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***A Guide to a Supplier Development Program for
Developing Countries in Africa, with Oil and Gas
Resources***

Therese Ohrstrand and Stina Hodne
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FORFATTER(E)

Studentnummer:

207923

208405

Navn:

Therese Ohrstrand

Stina Hodne

VEILEDER:

Terje Våland

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Abstract

In this thesis, we will create a guide to a supplier development program (SDP) for developing countries in Africa with oil and gas resources, and look at various participants' incentives and contributions. Many African developing countries have natural resources that they don't have enough knowledge or skills to develop, and some of these resources are oil and gas.

International oil companies (IOCs) want to expand their business and start producing in these developing countries, while the developing countries want the oil companies' help to develop their local businesses. In order to achieve this, they have implemented local content requirements to ensure that foreign companies will use local labour and products in their operation. These requirements can lead to various benefits for the host country, such as economic growth and new workplaces, but it also has its challenges. IOCs have requirements that their suppliers will have to meet in order to get on an approved vendor list, and as it is today, few or none of the local suppliers manages to fulfil these requirements. To bridge this gap they need training, and one type of training is a supplier development program.

Our guide to a SDP is based on a collaboration between local government, IOCs, local suppliers, learning institutions, and aid organizations. This thesis is a theoretical conceptual study, and our SDP is a generic guide, which needs to be adjusted in each case based on the defined gap that exists between local suppliers and IOCs, and the differences between the various countries. Our SDP focuses on scope, duration, number of suppliers and participants from each supplier, expenses and necessary equipment, theoretical versus practical training, tests and checks during the program, and owners, teachers, and location.

We truly believe that there should be an increased awareness around how developed countries can contribute to help developing countries reach their full potential, and it is our opinion that this guide to supplier development program can participate with this, and ensure a win-win situation for all involved parties.

Preface

This thesis marks the end of two exciting years as master students in Business Administration, at the University of Stavanger.

The thesis has been time consuming and some days a major concern in our daily life. However when looking back, we conclude that it has been an informative and interesting period. We feel that we have gained great insight into how IOCs operates, local content, the situation in Africa, and what is necessary to include in a supplier development program for it to be successful and sustainable in African developing countries with oil and gas resources. The topics of the thesis have been chosen on the basis of our interests, and we find them very fascinating and hope that our readers will feel the same.

We would like to use this opportunity to thank our supervisor, Terje Våland, for guidance and help throughout the process. We would also like to say how grateful we are to our families, friends, and cohabitants who have encouraged us in times of frustration, and to everyone who helped with valuable input.

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Therese Ohrstrand

Stina Hodne

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List of Accronyms

CSR	–	Corporate social responsibility
DAC	–	Development assistance committee
GDP	–	Gross domestic product
HSE	–	Health, safety and environment
IOC	–	International Oil Company
LNG	–	Liquefied natural gas
ODA	–	Official development assistance
PM	–	Performance measure
SDP	–	Supplier development program
SME	–	Small and medium sized enterprise
UN	–	United Nations
US	–	United States
USD	–	US dollar

1.0 Introduction

In this section we will clarify what forms the background of our thesis, some important concepts, the thesis' research question, and how our thesis is structured.

1.1 Background

Africa, the second largest continent in the world, is often associated with words like poverty, corruption, bad quality, and civil unrest. A continent full of potential, but without the resources and means to begin the challenging and demanding road towards change. Many of the developing countries in Africa have a huge amount of natural resources that they don't have the knowledge and/or skills to develop, and some of these resources are oil and gas (Ploeg, 2011). Norwegian and other international oil and gas companies want to expand their business and start oil exploration and production in these developing countries, since this expansion can be a huge potential for economic growth.

For developing countries to begin this road towards improvement within the oil and gas industry, assistance from already well-established oil and gas companies with relevant skills and technologies, are needed. Even though the developing countries can't exploit their resources, they are not willing to just give it up to foreign companies without getting anything in return. As a result, many African countries have mandated requirements for the international oil and gas companies, called local content. For international companies to be allowed activities in the developing countries, these requirements will have to be complied to. The main purpose with local content is to make sure that these developing countries get something in return so that they can achieve increased development both locally and nationally.

Our thesis describes different participants that can help achieve this development, as well as each participant's incentives and contributions. As a result of the theory and empiri presented the final result will be a guide, created by us, over a supplier development program, which is appropriate for use in developing countries in Africa with oil and gas resources.

1.2 Important Concepts

To understand the totality of this thesis, it is important to explain two of the main concepts, local content and supplier development program.

Local content can be explained as the use of local businesses by foreign companies who operate in the country. These local businesses provide materials and labour, which is produced locally, by local labour (United Nations, 2007). The main idea about local content is that local small and medium sized enterprises (SMEs) in developing countries shall get the opportunity to become competitive. In order to achieve the required level of quality and expertise, they have to evolve and develop their knowledge through solutions that can contribute to create a dynamic industry and technological development. Over time, these solutions can help local businesses build a base of expertise, which can give them the quality and capabilities required to compete internationally (Heum, 2008).

The other important concept is a supplier development program (SDP). A supplier development program is a program that a buyer creates for its potential suppliers, and it is established to create and maintain a network of competent suppliers (Hahn, Watt, and Kim, 1990). This means that the buyer, in this thesis international oil and gas companies, will train existing companies to improve their skills and competence, or they will train existing suppliers to go into a market where there are no adequate suppliers that meets the firm's requirements.

1.3 Research Question

Increased competition in the oil and gas industry has led to more and more companies wanting to expand their business to other countries, but this means that they have to follow certain requirements. In African developing countries, the government has set some rules for the foreign company, which contains a regulation of local content. If the foreign company is unable to fulfill this regulation, they can't operate in the country. Using suppliers in the host countries where materials and labour often are less expensive have their benefits, but also its challenges. There are many differences regarding requirements about quality of products and services, health and safety in workplaces, as well as laws, corporate social responsibility, and environmental considerations. These requirements are established to prevent the occurrence of possible accidents and undesired situations.

Local businesses in African developing countries have a long way to go in order to advance their skills and competence to what is a minimum requirement in order to qualify as a supplier for international oil companies. If work is performed and does not meet the minimum requirements, the consequences can be catastrophic. In order for local businesses to obtain the necessary skills and competence, they have to attend some form of training such as a supplier development program.

So, what can be done to ensure that suppliers in developing countries in Africa meet the international oil companies' requirements? Our main objective, and research question will therefore be:

"How can a supplier development program be structured in order to be successful and sustainable in African developing countries, with oil and gas resources?"

This research question can be answered with help from two sub-questions:

1. Who should participate in a supplier development program?
2. What are these participants' incentives and how can they contribute in a supplier development program?

1.4 Structure of Our Thesis

The thesis consists of nine chapters. The next chapter, chapter two, is the theoretical part that focuses on competition, innovation and incentives. Chapter three is the methodological chapter, showing why we use a conceptual research method, and an overview of some of the literature that has been used is provided. Chapter four is the empiri, which contains knowledge about local content, international oil and gas companies, Africa, and what a supplier development program is. Then there is chapter five, containing the discussion and analysis, which is the heart of our thesis. This chapter shows the different participants with their incentives and contributions, as well as our contribution, a guide to a supplier development program. In chapter six the thesis' limitations are presented, before chapter seven contains our conclusion and suggestions for future research. Chapter eight provides an overview of our references, and in the last chapter, chapter nine, an appendix is accessible.

2.0 Theory

To understand our research question on how to create a sustainable guide to a supplier development program for developing countries in Africa, with oil and gas resources, it is important to have an overview over some concepts. For a company to enter and be competitive within a certain industry, it is necessary to develop and innovate, and through that create some competitive advantages. In order to achieve the necessary development, it is important to understand which inherent incentives can be used as motivation, and if these incentives are not enough, then what extra types of incentives should be introduced. This section presents relevant theory about three concepts: competition, innovation, and incentives, all of which are relevant to acquire a better understanding of the elements that should be taken into account in conjunction with the creation of a guide to a supplier development program in Africa.

2.1 Competition

The term competition is familiar to more or less everyone, and most have felt the competitive instinct at some point in life. Competition can be very diverse and take different forms, all depending on the situation and context, and it is connected with determining who is best in a given situation. It ranges from sports and the competition between teams, to competition amongst individuals in pursuit of their dream job, and between organizations in the quest to sign new and valuable contracts.

Competition between businesses have increased, and the world as we know it today is much more global and complex than what it was fifty years ago. This is a result of the world becoming more interdependent and interconnected, and more business is done across borders. Globalization is not new and has been going on for several years. What is new is the pace and scale of it, which means that it attracts more attention now than before (OECD, 2007). Almost every company has an overarching goal to stay profitable in the long run, and it is therefore important to do business in a way where this is possible.

Seen in the context of businesses, competition can be explained as two or more organizations that offer similar products or services to the same customer group (Krallinger and Hellebust, 1993). Competition is at the core in deciding whether a business is experiencing success or failure, and all companies will at some point face more or less attractiveness. As a result, sustaining a competitive position in the market is a never-ending battle (Porter, 1998b).

When experiencing competition, there are some measures a business can take in order to remain at the top and make sure they are one of the preferred companies. This can be done by creating some sustainable competitive advantages, something that makes them different, and in the end a favourite in regards to new contracts. The purpose with competitive advantages is to make sure that the organization will do better than their competitors, often in terms of achieving better profitability (Roos, Von Krogh and Roos, 2010).

2.1.1 Porter's Generic Strategies

According to Porter (1998a), there are two basic ways of competitive advantage, cost leadership and differentiation. These two types of competitive advantages leads to three generic strategies in which a business can achieve an above-average performance (Porter, 1998a). These are cost leadership, differentiation, and focus, as shown in Figure 2.1.

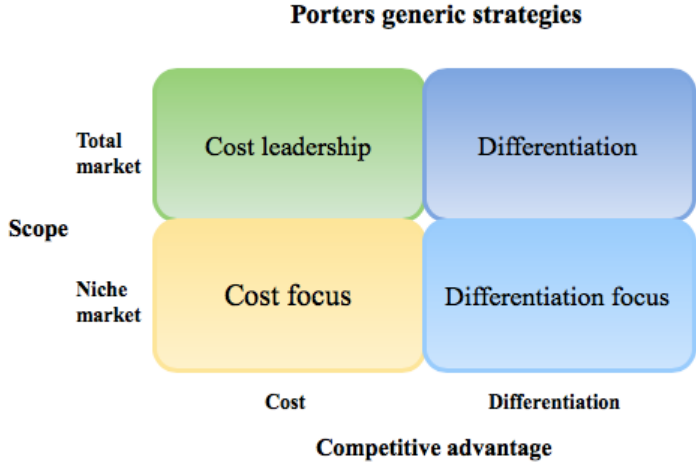


Figure 2.1: Porter's Generic Strategies, *Source: Porter, 1998b*

The cost leadership strategy means that the business seeks to be a low-cost producer in its industry, more correctly the cost leader. This can be achieved by pursuing economies of scale, preferential rights to raw materials, or cheaper labour. The second is differentiation and means that the business has to take something that is perceived as common in the industry and make it look unique. Differentiation can take many forms, such as design, technology, features, and brand image, and the ideal point is if the business manages to differentiate themselves along several of these dimensions. What is important when using differentiation to achieve competitive advantages is that the attributes selected are different from their competitors' attributes. The last generic strategy is focus, which has two variants, cost focus

and differentiation focus. This means that the business keep their focus either on one specific customer group, a particular segment in their product line, or at a specific geographic market. This strategy is built so that one target is served very well (Porter, 1998a; Porter, 1998b). The two strategies cost leadership and differentiation aim at a broad range of industry segments, whilst the two variants of focus seek a minor market (Porter, 1998b).

Competitive advantages are influenced not only by the organization's internal resources, but also by the surrounding environment. Since the environment is in constant change, the organization will have to develop and invest in their resources continuously, so that their competitive advantages can be preserved (Johnson, Scholes, and Whittington, 2008).

2.1.2 Kraljic’s Purchasing Portfolio Model

When considering competition, it is important to think about the buyer in the market as well as the supplier. Kraljic’s purchasing portfolio model, shown in Figure 2.2, shows a matrix with an overview over profit impact and supply risk. It divides products into four categories: non-critical, leverage, bottleneck, and strategic items.

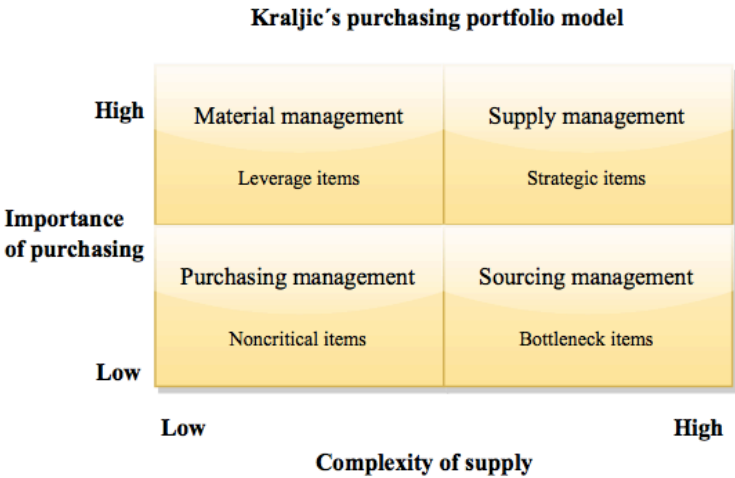


Figure 2.2: Kraljic’s purchasing portfolio model, *Source: Kraljic, 1983*

Each of the categories requires a distinctive approach from the buyer towards the supplier. Non-critical items are standardized products, which require efficient processing, order volume, and inventory optimization. Leverage items are products or services that are easy to purchase, and that are important for the firms’ profit. This purchase should be exploited through tendering, target price, product substitution, and high-volume order. Bottleneck items

are items that don't create high value for a firm, but can cause significant problems and risks when being purchased. This problem can occur when there is a lack of availability, and it should be handled by volume insurance, regularly vendor control, and backup plans. The last item is strategic items, which are valuable for the firm, but hard to find. These items deserves most attention, and there should be plans about long term supply relationships, planning contingencies, as well as analyzing and managing risk regularly (Kraljic, 1983).

The supplier must undertake various actions for the different positions of the various products and services that it has in the market. The buyer would like to have most of its purchases within leverage and non-critical items, and the reason for this is that these categories gives the buyer a choice to negotiate on price, time, and quality. The buyer would like to avoid a bottleneck situation, because they might have to pay a price that is way too high, seeing as there are no other options. The strategic area in the figure illustrates those suppliers that the buyer would like to have a good relationship with, but they are constantly looking for more suppliers and other opportunities to get this purchase over to a leverage situation (Kraljic, 1983).

2.2 Innovation

The section above gives an insight into why competition is so important in a market, but in order to become and stay competitive, the organization needs to innovate, and this include their organization, their market, their processes, and their products and services. Innovation is a diverse activity, and at Universities, factories, during dinner, or over a cup of coffee, people are thinking of how certain things can be changed to become better, more efficient, or cost saving. Innovation can be defined as the implementation of a new, or significantly improved product (good or service), process, or marketing method, a new method in organizational business practice, or some external relations (OECD, 2005).

Innovation is an on-going process as companies always gather new information and implement changes to products and processes. For something to be called an innovation, it has to be implemented, which means that a new product cannot just be invented, it will also have to be introduced to the market in order to be categorized as an innovation. The same goes for new processes, a new marketing method, or new organizational methods, which only can be called an innovation after they are taken into use in the company's operations (OECD, 2005).

Companies innovate in order to achieve competitive advantages that will help them enhance their performance and gain a strategic position in relation to its competitors (Tirole, 1995), or to help them better defend their already existing competitive position and make sure that they don't lose market share to their competitors. The decision to innovate is often related with uncertainty (Rosenberg, 1994), and unforeseen events in relation to technology, information and knowledge, product demand, and competitors position can all contribute to changes which can alter the company's original plan (Wysocki, 2009). There are four different types of innovation: product innovation, process innovation, organizational innovation, and marketing innovation.

Product innovation can be explained as the introduction of new or significantly improved products or services. It is related to a significant change or improvement in characteristics, such as technical specifications, components or material, or its intended use. Product innovation involves the use of new knowledge or technology, or combinations of existing knowledge or technology (Johnson et al., 2008).

Process innovation refers to a change in the method by which the product is produced. It can be in the implementation of new or significantly improved manufacturing, logistics and distribution processes. It is mainly concerned with all processes that are related to production and delivery of goods and services, as well as support activities such as purchasing, accounting, computing, and maintenance (Johnson et al., 2008).

Marketing innovation can be explained as the implementation of new or significantly improved marketing methods, such as design improvement, price, product placement, and promotion. The main goal with marketing innovation is to increase the company's sales revenues through opening up new markets and position a new product in the market (OECD, 2005).

Organizational innovation refers to the implementation of new or significantly improved organizational methods, such as new ways and procedures to conduct the work, new ways of distributing work duties and responsibility among employees, and the integration of new and different business activities (OECD, 2005).

Small and medium-sized enterprises (SMEs) are often more focused in what goods and services they offer (OECD, 2005). Fewer employees means that they cannot have the same broad specter as larger firms can have, and a more focused view is a necessity to survive. This

leads to an increased importance regarding cooperation with other companies and different research institutions for research and development. SMEs often lack financial resources to engage in innovation and they don't have the same internal resources as bigger companies often have. They also have more difficulty in obtaining these financial resources from external funds, which causes a financial constraint that often puts an end to innovation in SMEs (OECD, 2005).

2.3 Incentives

It is important to make sure that the workers keep motivated and that they perform a good job in order for the company to be competitive and innovate. Incentives can be given to individuals, groups, or organizations, and in this thesis we will focus on the buyer-supplier relationship, since our thesis concerns how to create a supplier development program. In order for the buyer to achieve their goals, incentives can be introduced to the supplier. Incentives can motivate workers to perform a certain way and the goal is to create value and ensure success for the buyer. Incentives can be given in a positive or a negative manner, but in work related situations they are mainly positive.

2.3.1 The Principal-Agent Problem

The main reason why incentives are used is to avoid the principal-agent problem. Incentive problems arise when an agent (the supplier) acts on behalf of a principal (the buyer), but has objectives that are different from the principal's. The principal hands out the assignment to the agent who performs the job, but sometimes they can have different intentions and incentives. The principal would want to get the job done quickly, with good quality, and to a fair price, while the agent might want to maximize profit, and therefore decides to use cheaper materials, overprice the work being done, or if working on an hourly wage, decide to work slower than needed. This means that the agent might not always act in the best interest of the principal, and instead put his or her own goals and desires first (Snyder and Nicholson, 2011).

To avoid the principal-agent problem, the buyer can introduce extra incentives, which employees tend to have a strong response to (Lazear and Gibbs, 2009). There are already incentives related to a job, like getting a new assignment, increased knowledge, and receive wages. Extra incentives have to be customized to fit each individual, or groups of employees and suppliers, and if done in a right and proper manner, it can contribute to be a relevant

source for increasing the company's value creation. If not, and the incentives are customized in a poor manner, it may work the opposite way and be a source for value destruction.

In order to create successful incentives, there are some requirements that have to be fulfilled. The performance evaluation has to be related to measurable performance criteria's, it must fit the scope of work, be observable for both parties, be within the contractor's sphere of control, and it has to be legally verifiable (Osmundsen, Sørensen and Torft, 2010). In order to fulfil these requirements, one can look at how to select performance evaluation, incentive methods, and risk related with incentives.

2.3.2 Performance Evaluation

Performance evaluation is a formal determination of an individual's or a group's performance, and seen in a job related context, it is within a particular position or setting, over a given time period (Marchington and Wilkinson, 2012). It consists of many performance measures and it is important that the performance measures are highly correlated with the firms increased value. An ideal performance evaluation includes everything that is controllable and omits what is not, and most importantly it only captures an employee's actions that influence and create value for the firm. Incentives must be granted to those employees who perform the work, and that actually have a significant value for the business (Osmundsen, Sørensen and Torft, 2010). It will also be important to know how much the evaluation will be emphasized, and how much should be paid for the performance (Marchington and Wilkinson, 2012).

Performance measures are indicators that are used to assess an individual's or group's performance when considering the buyer's objectives, and the different performance measures has to be managed and reviewed routinely (Mikkelsen and Laudal, 2014). Performance measures should reflect the supplier's job design and should not measure areas that have nothing to do with their work responsibilities (Lazear and Gibbs, 2009). The first decision the buyer has to make is what to measure, and how to measure it. It is important to choose the right combination between what to measure and how to measure it correctly, or else the results can reflect a wrong picture of the given situation (Marchington and Wilkinson, 2012).

2.3.2 Incentive Method

After the buyer decides what types of performance measures are important to achieve for the supplier, they can choose an incentive method. As mentioned above, incentives can be given in different forms and the two main ways to divide incentives are monetary and non-monetary incentives.

2.3.2.1 Monetary Incentives

Monetary incentives reward suppliers for their performance and productivity through money. They include incentives such as stock options, cash awards, and bonuses. By using such incentives, the buyer encourages collaboration and cooperation between employees at the suppliers, and as a result each individual can be motivated to perform optimally (Marchington and Wilkinson, 2012).

Stock Option and Profit Sharing

Many firms offer their employees stock option and profit sharing as compensation, where the goal is to give the employee a sense of ownership in the firm, as well as a feeling that his or her contribution provides value for the firm. Employee's stock option gives the employee the right, but not the obligation, to buy a certain amount of shares in the company, at a given price (Lazear and Gibbs, 2009). These stocks usually have to be owned by the employee in a given number of years (or held by the company in the employee's name), before he or she can sell them. The main reason for this rule is that the company wants the employee to feel that they have some extra incentives for performing well at work. Another incentive plan is profit sharing, which means that the gain in a given period is split between the employees and the company. This is often done in percentage of the firm's profit, for instance 50-50. These methods can work well in small firms, but in big companies with many thousands of employees, the contribution from each individual will usually not give a huge effect on the stock price or profit sharing. The positive with this incentive method is that all employees work towards the same goal and can keep an eye on each other in order to get the biggest possible benefit, and avoid the free rider problem.

Cash Awards

Cash rewards are awards that are given to suppliers in a form of cash. According to Lazear and Gibbs (2009), there are five main types on how to hand out cash rewards based on pay for performance incentives. These methods are: the simple pay-performance, reward,

punishment, lump-sum, and incentives with floor and cap. These types of awards are often used on employees in a firm, but can also be used on suppliers.

Simple Pay for Performance

Simple pay for performance is a commonly used approach. The supplier earns a base salary (a), plus a bonus (b), depending on the performance measure (PM). (b) is the ratio of what performance measures are worth in money, and the higher rating in performance measure, the higher the bonus will be. As shown in the Figure 2.3, this means that the supplier’s earnings will be: $\text{Payoff} = (a) + (b) * \text{PM}$. The challenge with this pay for performance approach is to set the value of (a) and (b), and choose performance measures.

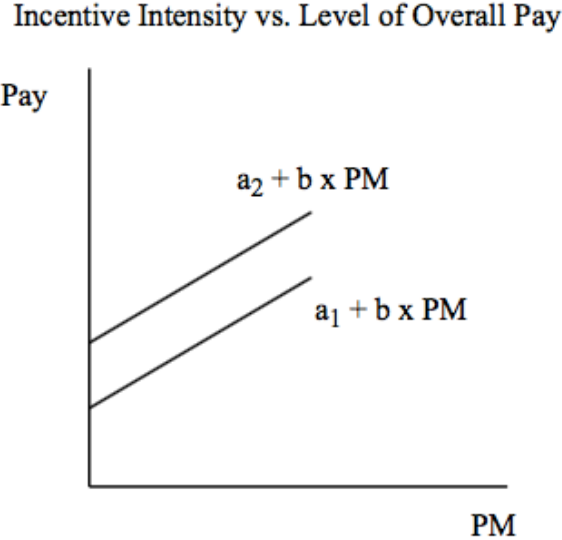


Figure 2.3: Simple pay for performance, *Source: Lazaer and Gibbs, 2009*

Reward Payoff

Reward payoff is when the supplier has a base wage until T, and then will be given a reward for better and better performance, as shown in the Figure 2.4. The purpose of using this method is to make the supplier work hard and perform well, and give them a push to perform better than T. A benefit with using this method is that suppliers who are risk averse can be willing to take more risk and try out new things, because they have a base wage to fall back on. This can create innovation in the firm. A problem with this method is whether the buyer manages to set T correctly.

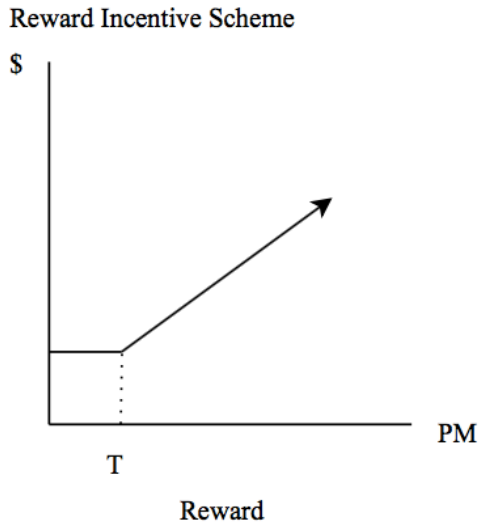


Figure 2.4: Reward payoff, *Source: Lazaer and Gibbs, 2009*

Penalty

Figure 2.5 shows penalty incentives, which gives the supplier an increase in incentives up to T, and then wage is constant. A reason why the buyer might decide to use this incentive method is that they know where the maximum cost for the supplier will be, and they don't have to pay too much incentive. This payment scheme is not a common practice, and a problem is that suppliers will not give more effort than up to T2, even though there is plenty of work to be done.

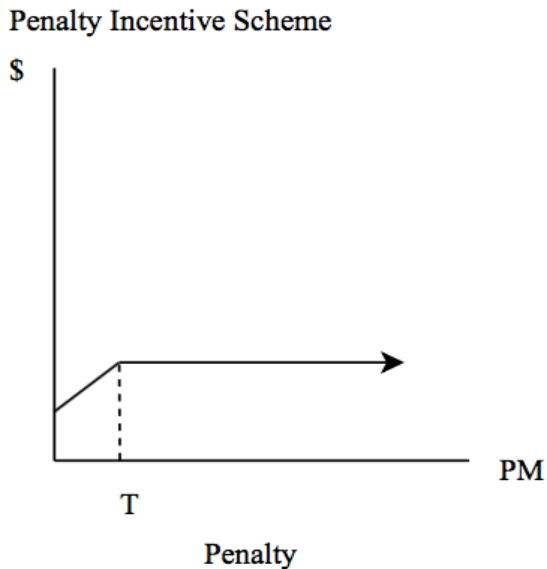


Figure 2.5: Penalty, *Source: Lazaer and Gibbs, 2009*

Lump-sum Bonus

Lump-sum bonus are shown in the Figure 2.6, and means that the supplier gets a bonus or promotion when reaching T, and there will be a distinct jump in earnings. In organizations where the supplier only gets higher wage/bonus when they obtain a promotion or manages to finish a project on time, uses this incentive type. A problem is that it might only be the supplier who is closest to a jump in salary that will give an extra effort. A Supplier that is far behind, or far in front of T, will usually slack off. The challenge is to set T at the correct place, for both the buyer and supplier.

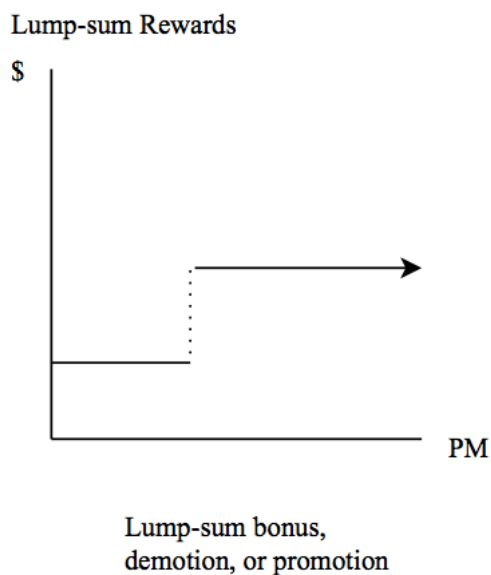
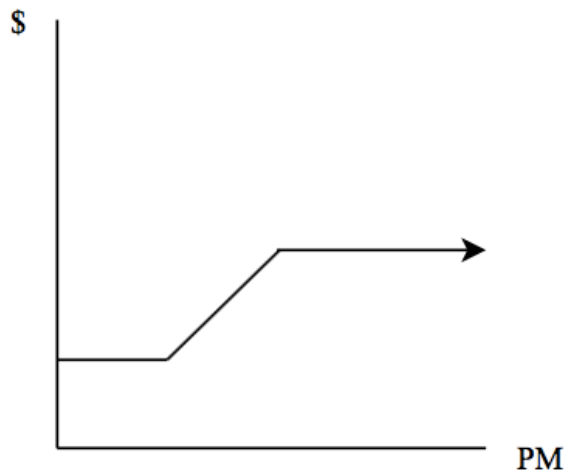


Figure 2.6: Lump-sum bonus, *Source: Lazaer and Gibbs, 2009*

Bonus With Floor and Cap

Bonus with a lower and upper limit gives the supplier a reward between two stages, as shown in the Figure 2.7. A buyer that uses this method wants their supplier to receive a certain amount of incentives, but not too much, and it is a combination of the reward and punishment payment scheme. The challenge is where to put T_1 and T_2 , which will fit both the buyer and supplier. A problem with this method is that it can cause the buyer to lose the best supplier, because they don't get paid enough.

Floor or Cap in an Incentive Scheme



Bonus with floor and cap

Figure 2.7: Bonus with floor and cap, *Source: Lazaer and Gibbs, 2009*

It is hard to find the optimal incentive scheme, but it is important to have both the buyer and the supplier in mind. There are many ways to pay for performance, and there is one important rule that the buyer will have to keep in mind, which is to never pay more than the value the supplier's work will provide. (Lazear and Gibbs, 2009).

Monetary Fees

Another way of looking at incentives is through fees. Monetary fees are remunerations that the supplier has to pay if behaving in a given way, such as showing up late for appointments or if important deliveries are late. Incentives might have an increase in motivation and trust in the buyer, but when monetary fees are introduced, the supplier might feel the opposite (Lazear and Gibbs, 2009). Another remuneration is enrollment fees, which means that the supplier has to pay a fee to participate, often in a course or a seminar. These fees can have a positive effect on motivation, because the employees invest in the course themselves. A problem with this method is that it might scare some of them away (Commission of the European Communities, 2005).

Nevertheless, it is important for the buyer to remember that the payout or rewards at some point can be a waste of money, seeing that the supplier could have performed the same, or better, without the mentioned benefits. Unfortunately, this can never be completely determined (Osmundsen, Sørensen, and Torft, 201).

2.3.2.2 Non-monetary Incentives

Non-monetary incentives reward a supplier by giving them various benefits and opportunities (Lewis, n.d.). It can be anything from more responsibility and praise, to academic training. Most important, non-monetary incentives have to be what is perceived as valuable for the individual supplier.

Some non-monetary incentives are paid vacation, medical insurance, time off work, social events, or flexible working hours (Ballentine et. al., n.d.). All of these are appreciated by many people, as it provides the opportunity to travel and experience new countries and cultures, spend time with their family, friends and colleagues, and relax over a longer time period and gather new strength. Flexible working hours provides the suppliers' employees with an opportunity to balance work and privacy, and for those who have toddlers or young children, family who live somewhere else, or a cabin where they spend a lot of time, this will be much appreciated.

Everyone like to be told that they have done a good job, that they have come up with a good idea, or that they are a valuable asset for the company (Deutsch, n.d.). Giving praise for a job well done is an important task for the buyer to their suppliers. This will cause them to feel valued and appreciated, and it can maintain their motivation to carry out work in the buyer's best interest. Some suppliers prefer to get compliments sent by mail, while others find it more valuable when the praise is more public, such as in the media, which can attract new clients for the suppliers.

Some suppliers like to be rewarded by being given more responsibility in the business (Lazear and Gibbs, 2009), such as increased responsibility within those tasks that should already be performed by the supplier or responsibility for new tasks. Overall responsibility for important tasks within the company can all contribute to increased confidence and job satisfaction.

To offer academic training and exercise can also be valuable non-monetary incentives. Academic training may result in that suppliers will learn new methods and procedures, get more confident in the work they perform, and the eagerness to get more responsibility can cause them to put an extra effort in the job, to make sure that it will be noticed (Nelson, 1999). Exercise and having a good health have received much more attention the last couple of years and are very important for some.

2.3.3 Risk

The greatest danger when selecting what criteria's to use is that the supplier might only focus on the performance measurements, and not the other tasks he or she is responsible for. There are also other risks with incentives that the buyer has to keep in mind, such as measuring correctly, choosing incentive method and size, and the risk of sabotage or manipulation. If the performance measures covers all of the supplier's tasks and responsibilities, the risk of the supplier to only focus on the performance measurements can be minimized. It is also important to think about choosing the right incentive method and size of incentives in order to achieve a motivated and efficient workplace (Lazear and Gibbs, 2009).

Even though there are a lot of risks and uncertainties around incentives, it is important to remember the benefits occurring from it. It is necessary to understand which inherent incentives can be used as motivation, and if these incentives are not enough, then what extra types of incentives should be introduced. In order to make sure that the supplier experiences job satisfaction and involvement in the organization, they need recognition for the performance they do. As a result of correct use of incentives, the buyer can experience an increase in productivity and efficiency, as well as an enjoyable and positive environment for the suppliers.

3.0 Method

We have been through the theoretical part of this thesis, and now we will present the method that will be used in order to create a supplier development program (SDP) guide. The method is a planned procedure of how we went forth to collect and process different data, in order to come up with the best solution to our research question. When deciding which method is best suited in a given situation, different factors such as the purpose of the study, the main goal, and which resources that are available have to be considered (Gripsrud, Olsson, and Silkoset, 2004). Further, choice of research design, choice of data collection method, concepts of context, a literature review, and weaknesses with the chosen method will be presented.

3.1 Research Design

A research design refers to the overall plan and structure needed to conduct a scientific study, and it provides an overview over which research methods are appropriate for the chosen study (Walliman, 2011). Our thesis is related to a topic that, as far as we know, there has not been written any clear studies on previously. This means that we can assert our work to be innovative, and a starting point for further research.

There are two main ways of conducting a study, quantitative and qualitative. Quantitative research method is measurable, which means that it can be explained as an analysis that contains numbers and are quantifiable. Qualitative research method is a little more vague, and involves how knowledge and information can be interpreted and understood by others, such as interviews, existing documents, and observations (Barbour, 2008). The quantitative method was deselected for this thesis, the reason being that the process of finding and collecting necessary information and literature would be extensive, in both time and money, which are not available at this point. We have used a conceptual study in our thesis, which is a qualitative research method. It is a study where one relates or base the current subject studied on already existing ideas, information, or concepts. The method can also be referred to as a theoretical approach, where no experiments are conducted, but instead secondary data is used (Tashakkori and Teddye, 2003). Despite the lack of theory on SDP, the fact that information about IOC, Africa and local content already were available, and that we had both time and resource restrictions weighed positive for using this method. As a final result of this conceptual study, a guide to a supplier development program has been created.

To get the best possible picture of how a SDP should be built in order to be successful in developing countries in Africa, an extensive research approach is used. This means that a numerous number of references representing the specific topics have been examined (Swanborn, 2010). From these references, relevant information has been collected and in the end a conclusion has been drawn. The opposite of the mentioned is an intensive research approach, where the focus is aimed at only one specific, or a limited number of the phenomena to be studied (Swanborn, 2010). This approach is not sufficient enough to get an accurate overview for a SDP, and is therefore not used in this thesis.

3.2 Choice of Data Collection Method

In order to maintain the integrity of our research, accurate data collection is important. There are essentially two ways of collecting valid data when answering a research question. The first is primary data, which is new data collected for a specific purpose, in order to answer a clearly defined and delimited research question. The last is secondary data, which is data collected and used by others at an earlier point (Gripsrud et al., 2004). Given the limited amount of time and resources available, and in order to get a good and broad information overview, secondary data have been used in this thesis. Using secondary data saves us both time and resources, since we don't have to do all the research ourself, and the information published in scientific journals are written and controlled by professionals, which means that they have already been quality assured (Berg and Lune, 2012).

At the same time as we are writing this thesis there is an ongoing empirical study in Tanzania, concerning a supplier development program and how local suppliers would like the program to be structured (Vaaland and Anderson, 2015). This is a major reason why we have chosen to use this exact method for our thesis, as these two studies complement eachother and can be the basis for a future SDP model. Since there is limited information about SDP in Africa, it is important to start the process of gathering information and perform various researches.

3.3 Concept of context

When writing a thesis, several different perspectives can be described and discussed. Given the limited time available, we find it necessary to define some limits in order to cover the chosen subject correctly and substantially. We have limited the thesis in terms of which countries in Africa to look at, size of the businesses, and what type of relation the suppliers can have to the international oil companies.

Our thesis will focus on developing countries in Africa, who also have oil and gas resources. The continent of Africa consists of countries with miscellaneous differences, such as climate, resources, and history, which in turn have given them different starting points. These differences have led to variations within culture, living conditions, labour market, and infrastructure. When writing this thesis, we are aware of these differences, but have chosen to disregard them and create a guide for a SDP that is more general. Of course, when and if taken into use, the program will have to be adapted to each country's characteristics. Some of the most known developing countries with oil and gas resources in Africa are Nigeria, Algeria, Angola, Egypt, Libya, Sudan, the Republic of Congo, and Equatorial Guinea (Lawson-Remer and Greenstein, 2012).

Small and medium sized enterprises (SMEs) can be seen as drivers for development and economic growth in African countries (Gatt, 2012). Whether or not a company can be classified as a SME depends on the number of employees and the company's turnover. In Egypt, over 90% of the businesses are SMEs and they employ less than ten workers (Ahram Online, 2015). This definition will vary from place to place, depending on what is normal (Gibson and van der Vaart, 2008). In this thesis, we want to focus on small and medium sized enterprises, as it is an interesting assembly of businesses, with much growth potential and diversity, and who can adapt quickly.

The oil and gas industry is a comprehensive and interesting industry, extending worldwide. Numerous work tasks are either directly or indirectly related to the actual oil recovery, which means that several different suppliers are needed. Direct suppliers can provide labor, production of cement, or other materials, while indirect suppliers can provide services such as cleaning, canteen, and transport. For local suppliers to deliver on the necessary requirements, our guide to a SDP is mainly created for those who can be in direct contact with IOCs.

3.4 Analytical Procedure

We wanted to find existing supplier development programs and conducted an orderly and clear search process. Due to a large volume of information, it was important to find, select, and organize relevant data. This challenge was handled by selecting some specific databases and search words. Our search words were supplier development program, enterprise development program, and vendor development program, in combination with oil or gas and local content. All combinations with the three main key expressions and the additional two

expressions have been used, which means that each of the three key expressions have been combined with oil or gas, local content, and both expressions.

As a search base we used different databases accessed at our University and decided to go with seven different. We used Emerald, ScienceDirect, Web of Science, EconPapers, World Wide Science, OnePetro, and Business Source Complete. They are all viewed as credible sources and they were chosen based on the topics they represent, seeing that when used together a large area of different topics are covered.

We conducted a systematic search through all databases with the different combinations of the previous mentioned expressions. The results showed that there have been supplier development programs before, but it did not provide any information on how a program should be structured and conducted. As a result of this, we believe that our thesis can be a contribution within this topic.

In order to find a SDP that can be used successfully, we need information that reflects the situation as it is today, and not what it was 35 years ago. The literature was mainly collected from different scientific journals, seeing that these are more updated than books (University of Leeds, n.d.). Literature used in the empiri chapter is mainly written within the period of 2000 to 2015, since there can be much change and development within these topics. For those topics with little or no change and development, all relevant theory has been available for use. Here, as well as in any other study, the data selected and how the available information is interpreted, might have an influence on what is found and how it is understood.

3.5 Literature review

Table 4.1 shows an overview of our most commonly used sources in the following chapter, namely the empiri section of our thesis. These articles have become available to us through searches in our University's scientific databases, or they have been given to us by our supervisor. In Table 4.1 we have listed the title, author, nationality, release year, study design used in the article or book, and a short content overview of each.

Title	Author/ Nationality	Year/	Study Design	Content
The Oil Curse; Causes, Consequences and Policy implications	Auty, R. / UK	2012	Qualitative	Rent cycling and the resource curse
Local content policy in oil sector and the capacity utilization in Nigerian manufacturing industry	Bakare, A. S. / Nigeria	2011	Quantitative, Experimental design	Consequences of local content in the oil sector and the capacity utilization in Nigerian manufacturing industry
National content plan #1; Procurement principles and supply Chain interaction	Bridge Consult AS / Norway	2013	Qualitative	Barriers for Ugandan firms to be included in the oil industrial supply chain
Tanzania	Fitzpatrick, M. / USA	2008	Qualitative	Information about Tanzania
The Supplier Development Program: A Conceptual Model	Hahn, C. K., Watt, C. A., and Kim, K. Y. / USA/ USA/ Korea	1990	Qualitative, Conceptual	Description of the decision processes associated with a supplier development program
Local Content Development – Experiences from Oil and Gas Activities in Norway	Heum, P. / Norway	2008	Qualitative	The experience from Norway in developing domestically industrialized competence
International business: Competing in the Global Marketplace	Hill, C. W / USA	2012	Case study	International business
Oil and Gas in Africa: Africa's reserves, Potential and Prospects	KPMG	2013		A review over Africa's oil and gas reserves
How internal oil and gas companies respond to local content policies in petroleum-producing developing countries: A narrative enquiry	Ngoasong, M. Z. / UK	2014	Exploratory- Literature review	How international companies respond to local content policies
Supply Challenges in Africa	Nollet, J., Leenders, M. R., and Diorio, M.O. / Canada / Canada / Canada	1994	Qualitative	Challenges faced by poorer countries in Africa
Om å forvalte rikdom	Qvigstad, J. F. / Norway	2011	Descriptive	How Norway have used and in the future will use their wealth
Employment in Sub-Saharan Africa; Sorry, no vacancies	The Economist	2014	Qualitative	Employment in Africa, and why their firms create so few jobs
World Investment Report: Transnational Corporations, Extractive Industries and Development	United Nations	2007	Quantitative	How extraction of natural resources can be done efficiently and friendly to the environment
Local Content in Procurement: Creating Local Jobs and Competitive Domestic Industries in Supply Chains	Warner, M. / UK	2011	Qualitative	Local content, procurement, and how to develop national industries and generate employment

Table 4.1: Literature review

3.6 Weaknesses

When choosing a conceptual model based on secondary data there are some weaknesses and challenges that are important to keep in mind.

The literature that has been used in this thesis are written by others, which means that it is their observations and perspectives explained. The perception of a topic might be different from what is the reality, seeing that there are authors from various countries. A person from a western country can write about the same topic as a person from an African country, but they will have diverse contextual particular features and may end up with different interpretations and therefore respective results. People in western countries might forget about the big differences in infrastructure, economics, and behaviour and become very judgemental in their articles. Their articles can therefore be far from what is the reality in Africa, and provide a wrong impression of how operations in Africa work. Writers from an African country might be too local and forget about other principles that are common in the western world. The available information will therefore depend on who writes them and where in the world they live.

Another challenge is that the information gathered might have been collected for another purpose than what we have used it for. This means that we might have misunderstood the meaning of the article or interpreted the information wrong, and as a result the basis of the gathered and used information can be wrong, and thereby generate an error based solution. Another challenge is that it can be hard to authenticate the information, and thereby assess credibility with our readers.

4.0 Empiri

Until now we have looked at different concepts that are relevant in the context of coming up with a sustainable and successful supplier development program for suppliers within the oil and gas industry in Africa. The oil and gas industry is composed of hundreds of companies and organizations all over the world, and it is an important industry because of the impact that it has on both local and global markets, as well as environment and development. This section will take a closer look at local content and how international oil and gas companies have handled these requirements from the local government. There will also be presented some information about Africa, as well as some of their challenges in the labour market. At the end of this chapter an explanation of what a supplier development program is will be presented, together with a presentation of learning institutions and aid organizations.

4.1 International Oil and Gas Companies and Local Content

As mentioned above, there are many oil and gas companies in the world, and those who are big enough want to grow and expand to other foreign countries with oil and gas resources. International oil and gas companies (IOCs) are known for their technical and managerial expertise, which give them a competitive advantage over new and smaller firms. IOCs are based upon a global business culture, which is introduced in countries where the IOCs operate. In order to achieve high profit and successful operations, IOCs are known for their focus on quality of their products and processes, as well as costs (Pirog, 2007).

IOCs have over the years gained much power in the market, and they want to satisfy their stakeholders in the best possible way, without losing profit or market opportunities (Ngoasong, 2014). The IOC has many stakeholders from different areas, both companies and individuals who are affected by how the IOCs operate. Some of these stakeholders are owners or shareholders, employees, government, contractors and partners, local community, academic institutions, and customers (BP, n.d.). Each and every one of these stakeholders has different influences and expectations to how the IOC operates.

4.1.1 Resource Curse

Many of the developing countries in Africa have a many natural resources that they don't have the knowledge and/or skills to develop, and some of these resources are oil and gas (Ploeg, 2011). They want to exploit and use these resources, but several developing countries with natural resources are afraid of the resource curse. The resource curse is a paradox stating

that countries rich on natural resources tend to have less economic growth and worse development outcomes than countries with scarce natural resources. This applies specifically to countries with non-renewable natural resources, like fuels and minerals (Auty, 2010).

There is no clear consensus to why the resource curse occurs, but there are some different theories. One theory is that when discovering resources, people tend to make choices that are best in the short run, but don't consider the long run. Another theory is that the government hampers the process by creating rules that leads to monopoly, and weakens the economic growth. There is also one theory stating that foreign companies are allowed to come in and harvest all the profit, leaving no economic gain in the host country (Ross, 1999). One example on the resource curse can be shown in Iran, by the Anglo-Persian Oil Company, the predecessor to BP. The Iranians provided cheap labour and oil to the Anglo-Persian Company, but were left with nothing from the operation themselves. The Anglo-Persian Company on the other hand, received all the income and had a record profit (Jonasson, 2012).

There are countries that have managed to avoid the resource curse in an efficient and economic way, such as Norway and Alaska. They have spread the benefits associated with the oil and gas industry out to their population and other industries in their country (Qvigstad, 2011). A reason why some countries have succeeded within the oil and gas market is because they have been able to stay competitive internationally, by acquiring the necessary competence and capabilities in the industry (Heum, 2008). Norway and Alaska have also created a national oil fund where they invest capital obtained from the oil and gas industry. Revenues earned from this fund are used to build the community, which in other words help to create a welfare society (Qvigstad, 2011).

4.1.2 Local Content Policies

In order to avoid the resource curse, petroleum producing developing countries have, over the past decades, given international oil and gas companies (IOCs) requirements that contains the enactment of local content policies. The local content policies require the IOCs to use local suppliers in their procurement and production (Ngoasong, 2014). The countries have different policies, which means that IOCs has to meet the specific requirements in the country where they want to operate.

Local content can be explained in various ways, but each revolves around the same concepts. Explained easily, it means that products of domestic origin have to be bought or used (United Nations, 2007). It can also be explained as a regulatory requirement, where it is stated that a certain part of the operation will have to be produced domestically, either expressed in value or physical terms (Hill, 2012).

The main idea about local content is that local businesses should have the opportunity to become competitive. In order to achieve the competitive level, they will have to be involved and develop their knowledge, which can be done through solutions that create a dynamic industry and technological development. Over time, it can help local businesses build a base of expertise that hopefully will have the required quality and capabilities needed in order to compete internationally (Heum, 2008).

IOC is pressured by the host country's government, the locals, media, and other stakeholders to make a positive economic contribution and ad-hoc corporate social responsibility through their operations in developing countries (Auty, 2012). A positive economic contribution can among others provide local jobs, or finance local schools. Ad-hoc corporate social responsibility (CSR) is to incorporate social and environmental concerns into the organization's business model (McElhaney, 2009). If IOC manages to achieve local content in their operations, both of these criterias can be fulfilled. A problem with using suppliers from developing countries is that there can be a shortage of skilled local workforce, and the technical infrastructure makes it difficult for the IOC to achieve their international requirements for suppliers (Warner, 2011).

4.1.3 Requirements from International Oil and Gas Companies

International oil and gas companies have many requirements they have to fulfil in order to conduct business. These requirements apply to both their suppliers and themselves, and if the suppliers don't follow them, it is the international company that will have to take the overall blame and responsibility if anything goes wrong (Petroleum Safety Authority Norway, 2012). Since there are so strict requirements, and the outcome can be catastrophic if not followed, finding the right supplier is essential. In order to find the right supplier, IOCs have pre-qualification criterias that the suppliers have to fulfil. The purpose of these criterias are to avoid unnecessary risk for the IOCs, and utilise new opportunities in the market. Based on the selection criterias, IOC can determine whether a supplier should be able to fulfil an agreement or not (Dimitri, Piga, and Spagnolo, 2009).

Norwegian and other international oil and gas companies wish to expand their business, and start oil production in developing countries with oil and gas resources. This expansion can create a huge economic growth for the company. If the IOCs can help local suppliers to develop and reach their minimum standards, IOCs may achieve cost efficiency with low cost workers, sustainable operations, and secure licence to operate in the country (Sigam and Garcia, 2012). It can also create competition between the existing suppliers, which can help drive the price down, and increase efficiency (McConnell, Brue and Flynn, 2009).

Many local businesses in developing countries can only qualify for some, if any, of the requirements the IOCs have. There are two main aspects the local businesses lack, where the first aspect are resources, for example technology and human competence, lack of capital, and fixed assets. The second aspect is business ethics, such as trust between co-workers and leaders, and a weak inter-organizational culture (Vaaland, Soneye, and Owusu, 2012). Local businesses have much to learn about formal management systems, as they are especially weak within health, safety and environment (HSE), and financial management (Heum et al, 2003). This means that if IOCs should be able to use local businesses, they will have to teach and train local suppliers, so that they can comply with the minimum requirements of the international businesses. It is the international businesses who have the capital, competence, systems, and equipment that are needed in order for the local suppliers to be competitive (Silvestre and Dalcol, 2009), and that's why it is important to obtain a good cooperation between them.

However, it is also important to remember that the economic development in a country might have been better off if IOCs were not involved. A reason for this might be that IOCs job is to please stakeholders and securing their support, legitimise local operations, and increase financial returns, which might lead them to forget about economic development in the host country (Henisz, Dorobantu, and Nartey, 2013).

4.1.4 History

Historically, the petroleum law that the oil companies had to follow favoured technological firms with capital and knowledge. This led to that only western IOCs could operate, and they had to use suppliers who followed these rules, which also were from western countries (Lessard and Miller, 2001).

IOCs were not required to undertake ad-hoc CSR initiatives, but they were expected to do so by the government. The government in petroleum production expected that, in those regions where the activities were located, IOCs provided ad-hoc provision of subsidies and social investment (Gulbrandsen and Moe, 2005). However, the IOCs thought more about their main stakeholders and profit maximization, and this approach made citizens in developing countries filled with anger. This method of doing business favoured adoption of western technology, use of foreign suppliers, and expatriate workers by IOCs, instead of using domestic suppliers and employment (Auty, 2012). IOCs were accused of implementing the resource curse, by running their business operations in ways that did not favour the host country (Frynas, 2005).

By imposing local content policy, IOCs are committed to use local suppliers and employees to be able to operate in the host country. This can develop the host country's local economy and IOCs can still focus on profit maximization (Ngoasong, 2014). Existing research show that local content legislations limits foreign competition and therefore tend to benefit local companies (United Nations, 2007; Hill, 2012).

Even though local content policies have been implemented to address the resource curse, the first reactions from the IOCs were that it was too strict, too ambitious, unrealistic, and a huge barrier to enter the market (Bakare, 2011). In order to try to avoid the local content policies, IOCs tried to lobby for relaxations of the policies. In 2004, 47 foreign oil companies signed a letter to the petroleum association in Kazakhstan, where they criticised the burdensome local content policies, and expressed their concerns towards the fact that the policy was an obstacle to foreign direct investment in the petroleum industry (Ritchie, 2004). However, this type of lobbying did not work to reverse legislation of local content, and as a consequence of many failed attempts IOCs had a change of heart and started to engage with key stakeholders and suppliers about local content development (Ngoasong, 2014). After the start up problems with local content, IOCs started to look at this policy as an opportunity instead of a threat (Bakare, 2011).

Empirical evidence has shown that the economic development of the developing countries depends on how IOC responds and act, based on the local content policy (Liu, 2011; Henisz et. al., 2013). The key for IOC to have a successful and sustainable operation in a host country depends on creating an efficient response to the different challenges through a well-defined strategy and practise (Murtha and Lenway, 1994).

Different countries have different local content requirements, and therefore IOCs have to adapt to the different situations in the host country. Some developing countries have laws about local content, such as Angola and Nigeria. Other countries, such as Yemen, have a mutual agreement with the IOCs, stating that they have to use local suppliers or local workforce, while other countries have not yet managed to import the local content requirements (Ngoasong, 2014).

4.1.5 What IOCs Have Done as a Result of Local Content Policies

Today, it is possible to see what the major IOCs have done to meet the local content policies in developing countries. Shell has developed a template with guidelines for commercial project process, which explains the company's principles in regards to bidding processes and contract allocation. They ask all main suppliers that provide contracts of high value to make sure they include a local content plan. ExxonMobil focus on workforce development, strategic community investments, and supplier development (Ngoasong, 2014). In Nigeria, ExxonMobil have created a database to have an overview of pre-registered local firms with necessary competence and capabilities (Mbat et. al., 2013).

IOCs have also focused on direct and indirect funding of local suppliers, and the reason for this is that it is an important part for the suppliers to be able to afford the right equipment, and achieve the technological capacity development needed. One example on direct funding is BP and their Cannonball project in Trinidad and Tobago in 2002. BP managed to replace US companies with local companies through direct funding and technical assistance with equipment, training of employees, and monitoring. One example of indirect funding is shown by Shell in Nigeria, where they created an agreement with five national banks to provide low interest loans to local suppliers that was selected to work for Shell. Another example of funding is the microloan programs that Total and Chevron offers suppliers, which provides both funding and technical assistance (Ngoasong, 2014).

One major issue that the IOC faces is the lack of skills in developing countries. In 2005, Total started a training program, the LNG project, in Yemen. The goal was that 90% of the employees would be local staff by 2015. They introduced training for every type of staff, from specialists, to engineers, and economists, and they also included an intensive English course. If the locals managed to complete the training, they would take over a foreign employee's place in the operation in Yemen (Ngoasong, 2014). In India, Chevron focused on

developing small businesses in order to make them achieve the minimum requirement for the IOCs, and thus have the opportunity to bid on contracts (Garrigo, 2011).

As we can see from the above examples, it is IOCs that have introduced, performed, and implemented local content into the different operations. The main reason for this is that local government want local content in the operations, yet they seem not interested in taking any part in the developing and implementation of these requirements.

Even though the IOCs are open on which areas they are focusing on, due to competitive reasons, they do not provide information on what different detail areas they work at, when and how many have participated in their different programs, or how the program works. Information on whether or not participants have been paid, and if so, how much, as well as if only the selected employees or suppliers for the job gets paid, are not shared information.

4.1.6 The Exploration and Production Process

In order to get an overview over the exploration and production process for oil and gas resources, a figure is provided below. This process can be divided into different sections, but Figure 4.1 only provides an overall understanding of the process.



Figure 4.1: An overview over the exploration and production process for oil and gas resources, *Source: Airbus Defence and Space, n.d.*

The process starts with an exploration and appraise step. This part is essential to decide if one should continue the process, or shut down. Here, geoscientists and geologists try to identify oil and/or gas deposits of sufficient size, in order to develop and produce from them. If they conclude that there might be oil or gas, they will drill a wildcat well and see if their assumptions are correct. The results will be analysed together with the geologists assumptions, and based on this there will be made a decision on whether or not there can be future development on this field (Leffler, Pattarozza and Sterling, 2011). If the exploration team concludes that there can be future development, stage two begins. This stage is very important in order to have an efficient and safe operation. At this stage commercial choices

are made, such as how to bring up oil and gas, and outsourcing (Leffler, Pattarozza and Sterling, 2003). The next stage is production and extraction, and when the oil and gas comes up it has to be transported, which is the fourth step. Transport of oil and gas can be done with pipelines, ships, trains, or vehicles. After the minerals have been transported, they will be processed into finished products, which is the fifth step. Step number six, which is also the last step in the process, is distribution and market of the finished product (Airbus Defence and Space, n.d.).

4.2 Africa

Africa today is not what it once was, but neither what it has potential to be. It is the second-largest continent, with over fifty different countries, and over 1900 languages (Simonsen, Kjøl, and Faarlund, 2014). The continent of Africa is without doubt the poorest continent in the world in terms of gross domestic product (GDP) per capita (Linnerud, 2014). Commonly words used in connection with Africa are poverty, criminality, and communicable diseases, but the continent is also known for its abundant wildlife, its various ethnic groups, and the large differences in climate. For many, it does not matter what others associate with the continent, for them it is simply home.

4.2.1 History

From the early beginning there were kingdoms around in Africa. Trade flowed between various nations, and the most common commodities to trade with were gold, salt, and slaves. Stories about the African continent and its richness contributed to an increased interest in the continent, and in the 15th century trade with African slaves turned into an export industry (Lonely Planet, n.d.). Slave trade continued for many years, and in 1900, almost 90% of Africa was claimed by European states (Heat, 2010).

Since then, the African continent has come a long way, and there is a large potential and many bright spots scattered around on the continent. Africa has experienced some significant economic and social gains during the recent years, which increases the hope for millions of people, that one day, some of their dreams will come true and that life will become a little easier. The majority of today's economy in Africa comes from agriculture and mining, and in some areas, increasing tourism, but the continent also produces two thirds of the diamonds in the world, has a tenth of the oil and a third of the earth's mineral reserves. Africa continues to grow economically, and is one of the fastest growing continents in the world (The Economist,

2015). For the moment, oil and gas is very up and coming, and over 500 companies from all over the world are exploring across the continent (KPMG, 2013).

Africa's oil and gas industry extends over several decades, and in some areas even over centuries. During the last 30 years, Africa's proven oil and gas reserves have both grown with over 100% each. The proven oil reserves have grown by almost 150%, from 53,4 billion barrels in 1980 to 130,3 billion barrels in 2012, and it has been estimated that over 100 billion barrels are still waiting to be discovered offshore of Africa (KPMG, 2014). The proven natural gas reserves have grown from 210 trillion cubic feet in 1980 to 509 trillion cubic feet in 2012, representing a growth of around 140% (KPMG, 2013). Of all oil and gas discoveries made last year, six out of the top ten, measured by size, were made in Africa (PWC, 2014).

During the 1990s, foreign oil and gas companies showed a growing interest in exploring Africa's oil reserves, and since then the interest has only increased. The world today is in a much greater extent linked together, both through trade across borders, travel and information technology, which means that the competition to deliver the overall best goods and services increases. Countries are experiencing stronger pressure to produce at lower cost, but preferably with the same quality as before. One way to ensure that this continues to be possible is to make use of cheaper labor and raw materials.

As mentioned above, many countries on the African continent have huge potential and large amounts of oil and gas reserves, which can contribute to change the daily lives of millions of people. There is just one significant challenge; they lack the necessary technology and knowledge to make use of their resources (Ploeg, 2011). In an attempt to learn from, and not just surrender and merely be exploited by the big, foreign oil companies, governments in the up and coming oil nations of Africa have established some requirements that have to be followed by the foreign companies. As described in 4.1.2, this is called local content, and the main idea is that businesses within these countries get the chance to evolve and develop their knowledge through solutions, which can contribute to create a dynamic industry and technological development (Heum, 2008).

4.2.2 African Countries with Oil and Gas Resources

Africa can point to a wide range of countries that produce oil and gas, and in 2010 as many as 16 out of the continent's 54 countries were exporters of oil (KPMG, 2013). Some countries are way ahead of other countries, and as a result they produce a higher number of barrels per

4.2.3 Enterprises in Africa

Businesses in Africa are essentially what could be called small and medium sized enterprises, which amongst others are characterized by a few number of employees. The majority of the continent's small and medium sized enterprises are managed by its owners, seeing that it is costly to hire an expert to run the business for them (Adisa, Abdulraheem and Mordi, 2014). As a consequence, the owners perform a number of various operational tasks themselves, and the result is very often business failure (Ihua, 2009). Businesses in Sub-Saharan Africa have around 24% fewer people employed than similar businesses elsewhere (The Economist, 2014). In South Africa, the average number of people employed in a firm is approximately 14,5 (Absa, 2014). As mentioned earlier in section 3.3, the definition of what can be called a SME varies from country to country. In Tanzania, a company can employ a maximum of 20 people in order to be called a SME, while in Morocco they can employ up to 200 people (Gibson and van der Vaart, 2008). A number of studies show that several thousand small and medium sized businesses start up every year, but very few of them succeed. During the first two years, a significant number of them fail, and shut down their operation (Adisa et al., 2014).

Corruption has been around for a very long time, and all civilizations have encountered it at some point. It can be explained as the abuse of entrusted power for private gain (Transparency International, n.d.). It has greater impact on some rather than others, and today Africa is known as one of the most corrupt continents (Transparency International 2014). It stretches from high-level corruption where millions of dollars are involved, to low-level corruption consisting of bribery of police officers, nurses, and other official professions. Several refuse to do the job they are supposed to, because they know that people are so desperate to get help that they eventually will pay for it. Those who have created a good life based on corruption continues to do everything they can to maintain the lifestyle they have become accustomed to, and more and more people wishes to take part in this elite. Corruption is a serious obstacle to development, politically, socially, and economically, and instead of maximizing the collective well being of citizens, personal interests are being favored and maximized. One reason to why it is more common with small and medium sized businesses in Africa is that government officials tend to pursue large firms in the quest for taxes and bribes (The Economist, 2014).

4.2.4 Culture

Africa is a huge continent and it is very rich and diverse in it's culture, which does not only vary from country to country, but different cultures can also be found within each individual country. Culture is a term that is used for identification of characteristics that distinguish a

group of people, such as shared values, beliefs, cohesion, language, and patterns of behavior (Schackt, 2014). Different countries in the world are associated with various and distinct cultures, which means that, in today's global world, it is not unlikely to meet someone with a different culture.

Family is in the center of many African cultures, and daily life of an African family can be very dissimilar from that of a family in an industrialized country. Living together with an extended family is normal, where several generations eat and sleep together under the same roof. It is expected that those members of a family who have the opportunity to work share what they have with the rest of the family (Fitzpatrick, 2008). Everyday life can differ between rural and urban populations, and there can be differences in social values, clothes, and eating habits. In Tanzania, women are expected to stay home and raise children, while the men work and earn money. Greetings are very essential, and it is normal to ask about the wellbeing of the person you meet, as well as their family. Respect for the elderly is very important, and one should always greet them with a *shikamoo*, which means “I hold your feet” (Fitzpatrick, 2008).

Every society has a certain perception of what is right and wrong, its own culture and beliefs, which all contributes to how things are done. Each country has its own work culture and guidelines to be followed, and what works in one country might not work in another. As more and more companies cooperate with businesses from abroad, culture, and the differences within it, has attracted more attention. Each country will often require a separate approach, and companies have to consider which countries to enter or not. Cultural differences can contribute to ambiguities and misunderstandings, so when doing business in Africa it is important to understand their culture and adhere to it, although it may be different from what one is used to. It has become more important to get acquainted with different cultures for professional reasons, and companies have learned to take cultural differences into account and adhering to it when negotiating contracts and performing jobs in other countries.

4.2.5 Challenges

Challenges exist in all types of collaborations, both domestically and across national borders, especially between industrialized countries and developing countries. Companies in Africa face several challenges that businesses in industrialized countries don't even have to take into consideration. Some of these challenges will be described here, but off course many more exists.

4.2.5.1 Qualified Personnel

Within all work areas, and at all levels in an organization, training and education of employees are essential. This is because it is important for the company to ensure that the job is done properly, but also for the employees to feel like they master the job at hand, and that they are left with a sense of achievement. Typical for Africa is that employees who work on the floor are left out of this training, and the organization stands firm, and can not innovate and evolve. Attending such training courses are often seen as an acknowledgment of a person's status, which is very important in Africa. There is no point in educating and training top management, if the development cannot be continued to the rest of the organization (Nollet, Leenders and Diorio, 1994). Access to education is a human right, yet there are over 50 million children in the world who do not get the opportunity to go to school (UNICEF, n.d.). It is fundamental for humans to acquire new knowledge and learn new things, and it can have a major impact on society. By going to school, each individual can get the opportunity to participate economically, socially, and politically to create development and a better future for themselves and their country. If local African suppliers are to have an opportunity to assert itself in the global oil and gas industry, qualified personnel will be a necessity. Lack of local talent is by far one of the largest challenges in Africa, both on the higher and lower level in an organization. At the lower level, there is a shortage of training and illiteracy, and on the upper level because of a shortage of managerial expertise (IESE Business School, 2014).

4.2.5.2 Low Standards of Quality

There are significant quality problems encountered in Africa (Nollet et al., 1994). Lack of knowledge, poor equipment, and not enough capital are all factors that can participate to the fact that products and services are delivered with poor quality. This is a challenge that can be dealt with in a SDP, where the main goal is to make sure that the suppliers can meet the minimum requirements from IOC.

4.2.5.3 Long Lead-Times

Long lead-times makes it difficult to plan ahead, as there is great uncertainty to whether or not the necessary parts or equipment actually will have arrived when they are needed. One reason why long lead-times occur is the need for detailed and complex documentation to transport shipments, and cargo can stay up to twenty days in African ports, compared to two to three days in other ports (Morisset, Moret, and Regolo, 2013). The cost of transporting goods in Africa has been estimated to be 60 to 70% higher than in Europe and the US

(Nieuwoudt, 2013). Inefficiency and long lead-times can be a hinder for trade and economic expansion, and therefore also for development.

4.2.5.4 Infrastructure

Africa's infrastructure is nowhere near the same as in industrialized countries, and it affects the continent's ability to develop. Economic development is hindered by poor communication, inadequate transportation, and availability of water and power, among others (Deloitte, 2013). Necessary equipment can not be transported to where it is needed, power can be very unstable, and when going to the market, farmers have to carry what they grow and can therefore not bring too much, and income is lower than what it could have been. In African middle-class countries, there are on average not more than 60% of rural people who live within two kilometers of an all-season road (Juma, 2012).

4.2.5.5 Moral Values and Corruption

Moral values are a result of many different factors, such as family, society, and personality. These values will differ from country to country and from person to person, but in many countries some values are commonly accepted (Nollet et al., 1994). This means that there exist other ways of conducting business in Africa than in other countries, and it is important to understand what is normal and how it is done, and to take precautions regarding where and whom to enter into agreements with. Accepting bribery is one of these values, and in many areas it is seen as normal to pay a “fee” in order to get favors in return (Nollet et al., 1994).

The aforementioned challenges contribute to create a gap between suppliers in African countries and the requirements that IOC demand in order to become an approved supplier for international oil and gas companies. What can be done to address this gap in a way that ensures that African suppliers also will have the opportunity to participate in the competition to get large contracts and grant agreements with major oil and gas companies? This will be the topic in the coming chapters.

4.3 Supplier Development Program

IOCs have many requirements to their suppliers. These requirements are the same for all suppliers, regardless of what country they operate in. In order to meet the necessary requirements from IOC, African businesses have to complete some sort of training to get the necessary skills and close the existing gap. One form of training is to participate in a supplier

development program. A supplier development program (SDP) is a program that a buyer creates for its potential suppliers, and it is established to create and maintain a network of competent suppliers (Hahn et al., 1990). This means that the buyer, in this case international oil companies (IOC), will train existing companies to improve their performance, or they will train existing companies to go into a market where there are no adequate suppliers that meet the organization's requirements.

Previous research on this topic have shown us what steps local suppliers have to manage before they can enter the competitive marked in the oil and gas industry. The role of local content policies in petroleum developing countries is to stimulate economic development. To be able to achieve this goal, it is critical that the IOCs train and use local suppliers to become sustainable and competitive. The host country's government have a responsibility to ensure that the resource curse don't occur in their country, which means they have to set requirements for the IOC.

As shown in Figure 4.3 there are steps that both the local supplier and the buyer have to perform to make it possible to have a working relationship.

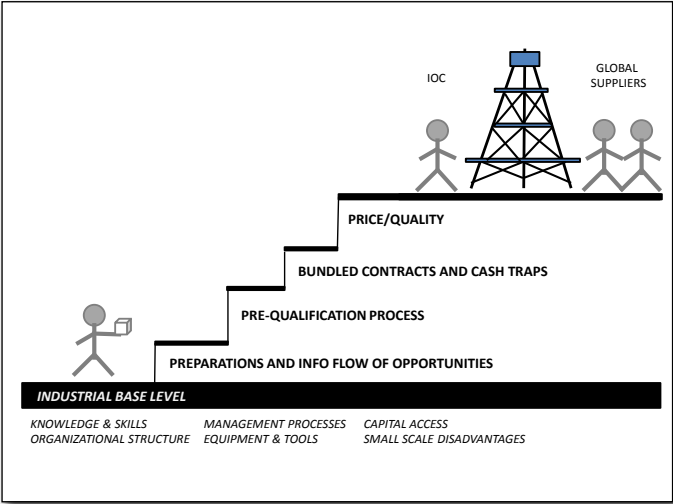


Figure 4.3: Steps towards collaboration between local suppliers and IOC, *Source: Vaaland and Ishengoma, 2015.*

Price/quality, bundled contracts and cash traps, and the pre-qualification process are steps that the buyer wants to develop. They have to manage these steps to develop the local suppliers capabilities and ensure that they have the competence and resources to be in the supply chain. Preparation, information flow of opportunities, and industrial base level are steps the suppliers

have to work on. To obtain the best result, there should be a cooperation between the buyer and supplier (Bridge Consult AS, 2013).

Our guide to a supplier development program will have its main focus on the first step showed in the above figure, the industrial base level. The reason for this is that this is where local suppliers have most to learn, and it is the level that is most critical to have under control, in order to reach the buyer's minimum requirements. The industrial base level contains the knowledge and skills the firm has, management processes, capital access, organizational structure, equipment, and tools. All of these aspects can be changed and optimized with the correct training and facilitation, and the facilitation has to be implemented and conducted by the government, international oil company, the local supplier, and learning facilities (Bridge Consult AS, 2013).

When the buyer knows what equipment and competence the supplier should have, they can start the process of creating a supplier development program. They have to start with identifying those areas where the supplier has to improve. These areas can be divided into capability problems, or the source of the problem. Capability problems can be technical, manufacturing, quality, delivery, financial, or managerial problems. The source is where the problem occurs, such as product, process, or operating system. After the problem has been classified, it will be possible to pinpoint the specific cause of the problem (Hahn et al., 1990).

It is important to keep in mind that the sooner the supplier is admitted into the supplier development program program, the more chance there is for a successful implementation (Hahn et al., 1990). A SDP can be perfectly planned and executed, but the main success lies in what comes after, namely implementation with follow up and monitoring. What the suppliers have learned during the program will have no meaning if it is not continued and implemented properly.

4.3.1 Learning Institutions

Learning institutions can be many things, but in our thesis it is related to institutions of higher education, such as a University. One challenge associated with creating a long-term effect of local content is to acquire human knowledge through research based expertise and skilled labour (Warner, 2011). Learning institutions have a social responsibility to have, or obtain, the knowledge that the local community needs in order to develop their skills, cover future competence need, and become competitive (Universitets- og højskolerådet, 2011). Based on

this assumption, learning institutions can be the foundation for solid, local industrial expertise and capabilities. In order to have a sustainable national economy it is important to maintain and develop the value of productive resources, especially labour (Qvigstad, 2011). This is one reason why it is so important to have a committed and up to date learning institute.

Learning institutions are operated differently in different countries. Some of them are privately owned and some are not. Some have their main focus on receiving the highest profit, while others do not focus on profit at all, only on the knowledge they teach. Learning institutions, even those who don't focus on profit making, need some type of income to operate in order to cover wage, rents, and location. This can be achieved through enrollment fees, donations, or economic support from the government or organizations. Even though different learning institutions have different incentives, most of them focus on providing knowledge that is relevant now, and in the future. To provide an efficient and quality based learning, the learning institutions should exchange knowledge and competence with the surrounding environment, instead of creating a knowledge base that is not useful (Karpel, 2013).

4.3.2 Aid Organizations

Money is necessary when conducting a SDP, and aid organizations can contribute with this. The continent of Africa receives more aid per capita than any other major region. In 2013 official development assistance (ODA) to the African continent was a total of USD 55 340 000 000, which means a net ODA per capita of USD 50,3 (OECD, 2015). Aid exists in numerous forms, such as humanitarian assistance, food, military assistance, education, production, or money. Unlike emergency aid, which can be offered at very short notice, most aid is planned over a long time period, and it is provided with the objective of facilitating long-term foundations with the hope to increase development. The most common type of aid is ODA, which in short is aid from governments in developed countries to developing countries (Keeley, 2012).

In 1970 a UN declaration formally recognised that industrialised development assistance committee (DAC) countries were to increase its contribution of ODA with 0,7% of the country's gross national product (OECD, 2002). So far, only a few countries have reached the target, and in 2013 only five DAC countries, Norway, Sweden, Denmark, UK, and Luxembourg, met the target (OECD, 2014).

Around 90% of ODA is grants, which means that the developing countries receive money that they won't have to pay back. Another type of aid that is commonly used is technical cooperation, which can take two main forms. The first involves developed countries paying for the training, both home and abroad, for people from developing countries, usually by offering scholarships. The second, and most used form, is when developed countries provide consultants, advisors, teachers, and administrators to developing countries. The primary purpose with technical cooperation is to strengthen the knowledge, skills, and technical know-how of people in developing countries', and do it in a way that ensures institutional and economical development (Arndt, 2000).

There are many different opinions about to what extent aid helps or weakens Africa's opportunities to develop in the right direction. It is stated that the aid provided has the opposite of the desired effect when it is used the way it is today, and that a decrease in aid will reduce the developing countries' dependency and force governments to find other financial resources (Moyo, 2009). After over half a century with providing Africa with trillions of dollars, there are still little signs that development has occurred, seeing that there are more people in Sub-Saharan Africa living on less than \$1.25 a day, than it has been the last 20 years (United Nations, 2010).

It is important to find a solution where aid can be provided in the right way, and for aid organizations it is important to have tangible results to show to, where aid has had a positive impact. It is important to use aid where it works, and as a tool to obtain development and poverty reduction. To achieve this, aid has to be customized, seeing that every recipient country differs.

5.0 Discussion and Analysis

Until now, this thesis has focused on describing what we find as necessary concepts, through theory and empiri, to ensure a basic understanding for what will be provided further in our thesis, a guide to a supplier development program (SDP). This section will with help from our two previous mentioned sub-questions provide an answer to our research question. An overview over the different participants and a participant's map will be provided, as well as their incentives to participate and what they can contribute with. Based on the incentives and our personal views, the end contribution will be our guide to a supplier development program.

5.1 Participants

Our first sub-question is who the participants in a supplier development program would be. In order to get a clear picture of this, a short overview over the different participants will be given, and they will be illustrated in a participant map. Each participant's incentives and contributions will be discussed later on. Many are going to be directly and indirectly affected by a SDP, some more than others, and as we see it there are five main participants in a supplier development program:

1. Local government
2. International oil companies
3. Local suppliers
4. Learning institutions
5. Aid organizations

5.1.1 Participant Map

To illustrate the different participants we have created a participant map that is shown in Figure 5.1. The reason why local government is left outside the dotted line is that even though they set the rules about local content, they are not willing to directly contribute in a supplier development program. The figure is divided into two parts, where one part represents the participants who are international, and the other represents the participants who are local. As the responsibility and expenses associated with the SDP can be shared over several contributing participants, so can the positive economic effect.

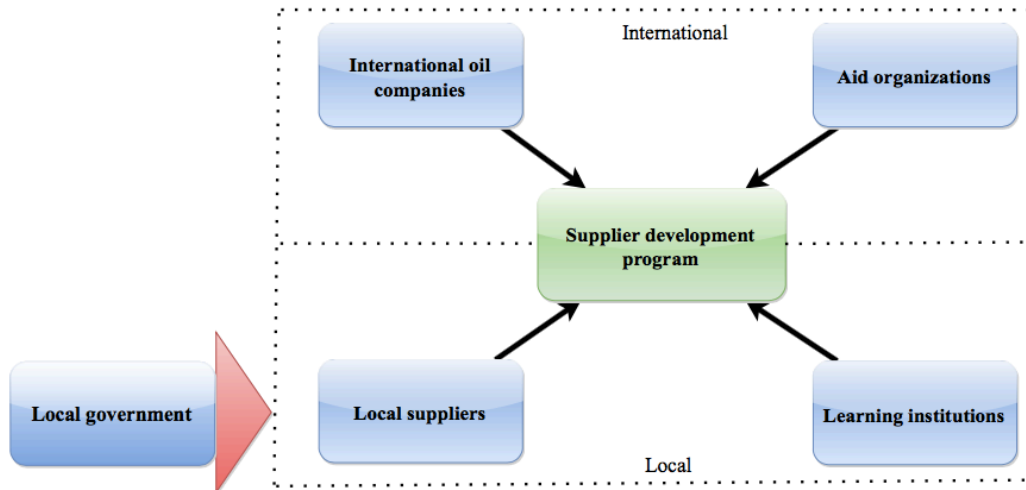


Figure 5.1: An illustration of the participants in a SDP

5.2 The Different Participants' Incentives and Contributions

To be able to understand how and why the different participants would want to take part in a SDP, and in order to answer our second sub-question, we would like to take a closer look at each participants incentives and contributions. Each of them has different parts to offer the program, as well as different incentives that they hope to achieve.

5.2.1 Local Government

The local government in a host country sets the requirements for local content and they decide how much local content is needed, and how to measure it. Since each government chooses their own combinations, it will be important for the IOCs to know what the exact requirements in the specific country is, and make sure to follow these. Local government exists at many levels, such as in the community, regionally, nationally, and through cooperation between several countries in Africa.

From previous attempts showed in section 4.1.5 on getting the government involved in local content development, we can see that they set the bar high, but that they don't want to take part in the actual development. Instead, they expect IOCs to follow their rules without any interfering and contribution from the government. The government will only monitor the use of local content, and may reward good implementation with new licences. As mentioned in section 4.1.2, the use of local labour can raise national activity, and thereby increase their economic growth. Other incentives that the local government can achieve through local content and a supplier development program are tax revenues and development within

competence and quality. Having a supplier development program and integrating local content into the operation, is a good initiative for avoiding the resource curse, mentioned in section 4.1.1.

As mentioned previously, the local government will not participate in any direct contribution to the SDP, but they will make sure that the requirements of local content are preceded and followed.

5.2.2 International Oil Companies

International oil companies (IOCs) have a central role in a SDP. If the IOCs don't want to enter the host country, there will be no need for local content requirements and a SDP. As we know, IOCs have taken the initiative and conducted the process of obtaining local content. They still have to be the party that takes the initiative to start and develop a SDP, and should therefore have strong enough incentives to not give up halfway into the process. After the IOCs have chosen to enter a country, they will not voluntarily start a SDP if they don't get anything in return, which means that there will have to be some incentives for the IOCs. In some countries they need to have sufficient local content in order to operate, while in other countries the government only expects it, and gives credit to organizations that meet local content requirements. By having and conduct a SDP, IOC may get awarded new licences to operate, a good reputation, have more suppliers to choose from, cheap labour, create goodwill, and fulfil corporate responsibilities. All of these aspects are incentives for why the IOC should participate in a SDP, even if law does not require local content.

Kraljic's purchasing portfolio was introduced in section 2.1.2. By having a SDP, IOCs may get out of a bottleneck situation, because there are so few approved suppliers, and enter into a leverage position. This is the optimal position to have from a buyer's point of view, because it creates competition between suppliers, and there are possibilities to negotiate on price and quality. This can also be a good way to avoid corruption, because there are several suppliers to choose from. If IOC is in need of different essential products or services, local suppliers cannot push them into a corner and demand a higher price for it if there are several suppliers to choose from. As we see it, IOCs have two main incentives tempting them to enter a developing country with oil and gas resource. These are to earn money and grow their business.

After the IOCs have figured out if these incentives are enough, they have to think about what they can offer the program. As we see it, IOC has a great deal to contribute with in a SDP, such as knowledge, teachers, fundings to create the program, materials, and equipment. The transmission of knowledge from employees in IOCs to suppliers or teachers at the learning institute is a very important part of the SDP. If the IOC lacks the necessary knowledge, they will have to make sure that they get hold of someone who possesses this knowledge. It is also important to have the right type of materials and equipment in the program, which doesn't have to be the newest or most complicated equipment, but it should be good enough to fit the work that shall be performed. The IOCs might also have to pay for the entire, or parts of the program.

5.2.3 Local Suppliers

Another main participant in a SDP are local suppliers, and without them there will be no program. The important attributes local suppliers need to have are the willingness to change, and develop. Figure 4.2 on page 33 shows the different countries in Africa that have oil and/or gas resources, and these are the countries where development of suppliers and a program like this is relevant. We are talking about a large area, which explains why there are different cultures, languages and moral values to take into consideration, and why it is so important that the program is adapted to each specific area. Seeing that local suppliers are the main targets of a SDP, they will also be one of the most important participants and they might have the greatest incentives to join in. By completing the program, the supplier will get pre-qualified and approved as a supplier for the IOCs, which can open up for many large opportunities. By becoming accepted as one of IOCs suppliers, a whole new market opens up, and they can qualify for new, large contracts. This can create work for many individuals, and entire communities may benefit from local suppliers participating in a program like this. Through a supplier development program, local suppliers get the opportunity to develop, innovate, and learn from others, which can contribute to increasing the overall knowledge of oil and gas in the community.

Once the program is finished and they operate at IOC's minimum requirements, local suppliers can contribute with labour. Labour in developing countries will most likely be cheaper than in developed countries, which can create higher demand. This can be one of their main competitive advantages, as they can benefit from being a cost leader. This is one of Porter's generic strategies, as shown in Figure 2.1 on page 5. The local suppliers will not become unique under differentiation in the start, but with a program, future development, and

innovation, the local suppliers get a chance to build up a brand and become acknowledged. Also, smart solutions learned from this industry can most likely be formed so that they can be used in other industries as well, which means that others can benefit indirectly from such a program.

So what can local suppliers contribute with in a SDP? To be able to create a successful SDP, they have to show that they are able and willing to change and develop their organization. They have to put in time, money, effort, and labour in order to implement the changes that are required, as well as to put off other offers during the program in order to make sure that they are able to complete it. This omitted income can be an obstacle for why they should be willing to participate in a program, and the incentives they achieve must be large enough so that it's worth it. If these contributions are not provided, the program might not be a success.

5.2.4 Learning Institutions

Learning institutions can have a central place in a supplier development program, if they are willing to be a part of it. They are not one of the fundamental participants in a SDP, because the program can be held without them contributing. But, in order to have an optimal program, with knowledge transmission to the rest of the society and create a long-term effect, it is our opinion that a learning institute should be incorporated. They can have large amounts of knowledge and if they combine what they already know with new knowledge from the oil and gas industry, they can end up being a leading learning institute. They will not participate in a program if they don't get enough incentives in return, and they care about their reputation, their opportunity to earn money, and knowledge transmission.

An incentive for why learning institutions would participate in a SDP is the ability to attract more students. This can create a demand for their specializations, which means they can earn more money. From a SDP, learning institutions can get new input and knowledge, which can help the institute develop themselves, adapt their specializations to the labour market, make their students become more attractive, and through this create a better reputation for the institution. This reputation can attract more students later on, and thus there is a positive spiral. Another one of Porter's generic strategies is differentiation, as mentioned in section 2.1.1. By participating in a SDP, learning institutions can differentiate themselves from others. Also, the institution can be seen as innovative as it participates in something new and exciting, which can have a major impact on the future for many of their students. This can

help them achieve a better position in the market and boost interest in the institute, and as a result there might be more applicants, and thus more money.

In order to participate in a SDP, the learning institute will have to invest and contribute. Their contribution can be to provide teachers, knowledge, and a learning facility. The teachers have to possess the knowledge that is going to be taught in the SDP, or they will have to learn it. The downside for the learning institute is that by tying teachers and facilities to the program, they will have to give up other opportunities.

5.2.5 Aid Organizations

Even though international aid organizations are not a fundamental part of the program, we have chosen to include them. The reason for this is that creating and implementing a supplier development program is not free, and it will therefore be necessary with capital. Aid organizations will not achieve any direct benefits from the finished product when the program is over, but they will get credit for it, together with attention and publicity around the work they perform. Throughout the years, a huge amount of money have been given to aid, but many feel that it has not given the results and effect that are desired. This is where the incentive for international aid organizations to join the program comes in. By contributing to such a program, they can show to something concrete, and they will have proof that their money actually is making a difference and are used on what they were originally intended to, namely to promote development in countries where this is necessary. Another incentive that comes along with this proof is good reputation and trust, which again can lead to new investors and attract more donors.

What aid organizations can contribute with in a SDP will mainly, and most importantly, be money. Without any money there won't be any program, so this contribution is very important for the implementation of the program. More indirectly, it could also encourage more organizations to recognize the importance of giving money for purposes that are feasible, and where several unite to achieve a development. As mentioned in section 4.3.2, technical cooperation is one form of aid, but in this program the most important contribution for international aid organizations will be capital.

5.2.6 How to Create a Sustainable Collaboration?

To create a sustainable effect of local content, it is important that all participants take the process seriously, and that they perform the work that are expected of them. As mentioned in section 4.1.5, this has been done successfully in the past. All of the mentioned participants are interested in contributing to a program, except local government, which leaves us with four main participants. These four represents important resources, both seen individually and together as a whole. For a SDP to function optimally, good and sustainable cooperation between these interdependent actors are essential. The question is just how this can be achieved, and it is our opinion that as long as all participants have incentives that are important enough for them, they will not quit the SDP. In Figure 5.2 we have created a model over the different participants incentives. Local government is included in the figure, as they also will have incentives with having a successful SDP.

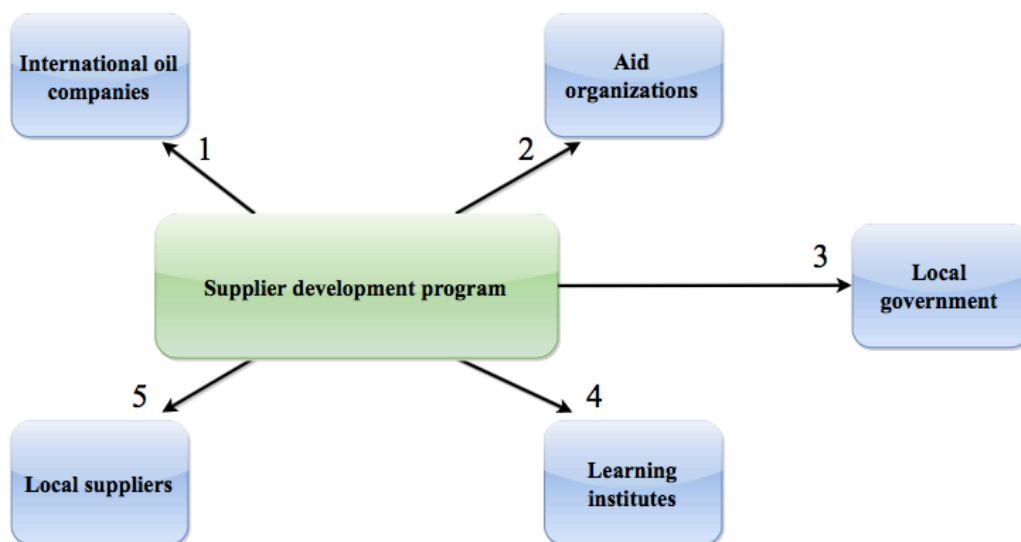


Figure 5.2: Overview over the different participants incentives from the supplier development program

Until now, the discussion has focused on what incentives the various participants in a SDP have. Before we move on to the next section, our guide to a supplier development program, we have created a summary below in order to get a more transparent and clearer overview of each individual's incentives.

Connection 1 - IOC and SDP

- Money, business growth, possible new licences, reputation, leverage situation in the market, cheap labour, goodwill, and the fulfilment of ad-hoc corporate responsibilities

Connection 2 - Aid organizations and SDP

- Proof of well spent invested money, reputation, and the attraction of new donors and investors

Connection 3 - Local government and SDP

- Increased tax revenues, local competence and quality development

Connection 4 - Learning institution and SDP

- New inputs and knowledge, possibility to adapt their specialisations to the existing labour market, as well as the future labour market, attraction of new students, and thereby earn more money

Connection 5 - Local suppliers and SDP

- New contracts, new field to work in, organizational development, the ability to become competitive, earn money, and of course become an approved supplier

5.3 Supplier Development Program

Shell and ExxonMobil have, as shown in section 4.1.5, gathered information about local suppliers and what they can perform, and Shell and ExxonMobil will contact the local suppliers if they are in need of assistance. These suppliers have already been approved, but in many other places this is not the case. Lack of local suppliers that are possible to approve is a problem in developing countries. It is therefore important to develop suppliers, which can be done through a supplier development program. Figure 4.1 shown on page 30 shows an overview over the oil and gas exploration and production process, and this program will preferable focus on the steps early in the process, the development step, so that local suppliers can have an opportunity to enter step number three, which is production.

A supplier development program can be set up in countless ways. Figure 4.3 on page 38 shows the steps IOC and local suppliers need to take. The main focus in this program will be on the first step, the industrial base. The reason for this is that this step focuses on, among others, quality, knowledge and skills, processes, and equipment. All of these focus areas can be changed and optimized with the correct training and facilitation, and the suppliers should also be showed how and where to bid on potential contracts after a completed program.

When operating in developing countries there are many challenges one can encounter, as mentioned in section 4.2.5, where the most important are lack of qualified personnel, long lead-times and infrastructure. These challenges will most likely have an impact on the cooperation between local suppliers and the other participants in a SDP. Many of these challenges are complex, where several factors come into play, and this program alone cannot deal with them. The challenges will first and foremost be relevant when the program is completed and the local suppliers enter the bidding process. Factors such as lead-time and quality can influence whether or not a supplier will land the contract, since long lead-time costs money, and bad quality can be expensive. Long lead-time can arise from various reasons, some of them being lack of interest and low moral values among the employees, complex documentation, or constant breakdowns as a result of bad preventative maintenance. This program can contribute with information on how the local suppliers can deal with these challenges. Corruption, differences in culture and language are also challenges that can prove to be difficult to deal with, and it is important to be aware of them from the beginning.

We want to provide a guide that can help IOCs train local suppliers, and at the same time, share responsibility and costs with other participants. In Figure 5.3 we have created a model that shows where the different participants interact with the SDP, in order to achieve the necessary changes for the supplier to close the gap between them and IOC’s requirements. It is important to remember that IOCs also have to evaluate their own requirements, and if needed handle the gap and put on compensation actions.

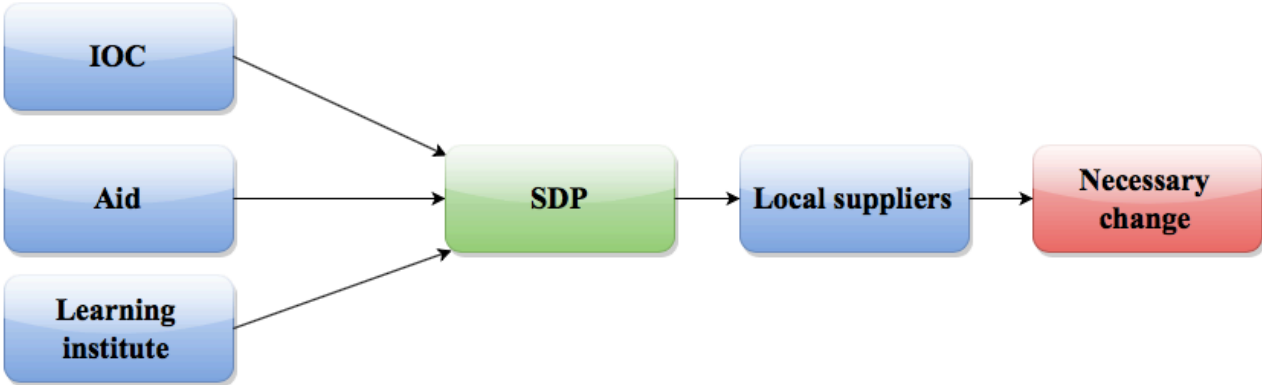


Figure 5.3: A model that shows where the different participants interact with the SDP, in order to achieve the necessary changes for the supplier to close the gap between them and IOCs requirements

This is just a guide created by us, based on our collected information on the aforementioned topics. The program will have to be adapted and constructed so that it fits the host country where the IOCs want to operate. This guide will provide some basic knowledge on how the program should be structured, and we will now suggest some solutions regarding how the program should look like in terms of:

- Scope
- Duration
- Number of local suppliers and participants from each
- Expenses and needed equipment
- Theoretical and practical training
- Different tests and controls that should be implemented during the program

5.3.1 Scope

The SDPs scope is important, because it sets the framework, restrictions, and requirements for the rest of the program. It explains the work that has to be accomplished in order to conduct the program with the desired outcome. When deciding the scope and what the SDP should contain, it is important to keep in mind IOC's minimum requirements. The scope should cover the most basic and important issues, such as the operation, processes, and HSE in such a way that the participants can perform these tasks to the standard required, with focus on safety.

When creating the scope it is important to facilitate the program to fit the need of improvement within different areas amongst the participating suppliers. This means taking a closer look at the situation as it is in Africa, and gain an understanding of the knowledge at hand and the quality of the work delivered. The question is then, whether it should be tailored to each of the suppliers, or if it should be a more general program. In order to create a program that is optimal for all parties involved, a combination would be recommended. We would like the program to start in a more general form. The reason for this is that it is a much cheaper way to conduct the program. The general part will hopefully weed out weak suppliers, and when the program enters the more tailored part of the program, only suppliers who are both able and willing to make the necessary changes will be left. This way the expenses will be kept at a minimum, while there will also be a tailored program to ensure that the right suppliers are able to transform, adopt, and implement the changes.

5.3.2 Duration

An important aspect of the program is the duration and whether it is preferable to have a program that is spread out over a number of months or even years, or if it would be more desirable to have an intensive program that lasts maximum one month. In context of this, there are some important things that will have to be taken into account. First, it is vital to make sure that the participating suppliers understand what they have been taught, that they know how to use the knowledge and actually uses it, and that they fulfill IOC's minimum level of requirements after completing the program. This means that it is important not to rush the process and that the program can't be too short, seeing that there are very much for the suppliers to learn. Second, if the duration of the program extends over a few years, it will take time to achieve the local content requirements. This means that the IOC can't start operating in the host country before the suppliers have completed the program and are ready to start working. The program ends when all themes have been taught, all tests are passed, and the suppliers have received their diploma.

Based on these two aspects it is important to find a balanced solution, and we therefore recommend an intensive course, which lasts around three months. Depending on the size of the gap and how much there is to teach them, the duration can be extended or shortened. A program with this duration will ensure that the suppliers can learn, adapt, and implement all the necessary processes during this period, while IOCs don't have to displace the deadline of the program too much. To make sure that the duration don't extend longer than necessary, it may be a good idea to divide the themes that are to be taught into critical and non-critical activities, a risk based approach, where the topics that are critical in relation to getting started with the production is taught first. The rest of the themes can be taught in non-critical courses after the actual program is completed. This can be held alongside with the operation, which can help the suppliers develop even more. Seeing that most of the organizations in Africa are small and medium sized enterprises (SMEs) and don't have the same number of employees as organizations in developed countries, the amount of time that it takes to introduce a new system and implement the necessary changes, will not be too long.

5.3.3 Number of Local Suppliers and Participants from Each Supplier

After the scope and duration are defined, it is important to consider the number of local suppliers and participants from each of the suppliers that should take part in the SDP. By accepting too many participants, the program will be expensive, require much greater effort from IOC and learning institutions, and probably extend over a longer time period. On the

other hand, it is important to make sure there are enough suppliers so that minimum one of them will be able to complete the program and become a qualified supplier. On this basis, we envisage that the number of suppliers should be somewhere between three and ten.

Considering how many suppliers there are that most likely would want to participate in a development program, there must be a fitting selection process, as shown in Figure 5.4. The figure shows the different steps from the beginning to the completion of the SDP, where a large group of suppliers may be reduced to only a few who completes the program, and ends up on an approved vendor list. This thesis will not go deeper into how such a selection process should be executed, as it could have been written several theses on this topic alone.

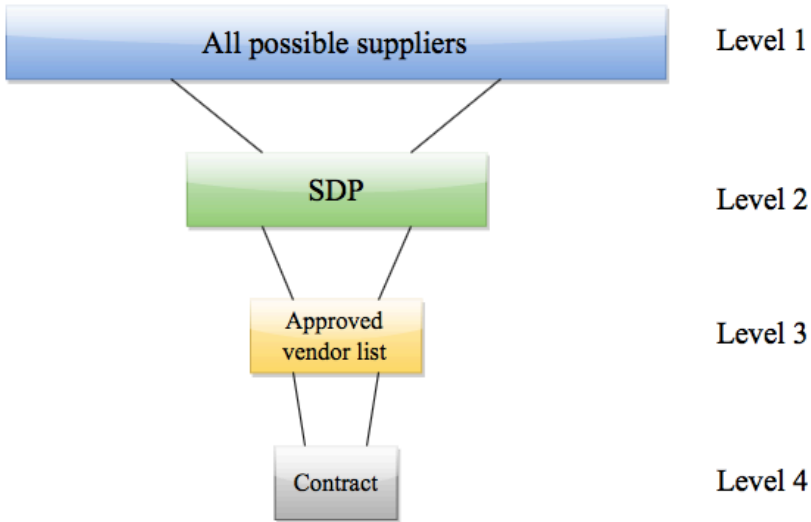


Figure 5.4: Fitting selection process

Also, the number of participants from each supplier is important to have in mind, and whether the program is designed for having entire organisations as participants, or just the leaders from the organizations. If there are too many participants from each supplier, the program will be available to fewer suppliers at a time. We would recommend having between two to four participants from each supplier, a leader plus a few key employees working on the floor. We believe this is a suitable number, as it allows for some individual misunderstanding, without the whole program being a waste of time for the affected supplier. These problems are less likely to occur with two to four participants from each supplier, and they can collaborate, discuss, and come up with good solutions based on each other's strengths. By including people from various organizational levels, the challenge with unqualified personnel

mentioned in section 4.2.5.1 can be dealt with, as new knowledge will be spread out on different levels. This increased information and knowledge transfer can make all of them participate in implementing the necessary changes. Optimally, these two to four participants from each supplier are to bring back what they have learned from the program to their organization, and then implement the changes and new processes.

5.3.4 Expenses of SDP and Equipment

Another important aspect of a SDP is how to handle expenses and needed equipment. It has to be decided whom should pay for the training program, and who should pay for the necessary equipment that the suppliers need to perform the job later on. There is no definite answer to this, but we have made some suggestions on how to create a sustainable expense control.

As mentioned above in section 5.2.1, the local government set the requirements of local content in their host country, but they won't contribute in developing their local firms. On the other hand, aid organizations are more than willing to contribute economically. The reason why this program is a good investment for both the IOC and aid organizations is that IOCs achieve their goals, while somebody else helps with the expenses, without taking away what the IOCs seek to achieve. Aid organizations will get proof that their economic contribution helps, and that it does not only help the local suppliers in Africa who receives it, but it can also have a ripple effect in the African community. Even though IOCs also will have to participate paying for the program, they can share the expenses, which creates a win-win situation for them both.

Another important question is whether the suppliers should pay a fee to participate in the SDP, or if it should be free of charge. There are many factors weighing for and against this question. If the participating suppliers pay a fee, they might feel more committed to actually participate in the program, and make a greater effort to complete it, as shown in section 2.3.2.1. If the suppliers don't invest any money, they will not, directly, have anything to lose if the program is not completed. On the other hand, it is important that this fee don't scare any suppliers away, seeing that this could be the supplier the IOCs were looking for. This money will not be spent on the actual operation of the program, but set aside.

Based on this, we would recommend a participating fee of such size that the participants won't be willing to just throw the money away, but neither so high that it frightens the suppliers to take a chance in participating. An opportunity can be to introduce a repayment

agreement where a given amount of the fee is paid back to the suppliers when, and if, the program is completed. This will attract suppliers who wish to change and who believe they are able to complete the program. These are the suppliers that the IOCs want the program to appeal to.

The supplier development program should contain all necessary equipment that the suppliers need in order to complete the program, but after the program is finished, many of the suppliers will be in need of new equipment. As mentioned previously, one challenge is that poorly kept equipment often leads to many breakdowns. New equipment is very expensive, and it is hard for the participating suppliers to purchase it all by themselves, especially since there is no guarantee that they will land a contract at all. One possibility is that the suppliers can buy or lease the equipment that has been used in the program. This is not an optimal solution, seeing that there might be many suppliers who wish to lease the equipment. A more suitable solution was mentioned in section 4.1.5, where an agreement with some local banks was made. This should be possible here as well, so that the local suppliers can buy the needed equipment. Of course, this agreement can only be given to suppliers who actually land a contract. By involving local banks, the economic effect obtained with the program can be transferred to several members in the community.

5.3.5 Theoretical versus Practical Training

After considering the scope, expenses, and necessary equipment to the operation, it's important to think about how the program should be structured. The first question that is important to determine is if the program will be theoretical, practical, or a combination of these two. People learn in different ways, some just need to learn it in a theoretical way and then they understand what to do, while others need some more time and learn better by doing it practically.

For this reason, we would recommend having a combination of these two types of learning methods, and start out with theoretical training and then gradually shift over to practical training. It is important that the practical training is taken as seriously as the theoretical, if not even more, seeing that the implementation is extremely important. If it can't be implemented, it will not work, and the SDP will have been a waste of time and money for all involved parties, as mentioned in section 2.2. It is important to show the suppliers how to make use of the new information and how to implement new processes into their organization, as well as show them how to operate optimally. Seeing that there are different cultures, language, and

ways of conducting business in Africa, which can create some challenges, both theoretical and practical training is necessary to make sure that everyone understands how they are going to meet IOC's minimum requirements.

Another question that must be answered is whether to emphasize collaboration between the different suppliers, or if they should work individually. In a situation where not everyone can win, it can quickly arise competition among the various participants. It is our opinion that it is a good idea to let parts of the program be a joint effort between the various suppliers. This can open up for future alliances, which can give IOCs a better experience in total, and it might also cause the suppliers to learn useful things from each other.

5.3.6 Tests and Checks

To make sure the suppliers are on track and that they understand what they are taught in the program, it is important to have tests and checks during the program. In this thesis, tests refers to written assessment that will have to be passed, while checks refers to the more practical part of the program, where it will be decided whether or not the suppliers manages to implement the changes correctly.

The tests should include questions from both a theoretical and a practical aspect of the program, seeing that they are both equally important in order to perform at the needed level and be a supplier that the IOCs can trust. The tests should be held regularly through the SDP so that it is possible to see how the participants are doing. In figure 5.5 we have created a proposal regarding where these tests should be held during the program. The figure contains both theoretical and practical sections, with regular testing. As the figure shows, it is our opinion that there should be rapid assessments in the beginning of the course, in order to identify the best suppliers, and potentially remove those who are not able to make the necessary changes. At the end there will be an exam that includes all the course material.

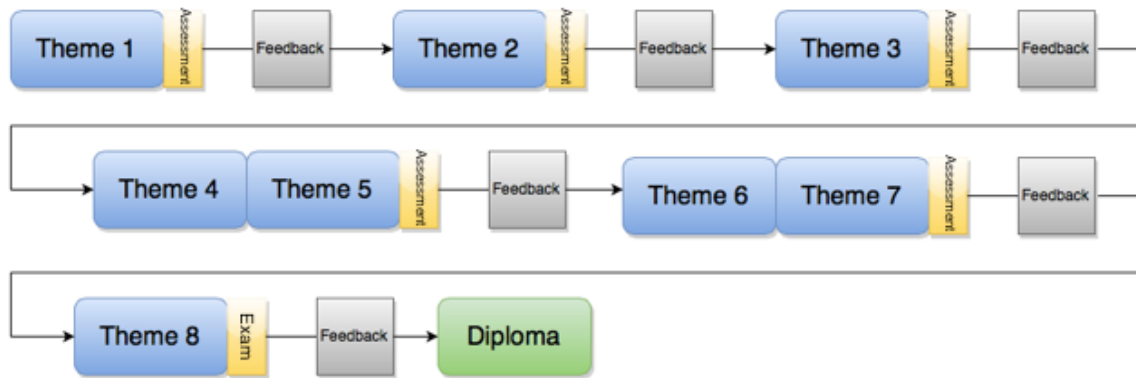


Figure 5.5: Possible structure of the supplier development program

We believe that suppliers who fail to pass the tests should not be able to complete the program. If the suppliers fail on one test, they will not be thrown out of the program immediately, but they will be given the opportunity to take it over again. The IOCs have to figure out if they will give all suppliers a given number of chances on each test, or a given number of chances throughout the course. If they fail, they should have two to five days to prepare for a new test. This is an appropriate number of days, as it is time enough to prepare for a new test without taking time away from the next test. It is important to set the number of retries so that the participants are given a fair chance to continue with the program, but not so many that the course has to be postponed, or time wasted on suppliers who are not able to qualify. The ability for the participants to show improvement should be emphasized, as it shows that they can learn from their mistakes, and that they listen to correction and guidance. The participants will be tested in all topics that are included in the program, and a requirement to complete the program is that all topics are passed.

We would recommend that the participants are given the opportunity to take each test a maximum of three times, and that they, on average, have one and a half attempts per test to pass them all. This means that half of all the tests are to be passed the first time. We find this a suitable number of chances, as we would like all suppliers to have a chance, but of course not too many. As an example, let's say there are eight tests to be passed. The participants have on average one and a half attempts per test, which gives a total of twelve attempts. Out of these twelve attempts they will have to pass eight tests, which means they can fail up to four times in total, but they can not use more than three attempts on one test, and still be part of the program.

The checks should be held in the second half of the program, as by this time, most of the suppliers that are not willing or able to complete the program will be gone. These checks can cost a lot of time, money, and resources, and should contain a visit to each participating supplier. It may be wise to obtain an overview of how the key personnel on the SDP are implementing what they have learned from the program, into their organization. This allows them to find out if there is something that has to be addressed again, and it opens up for improvements. The questions that have to be answered are whether it is a supplier who is willing to change, if the supplier is able to change, and if the supplier has done the necessary adjustments so far. These checks should give the suppliers an opportunity to adjust their processes, give them guidelines, and customize the training for the remainder of the program.

In Figure 5.6 we have provided an overview over how to look at the ratio of days attended at the SDP and internal supplier implementation. This ratio is a good way to track how the supplier is rapidly changing their business and that they are both willing and able to make these changes. Day zero should be the day the customizing of the program starts, and each supplier should have a review with IOC at their location discussing what they are performing well and what can be improved. This will be the starting point of the implementation monitoring. Line number one in the figure illustrates a supplier with a ratio of almost zero. Line two illustrates a supplier with low ratio, line three have a medium implementation ratio, and line four have a high ratio of implementation.

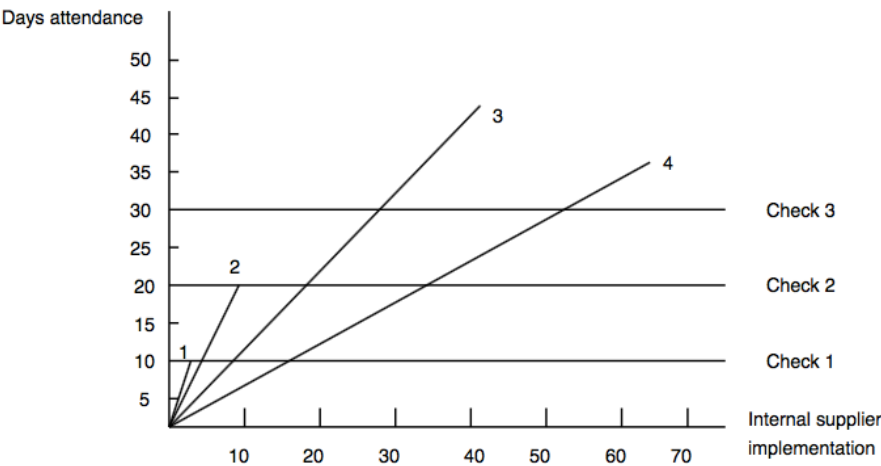


Figure 5.6: Ratio of days attended at the SDP intersected with internal supplier implementation

It is our opinion that the suppliers with medium and high implementation ratio should be kept in the program, and that the low ratio suppliers should be given a chance at the first check of implementation. This means that suppliers with zero ratio should be abandoned at the first check, while low ratio suppliers will get a warning, and medium and high ratio suppliers will be given very positive feedback and recommendations on how to further develop themselves. At check two, only suppliers with medium and high ratio will be kept, which means that suppliers with low ratio have had to show an improvement, or they will be out of the program. This process is shown in the figure above. It is important to monitor the process for all the suppliers, and make sure the implementation does not stagnate.

If none, or only a few suppliers manage to pass the checks, the learning institute and IOC should have an evaluation. This evaluation should include a review of the checkpoints requirements, how the learning is conducted, and if the gap is too big and whether more time is needed to train the suppliers. The process or timeline have to be changed to fit the suppliers, in order to make this a successful program. It is important that the suppliers are constantly willing to change and implement new ideas, in order to create the best possible SDP. If there is none approved suppliers at the end of the program, the whole program will be a waste of time and money for all participants.

5.3.7 Owners, Teachers and Location

It is important to decide in advance who will be the owner of the SDP, who will have the overall responsibility regarding training, and who will lead and conduct the program. The IOCs will be the owner of the program, and we believe that the overall responsibility of the SDP should be located at the IOCs. Representatives from both IOCs and learning institutions will participate in conducting the program. After the program have been completed once, and IOCs have acquired the necessary suppliers, more responsibility can be given to the learning institutions so that they eventually can take over teaching, and gradually become the owners of the program.

It is very important that the teachers selected are the right people for the job. This means that they must have the ability to teach and motivate others, that they have the necessary experience, and understands what is relevant to teach. We believe it would be a good idea to have both international and local teachers, as they can benefit from each other's knowledge and experience, and that teachers from both the IOCs and learning institutions will be optimal.

As mentioned earlier in section 4.2, there are around 1900 spoken languages in Africa, and only a small part of the population speaks English. This means that there will be challenges related to language. Our suggestion is that all suppliers who are going to participate in the SDP will take basic English lessons before the program, and the same goes for the key personnel at IOC, which will take an easy course in the language they talk in the host country and/or the community. This will create a better cohesion between the suppliers and the IOC. Even though only one language course is not going to be enough to remove the language barrier, or even make sure that they understand each other, it provides a basic platform for further understanding, and it shows respect for each other. Another important solution can be to always have an interpreter available at all times, so that if there are any confusion or uncertainties, the interpreter may help in understanding each other, and by that hopefully solve the problem. Another idea is to have teachers who speak both English and the language in the host country, in order to make the communication and learning experience as easy as possible. Unfortunately, it might be difficult to obtain teachers that possesses both the language skills, and the knowledge that are necessary in order to teach parts of the program.

In regards of the location of the program, there are two possibilities as we see it. It can either be held in a developing country where the local suppliers come from, or in a developed country where IOCs are represented. There are large differences in both available equipment and work culture between these two possibilities. Seeing that the program contains parts that are practical, where the participants have to implement what they have learned to their organization, we would recommend that the program is held in the country of the participating suppliers. In terms of time and cost, it will be more efficient to conduct the program where the local suppliers are located. Both rental of facilities, food, and beverages, and general equipment is cheaper to obtain there, and much less money will have to be spent on expensive flight tickets, hotels, and transport.

5.3.8 Incentive Program

There are many natural incentives in this process, as mentioned in section 5.2. The question is whether these incentives are enough, or if more and other incentives in addition to the natural ones will result in a more successful program. If so, it must be determined whether to make use of monetary or non-monetary incentives.

We believe that the natural incentives for IOC and aid organizations are enough to not require any additional incentives. The reason for this is that IOC will not take the initiative and invest time, money and resources into a project where they don't get anything in return. Aid organizations are looking to achieve good results with the money they invest in the program so that they can show to the rest of the world that their contribution actually makes a difference. They don't expect to get any money out of the program, only a positive reputation and good results. On the other hand, we have local suppliers and learning institutions, which are very concerned about the money and other goods they can miss out on if participating in the program. These are the participants where it can be an opportunity to offer other incentives in addition to the inherent ones, in order to make sure they will participate in the program.

The question is whether or not more and various types of incentives will give a better result than just the naturally incentives obtained by participating in the SDP. As the theory in section 2.3 explains, more incentives can increase the participant's effort, and create higher enthusiasm over the work performed. This will be the case up to a certain point, where they don't have more to give, or they have everything needed and don't find the extra effort worth the gains.

After figuring out who needs the incentives, it is important to customize them to fit the local suppliers and learning institutions. We have come up with some options that are both non-monetary and monetary, which we believe will create an incentive to perform better.

Let's look at the local suppliers first. It is our conclusion that monetary incentives and a few non-monetary incentives are the best option for suppliers participating in the program, and that most of the non-monetary incentives first will be offered at the contracting stage. While monetary incentives can show results immediately, non-monetary incentives can be very beneficial in both the short and long run.

Different monetary incentives that we believe can have an impact on the SDP are enrollment fees, lump-sum incentives, and wage during the program. Enrollment fees are mentioned in section 2.3.2.1, and it is our opinion that the local suppliers should pay an enrollment fee to participate in the program. The reason for this is that only those who are willing, and think they are able to make the necessary changes and work that are required, should be attracted. By investing something the motivation to perform can increase. This is a negative incentive for

the local suppliers, which means that the fee cannot be too large, because it might scare away good potential suppliers.

We would also like to implement a lump-sum incentive method, which will be financed by the enrollment fee paid by the local suppliers. Figure 5.7 shows two different ways on how to pay out lump-sum incentives. Model (a) shows regular bonuses after each passed test or check, while model (b) shows one bonus at the end of a completed SDP. We believe that receiving a lump-sum of money for each test or check passed can be an encouragement to perform better, and keep on going. The tests and checks will be the performance measurements mentioned in section 2.3.2. We recommend using these measurements because they are controllable factors, and it is important for the IOCs to achieve approved suppliers. We have chosen to go with graph (a) in Figure 5.7, as it is our opinion that receiving small bonuses often will be more motivating than one big bonus in the end. Without enough motivation to continue from the beginning, there is a great risk that more suppliers will drop out early in the program.

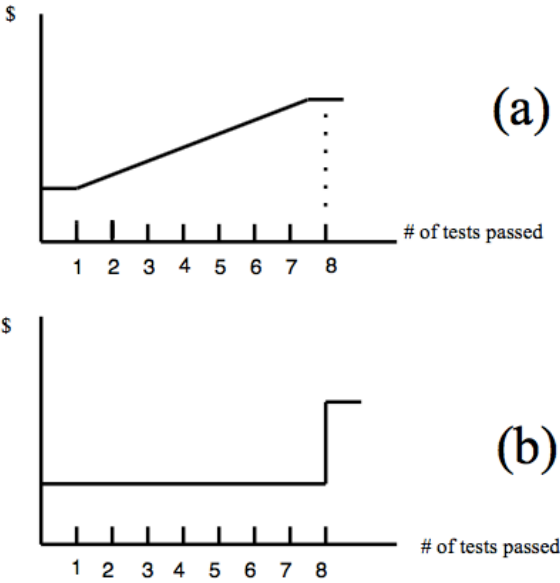


Figure 5.7: Suggestion of a reward (a) and a lump-sum (b) incentive

It is our opinion that it would be suitable to offer the participating suppliers wage during the program. The reason for this is that they can have a loss in potential income by joining the SDP, which can make them reconsider joining the program. This wage should however not be implemented before the first three tests are passed, seeing that incapable suppliers should not

get paid. This wage will not be as large as their normal wage, but just enough to keep them in the program.

The non-monetary incentives that should be offered during a SDP are social events, praise, and a diploma at the end of the completed program. The reason why we believe it would be a good idea to arrange something outside of the program together with the local suppliers, teachers, and representatives from the IOC is that it can create cohesion and help build trust for later cooperations. Praise is very important, and it is essential to have this regularly through the entire program. If a supplier or a person gets recognition for the work they perform they will most likely be motivated to become better and get more recognition.

Non-monetary incentives that we think will appeal to the population in Africa will be offered to suppliers who complete the program and land a contract after the bidding process. The suppliers should know about them already from the beginning of the SDP, because it can be a reward to perform well and complete the SDP. These non-monetary incentives will be to offer schooling and education for the workers children, health service, a title, responsibilities, and academic training. It is our opinion that offering schooling and education can be an incentive for both the parent and children, and an indirect incentive for the rest of the community. The more people who get the opportunity to go to school and finish their education, the more knowledge will be available in the community. This can help increase the interest and awareness around economics, health, and human rights.

Many cannot afford to take care of their health the way they should, and we believe that offering them health service can be seen as an important benefit for the employees. As mentioned in section 4.2.5.1, status is important in Africa, and an incentive can be to provide the participants with a title, as this can make them more sought after in the society. More responsibility and academic training are also types of non-monetary incentives that are possible to offer suppliers with a contract who performs a good job, and this can make them more attractive in the future. Suppliers without a contract may also participate in future programs.

Now, let's look at learning institutions. It is our opinion that they would want knowledge and money from the oil and gas sector. The IOCs can offer knowledge, and we believe they should pay the learning institute for borrowing their facilities, as well as the teachers' wages. The IOCs can also offer the learning institute monetary incentives, through bonuses with a floor and cap. This incentive method should be offered as a bonus at the end of the program,

and it should be based on how many suppliers who complete the program. As shown in Figure 5.8, we believe that the learning institute should get a reward when there are from two and up to six suppliers who manages to complete the program. The reason for this is that if two or more completes the program, IOCs can choose the best suited suppliers, and thereby create a competitive advantage. Of course, this number will have to be customized to each program, depending on how many suppliers who actually participate. When using this incentive method, it is important to keep an eye on whom the learning institute passes, and make sure that not too many are passed just to gain a bigger bonus.

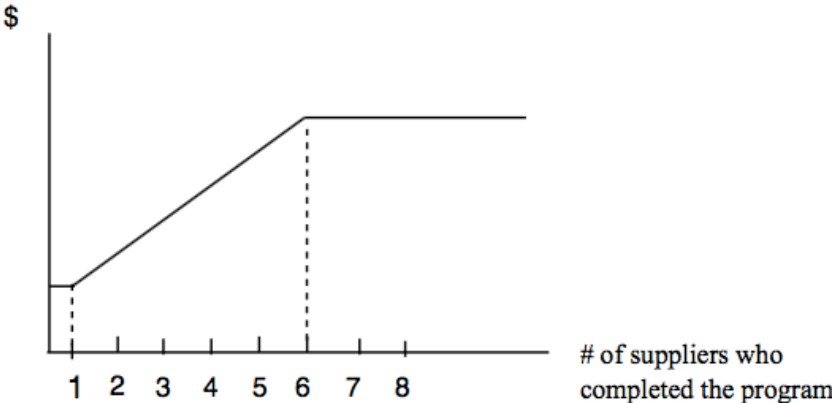


Figure 5.8: Possible reward incentives for learning institutions

There are also some incentives that should be excluded. We would recommend IOCs not to offer stock options and profit sharing, presented in section 2.3.2.1, because this type of incentive is best offered to employees in their own firm, and not to suppliers. Other incentives we would recommend the IOCs to stay clear off are flexible working hour and exercise, as these might not be appreciated in Africa. Also, seeing that there are fewer employees every employee might be needed at work to get the job done. If not, work can fall behind, and it might never be caught up with later on.

5.3.9 An Overview of Our Supplier Development Program

In Table 5.1 we have created an overview of our guide to a supplier development program. This is a short guide on how IOC can structure a program, and it is important to remember that it will have to be customized to fit the area where the program will be held.

Areas	Our supplier development program
Scope	All topics needed to be able to cover the gap up to IOC's minimum requirements
Duration	Approximately 3 months
Number of local suppliers	Ranging from 3 - 10
Number of participants from each supplier	Ranging from 2 - 4
Expenses of the SDP	IOC and aid organizations
Expenses of equipment to the supplier	Supplier, through loans or leasing (after awarded a contract)
Theoretical versus practical training	A combination of both, first theoretical, than practical
Tests and checks	Frequently in the beginning, then evenly throughout the rest of the program
Owner	IOC
Teachers	IOC and the learning institute
Location	Where the local suppliers and learning institute are located
Incentive program	For local suppliers and learning institute

Table 5.1: Overview of our guide to a supplier development program

5.3.10 Diploma

A diploma can be a great way for suppliers to show that they have completed the program and that they now are qualified suppliers for the IOCs. Receiving the diploma means that the supplier have the specific and required knowledge to perform a job. This can create opportunities for the supplier as it shows the supplier's skills to potential buyers. We believe that all suppliers who manage to complete the program should get a diploma. The diploma

will be a confirmation that the program has been completed and passed, and contain an overview over the different themes that have been taught in the program.

5.4 After Completing the Supplier Development Program

After the SDP is completed, all participants might have passed with results that are well above IOC's minimum requirements. It is important to figure out what happens after so that the participants know what to be expecting, both from themselves and the IOCs. This section will contain information about what happens after the SDP is completed.

5.4.1 Contract

When the program is finished, those local suppliers who have completed it will end up on an approved vendor list, which means that they are qualified to bid on and compete for contracts from the IOCs. When the contract shall be awarded after the tender process, we believe that more than one supplier should be awarded a contract. The reason being that in this way the IOCs can allocate the responsibility to several different organizations. This can reduce the risk for IOCs, in case some of the suppliers won't be able to fulfill their contract, or if they might quit and shut down. By doing this, IOCs can avoid a bottleneck situation, and end up in a leverage situation, as shown in section 2.1.2, and already discussed in section 5.2.2. The downside with this solution is that there will be several contracts to follow up, and therefore higher costs related to the administration, as well as more interfaces if the suppliers have to cooperate at some point.

It is our opinion that it will be optimal to have three to four suppliers sharing one contract and operation, and the number should be customized in relation to how much work should be done. The contract can either be divided between them as separate contracts, or given to them as a cooperation, and it is our opinion that the first option would be best. This means that every supplier will perform the same job, but have responsibility for different areas. Each supplier is responsible for completing their part, and in this way there will be no freeriders for other suppliers. In developed countries it might be more normal to have one to two suppliers sharing an operation, but seeing that there are more uncertainty related to whether or not the local suppliers manages to get the job done, we believe that it should be several suppliers. Also, since most companies in Africa are SMEs where there are few employees, more companies will be needed to complete a job.

5.4.2 Monitoring

Once the SDP is completed, it is important to start the process with supervision and monitoring to make sure the suppliers are developing in the right direction, and that they continue to perform at the required level. It is essential that the key participants in the program can share with their coworkers what they have been taught during the program, and make sure the implementation is done correctly. There will be monitoring and checks during the program, as mentioned in section 4.3, but there will also be monitoring afterwards for suppliers that have landed a contract.

In the oil and gas industry, where there is much competition, it is important to remember that even if suppliers have completed the program and received a diploma, it is not given that they will land contracts. In today's market, having some competitive advantages are very important, due to the fact that firms all over the world face lower growth and higher competition, both domestic and global. This means that the suppliers constantly will have to think about what it is that makes them competitive.

It will also be important for the local suppliers to be reminded, both under and after the program, that innovation is the key to development, and to become competitive in the market. The SDP is a push in this direction, but the local suppliers will have to do much work by themselves to be able to keep, and grow their position in the market. As mentioned in section 2.2, there are different types of innovation, and when deciding what area to innovate, the local supplier's competitive advantages should be taken into account. Of course, the emphasis on what is a matter of course will vary, and an innovation in Africa might not be an innovation in a developed country. In order for the local suppliers to meet IOCs requirements, the main focus should first and foremost be on product and process innovation. It is important to encourage the local suppliers to keep in mind the time that comes after the program, and how they will operate later on. This way it can have a lasting effect and the economic growth in the community can be sustainable.

We believe that this supplier development program can contribute to develop suppliers in African countries. In order to create a sustainable and successful program, it is important to have a SDP where all necessary contributors wish to take part. We believe that there will have to be enough incentives for each of the participants, in order to make them stay and complete the program. It is important to monitor and make adjustments throughout the program to

make sure that it will be successful and become sustainable, otherwise it will have been a waste of time and money for all participants.

6.0 Limitations

Our thesis has, like most others, some limitations. It is based on a theoretical approach, which means that it is not tested in real life. This means that we cannot be sure that the supplier development program and its suggested participants actually will be feasible in real life.

Seeing that we have used secondary data, we cannot be entirely sure that these are reliable, or that we have interpreted the information as was intended by the authors. This will always be a challenge, and there are not much that can prevent it from occurring, other than checking the sources that are used careful and thoroughly.

In view of the short time period available, and the lack of information, we have made some assumptions. These assumptions may not be in line with the reality, which may have led to that we have built our thesis on assumptions that are misinterpreted or incorrect.

7.0 Conclusion

By looking at our research question about how to create a guide to a supplier development program for countries with oil and gas resources in Africa, and our two sub-questions, it is our opinion that we in this thesis have managed to come up with some good ideas and perspectives, which can be a contribution for the future.

7.1 Our conclusion

As we all know, the world has evolved in different directions, and in varying degrees regarding how countries have managed to exploit and develop their resources. Some countries have been able to exploit the resources they have, and thus achieved an economic development that the community benefits from. Many countries in Africa have, for various reasons, not managed this, and as a result large groups of the population are struggling to make ends meet. Developed countries have a responsibility towards these countries, especially when operating in them. They have to make sure that they do not just use cheap labour and drain the country for resources, but that they also contribute so that the developing countries can benefit from the resources in their country. This way, improved living conditions such as economic growth, new workplaces, and increased access to education, can be achieved.

First in our discussion we deliberated who and why the different participants would want to contribute and participate in a SDP. We looked at five possible participants: international oil companies (IOCs), local government, local suppliers, learning institutions, and aid organizations. As we see it, every one of these five participants has strong incentives for why they should participate in a SDP, and they all have positive contributions. Out of these five, we concluded with four participants who would actually want to contribute to the program, and decided to leave out local government.

Once we had decided who we believed to be the necessary participants, we created our contribution; a guide to how a SDP should be. We focused on those areas we found to be most important, namely the scope, duration, number of suppliers and participants from each supplier, expenses of the SDP and necessary equipment, theoretical versus practical training, tests and checks during the program, and owners, teachers and location. Based on the gathered information, we have given much consideration into what the program should contain in order to be a success. It is our opinion that we have been able to explain why we

have concluded as we have, and we are confident that the program will be feasible. As mentioned earlier, this is only a guide, and must be adapted to each specific situation.

What have been most important for us in this process where we have come up with a SDP, is that it should have potential to be successful in Africa. For that to be possible, we have had to obtain a great deal of new and exciting information about Africa, but equally important on IOC, their requirements, local content, and different incentives that could have an impact on the participants willingness to be a part of the program.

In order to figure out what incentives were needed to keep the various parties interested in participating in the program, we had to look at what they all value and appreciate. Some were easier than others, and when trying to find out what incentives are appropriate in developing countries in Africa, we had to try to put ourselves in their situation and envision what matters to them. It has become even more clear to us that what is valued in developed countries does not have the same significance in developing countries. To be offered a fifth week of vacation if one performs a job is not something we believe would be valued in Africa, and we have focused on those incentives we find to be most sought after to keep them focused on completing our program.

As there is a large amount of competition in the oil and gas industry, suppliers will have to be in the top of the competition to land new contracts after the program is completed, which can only be achieved by innovative thinking and development. Suppliers who participate in this program will get a huge opportunity as new market opens up for them.

It is our conclusion that the most important part in creating a program that serves in line with its purpose, which is to develop local suppliers in the oil and gas industry, is to make sure that there is a functioning relationship between the parties involved, where each take responsibility for their part. It is important to understand that those involved are dependent on one another for the program to be as successful as possible. All parties involved will therefore have to adapt to the specific situation, and it is important to emphasize that everyone will have to give and take a little.

7.2 Future Research

This thesis deals with important subjects where future research undoubtedly is needed, and we feel that our thesis can be a basis for this, as it provides a good starting point for a model to a supplier development program (SDP). Based on the analytical approach used, we could not find any information about existing supplier development programs for local content in Africa and how they should be structured and conducted. This means that there will have to be conducted more research, both quantitative and qualitative.

In order to create a model for a SDP there will have to be a combination of both theoretical and empirical studies. A model cannot be based only on theoretical information, and it will have to be implemented and tested empirically, to ensure that it actually is manageable and suitable for developing countries in Africa.

As mentioned earlier, there is an ongoing study in Tanzania that concerns the same subject as ours, and thereby complements our thesis. Since our guide to a SDP is based on a theoretical study in which secondary data is used, we cannot be sure that it will work in reality. Together, these two studies forms a thorough basis for further research, which may eventually result in that a model over a supplier development program is created.

If future studies show that this program is manageable and sustainable in Africa, and that it works in line with its purpose with closing the gap between local suppliers and IOCs requirements, it can be adapted and implemented in other industries and continents.

We really believe that it is important to increase the interest and awareness around the world's contribution to development for those who need it, and we feel that our guide to a supplier development program can participate in this. We are proud of what we've come up with, and hope that our supplier development program someday can make a difference for someone.

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9.0 Appendix

Appendix 1

Countries in Africa	Oil and/or Gas	Source
Algeria	1	https://www.kpmg.com/Africa/en/IssuesAndInsights/Articles-Publications/Documents/Oil%20and%20Gas%20in%20Africa.pdf
Angola	1	https://www.kpmg.com/Africa/en/IssuesAndInsights/Articles-Publications/Documents/Oil%20and%20Gas%20in%20Africa.pdf
Benin	1	http://thinksecurityafrica.org/oilgas/oil-and-gas-in-benin/
Botswana	2	http://www.mbendi.com/indy/oilg/af/bo/p0005.htm#10
Burkina Faso	2	https://www.cia.gov/library/publications/the-world-factbook/geos/uv.html
Burundi	2	https://www.cia.gov/library/publications/the-world-factbook/geos/by.html
Djibouti	2	https://www.cia.gov/library/publications/the-world-factbook/geos/dj.html
Democratic Republic of the Congo	1	https://www.kpmg.com/Africa/en/IssuesAndInsights/Articles-Publications/Documents/Oil%20and%20Gas%20in%20Africa.pdf
Central African Republic	2	https://www.cia.gov/library/publications/the-world-factbook/geos/ct.html
Egypt	1	https://www.kpmg.com/Africa/en/IssuesAndInsights/Articles-Publications/Documents/Oil%20and%20Gas%20in%20Africa.pdf
Ivory Coast	1	https://eiti.org/CotedIvoire
Equatorial Guinea	1	http://www.equatorialoil.com/Petroleum_Exploration_history.html
Eritrea	2	https://www.cia.gov/library/publications/the-world-factbook/geos/er.html
Ethiopia	1	https://www.kpmg.com/Africa/en/IssuesAndInsights/Articles-Publications/Documents/Oil%20and%20Gas%20in%20Africa.pdf
Gabon	1	https://www.kpmg.com/Africa/en/IssuesAndInsights/Articles-Publications/Documents/Oil%20and%20Gas%20in%20Africa.pdf
Gambia	2	https://www.cia.gov/library/publications/the-world-factbook/geos/ga.html
Ghana	1	https://www.kpmg.com/Africa/en/IssuesAndInsights/Articles-Publications/Documents/Oil%20and%20Gas%20in%20Africa.pdf
Guinea	2	https://www.cia.gov/library/publications/the-world-factbook/geos/gv.html
Guinea Bissau	1	http://www.mbendi.com/indy/oilg/af/gb/p0005.htm#5
Cameroon	1	https://www.kpmg.com/Africa/en/IssuesAndInsights/Articles-Publications/Documents/Oil%20and%20Gas%20in%20Africa.pdf

Kapp Varde		
Kenya	2	https://www.cia.gov/library/publications/the-world-factbook/geos/ke.html
Komorene		
Congo	1	https://www.kpmg.com/Africa/en/IssuesAndInsights/Articles-Publications/Documents/Oil%20and%20Gas%20in%20Africa.pdf
Lesotho	2	http://www.mbendi.com/indy/oilg/af/le/p0005.htm#5
Liberia	2	http://www.mbendi.com/indy/oilg/af/li/p0005.htm#5
Libya	1	https://www.kpmg.com/Africa/en/IssuesAndInsights/Articles-Publications/Documents/Oil%20and%20Gas%20in%20Africa.pdf
Madagascar	1	http://www.mbendi.com/indy/oilg/af/md/p0005.htm#5
Mali	2	http://www.mbendi.com/indy/oilg/af/ml/p0005.htm#5
Malawi	2	http://www.mbendi.com/indy/oilg/af/ma/p0005.htm#5
Morocco	1	http://www.forbes.com/sites/christophercoats/2013/11/21/whats-standing-in-the-way-of-moroccan-oil-and-gas/
Mauritania	1	https://www.kpmg.com/Africa/en/IssuesAndInsights/Articles-Publications/Documents/Oil%20and%20Gas%20in%20Africa.pdf
Mauritius	2	https://www.cia.gov/library/publications/the-world-factbook/geos/mv.html
Mozambique	1	http://www.mbendi.com/indy/oilg/af/mz/p0005.htm#5
Namibia	1	http://www.mbendi.com/indy/oilg/af/na/p0005.htm#5
Niger	1	https://eiti.org/Niger
Nigeria	1	https://www.kpmg.com/Africa/en/IssuesAndInsights/Articles-Publications/Documents/Oil%20and%20Gas%20in%20Africa.pdf
Rwanda	1	http://www.mbendi.com/indy/oilg/af/rw/p0005.htm#5
São Tomé and Príncipe	1	http://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/Sao%20Tome%20and%20Principe%20-%20Maximizing%20oil%20wealth%20for%20equitable%20growth%20and%20sustainable%20socio-economic%20development.pdf
Senegal	1	https://www.cia.gov/library/publications/the-world-factbook/geos/sg.html
Seychellene		
Sierra-Leone	1	https://eiti.org/SierraLeone
Somalia	2	https://www.cia.gov/library/publications/the-world-factbook/geos/so.html
Sudan	1	https://www.kpmg.com/Africa/en/IssuesAndInsights/Articles-Publications/Documents/Oil%20and%20Gas%20in%20Africa.pdf
Swaziland	2	https://www.cia.gov/library/publications/the-world-factbook/geos/wz.html
South-Africa	1	http://www.saoga.org.za/oil-gas-hubs/upstream-oil-gas-south-africa
South Sudan	1	https://www.kpmg.com/Africa/en/IssuesAndInsights/Articles-Publications/Documents/Oil%20and%20Gas%20in%20Africa.pdf
Tanzania	1	http://www.mbendi.com/indy/oilg/af/ta/p0005.htm#5

Togo	1	http://www.mbendi.com/indy/oilg/af/to/p0005.htm#5
Chad	1	https://www.kpmg.com/Africa/en/IssuesAndInsights/Articles-Publications/Documents/Oil%20and%20Gas%20in%20Africa.pdf
Tunisia	1	https://www.kpmg.com/Africa/en/IssuesAndInsights/Articles-Publications/Documents/Oil%20and%20Gas%20in%20Africa.pdf
Uganda	1	https://www.kpmg.com/Africa/en/IssuesAndInsights/Articles-Publications/Documents/Oil%20and%20Gas%20in%20Africa.pdf
Zambia	2	http://www.mbendi.com/indy/oilg/af/za/p0005.htm#5
Zimbabwe	1	http://www.financialgazette.co.zw/mining-indaba-spotlight-on-gas-oil-exploration/
Western Sahara	1	http://news.bbc.co.uk/2/hi/business/2758829.stm

1 = There is oil and/or gas

2= There has not been found oil or gas

Green = There is oil and/or gas

Yellow = There has not been found oil or gas

Red = Countries not on the map