training. These two areas have taken much of the attention of the policy efforts and spending and are believed to deliver the highest LCD impact.

- Building on this research and in-depth analysis of Local Content Development experiences in Oman, there are certain factors that facilitate LCD implementation such as planned investments, leadership, and governance, and stakeholder engagement. These factors may not be the same for each country. Therefore, further research is needed to expand the understanding of factors that will facilitate the adoption and implementation of Local Content Development policies in the middle east and north africa region.
- Limitations in interpreting some parts of findings concerning LCD policy impact because it is difficult to attribute the change or effects to the LCD policy only, because there are other factors contributing as well. For example, were the effects because of LCD policy, or likely to occur anyway, even without the help of the policy. In addition, crediting the policy with all the improvement will overstate the policy effects, preventing an accurate account of the factors that caused their behavior to change or factors that led to their success. In summary, LCD policy effects must be assessed relative to the outcomes expected without program participation, but those are usually difficult to determine. This issue has also been recognized in the local content literature similar to local content multiplier effects (Tordo et al., 2013)

### 6.3 Implications

Money is being spent hundred times by countries, provinces, cities, public, and private organizations, households and individuals every year, and most of this money serves a variety of economic interests and important social needs. Economic and social challenges, however, have increased significantly over the last several years. Unemployment, shortage of local capability and capacity to meet local demand for goods and services, and lack of private sector contribution to local economic development continue to occur. These issues highlight the importance of public policies to be planned, communicated, implemented, and reviewed to encourage alignment of spending towards sustainable development. This study showed the value of adoption and implementation of Local Content Development as a policy tool to enhance the private sector role to improve social and economic conditions. It is an adoptable policy tool to many conditions, supports sustainable development principles that seek to improving people's lives and that it could be used for countries, provinces, cities, public, and private organizations, households and individuals.

This study made a major contribution to local content research by adding new and relevant knowledge to many countries about Oman's oil and gas Local Content Development policy implementation experiences. Findings add new perspectives to literatures in sustainable development, industrial policies, policy implementation, and diffusion. For example, the research provided important evidence-based insights for policymakers and practitioners to enhance decisions on policy design and planning. Findings could help explore opportunities to expand local content policy to non-oil sectors in Oman.

In conclusion, this research showed oil and gas LCD policy experiences that provided useful insights on collaborative policy making and policy implementation processes. Implementation factors are interconnected and applicable to a variety of settings. Replication may not be of a complex task but more about leadership and human and organizational behavioral change. In the tourism context, LCD adoption, and implementation provide sustainable solutions to enhance how the tourism industry benefits from economic growth. LCD enabling factors appear to exist in the Tourism sector based on findings of this research and Omani regulations of Integrated Tourism Complexes the “ITC law”. The tourism industry needs leadership and champions to facilitate all other factors in a collaborative approach, as did oil and gas. Although tourism stakeholders' participation in this research cannot represent the overall tourism industry, we can infer that LCD ideas do not differ from those already practiced by organizations in various other industries through CSR and sustainability practices. Overall, findings show that if industries, governments and societies were to implement Local Content Development strategies, they could meet the UN Sustainable Development Goals more easily.

## APPENDICES



## APPENDIX A: Invitation Letter - Oil and Gas

Dear .....

Welcome, I hope you are doing well.

My name is Ahmed Alhajri, a Ph.D. Student at Michigan state university researching sustainability practices in Oman and considering Local Content Development (LCD) policy in the non-oil sectors. To learn more about Oman's experiences in (LCD) policy implementation, I am contacting key stakeholders in the oil and gas sector.

The subject of my research is sustainability, in particular, Local Content Development also known as In-Country Value. The two terms refer to a policy, strategy, or practice of the government or an organization to enhance the economic and social conditions of the society. Related concepts may include industrial and economic development, corporate social responsibility, or sustainable development, or community development program.

You will be asked to share your experiences in LCD policy implementation. By policy implementation, we mean the activities toward achieving the objectives articulated in your organization's In-Country Value program and/or part of your organization's commitment to an authorized policy—in this case, the oil and gas industry In-Country Value blueprint strategy 2013-2020.

Your participation is voluntary. You can skip any question you do not wish to answer or withdraw at any time. You must be 18 or older to participate. If you have any questions, please contact me directly or my advisor dr. Mark Wilson at wilsonmm@msu.edu

You indicate that you voluntarily agree to participate in this research study by responding to this survey.

Note: you can access and respond to the survey from your smartphone

**Follow this link to the survey:**

[https://msu.co1.qualtrics.com/jfe/form/sv\\_abzssgaeokssvmt?q\\_dl=fqtap0ohiui37sa\\_abzssgaeoks svmt\\_mlrp\\_ecdynhm9mmcvp0n&q\\_chl=gl](https://msu.co1.qualtrics.com/jfe/form/sv_abzssgaeokssvmt?q_dl=fqtap0ohiui37sa_abzssgaeoks svmt_mlrp_ecdynhm9mmcvp0n&q_chl=gl)

Regards,  
Ahmed Alhajri  
Alhajri6@msu.edu  
Mobile +968 94411770

## APPENDIX B: LOCAL CONTENT DEVELOPMENT SURVEY - OIL AND GAS SECTOR

### **Introduction**

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Local Content Development Survey - Oil and Gas Sector

Thank you for Agreeing to Participate

Survey Outline

#### **Sections 1 & 2:**

About you and an Overview of your Organization's Local Content Development (LCD)

#### **Sections 3 & 4:**

Internal and External Factors Affecting the Implementation of LCD Policy

#### **Sections 5 & 6:**

Policy Adoption and Lessons Learned

#### **Section 7:**

The Corona-Virus Pandemic and LCD Policy

### **Survey Instructions**

The Survey Will Be Open Until Tuesday, June 30th, 2020

- All questions are open-ended. Plan for at least one hour to complete
- You can edit your responses at any time.
- This survey has a “save and continue later” feature.
- Before you close the survey at any point, for example, to complete it later, make sure you click on the “save/ next” box.
- For help with question clarification or technical issues, please contact alhajri6@msu.edu, whatsapp, text, or call at +968 94411770

**I look forward to learning from your valuable experiences**

## BACKGROUND AND CONTACT INFORMATION

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### SECTION 1: Contact Information

your contact information will be used for analysis and will be anonymous in the final report. We may use this information to contact you for further clarification and follow up if needed.

☐ NAME 1) \_\_\_\_\_

☐ E-MAIL 2) \_\_\_\_\_

☐ PHONE 3) \_\_\_\_\_

☐ COMPANY name 4) \_\_\_\_\_

☐ Job Title 5) \_\_\_\_\_

---

### Section 1: About Yourself

Q1. Can you tell us about your work background and current professional responsibilities?

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## OVERVIEW OF LOCAL CONTENT DEVELOPMENT (LCD) POLICY

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Section 2:

OVERVIEW OF YOUR ORGANIZATION'S LOCAL CONTENT DEVELOPMENT (OR IN-COUNTRY VALUE) POLICY

### **Q2.1 What is your organization's Local Content Development (LCD) policy and how did you implement it?**

note: you may add documents on the next page

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You may add documents related to Q2.1 File size up to 100mb. If multiple files, compress into a zip file before uploading

### **Q2.2 WHAT ARE THE DIFFERENT TYPES OF COSTS INVOLVED IN LCD POLICY IMPLEMENTATION?**

*please describe and indicate if costs are fixed or variable. you may provide an indicative dollar value per item*

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You may add documents related to Q2.2 File size up to 100mb. If multiple files, compress into a zip file before uploading

### **Q2.3 What are some of the success stories about your organization's LCD policy implementation? Briefly describe and highlight key factors specific to these stories that contributed to their successes and challenges.**

You may add documents related to Q2.3 File size up to 100mb. If multiple files, please compress into a zip file before uploading

## **SECTIONS 3 & 4: INTERNAL AND EXTERNAL FACTORS AFFECTING LCD POLICY IMPLEMENTATION**

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In the following sections 3 & 4, I would like to learn about the internal factors (within your organization's control) and external factors (all uncontrollable factors) that may affect LCD policy implementation, either as a stand-alone program or part of your organization's commitment towards industry collaborative LCD program. For example, internal factors may consist of leadership commitment, resources, and know-how. External factors may include the political, economic, and social expectations and priorities in the country where your organization operates.

---

### **Section 3: INTERNAL FACTORS AFFECTING THE IMPLEMENTATION OF LOCAL CONTENT DEVELOPMENT POLICY**

Q3.1 What are the key factors internal to your organization that have facilitated the implementation of your organization's LCD policy? i.e., what made the policy implementation work? *please list and describe these factors and the effects they have on the implementation* 1) \_\_\_\_\_

Q3.2 What are the key internal challenges of LCD policy implementation? *please list and describe these internal challenges* 1) \_\_\_\_\_

Q3.2.1 What were some of the effects these challenges have on LCD policy implementation? 2) \_\_\_\_\_

Q3.2.2 How did you manage these challenges? 3) \_\_\_\_\_

### **Section 4: External Factors Affecting the Implementation of Local Content Development**

Q4.1 What are the key factors external to your organization that have facilitated the implementation of LCD policy? 1) \_\_\_\_\_

Q4.2 What are the key factors external to your organization that have hindered the implementation of LCD policy? 2) \_\_\_\_\_

## SECTION 5: LCD POLICY ADOPTION

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### Section 5:

#### Opportunities for LCD policy adoption at national and regional levels

Q5.1 Do you believe that the O&G LCD policy can be applied to other sectors? *please explain*

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Q5.2 The sultanate of Oman, through [Oman Vision 2040](#), is committed to achieving the sustainable development goals (SDGS) in economic, social, and environmental dimensions. do you believe LCD policy can support Oman Vision 2040? *please explain.*

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### Section 5:

#### Opportunities for LCD policy adoption at national and regional levels

Q5.3 Some GCC countries are adopting LCD policy to support national long-term development plans such as [Qatar 2030](#) and [Saudi 2030](#). are there opportunities and space for collaboration within GCC in the context of Local Content Development?

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## Section 6: lessons learned and considerations for policy enhancement

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Q6.1 Overall, what were the major lessons learned in terms of LCD policy implementation?

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Q6.2 Looking back, would you suggest doing anything differently?

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**Section 7:****The coronavirus disease (covid-19) pandemic and Local Content Development policy**

Q7.1 Will the coronavirus disease (covid-19) change anything with regards to LCD policy implementation?

**END OF SURVEY**

Thank you. This is the end of the survey. If you need to review your responses, please click back. If not, click save/submit.

## APPENDIX C: INVITATION LETTER- TOURISM

### Invitation to participate in a PhD research project on Local Content Development

My name is Ahmed Alhajri, a Ph.D. Student at Michigan state university researching sustainability practices in Oman, in particular Local Content Development policy in the tourism sector. To learn more about tourism development in Oman I am contacting decision-makers in the tourism sector and related fields.

The subject of my research is Local Content Development, also known as In-Country Value, which is a practice to enhance the economic and social conditions of society. Related concepts may include corporate social responsibility, sustainable development, or community development program

You will be asked about your views on the subject. For example, how your organization is currently involved in sustainability practices and the factors you think may affect adoption and scale-up of such practices within your organization and the tourism sector at large.

Your participation is voluntary. You can skip any question you do not wish to answer or withdraw at any time. You must be 18 or older to participate. If you have any questions, please contact me directly or my advisor dr. Mark Wilson at wilsonmm@msu.edu

You indicate that you voluntarily agree to participate in this research study by submitting the online survey.

Link to survey: Local Content Development survey - tourism sector

Regards,

Ahmed Alhajri

alhajri6@msu.edu

+968 94411770



## APPENDIX D: LOCAL CONTENT DEVELOPMENT SURVEY - TOURISM

### **Introduction**

---

#### LOCAL CONTENT DEVELOPMENT SURVEY - TOURISM SECTOR

### **Thank you for Agreeing to Participate**

### **Survey Instructions**

- All questions are open-ended. Plan for at least 30 minutes to complete
- You can edit your responses at any time.
- This survey has a “save and continue later” feature.
- Before you close the survey at any point, for example, to complete it later, make sure you click on the “save/ next” box.
- For help with question clarification or technical issues, please contact [alhajri6@msu.edu](mailto:alhajri6@msu.edu), WhatsApp, text, or call at +968 94411770

**Section 1:**  
**Contact Information and Background**

Your contact information will be used for analysis and will be anonymous in the final report.  
We may use this information to contact you for further clarification and follow up if needed.

- ☐ Name \_\_\_\_\_
- ☐ E-mail \_\_\_\_\_
- ☐ Phone \_\_\_\_\_
- ☐ Company name \_\_\_\_\_
- ☐ Job title \_\_\_\_\_

Q1. Can you tell us about your work background and current professional responsibilities?

\_\_\_\_\_

**Section 2: Overview of Sustainable Development Practices**

---

**Q2. Is your organization currently involved in any sustainable development practices in Oman?** *i.e., practices such as giving preference to local goods and services, consideration for local persons and companies in terms of employment and contracts for the provision of goods and services.*

- ☐ Yes.
- ☐ No.

**If your answer is yes, can you describe these practices?**

*You may upload documents on the next page*

**If your answer is No can you please tell us why?**

**Q3. What is your perception of the [In-Country Value Program](#) implemented in the oil and gas industry in Oman?**

#### **Section 4 and 5: factors affecting adoption of Local Content Development policy**

---

In the following sections 3 & 4, I would like to understand about internal factors (within your organization's control) and external factors (all uncontrollable factors) that influence the decision-making process of whether or not to adopt and implement Local Content Development policy in your organization. For example, internal factors may consist of leadership commitment, resources, and know-how. External factors may include the political, economic, and social expectations and priorities in the country where your organization operates.

Q4. What are the key factors, internal to your organization, that might affect the decision-making concerning the adoption of Local Content Development practices? *i.e., practices such as giving preference to local goods and services, consideration for local persons and companies in terms of employment and contracts for the provision of goods and services. please list and describe these factors?*

---

Q5. What are the key factors, external to your organization, that might affect the decision-making concerning the adoption of Local Content Development practices?

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End of Survey

Thank you. This is the end of the survey. If you would like to review your responses click back. If not, click save & submit.

## APPENDIX E: CODING SCHEME

## APPENDIX F: Oil And Gas Survey Data Analysis Code List

Table 27: Research Part 1 Oil and Gas: Survey Data Analysis Code List

MAJOR THEMES	PARENT CODES	DEFINITION	CHILD CODES
Local Content Policy Development Process	LCD Planning - Skills and Experience of LCD Professionals	Work experiences of Local Content Development professionals in oil and gas industry in Oman	Communication
			Local Workforce Development
			Supply Chain Development
			Strategy and Implementation
	LCD Policy Goal	Priorities of Local Content Development Policy	Development of Supply Chain
			Employment and skills Development
			Local Supplier/Community Development
	LCD Planning - Budget Considerations	Budgetary requirement to implement the policy	Supply Chain activities
			Operational costs
			Employment and Training
			Stakeholder Engagement
	Policy Impact	Changes in practices, and social and economic conditions	Increased local employment and trainings
			Increase policy adoption and implementation
			Supplier / Community Development
			Increased local spend on goods and services

Table 27 (cont'd)

MAJOR THEMES	PARENT CODES	DEFINITION	CHILD CODES
Local Content Policy Development Process	Lessons Learned	Policy key Lessons based on experiences in implementing LCD in the O&G in Oman	Collaboration - Policy, Science, Industry and Society
			Long-term Investment and International competitiveness
			Policy Implementation Office Supported by Dedicated Professionals
			Implementation Endurance and Resilience
			Government leadership and Commitment of decision-makers in private sector
	Recommendations for Policy Improvement	Recommendations provided by oil and gas stakeholders to improve policy implementation	Create LCD Regulations
			Increase Policy Awareness
			Expand LCD implementation
			Establish Robust Database
			More Development of National Workforce

Table 27 (cont'd)

MAJOR THEMES	PARENT CODES	DEFINITION	CHILD CODES
Implementation Factors	Internal factors	Internal factors within the organization's control that may affect LCD policy implementation, and in which other sectors might consider in policy replication	Company leadership and Governance
			Supply Chain
			Resource Availability
			Corporate Communication
	Internal challenges	Policy implementation challenges faced by oil and gas stakeholders	Resistance to Change
			Impact of Covid-19
			Lack of Local Capabilities
			Business Environment
			Lack of LCD regulations
			Lack of data on market and supplier's capability
	Strategies to deal with internal challenges	How oil and gas stakeholders deal with LCD implementation challenges	Policy Awareness campaign
			Strengthen Policy Performance Management
			Improve LCD identification strategy and processes
			Management support
			Develop Local Capability
			Dedicated team

Table 27 (cont'd)

MAJOR THEMES	PARENT CODES	DEFINITION	CHILD CODES
Implementation Factors	External factors	Uncontrollable factors that may affect LCD policy implementation in which other sectors might consider in policy replication.	Collaborative approach and governance (Industry-wide)
			Decision-makers commitment
			Coherence with national policies
			Government policy
			Local market assessment
Perceptions on Policy Replication	Policy replication	Considerations provided by oil and gas stakeholders to apply LCD policy in other settings	Replication Across Sectors
			Replication at National Level (Long-term economic planning)
			Replication at Regional level - Gulf Cooperation Council (GCC)



## APPENDIX J :Tourism Survey Data Analysis Code List

Table 28: Research Part 2 Tourism: Survey Data Analysis Code List

MAJOR THEMES	PARENT CODES	DEFINITIONS	CHILD CODES
Sustainable Development Practices	Sustainable Development Practices	Practices towards creating value in society through improving the capabilities of small and medium enterprises, giving preference to local goods and services, employment and training of locals, investment in the public good for communities, preserving the environment, and respecting local culture.	Local Sourcing of Goods and Services
			Community Development
			Supporting Small and Medium Enterprises
			Employment
			Environmentally and Socially Friendly
Perceptions of Decision-makers of Integrated Tourism Complexes in Oman regarding oil and gas In-country value policy	Decision-makers' Perceptions	Knowledge and awareness towards acceptance, neutral, or resistance of ICV policy	Characteristics of Oil and Gas industry
			The policy contributes to the sustainable development of the Oman
			Unaware of this program
Policy adoption factors	Internal Factors	Internal factors within the organization's control that may affect LCD policy adoption in integrated tourism complexes	Company Leadership
			Company Supply Chain
			Relationships with Stakeholders
	External Factors	Uncontrollable factors that may affect LCD policy adoption in tourism	National Strategy and Business Environment
			Local Capability

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