



**BUILDING A COLLABORATIVE NETWORK FOR SMOOTH MARKET  
PENETRATION FOR FINNISH BIO-ENERGY COMPANIES IN AFRICA**  
Case: MHG SYSTEMS OY/FEEDSTOCK OPTIMUM

**Bachelor's Thesis**

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Abstract

As the world now is fighting against global warming, one way Finnish bioenergy firms can help Africa to fight this climate change is the transfer of technology. However, how do they go into the market as one of the global giants in clean energy technology? Research proved that many Finnish firms are willing to go into the market but the external forces in the market are challenging for the firms.

To help Finnish bioenergy companies to carve themselves a niche on the market, as a result of this study a network for smooth market penetration for these companies was planned and built. The companies associated with this thesis were MHG Systems Oy and Feedstock Optimum. The network linked MHG/FSO to reliable partners in Ghana. These partners will help them to work out strategies to be competitive in the market. This is because Africa is a price sensitive market and individual approach discourages initiative. Therefore for any business to succeed, collaborative approach is found to be the appropriate tool.

The result of this thesis was achieved through a qualitative research method. This includes interviews, case study and secondary data analysis. This method was utilized to enable in-depth investigation and explanation of the subject. The respondents were chosen from Ghana Ministry of Energy, Ghana Investment Promotion Council, EXIMIN Network, Industrial experts and other stakeholders. All the interviews were digitally recorded with Skype recorder and transcribed verbatim with the help of Microsoft word processor. The result of the thesis proves that there is a market for MHG product but it is a virgin market. It was also found out in the study that MHG Forest Fire ERP is a fantastic product for Africa and has a great potential in the market.

Keywords

= Bio-energy, MHG, Sustainable forest and society, ERP, Networking, Poverty Reduction Strategy

Confidentiality

Confidential/ Public

## DEFINITION OF TERMS

**Poverty Reduction Strategy:** Successful plans to fight poverty require country ownership and broad based support from the public in order to succeed

**Business networking:** Is a marketing method by which business opportunities are created through networks of like-minded business people

**Bioenergy:** Is stored energy from the sun contained in materials such as plant matter and animal waste, known as biomass. Biomass is plant matter and animal waste that can be harvested to create bioenergy in the form of electricity, heat, steam and fuels. Biomass is considered renewable because it is replenished more quickly when compared to the millions of years required to replenish fossil fuels.

**ERP** stands for Enterprise Resource Planning. ERP is a way to integrate the data and processes of an organization into one single system. ERP helps to manage the important parts of its business. The information made available through an ERP system provides visibility for key performance indicators (KPIs) required for meeting corporate objectives

**MHG:** The acronym MHG, means Map Hit Gis i.e. to be visible on map system integrated with Geographic Information Systems (and IT system) in a way that you yourself know your location and also your partners/workers/boss know where all the staff is heading to.

**MHG ERP:** A specific IT-solutions and enterprise resource management systems (ERP) for bio-energy, biomass, pellet, bio-coal, bio-fuels, wastes, energy, forest, and field work applications. It helps Bioenergy companies to manage the biomass supply chain. The ERP can be used practically anywhere in the world, as it can be set to utilize several maps like national raster maps, Google Premium Maps, satellite and customer's own maps.

**VCP Concept:** VCP concept is a concept developed by the Entrepreneur guru, Dr.Ivan Misner. It is Visibility, Credibility and Profitability. This concept shows how relationship, no matter what it is, matures into trust and commitment.

**Raster map:** is a combination of a bitmap image with a map projection and reference coordinates

**Google Maps:** It makes it easy for companies to include fully interactive Google Maps on their public and internal websites. The Maps API helps your customers and employees make the right business and purchasing decisions by visualizing important information on a familiar map.

**Supply Chain:** A system of organizations, people, technology, activities, information and resources involved in moving a product or service from supplier to customer. Supply chain activities transform natural resources, raw materials and components into a finished product that is delivered to the end customer.

**Rob someone's back:** It's an expression commonly use in Africa to mean that a person must be paid for work done. To rob back in Africa does not mention a specific amount but the giver must decide it.

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The task of carrying on a research cannot be done single handedly without the contribution of others who makes it complete. I therefore seize this opportunity to thank the following who helped me in diverse ways to achieve the result of this thesis

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10. Mr Wisdom Togobo, Head of Renewable Energy, Ministry of Energy Ghana
11. Mr Benard Agyei, Cape Peninsula University of Technology, South Africa
12. Silas Afons, Volta River Authority, Ghana
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14. Mr Ruslan Pisarenko, Business Software Developer, MHG Systems Oy Ltd Finland
15. Mr Obi Ummunakwe, Network Contact, Nigeria Market, Nigeria
16. Mr Henry Ummunakwe, South Africa Contact, South Africa
17. Dr Ernest Foli, Forestry Research Institute of Ghana University, Kumasi, Ghana
18. Mr Gyiba Nathaniel, Managing Director, Atlas Business Energy Systems, Ghana
19. Mr Kwaku Nyadu, Senior Consultant, CodeSoft Ltd, Ghana.

## **DEDICATION**

This thesis is dedicated to all lecturers and students at the Savonia University of Applied Sciences, Varkaus whose academic virtue reflected soberly and positively on me to mold me into the person I am today. It is also dedicated to Mr Jukka Suonio and Jarmo Ihalainen, Special Assistant of MP Kari Karkkainen who contributed in diverse to make my stay in Varkaus easier for me.

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# 1 INTRODUCTION

## 1.1 Background

The quest for sustainable society has led to a green revolution in Africa where the demand for bio-energy has sparked off due to its social economic benefits in improving the living standard of the people. This is because the growth in population is estimated to increase by 1.2 billion and 2 billion by 2020 and 2050 respectively in Africa due to the alleviation of HIV/AIDS [1]. This growth, however, is a threat to the environment because Africa gives off less green house gas than any other part of the world but it is the most threatened by climate change. A warming environment as indicated by President Barack Obama of U.S, will spread disease, shrink water resources and deplete crops, creating conditions that produce more famine and more conflict. But how can this crisis and environmental liability be turned into a lucrative resource?

This effort to turn waste to wealth for economic growth in Ghana to improve the social life of the people has prompted the government to pass a renewable energy law that encourages development partners and investors in the energy field because the country lacks the needed clean green technology and the funds to invest in such a lucrative venture. This dream being pursued by the Energy Ministry had made environmental management and bio-energy production to dominate the new government policies and this is presenting new business opportunities for local and foreign investors.

However, the enabling environment created by the Energy Ministry is a real chance for Finnish investors because of the good relationship between Ghana and Finland, which Mrs Tarja Holonen laid for Finnish companies. Therefore the need for Finnish Investors and companies to utilize this opportunity to invest in this emerging market in a country that has worked hard to put democracy on a firmer footing, with repeated peaceful transfer of power even in the wake of closely contested election and with improved governance and an energy civil society is an opportunity [2].



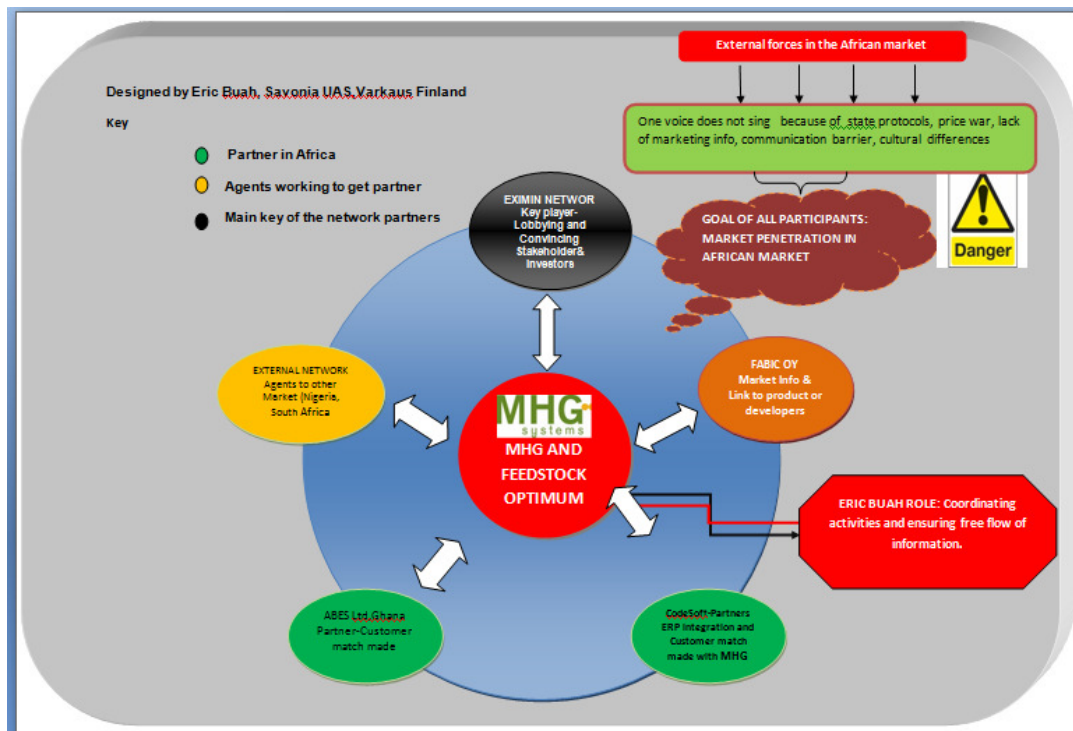
As a matter of fact, investing in Africa is the most flexible and profitable way by investors or any business, but the business culture on the Africa environment is state channels. This means that investing in any business in Africa needs a collaborative effort instead of individual undertakings which only goes a long way to discourage initiatives since the voice of one does not sing well in Africa [3]. But how do Finnish entrepreneurs and business get in to this emerging marketing with their green energy technology to grasp the opportunity that exists

## **1.2 Aim/Objectives**

The aim of this project was to plan and build a collaborative network that promotes and facilitates business investment and market for Finnish Bioenergy companies and investors in Ghana and other selected African countries as a framework for market penetration. The thesis will, therefore, serve as a road map for the participating companies (MHG Systems Oy and Feedstock Optimum) and expose them to the market opportunities that exist in Africa for their innovative ERP products and clean energy technology.

It will also expose them to the price, promotion and the public relationship communication marketing strategy in Africa and the strategy to launch their products in the Ghanaian market. The project will explore many strategies as how to get the participating companies to the market by linking them to reliable partners in Ghana, Nigeria and South Africa. The project will also advise the participating companies on price wars with competitors and try to follow the marketing routes of their competitors and find out what is included in their package and explore which of MHG products best compete and are able to penetrate the already penetrated sectors in Africa by their competitors.

At the end of it all the project also depicts networks of market penetration by MHG and FSO and identifies key network players and their solutions. Figure 1 below depicts the mind map of the proposed network. (A bigger view of this picture is shown in Appendix 3).



**Figure 1 Final version of the propose network**

### 1.3 Research problem

The global concern for environment due to the emission of greenhouse gases has made biomass energy to be competitive and has become the only option in Africa towards the 21<sup>st</sup> century. This positive trend of green revolution towards greener and cleaner energy production has awakened the government of Ghana and other African governments in attracting more investors and developing partners into the national energy mix.

The neglect of renewable energy in Ghana due to lack of technology and investment fund has turned the destiny of the country from energy exporter to energy importer because the country has relied over the years on hydropower. This has prompted the government to pass a renewable energy law that encourages investors in the energy field. This dream being pursued it had made environmental management and bio-

energy production to dominate the government policies, and this is presenting new business opportunities for investors.

Research conducted by EXIMIN reveals that, most Finnish companies are willing to go into the market but they lack the right approach in finding reliable partners. This however calls a network that smoothen the process for them. This is because investing in Africa requires a collaborative approach since individual undertakings discourages initiatives because of the business culture. But overcoming this barrier makes the potential of the investor substantial in succeeding in the market.

It is against this background that this thesis was proposed to plan and build a network that collaborate an interest group as a framework for market penetration in Ghana and Africa as a whole for participating companies in this thesis. The rationale behind this networking is to find market for them in Ghana and other African countries and link them to reliable partners in doing business and winning an investment contract.

#### **1.4 Project Need**

This project is an attempt to find an alternative and reliable solution to the investment opportunities currently in demand in the energy sector in Ghana .The government now looks for Investors to come with appropriate clean technology to fill the gap. This was said to participants by the Minister Counselor of the Ghana Ambassador to Scandinavian in the last EXIMIN seminar held on Vaasa on 15<sup>th</sup> January, 2010. [7]

However, Finland been a global giant in bio-energy production and solution because of the emphasis by the country in R&D in bioenergy which is reflected in the advanced environmental technology of the Finnish economy and which makes them strong players in the international energy market [4].

The project will give MHG System Oy and Feedstock Optimum, who are the key technological players in this thesis, the opportunity to build strategic partnerships with other members who are the consumers of their products in the African market. It was

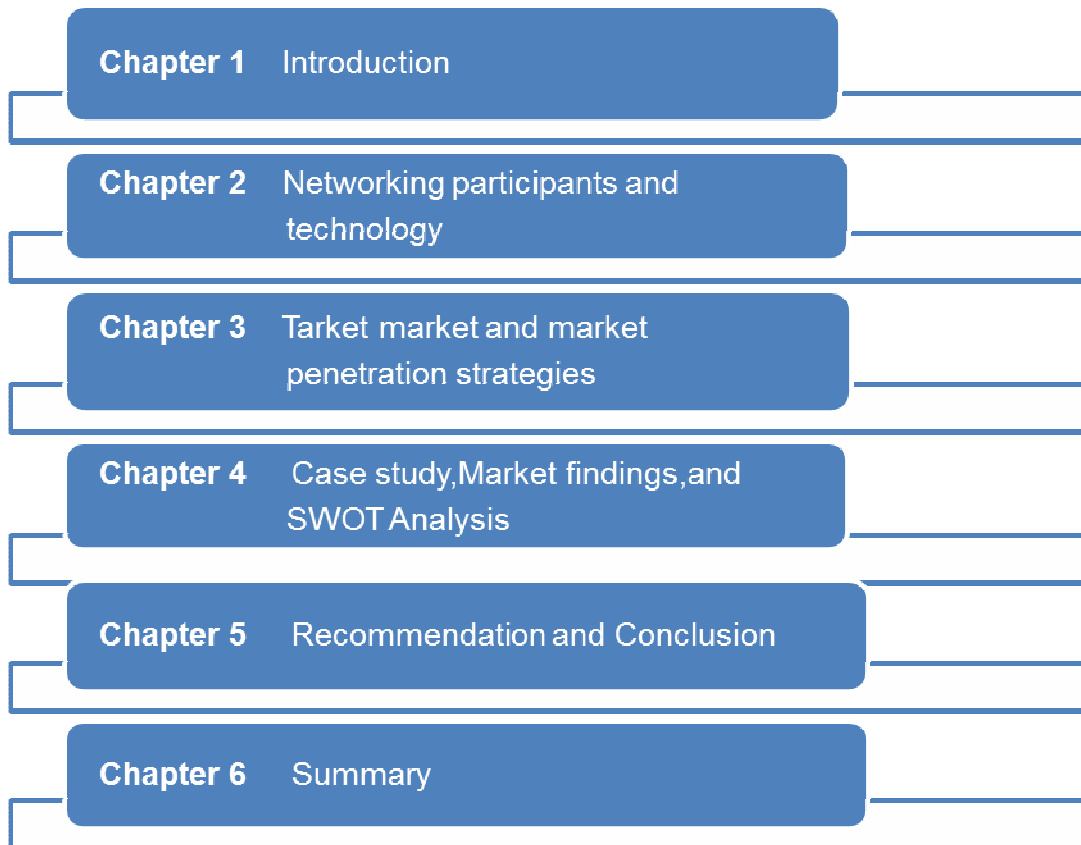
also aimed at leading them into a pool of bioenergy investors in Ghana where Feedstock Optimum is featured to create a model about sustainable forestry in Africa starting from forest inventories by novel technology. MHG is operating as process optimizer by managing the entire supply chain to substantiate the potential of the investors. Fabric Oy and EXIMIN will provide MHG/FSO with market information that would improve their understanding of the consumer behaviour and attitude in Africa. They will inform them of trade fairs and shows, information on tenders and bids, information on business seminars and conferences and above all monitor business trends and opportunities for them and help them design the right framework for pricing to substantiate the MHG/FSO potential in the market.

This collaborative approach will increase the competitiveness of MHG/FSO to create new market for them in the environment.

## **1.5 Methodology and Structure of thesis**

To enable in-depth investigation and explanation of the subject, qualitative research method was regarded to be the most appropriate for this study. The method utilized includes: market surveys, a case study and interviews with researchers and an interest group who are involved in various energy researches and projects in Africa. All the interviews were digitally recorded with Skype recorder and transcribed verbatim with the help of Microsoft word processor. Also to clarify inconsistent issues from the interviewees an email communication was used to collect further information. To respect the integrity of the respondents, the real names of some respondents remained anonymous in this study. They are Company A and Company B.

The structure of the thesis is also shown in the picture below in figure 2.



**Figure 2 Structure of thesis**

The approach adopted to get the partners for MHG systems Oy was the contacts of friends and school mates. Also Ghana Investment Promotion Council (GIPC) and Ghana Ambassador to Scandinavia were consulted for specific needs of the government of Ghana in the energy sector. The head of renewable energy at the Ministry of Energy in Ghana and the Technical Director of Ghana Energy Foundation were fully integrated in the thesis for policies regarding the renewable energy sector.

MHG System Oy and Feedstock Optimum were also integrated in the project to learn of their areas of expertise through Internship training with the company. Also Ghana Energy commission was consulted. However, many interviews were analyzed and a lot of related literature was reviewed. Views of Finnish industrial energy experts were also solicited and the project manager of EXIMIN was consulted for advice.

## **1.6 Limitation of the project**

This project was limited to a network which focuses initially on Ghanaian, Nigeria and South African market.

The thesis is limited to the needs of the participating companies and promotes market penetration for participating groups through networking and market survey that enhances technology transfer of Finnish state-of-the art technology in bio energy and the indicators involved in promoting partnership between the two countries. Also because of time frame for the project and resources, many facts are based on analysis of secondary research materials. Therefore most of the information regarding this project is limited within the confines of MHG System Oy and Feedstock Optimum Oy who were the main partners.

## **2 NETWORKING PARTICIPANTS AND TECHNOLOGIES**

### **2.1 Networking and Its Impact**

#### **2.1.1 Networking**

The dream of any business is to make profit. In my opinion, profitability leads to stability in any business and gives a possibility for growth. A very important aspect of any new starting business is to network with other businesses. Networking is an invaluable business skill and a critical component in any professional's toolkit for career success. The ability to communicate effectively, build and nurture winning relationships and expand a network is absolutely essential in today's business world for career advancement. [5]

Networking is like using multiple baits for fishing. It's about establishing relationship with other professionals and stakeholders who will equally help each other's businesses to grow. Interconnecting with other businesses is like using a multiple bait to catch many fish. It goes a long way to catch many fishes as expected depending on your commitments of following the ten commandments of networking. One important thing is that it increases each network partners' ability to catch prospective clients that you would not have dreamt of [6].

Also described by the Father of Modern Networking, Dr. Ivan Misner, Networking is not about shaking hands. It's about building social capital. It's about developing and maintaining good relationship. It's about cultivating relationship about business professionals and realizing that the capital is as result of building social relationship. It allows you to not to promote only your products and services to others, but it also allows you to educate people about the unique aspects of your business and help them to find new prospects [6].

### 2.1.2 Impacts of Networking

Networking may tend to be the solution for your business but you may not realize it until you find yourself in one. The best networks are built on relationships between the people who own and run businesses. Obviously the impact of networking relationships is that people trust you and may use your service or product [6].

Networking is about constructing an ever-expanding set of contacts and gradually building genuine, mutually beneficial relationships with these people with the goal of advancing your career interests while simultaneously assisting others in advancing theirs. [5]

Networking is useful but has a limited scope unless you spend a lot of time talking to other business owners. Beyond this, networking can do much more for your business. Within a networking relationship, trust and knowledge is built between business people. By learning about other businesses, you are able to refer them to your clients who want something you cannot offer. [6]

Networking has many positive impacts on businesses .It includes:

1. It helps you to build a network of referrals and introductions for your clients.[4]
2. Networking also gives you the opportunity to meet people who can introduce you to other decision makers as they influence key events and make things happen[5][4].
3. Networking give you chance to present yourself to suppliers, customers, potential business partners and employers in a personal way and allow them to relate to you and build a rapport with you [5].
4. Networking gives the opportunity to forge valuable beneficial business relationships that are mutually advantageous over the long run
5. It also gives you the potential to learn of and have doors opened to opportunities you may not otherwise have heard of or had access to.
6. Networking gives the opportunity to achieve increased productivities by having additional resources and information and relationships readily at your disposal. [5]



### 2.1.3 How to become a master networker

Dr Ivan Misner study shows that, the ten traits of becoming a master networker are stated below [9]:

#### 1. **Work your networks at every opportunity**

During your leisure time in business, use that time to organize your contacts database, send emails, set up appointments, and carry out any other activity's which contribute to your business networking strategy.

#### 2. **Be sincere**

Successful networker gives others undivided attention and conveys their sincerity at every turn.

#### 3. **Networkers genuinely enjoy helping others**

A Master networker looks for any small opportunity to help others. Enact 'givers gain' or 'the law of reciprocity, be willing to give before you receive

#### 4. **Learn to thank others always**

This means that successful networkers always thank other people. What makes this such a great business networking strategy is that thanking other people does not take long, it does not cost a thing and yet it really helps to cultivate relationships. It's amazing that so many people in business overlook this important technique.

#### 5. **Network always**

Master networkers are never formally off duty unless they are asleep) Networking is so natural to them that they can be found networking in even in a queue at bus station ,doctor's office , and even picking up kids from school as well as at business mixers and networking meetings. Master networkers take advantage of every opportunity that comes their way on a daily basis. They operate in the "givers gain" mind-set and are primarily looking for opportunities for the people in their network.

## 6. **Good listening skills**

A true sign of success comes from those that listen more than talk. The faster you and your networking partner learn what you need to know about each other, the faster you would set up a valuable relationship. Listening for the needs and problems of others can also position you to engage the services of the people you know. Many distractions can get in the way of listening well to each other. Communicating well takes focus and effective listening.

## 7. **Trustworthy**

Trust your partner and have the same trust in return. No explanation needed. Be honest at all times and build relationships. When you refer one person to another, there is no doubt that you are putting your personal and professional reputation on the line. You have to be able to trust your referral partner and be trusted in return. Neither you nor anyone else will refer a contact or valuable information to someone who cannot be trusted to handle it well. Trust, as we have been taught, is earned. It develops over time and throughout the life span of a relationship. Trust can never be taken lightly, because it plays such a huge role in your credibility.

## 8. **Enthusiasm and motivation**

Be a go-getter, show enthusiasm and you will attract successful people into your network. Think about the people you know who get the most referrals. They are the people who show the most motivation. It's been said that the best sales characteristic is enthusiasm. To be respected within networks, you at least need to sell yourself with enthusiasm. Once you sell yourself, you can now reap the reward of seeing your contacts selling you to others. That's motivation in itself. Enthusiasm aligns well with a positive attitude. Enthusiastic and motivated people make things happen for them and for the people they know.

## 9. **Positive Attitude**

Showing a consistent negative attitude makes people dislike being around you and drives away referrals; a positive attitude makes people want to associate and cooperate with you. Positive business professionals are like a magnet; people want to be around them and sell their friends, family and associate to them. Positive

attitudes are contagious. Being positive contributes to your determination, internal motivation and ultimate business success.

#### **10. Timely follow-up on referrals**

Following up your referrals was rated the No.1 traits of the interview of a successful networker. If you fail to follow up your referrals, it will burn you every time. If you present an opportunity whether it's a simple piece of information, a special contact or a qualified business referral to someone who consistently fails to follow up successfully, it's no secret that you will eventually stop wasting your time with this person. Following up with what you say you are going to do, when you say you are going to do it, builds your credibility and trust with your network.

Building up mutually beneficial relationship to build your social capital will only make you a master networker. Adapt to these traits and you will be successful.

#### **2.1.4 VCP Process of Relationship networking**

In all spheres of business, relationship must be developed. Business is all about relationships and the deeper and stronger the relationship the better. No matter what kind of business you are in this relationship must focus on a mutual benefit for both parties. This is because networks for information, support, and referrals will drive your success, and those networks are based on your relationships with other individuals and businesses. [Refer to networking like a pro].

On the concept of VCP process developed by an Entrepreneurs Guru, Ivan Misner, relationships evolve through three phases: thus visibility, credibility and profitability. This evolution of relationship networking is called the VCP Process®.

According to the concept any successful relationship, whether a personal or a business relationship is unique to every pair of individuals, and it evolves over time. It starts out tentative, fragile and full of unfulfilled possibilities and expectations. It grows stronger with experience and familiarity. It matures into trust and commitment.[10]

“The VCP Process® describes the process of creation, growth, and strengthening of business, professional, and personal relationships; it is useful for assessing the status of a relationship and where it fits in the process of getting referrals. It can be used to nurture the growth of an effective and rewarding relationship with a prospective friend, client, co-worker, vendor, colleague, or family member. When fully realized, such a relationship is mutually rewarding and thus self-perpetuating.”[10]

### **Visibility**

This is the first phase in the concept. It is the stage where you have to appear visible to your partner. This is where you get to know yourselves better. In this stage your partner gets to know if you are someone who is honest and can be trusted for business. The two of you begin to communicate and establish links, probably a question or two over the phone about product availability. This kind of intimacy makes you become personally acquainted to each other and work on a first-name basis. The visibility phase is important because it creates recognition and awareness. The greater your visibility, the more widely known you will be, the more information you will obtain about others, the more opportunities you will be exposed to, and the greater will be your chances of being accepted by other individuals.[10]

### **Credibility**

Credibility is the quality of being reliable, worthy of confidence. Once you and your new acquaintance begin to form expectations of each other and the expectations are fulfilled, your relationship can enter the credibility stage. If each person is confident of gaining satisfaction from the relationship, then it will continue to strengthen.

This stage grows if business appointments are kept and promises are fulfilled. To determine how credible you are, people turn to ask third party to get vivid picture about you and your reputation. This stage is important to network referrals. [10]

### **Profitability**

Every relationship that is developed, everyone is expecting it to be profitable. It is when the relationship becomes mutually profitable that one does not feel cheated.

The time it takes to pass through the phases of a developing relationship is highly variable. It's not always easy to determine when profitability has been achieved. In a time of urgent need, you and a client may proceed from visibility to credibility overnight. The same is true of profitability; it may happen quickly, or it may take years most likely, somewhere in between. It depends on the frequency and quality of the contacts, and especially on the desire of both parties to move the relationship forward.

Visibility and credibility are important in the relationship building stages of the referral marketing process. But when you have established an effective referral generation system, you will have entered the profitability stage of your relationships with many people, the people who send you referrals and the customers you recruit as a result.

In a nutshell the VCP Process of relationship networking is applicable to both online, offline and face to face networking.

This means that whatever kind of networking you involved yourself in, you must first achieve Visibility, then you must build Credibility and then, and only then, should you seek Profitability through pursuing business relationships with your contacts.

It is impossible to skip V and C and jump straight to P. Never be in a rush and start hunting for referrals before they have built up trust and relationships with you. Be focus, and develop contacts that are built on trust and you would always have a strong network to fall back on no matter what the economy is doing. [10]

## 2.2 PARTICIPANTS OF THESIS NETWORK

The participants of the network are shown below. ABES and EXIMIN are network organizations and consultancy firms operated in Finland. Feed stock Optimum and MHG Systems Oy are the companies in Finland looking for market in Africa. ABES and Code Soft Ltd are located in Ghana. They are the proposed potential partners recommended for MHG and Feedstock Optimum. Before any investment regarding Energy will go on in Ghana, the consent of the Ghana Ministry of Energy is needed. The other chapters give a detail description of each participant.

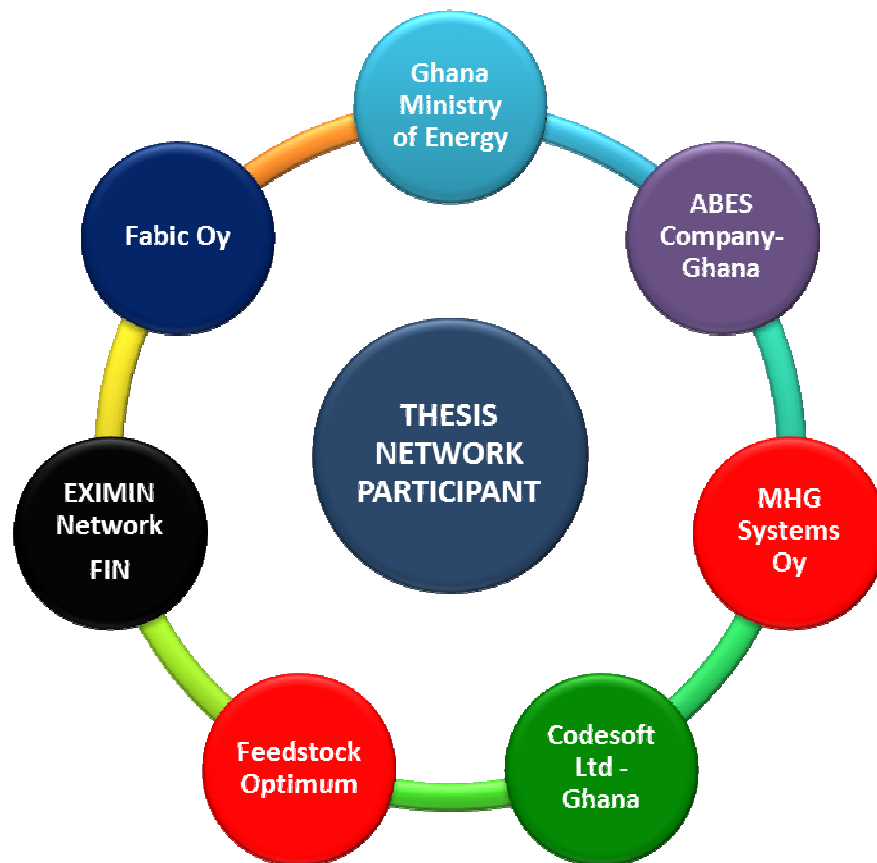


Figure 3 Participants of the thesis network

### 2.2.1 Ghana Ministry of Energy

Ghana's Energy supply is divided into two sectors; the Power Sector thus, electricity, renewable energy & traditional energy and the Petroleum sector, thus upstream (exploration and downstream refining, storage and distribution).

The Ministry of Energy is responsible for developing and implementing energy sector policy in Ghana and it also supervises the operations of Ghana National Petroleum Corporation, the Tema Oil Refinery, the Volta River Authority and the Electricity Company. Also the Ministry has ministerial oversight responsibility over the Energy Commission to become a middle income country with a minimum of \$1,000 per capita income. In the medium term, the government aims to assure and sustain growth through sound programmes of action under the **Ghana Poverty Reduction Strategy**.

#### **Priorities and challenges facing the energy sector**

Electricity is globally known to be a dominant factor in daily life, an essential input to industrial production and a major form of energy. Due to this essential aspect of daily life, families in Ghana, communities and businesses depend on reliable and affordable energy for their health, safety and livelihood. The fact that the utilization of Electrical energy in modern society is closely related to the quality of life, the government of Ghana has underlined specific energy policies in order to achieve the following three (3) priorities to make life meaningful for the Ghanaians:

- The government is committed to ensuring that all Ghanaians have equitable access to basic and reasonably priced energy services.
- Provide energy supplies that industry and commerce need to achieve economic growth
- Promote the kind of energy use that will not damage the environment

The Government through the Ministry of Energy realized that access to reliable and affordable energy services in the rural communities in Ghana is crucial to the realization of its strategies for accelerating growth and reducing poverty. This is

because the energy development agenda of the Ministry focused on widening the access of energy to all households, productive sectors and social infrastructure, in order to facilitate the implementation of the Growth and Poverty Reduction Strategy which is a Millennium Development Goal [11].

In spite of these priorities and development energy agenda of the Ministry of Energy, the challenges facing the Ministry include [11]:

- A near total neglect of renewable energy sources and inadequate regulatory environment
- Power supply shortages arising out of historical under-investment in generation, transmission and distribution.
- Inadequate access to electricity.
- Poor financial health of utility companies.
- Non delivery of gas expected from the West African Gas Pipeline Project (WAGPP)
- Limited availability of and access to petroleum products to consumers.
- Low level of exploratory activities.

Statistics show that 60 percent of the energy consumed in Ghana is from wood products [12]. To save Ghana's forest and prevent climate change judging by the way trees were being cut for firewood which will soon deplete Ghana's forests many institutional reforms are being adopted to overcome these challenges. However, for the Ministry of Energy to commit itself to cleaner energy and integrate renewable energy to the national energy supply, mix from the current 0.01% to 10% in the medium term, a renewable energy bill to facilitate the process has been prepared for cabinet approval for passage into law by the legislature.[11][12]

### **Investment opportunities and requirement**

To address the challenges facing the energy sector, the investment requirements for the next 5 years are estimated at 3.0 billion US dollars. Because government cannot raise this single handedly, an enabling environment has been created to attract investors into the sector. This is however representing an opportunity in renewable energy development, hydropower development, thermal plant development, clean



energy and nuclear energy development. The requisite legal and regulatory framework and incentive schemes now exist for the promotion of private participation in the energy sector. [11]

Other Investment opportunities in energy demand sector also include:

- Penetration of rural electrification by decentralized renewable energy complementation.
- Penetration of solar energy in hotels, restaurants and institutional kitchens using solar water heaters.
- Increase of Liquefied petroleum gas (LPG) penetration.
- Improved efficiency cook-stoves penetration.
- Penetration of biogas for cooking in hotels, restaurants and institutional kitchens.

The government requires energy companies to provide an alternative decentralized sustainable energy system that can easily be deployed in remote and deprived communities into the overall national energy mix. [11]

### 2.2.2 EXIMIN Network

EXIMIN is an export and import innovation system set up by Finnish University of Applied Sciences and companies. EXIMIN aims to promote business opportunities and growth for Finnish Small Enterprises in the Africa Market. The project is funded by the European Social Fund (ESF) and the State Provincial Office of Oulu. The network currently boasts of eight universities, numerous companies in various areas, and many high calibre students of African descent.

EXIMIN was established with the goal of:

- promoting Finnish technology, products and services to the African markets.
- promoting Africa products and services to the Finnish market,
- creating a network between Finnish and African businesses and
- creating a network of African students with Finnish companies.

The network also aims at:

- Introducing new types of innovation to improve businesses.
- Exploring the commercial feasibility of an idea and whether there's a market for it.
- Bringing a new product to market.
- Starting up partnerships and cooperation projects.
- Searching published patents as a source of ideas and information.
- Capitalizing on new knowledge and innovative ways of doing things.

Not limited to these, the network has become a platform for many Finnish companies in penetrating the African market with their innovative products. This is because the network offers varying benefits to its distinct stakeholders. Finnish companies benefit from the network by:

- increasing business opportunities in the African market.
- being member of a comprehensive network of Finnish companies doing business in Africa and its associated benefits.
- EXIMIN facilitated partnership with well established African companies in the area of interest of companies.

- knowledge transfer from academic experts from the universities of applied sciences for business development needs and growth of Finnish companies.
- Increased business opportunities and competitive advantage for Finnish and African Small and Medium Enterprises (SMEs).

Universities and Polytechnics benefit from the network by

- having the opportunity for joint project into the development of innovative products and services with companies and higher institutions of Finland and Africa.
- enhance business relevance of the EXIMIN project and gain status as a centre of excellence.
- developing teaching curriculum and material relevant to transferring innovation to Africa.
- linking Finnish University of Applied Sciences to educational institutions and companies in Africa.

Furthermore students members of EXIMIN get the chance for practical training. [13]

### **2.2.3 Fabic Oy**

Fabic Oy is a partner of EXIMIN that provides a reliable and marketing information and research services to Finnish companies interested in doing business in Africa and vice versa. Fabic is a partner of Atlas Business Energy System and African Competence and Innovation Center (ACIC).

Fabic ensures that people and businesses interested in Africa find the right approach to business goals and needs of the people of Africa. This is done by the company by listening to the needs of people in Africa and by recommending business products and services that would generate high returns and improve the social and economic lives of the people of Africa.

#### **2.2.4 Feedstock Optimum Ltd**

Feedstock Optimum Oy is a bioenergy company which was set up by three Finnish companies and a Russian Technology Specialist, Ph.D. Georg Cheremisin. These companies are MHG Systems Oy, Maintco Oy and Porini Log Oy.

Maintco Oy is specializing in technology systems, patent process development and financing. Porini Log is a technology marketing company.

Based on this knowhow of these companies, Feedstock Optimum Oy possesses a substantial knowledge in biomass harvesting and transport technology, procurement and transport management controls, railway and vessel operations. The partner-network brings additional services and solutions, particularly by novel technology development and implementation.

The company works closely with its partner-network consisting of globally leading research institutes and companies in pellet business to provide best available practices and technologies for their customers. Furthermore, the company develops best business and operational practices applying them for delivered systems. [14]

#### **What Feedstock Optimum Offers**

With the help of its partners Feedstock Optimum does biofuel supply-chain machine's and equipment's feasibility and profitability reports, acquires and implements technologies and equipment and initializes and releases them for the customer. Feedstock Optimum has full responsibility as a system vendor.

Feedstock Optimum offers its customers maintenance and upkeep services to ensure supply-chain's operational quality for the technologies, machines and equipment supplied. Feedstock optimum also develops the best operational models for supply-chains and applies them to its delivered systems

### **2.2.5 CodeSoft Limited,Ghana**

CodeSoft Limited is an Information Systems Company that provides companies with information technology solutions by bringing innovative ideas at affordable cost. The company focuses on the West African market.

CodeSoft Limited gives companies and corporate bodies the satisfaction that comes from accurate and timely information. The company has considered the fact that the internet is the key to the global community. With competition just a click away, you can control your business from anywhere in the world. The company is devoted to creating professional and customized solutions that are functional and appealing to the target audience. They possess the skill, creativity and the passion to develop business application solutions with designs limited only by imagination.

### **2.2.6 Atlas Business Energy Systems (ABES)**

ABES is an African solution provider for renewable energy. The company provides supply chain management for different solutions in renewable energy such as solar, wind, and biomass. The company operates in Ghana and focuses on the entire African market.

ABES creates strategic cooperation with local and foreign partners with the goal of providing sustainable development that would create value for their clients and shareholders. By using local capacity, ABES intends to operate and maintain technologies in renewable energy that must be developed in relation to technology transfer.

ABES aims to play their part in providing local solutions that address the social and environmental concerns that can lead to improvement in the standard of living

## 2.2.7 MHG Systems Ltd

MHG Systems Ltd is one of the world's leading suppliers of bio-energy ERP systems. The company's field of activities is specific IT-solutions and enterprise resource management systems (ERP) for bio-energy, biomass, pellet, bio-coal, bio-fuels, wastes, energy, forestry and field work applications. It utilizes its partner network to produce customer-oriented IT and map service solutions designed for developing bio-energy and forest energy, and field work business operations. MHG Systems Oy has its headquarters in Finland, at the heart of one of Europe's most heavily forested areas, from where the company offers its services to customers around the world.[14] Below (figure 4) is a briefing of MHG core technology.

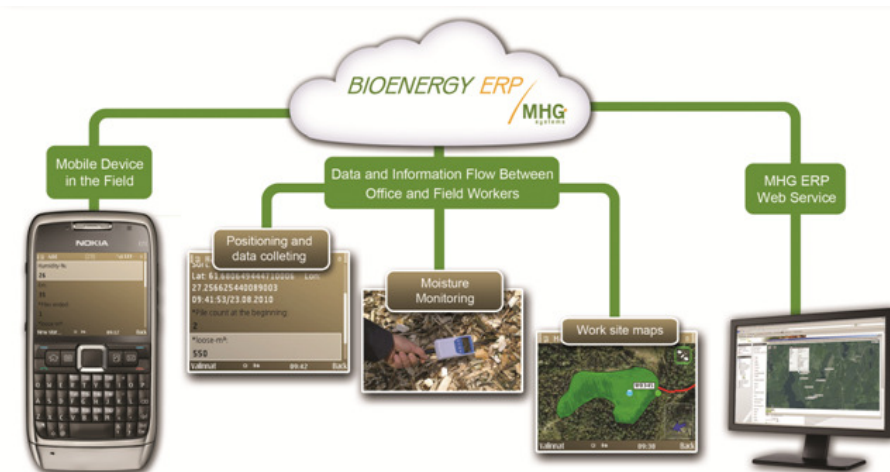


Figure 4 MHG core technology ([www.mhgsystems.fi](http://www.mhgsystems.fi))

### Brief business description

When working on biomass, it's essential for energy companies, biofuel, biocoal and pellet suppliers and producers to know its quality, quantity, energy content and origin. Using leading edge technology, the MHG solution monitors the quality and characteristics of feedstock as part of an integrated end-to-end system for managing the biomass supply chain and procurement process. This innovative system allows energy producers to manage resources from field to delivery end-point with optimal

transparency and efficiency, to avoid fundamental operational and process problems and to lower their overall costs while significantly increasing in their profits. MHG ERP synthesizes mobile communications, the Internet, real-time maps, and satellite-based location information into one business-enhancing service. The company's services bring significant cost savings to all operators in the bioheat, bioelectricity, pellet, biocoal and biofuel supply chain. The MHG platform service allows the development of new, empowering operational models resulting in paper-free offices and field work. [14]

### **Competitive advantages**

MHG customer solutions are created from MHG ERP's independent building blocks and delivered as turnkey solutions, or the service can be used on Application Service Provider (ASP) basis. MHG-ERP-based customer solutions can be used practically anywhere in the world, since they can be set to utilize national raster maps, professional vector-based Google Maps products or remote sensing maps and are used via a Web browser or on-line or off-line mobile devices such as smart phones and laptops. The superior features of the MHG Bio-energy ERP service include transparency throughout the delivery chain, management of the moisture content of bio-energy masses, reporting features focused on the amount of energy (i.e., the number of megawatt hours), carbon emission tracking, accounts and invoicing. A very cost-effective business model is to integrate current ERP-system like SAP, Oracle etc. and MHG Bioenergy ERP via interfaces. Thus the company can use the present, familiar IT system in regular operations and manage bio-energy business by a bio-energy specific tool, the MHG Bio-energy ERP. [14]

### **What MHG Systems Oy offer**

MHG Systems offer its customer companies an MHG ERP and MHG Bio-energy ERP system, consultation and training services on bio-energy and forest energy business operations and field work management. In addition to the aforementioned, MHG Systems provides its customers with its know-how on modern IT technologies, mobile

technology and geographical data. It also offers a technology platform which it has developed in-house. [14]



## **2.3 TECHNOLOGIES AND PROVIDERS**

### **2.3.1 Solutions of Key Network Players, EXIMIN and FABIC OY**

EXIMIN project as underlined by the project manager helps in the search for business partners and cooperation, introduction of new products to new and/ or existing markets, introduction of new types of innovation to improve businesses, exploration of the commercial feasibility of project idea in both the Finnish and African Markets. EXIMIN works with many stakeholders and African ambassadors all over Europe. This makes it easier for them to reach the right customers and partners for their client. [15]

Fabic Oy, on the other hand, creates a forum that provides researched information on business opportunities in Finland and Africa. The forum helps companies to post business ideas and products, inform on trade fairs and shows, provide information on tenders and bids, provide information on business seminars and conferences and to monitor business trends and opportunities

Fabic market intelligence provides partner companies with market information that would improve their understanding of the consumer behaviour and attitudes in Africa. Their market research covers, but is not limited to Nigeria, Ghana, Kenya, Ethiopia, Cameroon, Tanzania and Uganda.

### **2.3.2 Solutions of MHG Systems Oy and FSO**

MHG ERP systems, which was developed as result of deep collaboration between Finnish and foreign top experts and academia, is a specific IT solution and enterprise resource management system for bioenergy, biomass, biofuels, wastes, recycling, energy, forestry and field work applications.

The company's intelligence lies in the many years of experience in the forestry and the bioenergy field. With MHG ERP the potential of the investor is substantial. The system is

able to monitor the entire supply chain from stump to boiler. With MHG Forest ERP a firm can manage forest sustainability.

To manage forests in a sustainable way requires well made forest inventories and forest management plans. By MHG Forest Service the user can update all activities done in the forest plot by plot. The most important thing to do is to be able to follow-up that reforestation really took place after open felling and a correct tree species was used in reforestation.

Also with MHG Forest the user, thus the authority, can control the quantities and volumes of specific timber and see if correct and not illegal action has taken place. In a nutshell, the life-cycle of the forest with all activities done by name and time can be supervised / controlled by MHG Forest. With MHG sister company, the FSO team always available to create a model of sustainable forestry starting from forest inventories with novel technology.

How MHG ERP functions in practice:

- Field workers use smart phones by which they can collect data (MHG Mobile application installed with match-made data collection display)
- The phones with integrated camera and GPS work also off-line (not need for Internet connection), the worker/researcher sends the information collected during the day for example in the office to the server clicking a button "send" and all daily data goes to the service (server) including co-ordinates to the MHG Map
- Also PDAs and laptops work similarly but inexpensive smart phones are preferable.

Why should a company implement MHG ERP service:

- To improve your company's profitability.
- To rationalize your business operations.
- To achieve cost savings and improve cost-efficiency in your work.
- To get more freedom – Internet and mobile solutions are easier and more flexible to use than software installed on workstations.
- To follow the current trend and step into the Internet era and mobile solutions.
- To improve your company's working methods and user comfort.

- To rationalize the work of your own organization, contractors and subcontractors and to increase flexibility and options at work.
- To be able to schedule your company's and contractors' capacity according to both existing resources and the need for additional ones, and also to schedule projects and single tasks.
- To make it easier for new customers, contractors and other operators to become your partner.
- To facilitate your company's faster growth or to manage your production volumes if the demand decreases momentarily.
- To improve customer service and cooperation with your customers and partners.
- To allow your own staff to work remotely and improve job satisfaction.

Included in MHG ERP package are MHG Bio-energy ERP, MHG Forest Fire ERP, MHG Fire Fighting ERP, MHG Map and MHG Field Work ERP (=MHG Forest+ MHG Mobile; service for field work management).

One interesting product of MHG which is seen to have a potential market in Africa is new FireFighting ERP. The system can tell and know in real time where the fire is, where the people are, where is the workforce and where are the resources

They have targeted pellet plant consultancy and related drying technology with their main consulting partners being a Polish pellet manufacturer Jan Bocian and the Finnish Pellet Professor Lauri Sikanen of UEF (University of Eastern Finland)

They also have MHG Bio-energy ERP, which is a mobile (mobile devices such as phones, PCs, GPS) management system for the procurement of the feedstock to the industry. The system is offered by MHG Systems Oy.

FSO also offers bio-energy related assessment and evaluation services and other consultancies related to logistics, forest asset and agricultural resources evaluations to back up the investment plan for the bio-energy utilization. The company also offers full-scale feasibility studies for their clients in Africa; two of their owners have substantial African experience.

### 2.3.3 CodeSoft Limited/ABES Solutions

#### 2.3.3.1 CodeSoft Limited

CodeSoft Limited innovation allows them to provide the following turnkey solution to their customers:

- Software Development (Internet And Desktop)
- Computer Network Engineering
- Database Design and Administration
- Operating Systems Management and Services
- Web Site Development & Services
- Server Based Administration(Windows, Unix, Linux)
- MIS Consulting
- Business Outsourcing
- IT Staff Argumentation
- ERP Integration

What gives the company a bigger advantage is that technically, it comprises of a consortium of information system houses:

#### **Crysol Systems Limited and PROWEB Limited**

Crysol creates professional and customized solutions that are functional and appealing to the target audience. They possess the skill, creativity and the passion that enable them to develop business application solutions with designs limited only by imagination.

Proweb focuses on website development and applications for corporate bodies. All of these information system houses have more than 5 years of experience. Other partners Include GAMMA GRAPHIX, Stream Solutions and AVOT solutions.

The consortiums help each partner to get support from the whole family to help their organization achieve their goals. Some successful clients of Codesoft are shown in table 1 below.

**Table 1 Successful clients of Code Soft Ltd**

Staples Systems	Electoral Commission of Ghana	EPP Book Services
Arul UK	Ghana Export Promotion Council	Export Development and Investment Fund
Ghana Health Service	Internal Audit Agency	International Organization for Migration
Afram Bookshop – Accra , Kumasi	Women’s World Banking Ghana	Ghana Stock Exchange
Parlays Ghana Limited	National Population Council	Ministry of Health – Ghana
South Ghana Conference (SDA)	West African Gas pipeline Company	Ghana Wildlife Society
Zenith College	Ghana Maritime Authority	Ghana Education Trust Fund
Securities and Exchange Commission	Kakum Rural Banks	Rhema Systems & Associates
Deon2000 Limited	Toyota Ghana Limited	
EPP Book Services	Staples Systems	Margins Group

### 2.3.3.2 Atlas Business Energy Systems (ABES) Solution

ABES provides Wind, Solar and Biomass energy products and solutions.

Their services include feasibility and research studies in the areas of renewable energy, education in energy savings and efficiency and technical support.

### **3 TARGET MARKET AND MARKET PENETRATION STRATEGIES**

#### **3.1 Business culture in Africa and Ghana**

Culture, as described by Prof. Geert Hofstede, is a source of conflict than of synergy. Many European businesses sometimes fail in Africa because these companies come to Africa and make decisions based on how they operate in their home countries. One personal experience shows that many foreign companies come to Africa with the perception that Africans have a clock but they do not have time. One important thing businesses should understand is that, things work differently everywhere based on the environment. This means that for one to succeed in a different business environment the need to get him or herself integrated to the environment is the most important thing rather than lifting one's culture to the environment.

To enable MHG Systems Oy Limited to succeed with their Ghanaian partners, (Codesoft and ABES), it is important to give the company an insight into the business culture in Ghana for a stable and long lasting partnership.

The following will be based on Geert Hofstede analysis of cultural dimension.

The long term democracy makes Ghana an excellent place for companies to prosper. The popular Ghanaian hospitality always makes investors to feel at home. Morally; Ghanaians are among the most cultured people you can ever find anywhere.[16].

Research which was conducted to solicit the views of indigenous and expatriate business executives in Ghana clearly indicates a complete opposite business culture in Finland compared to business culture in Ghana. The only thing Ghana and Finland have in common is that both countries are Christian countries. The result of the research shows that power distance is relatively big and management is not easily accessible in the Ghanaian business culture which is an unequal society. This means that one voice does not sing well in the Ghanaian society. Indirect approach is the best

strategy for business consultation with regards to structural changes because some are more unequal than others. There is a huge gap between subordinates and superiors and information cannot be released by a subordinate without having been authorized by his supervisors.

In my opinion this kind of business culture in Ghana and Africa as a whole is not the best since it goes a long way to prolong business deals especially in a situation where urgent information is needed. The people should be given the power to be part of decision making process.

Compared to Finnish society, Ghanaians are collective in nature and not individualistic. Family ties are important to them in terms of doing business. They have strong cohesion in group with those they are related with. One should not be surprised if in a business meeting with individual business owners, their wives represent him. This is done in most family business to protect their loyalty [17].

Ghanaians like to maintain dignity, honour and a good reputation. What makes the culture collectivism is the fact that, the entire family shares any loss of honour. However, to protect this sense of face there is a need to maintain a sense of harmony; people will act with decorum at all times to ensure they do not cause anyone embarrassment [18].

Women are not easily found in higher positions than men. This makes Ghanaians to be more assertive in nature. The business culture could be said to be masculine compared to Finland. Ghanaians are long term oriented people. They do not just do things for seek of law. Ghana has a high uncertainty avoidance culture. The business culture does not orient people to take risks.

In a nut shell, the society is hierarchical. In a group one can always see preferential treatment for the eldest member present. This is directly linked with responsibility, people expect the most senior person to make decisions that are in the best interest of the group. [18]

### 3.1.1 Business etiquette

The language of business in Ghana is English. Ghanaians feel comfortable communicating with their foreign partners in English than any foreign language.

In the Ghanaian culture the use of "We" is very popular. Furthermore the frequent usage of the "please" is used in both formal and informal discussions. As evidenced by the Chief Executive Officer of Intercom Programming and Manufacturing Company , a foreign company in Ghana, Amar Hari, As soon as you land in Ghana the first greeting from an Immigration officer you will receive is "AKWAABA" meaning you are welcome. This greeting continues whether you visit someone's office or home. The warm Ghanaian handshake with a snap on your middle finger clicking your heart has become the African handshake. No sentence in Ghana starts and ends without the punctuations of "Please" and "Thank you"

Greetings are most often followed by shaking hands instead of nodding. The use of left hand is for giving out things or waving at anyone is unacceptable and regarded as an insult.

Maintaining eye contact which is important to the Finnish society during discussions is completely opposite in Ghana. The society is not familiar with the act of looking straight into the eyes of other people during face to face or one on one discussion. Shying away of not maintaining eye contact does not imply any hidden agenda in the Ghanaian perspective. To a Ghanaian, it is a sign of respect. It is considered disrespect to look straight in some one's eyes especially older people.

Ghanaians like to listen more than to look straight into one's eyes. [19]

Ghanaians shy away from looking into your eyes but bow down their heads with continuous nodding. Joke is one popular thing among the Ghanaian. Do not find it uncomfortable if a Ghanaian cracks jokes to start an official meeting. It's a sign of sharing anxiety and depression off before anything begins.



It is always appropriate in the Ghanaian business atmosphere to enquire about people's health before a start of meeting. No matter how much you are behind time, take few seconds to enquire about people's health, family and jobs. To rush a greeting to start a meeting because you are running out of time is extremely rude in the Ghanaian society.

### **3.1.2 Style of communication**

Ghanaians are more indirect communicators. Ghanaian love to maintain a harmonious relationship. They are not used to straight talks. This means that they find it uncomfortable when they disappoint someone in a business deal. They are careful in relaying information in any way that could cause chaos or issues that bring someone bad news, turning down an invitation, refusing a request or any other such matter.

Ghanaians would rather "save face," (whether it's their face or yours) than create discomfort. Sometimes this is done with the use of proverbs, wise sayings, and analogies readily to illustrate a point. Silence is another common way of responding to a question than a question that cannot be answered without causing discomfort. In other words silence is a common means of communication. Ghanaian would choose to say nothing than to make the other person uncomfortable. [20]

### **3.1.3 Business Meetings**

Initial meeting in the Ghanaian business culture is all about learning and finding out about one another and if a personality fit allows for future, more business specific meetings. Therefore, one should expect to spend a great deal of time in relationship and rapport building. Surprisingly business is not really discussed much at all at the first business meeting. They believe in face to face discussion more than internet [20]. Ghanaian will not like to do business with someone they have never met face to face one as it is commonly found in Finland because the people are more used to doing business on the internet

First meetings may also tend to be a little more stiff and formal but once a rapport has been established they tends to be informal. This means that first meeting is where one decides whether to meet again with you and talk business. At first, they tend to be more reserved but once a rapport has been established, they loosen up and find great pleasure in joking and teasing people. They have a keen sense of humour and enjoy telling jokes. If a Ghanaian teases you take it good-naturedly. Culturally, this shows that they are becoming more relaxed with you.

Always greet the senior person first before acknowledging his or her subordinate. Be sensitive to titles, whether honorary or professional, as well as surnames. First names are not commonly used to address older people or people at high positions. Do not use first name until you have been invited to do so. After a business meeting or discussion with a business partner shake hands while maintaining friendly eye contact, then exchange business cards when appropriate. When in Ghana, be aware that people of the same sex are fond of holding hands. It's a sign of friendship and not how it is interpreted in the Finnish culture.

Offer or gift is common among business people in Ghana. Learn to get used to giving gift with both hands and your right hand. The gift does not need to be expensive, but the gesture is a sign of respect and friendliness Ghanaian children always enjoy receiving a gift, no matter how small. [20][21]

Children and wives are influential and can easily convince the parents or husbands in accepting you as a business partner. They are talented in knowing the intention of a business partner at a first meeting with their parents and husbands.

A Ghanaian business partner would always prefer to entertain you and accommodate you at his or her home rather than a hotel. Do not be surprised if a Ghanaian business partner offers you free accommodation in his or home rather than allowing you alone in a hotel. They always want you to feel at home and enjoy the Ghanaian hospitality.

Do not give in return instantly if during your entire business trip you are accommodated and fed for free of charge throughout your business stay in Ghana by your partner. If you want to give something to subsidize the spending he spent on you do it on the last day of leaving for your home country. [20]][21]

### 3.2 Ghana as a Good Investment destination

Ghana is not the only African country considered to be the best place for Finnish investors to go with clean energy technology. This is because Africa as a continent is faced with numerous problems regarding waste management. Therefore waste to energy technology such as biomass energy and recycling of solid wastes are lucrative businesses in Africa.

However, the question of why Ghana stands tall in this perspective as one of the best investment destinations for Finnish investors is the fact that, Ghana supports every feasible venture and encourages, in particular, small and medium scale ventures in all sectors of the economies. The country is economic and democratic development and global participation in global peace keeping has attracted the attention of Finnish stakeholders on November 10th 2009 the Finnish Ambassador to Ghana ,Ms Anneli Vuorinen paid a courtesy call to the President of Ghana and expressed Finland's willingness in doing business with Ghana .As describe by the adviser to the Commonwealth Business Council (CBC), Baroness Lynda Chalker, "the government's renewed commitment to good governance and development of the private sector makes the country the best investment destination." Ghana, according to her is also the most stable, peaceful, secure and most reliable place to do business in Africa today. This fact is also evidenced by the 2009 Global peace Index [22].

The Global Peace Index demonstrates the image of the country as one of the best places in the sub-region for investors. Out of 140 countries, Ghana was ranked 52<sup>nd</sup> 40th in the 2008 and 2009 peace index and among the first five countries in Africa identified by the Institute of Economics and Peace in the 2009 ranking [22]

Other factors which make the country a conducive place for investment include the following [Government of Ghana webpage]:

- Ghana has a stable political environment.
- A demonstrated commitment to the philosophy and practice of market liberalization policies as evidenced by the ongoing success of the Economic Recovery Programme [23].

- Investor's confidence in the country's economy as evidenced by major successful investments in most sectors of the economy, particularly, the mining sector [23].
- Availability of low-cost labour and a good supply of trained and trainable labour. [23]
- Availability of a stock exchange and other emerging financial markets [23].
- Progressive institutional development as evidenced by the process of establishing export free zones and factory specific export processing zones for existing firms, as well as emerging bank and non-bank financial institutions [23].
- Ongoing donor and government support for infrastructure development, electricity and water supplies, transport and communications [23].
- Quota-free access to United States of America and European Union markets [23].
- Strong private sector advocacy groups such as the Private Enterprise Foundation and the Private Sector Advisory Group [23].
- A strategic location for communication facilities in terms of international commerce and [23].
- Warm and friendly people and a high degree of personal safety [23].

### **3.3 Promotion of private investment in Ghana**

To create an enabling environment for investors, the Ghanaian government has over the year's reform the Economic Recovery Program. This reform was done because the Government recognizes with concern that the private sector is one of the engine of growth for the country's economy. The legal framework governing the activities of the private sector now provides numerous incentives and benefits. Initial interest has been rekindled with the help of the Ghana Investment Promotion Center (GIPC) Act, 1994 (Act 478), and the Minerals and Mining (Amendment) Act, 1994 (Act 475), which appear to have relieved investors of the unintended obstacles imposed by previous legislation [23].

Private investors now benefits from the macroeconomic and sector reforms instituted under the Economic Recovery Programme . Notably among these, is the rehabilitation of economic and social infrastructure, the liberalization of imports and foreign exchange, as well as easy remittance of dividends, profits and fees abroad as provided under the GIPC Act, 1994. Also, trade regimes devoid of public intervention and

reforms that have reduced company taxes in the manufacturing sector has helped to make the business climate more conducive to Investment [23].

To reduce non commercial risk, Ghana is now a member of the Multilateral Investment Guarantee Agency (MIGA) of the World Bank. This has however made it possible for the government to provide international insurance coverage for investors in developing countries to reduce non-commercial risks. To ensure effective and efficient security to foreign nationals doing business in Ghana, the government entered into bilateral Investment Promotion and Protection Agreements with a number of States and the Government hope that similar agreements will be negotiated in the future [23].

Furthermore, in order to sustain efforts to improve the investment environment, the Government, through GIPC, has come out with an “In-country Investors” outreach programme. This program holds periodic consultations with specific country investor groups in order to discuss possible solutions to problems facing foreign investors. Also many seminars and conferences are held frequently both home and abroad to promote investment opportunities in the country, focusing on the prevailing stable macro-economic framework and the attractive and enabling investment environment [23].

### **3.4 Doing Business in Africa: Finnish Perspective**

Despite political tensions in most African countries and development challenges, crises is reducing and Africa is moving .According to the Senior Advisor of Finnish trade policies and developing countries, Dr Antti Loikas, Africa is integrating in the global market and will rise its share in the market. [24]

To the ministry, Africa will take it's share as an important trade partner of Finland since 4 billion Euros is allocated for development of Africa infrastructure. However the aid for trade is one way Finland can support Africa and this can be done if Finnish companies integrate in the market. Energy and clean technology is what the ministry

aimed to enhance in Africa especially in the rural areas. According to the ministry, Finland is producing goods and services and Finland is one of the world net exporters of high technology in this respect. [24]

It is an undeniable fact that many Finnish Investors and entrepreneurs like to do business in Africa but research conducted by EXIMIM [25] noted many things as some of the reasons preventing them from doing business in Africa. They include the following:

- Economic and legal environment: These are leading factors considered by Finnish companies when doing business abroad including Africa
- Customers, business consultants and international trade fairs are viewed by Finnish companies as being the most important source of information when doing business in Africa.
- Difficulty in finding reliable partners, lack of qualified personnel and lack of information on market are the main barriers in doing business in Africa.
- Increasing sales and market expansion

The African and Finnish trained students in Finland can bridge the gap of quality personnel because they have been accustomed to the two cultures and lead these investors to their respective African countries.

## **4 CASE STUDY, MARKET FINDINGS AND SWOT ANALYSIS**

This chapter looks at the main concept of the thesis. It highlights on the various strategies which were used to achieve the result of the thesis. It stresses more on the market findings, case study and SWOT analysis of the recommended partners.

It looks at how the first approach in this thesis failed and how a new approach was adopted to achieve the result. The model of the proposed network is shown in this chapter. This model is nicknamed the BMP Model for Africa (Bioenergy Market Penetration Model). The model underlines the products intelligence that each network player brings into the network to ensure smooth penetration. The significance of this intelligence is to break through the “survival steps” in the market, thus the barriers in the market.

The top performers in Africa by country in order of ranking are also discussed in this section. This is to show MHG where it is safe for them to operate. The case of the success of the United Arab Emirates who are the pioneers in the market has been discussed in this chapter. The idea of this is to help MHG to work out strategies with their recommended partners and network players to fight the price war with reasonable price in the market.

### **4.1 Analysis of the Success of United Arab Emirates in Africa as a Guideline for MHG/Feedstock Optimum**

The United Arab Emirates, a traditional trade partner of most African countries, has been one of the main beneficiaries of the market. Its geographical location and well established business contacts have helped them to establish a niche for themselves in the African market, especially in East and Central Africa.



The success of the UAE in promoting their services and products has been recognized by many business experts as a threat to the monopoly of European and South African businesses which have dominated the African market for a long time. Price competition had always been the woe for the Europeans. Sources indicate that the price of the Europeans and the South Africans are unable to compete with the price of the UAE goods and they are losing their traditional markets to the UAE. Kenya, for example, had been a permanent market for South African and British goods for the last two decades. Yet, the UAE has emerged as one of the top three trade partners of Kenya in the last five years. Other countries in Africa are also slowly seeing the benefits of doing business with the UAE and are emerging as major markets for UAE based traders and manufacturers. East Africa has already emerged as one of the fastest growing markets for Dubai. There is also a bigger talk that the UAE will capture a great deal of the East African market once the political and economic situation goes down in countries like Congo, Eritra and Kenya.

The future of UAE's business with Africa is seen to be bright, provided the efforts made by the public and private sectors to provide information and support are maintained

The UAE based firms believe that Africa is a sizeable potential market that they cannot afford to ignore. One of the keys to successful business with Africa is a good understanding of African business culture. How does African business culture differ from the Middle Eastern business culture? How should Middle East companies introduce themselves to the African buyers? These are important questions for the local entrepreneur because success or failure in Africa will depend on the ability to understand and adjust to Africa as dynamic market.

The complex and changing African environment requires businessmen to have a degree of flexibility. The potential for turbulence requires businessmen to monitor and assess the political risks in the countries with which they are doing business.

The diversity of the African culture if understood will in no way hinder your success in the market. To manage these cultural differences, one must understand the need for personal relations and the role that connections play in African business and the African respect for hierarchy, titles, and age. [26]

## **Analysis and Conclusion**

It can be observed from the case that the success of UAE is their ability to offer good price for their customers. It was mentioned that the European and South African goods are unable to compete with the price of their products. This has made them to lose their traditional markets to the UAE. This was also confirmed by the manager of EXIMIN in a verbal conversation.

This means that if MHG should decide to go into the market they must not lift the price from Europe to Africa. As advice in the case they should also realize that certain practices that are not tolerated or permitted in Finland may be rampant in Africa and must draw a line, making a decision from the start and sticking to it. The rule of thumb is to do what is legal and avoid what is illegal.

MHG/FSO should know how the rules operate and that often laws are openly broken because of lack of enforcement. Also, they must understand that although African workers have a positive work ethic, they may lack the motivation and the skills for high productivity and that Africans tend to be communal, emphasizing collectivism instead of individualism.

In the same way they must note that there is often a clear definition of gender-based roles. The cultural difference does not mean MHG should condone and connive with bad habits. The focus should be on marketing strategy and not moral behavior.

Inter-cultural business is always a challenge; African business is no different. But with the cultural knowledge presented here, MHG, if they keep an open mind, should be able to proceed with confidence that they will reap the many profitable rewards the dynamic African market offers. [26]

## **4.2 MHG Partnering Strategically with Local Ghanaian Firms**

### **4.2.1 Market Findings and Alternative Action**

During the survey in this thesis in Ghana to find out potentials customers for MHG ERP products, information flow became a problem. Most of the companies who were contacted (Appendix 1) to find out their system of operation were unwilling to give out information. A company like Ghana Bio-fuel, a Norwegian based biofuel company, requested that their head office is contacted for any information needed about the company.

The local firms who were contacted were also found to be satisfied with their traditional way of managing data in the company. The lists of some of the contact companies can be found in the appendix 1.

Some contractors were also skeptical because most of their employees are illiterate and thought it is a huge investment to implement such a system in their existing business model. The so called bigger firms were using a similar ERP system and they also seemed to be satisfied with their systems.

With regard to the power industry, one problem encountered was that they were not ready to communicate their problems for an unknown reason. In my opinion, the reason was that most of the industries in the bio-energy sector are branches of European and American companies. So releasing basic information was difficult for the branch managers. They considered that information is insider information and if needed permission needs to be granted from head office in Europe.

In the electricity distribution companies, which were one of the biggest industries, a reliable source told that, MHG power ERP is not specifically designed for their current value chain yet they were not ready to communicate the bottlenecks in their current system even though MHG Systems Oy were ready to discuss their problems with them

and design the ERP to suit their needs. This together with other investigations into the oil sector clearly show that market exists for MHG ERP but it is unpredictable because of existing systems. Having established this fact, a new approach was developed to reach these companies in long term.

### **New approach**

After discussing the result of these findings with the EXIMIN manager (Dr Adebayo Agbejule) who has many years of experience in the African market, the idea of finding partners for MHG came out of the discussion instead of continuing to look for customers directly for MHG which prove no promising.

In an effort to find out the competitiveness of ERP in Ghana, a local ERP provider, SOFT tribe, which has carved itself a niche in the Nigeria ERP software market, reveals that the market for ERP software in Ghana is limited as compared to Nigeria. It is estimated that in 2004 the market in Ghana was U.S\$ 15million as compared to U.S\$ 700 million in Nigeria [27].

The decision of the Software giant, SOFT tribe Ltd with its chairman and founder, Herman Chinnery -Hesse ,carved itself into the Nigerian market due to dual challenges of international competition and a small home market including labour mobility and the likely success of locally generated products [27]. These challenges facing local companies in Africa were found to be an advantage for MHG for partnering with local companies instead of foreign companies. The partnership will help them to add value by implementing MHG ERP into the partner business model via interface. This approach will give MHG and its partner an equal market share.

Market research conducted by SOFtribe also indicates that the market for ERP products in Nigeria is concentrated in Lagos and Port Harcourt. The market there is viewed by Softribe to be a potential place when selling to the oil industries [27].

What also gives MHG systems Oy advantage in the market is the fact that as a foreign company they are also regarded as experts as SOFtribe is also regarded as expert in

the Nigerian market and can easily penetrate the market. The price is also important due to the fact that local companies provide lower cost to customers with the same quality. Hence any price lifted from Europe to Africa by MHG is not a good idea and can lead to failure in the market. This however calls for creating interfaces through their partner's platform to reduce investment costs in the African market whilst maintaining quality.

In spite of the bigger market for ERP in Nigeria, the idea of focusing on the Ghanaian market should not be disregarded. This is because the regulatory frame work instituted by the Energy Ministry has created an enabling environment for investors in the Bio-energy field and this is attracting many Energy companies into the market.

Investors enjoy tax incentives when they partner with a local company. Hence if MHG partner's with a local company they will be given a "tax holiday" if the agreement is technology transfer. This conducive environment created for investors is making the country one of the safest places of operating a business. Having a local office in Ghana to expand to other neighboring African countries is a good decision because of the political stability in Ghana and the respect for human rights.

### **Turning local competitors to partners**

The idea of getting partners for MHG /FSO was a good idea but convincing the partners was very difficult. The reason is that many local small enterprises have over the years experienced setbacks as a result of partnering with foreign companies. The truth is that their foreign counterparts always ended up making profit at the expense of them. In other words many partnerships had always landed on a win –lost foundation and local companies always became victims.

Despite having been working as a researcher for MHG/FSO, I also deemed it fair to find out the motive of the company so that no partner would works at the expense of the other.

It was during this investigation that it was established that MHG has over the years had a fair business deal with their partners. This reflects in the business culture in Finland. Their principles had always been on win-win concept. This transparency was found out to be a strength of the company.

After turning all contacts of friends in facebook and classmates into connections, it became easier to contact the companies directly. This strategy adopted is evidenced by the master networker, Ivan Misner. He mentioned in his book, *Networking as a Pro* that in developing ones networking strategy, "it's always important to think of your ideal network a broader, powerful river being fed by several smaller streams, each providing distinct set of contacts as well as unique opportunities to make ones network deeper, stronger, and more diverse." [28]

In my opinion, this strategy was adopted because of internet fraud. Personal experience revealed that there have been many cases where foreign companies who rely on internet for partners end up dealing with non existing companies. Moreover the business culture in Africa because of the myth of internet hackers refrained many companies from talking business on the internet. As a matter of fact it was a secured strategy for MHG Systems Oy to be convinced of not dealing with companies that do not exist.

With this strategy many companies were contacted to ask their consents for partnership but only three companies showed interest. These companies were Code Soft limited, Ghana, Atlas Business Energy Systems, Ghana and Company A. At the time of writing this thesis report relationship building is still ongoing. But the controversy that arouse during the relationship building stage singled out Company A. Their interest differs from MHG interest and it was not a good starting point for partnership.

Initially in the thesis, the main Ghana's IT giant company, Company B was the main target. They showed interest in the beginning but later declined to response to emails for an unknown reason. But it is never a threat for MHG Systems in spite of them being stronger in the market.

In addition to this, their presence in the Nigerian market is also not a threat. This is because MHG's partner in Nigerian will help dominate the market. But MHG should be careful about price since Company B offers low prices to their customers with almost the same quality of product but MHG cloud computing technology still gives them competitive advantage.

Aside all these, MHG partnership with Ghana Code Soft Ltd is an extreme advantage despite being a young company. Code soft being a competitor of Company B gives MHG the upper hand on the market. Their experience in the software industry is enough to be strong partners. Their innovation in financial aspect of ERP gives MHG Systems Oy a real opportunity to create interfaces via their platform to integrate MHG ERP solutions in their model. It will also help MHG to develop the financial aspect of their ERP to meet certain demand.

Codesoft electronic ERP's are good platform for MHG to showcase their products. Below are their current electronic ERPS' products on the market:

### **Financial apps**

- Purchase Management
- Inventory Management
- Order Processing
- Financial Accounting
- Asset Management
- Payroll Management
- Statutory ( VAT , EXCISE , SERVICE TAX , e-TDS )
- Administrator

### **ePro apps**

- Order scheduling and execution
- Tracking and genealogy
- Resource management
- Multi-site production synchronization

### **e Exports apps**

- Shipment Export
- Export Documentation
- Advance Report Designer
- Email Facility for Documents
- User Friendly Interface
- Flexible Operation

### **e Businesss suite**

- Integrate with existing operational systems such as ERP and databases
- Integrate business processes with those of a company's suppliers and partners
- Incorporate the business rules that guide a business

Code Soft's senior consultant, Kwaku Nyadu confirmed that Code Soft is strong in many private sectors. Codesoft's niche in the Liberian market makes MHG Energy ERP's competitive in Liberian because of the reconstructions of infrastructure after many years of civil war.

The initial idea of MHG looking for a partner, who already had customers in the energy sector, was deemed impossible even though some companies may have one or two customers. But MHG should not forget that bio-energy is a new business in Africa and it is not easy to get a partner who has customers already which can be match with them. MHG should understand that Africa does not need any advanced technology. The need to combine local knowledge with their state-of- the art technology will help them solve problems in Africa.

As indicated by the EXIMIN's project manager, European companies should not go to African markets with new innovations. They should go with what African needs and progress with new innovation. With this the likelihood of making huge profits whilst satisfying the need of the people does not lead to mismatch. [25]



That is exactly what MHG/FSO should do and work hand in hand with their partners. This will help them cut down costs to enable them to fix reasonable and fair price.

#### **4.2.2 Approach for Products Launch for MHG/Feedstock Optimum**

Launching a product in Africa is one simple thing yet it may be difficult for any foreign company who is not familiar with the African business climate and environment .In my opinion this reference to culture is not a good idea always for the continent. Instead they should be the need for the tool to enhance economic development and growth and give power to the people. It is high time the continent ought to think of progress instead of drawing reference to cultural which only threatens investors in the market.

The best effort ever for the African environment for MHG to launch its products is to associate themselves to reliable and efficient business partners that specializes and promotes businesses in the African market. These organizations do not have only the necessary experience and expertise, but also the right contacts to help MHG in their marketing effort. But in associating themselves to such organizations, the organization should understand the business culture in Finland.

EXIMIN as a recommended network organization has the same and similar business model like MHG.EXIMIN's experience and influence on stakeholders in the environment makes it easier for MHG to design the right framework to penetrate the market. What makes this collaborative approach effective for MHG is that, communication is indirect.

Therefore the best strategy for product launch for MHG is to talk to Fabric Oy whose primary objective is in connection to listening to Africa .They should discuss their objective with the EXIMIN team since they are primarily concerned with export and import innovation for Africa and Finland. When this is done, they could easily be a link to professionals as well as product developers in the bio-fuel field.

However when this is done, on the launching day, stakeholders in all the targeted sectors should be given special invitation to be special guests .This will encourage them to learn more about what MHG has for the sub-region. One open secret in Africa

is that chairmen's of occasion during product launch always ended up marketing the products for the company. So the presence of such personalities is always important.

### **4.3 SWOT Analysis of target companies and competitors**

SWOT Analysis means finding the strength and weaknesses and also opportunities and threat of an organization. It is a tool for auditing an organization and its environment. It is the first stage of planning and helps marketers to focus on key issues. In SWOT, strengths and weaknesses are internal factors. Marketing experts' advice that SWOT analysis can be very subjective. Hence company should not rely too much on it to make judgment. It should rather be used as guide and not a criterion. Due to this the SWOT of Codesoft and ABES were not used as an obligatory factor to judge the strength of the company as partners. The research was concerned about their competitiveness including their strategic approach and the possibility of matching their customers with MHG and FSO Ltd.

In spite of this, the research indicates that young companies can acquire better reputations, access to valuable resources, and access to other important relationships by initially establishing relationships with prestigious partners. It is established that young companies with prominent business partners perform better than firms that lack such partners. Hence MHG/FSO being strong partners will motivate both ABES and Code soft to enhance their marketing power and together work as profitably as possible. [29][30]

#### **4.3.1 Case of CodeSoft Limited as a partner**

After analyzing the strengths and weaknesses of Code Soft Company, it was observed that Code Soft is a young company and it is confronted with financial constraint. The reason was found to be the fact that continuous training of project employees in the company to update them with modern trend of carrying on various applications has

turned to take a toll on the overall company's cash flow. In my opinion, this knowledge base is an opportunity for MHG in terms of adding value. In spite of this the company has a market for their innovative product like ERP and the knowhow for designing new products is available.

However, due to the fact that the core businesses of MHG and FSO lie in bio-energy and forests field, the need to revamp this partnership with Code soft by having another partner whose core business lies in bio-energy was found to be a good idea. This means that if MHG goes into partnership with two companies in the Ghanaian environment where one possesses the technical knowhow and the other the understanding of bio-energy concept and technology as MHG/FSO is an advantage. If this is done, the possibility of designing a specific product for the environment through this alliance will put MHG in a better position in the West African market. This is where the idea of Atlas Business Energy Systems (ABES) becomes important. The presence of ABES in MHG network does not only contribute in promoting MHG products but offers a platform for FSO presence to be felt in the West African Environment. The enabling environment created for private sector participation in the energy sector in Ghana is presenting a future market for FSO turnkey solutions.

As at the time of writing this report to achieve this result, an ongoing talk with the leadership of ABES is still underway to get the partnership rock and roll. The predictions and the analysis too has been done in the Nigeria by one of the external network players, Mr.Obi Ummunnakwe. He foresees eight potential customers for MHG after a market survey and personal influence. Appendix 1 shows the list of the companies.

In a survey to estimate how much money MHG and CodeSoft Limited could earn together by adding value of MHG in year 1, 2 and 3. The Code soft team projected \$100,000 in the first year with an exponential increase of 50 % every year. This projection in my opinion is not bad. Also one important point which is worth mentioning is that profit in African market is like pieces of cake. You do not see it but when brought together you will realize how bulky it is. This means that prices of goods are low but

you turn out to sell more and ROI becomes higher than if you had sold at higher price which attract only few customers. That is one major threat to be identified in the Africa market thus price war by competitors. This is because information management is new in the environment because of their traditional way of managing data.

#### **4.3.2 Case of Atlas Business Energy Systems**

To overcome the weaknesses of Code Soft as partners, partnership with ABES was sought. ABES understood bioenergy business and alliance with them will help smoothens the partnership and get MHG's message across. Atlas Business Energy Systems combines Finnish technology and local resources to realize its renewable energy dream.

These core advantages place them in a better position ahead of Code soft as partners. But on the other hand instead of MHG neglecting Code Soft Company, it will be a laudable idea to rather create an alliance with these two companies. This is important because Atlas Business Energy Systems, in spite of their bio-energy experience still lack the real understanding of the need to implement an Enterprise Resource Planning into biomass supply chain. But the exposure of their team in the Finnish environment still gives them the advantage as partners since their board members include bio-energy experts from Finland and are familiar with ERP systems. This does not guarantee the partnership. In both cases MHG should value the learning skills of both partners to create a small pilot project in the West African Sub Region with both Code Soft and ABES based on the ongoing market survey by Code Soft Limited. When this is done the marketing forces of both companies can influence the market by combining expertise to sensitize the public with MHG solutions whilst considering the price.

Also partnership with Atlas Business Energy systems will enhance FSO's business in Ghana since the company has the same business model with FSO. These two core ideas will create a smooth market penetration for MHG to penetrate with their ERP product.

An enquiry made during the research indicates that biomass samples from Ghana which is yet to be tested in Finnish bioenergy laboratories. This is to ascertain which of the biomass feedstock best produces energy in Ghana and its effect to the environment to ensure sustainable delivering of carbon free energy [31].

What makes ABES a strong partner for MHG/FSO is that their employees have the exposure of the Finnish working ethics and education. Therefore they understand what sustainable environment and technology means. This means that if in future MHG/FSO becomes partners with ABES they can help MHG/FSO to design a model that would combine local knowledge to meet the energy needs of the West African sub region.

#### **4.3.3 Threat of HELVETA'S Presence in the Market**

A survey was made during the research to find out the resource management tool the Forestry Division of the Republic of Ghana uses with respect to sustainable forest management. It was during this investigation that HELVETA was identified in the market. HELVETA is a UK based timber tracing Technology Company. This competitor has already penetrated the sector with its ERP product. Upon investigation, it was found out that the company's offer of good price won them the contract and this was lobbied by the Carbon Trust Investment in partnership with Oxford Capital partners, Albion ventures and Success Europe. Their marketing route was found out to be Liberia, South Africa and Bolivia. [34]

HELVETA system uses a combination of satellite technology, radio frequency identification (RFID) tags, barcodes and asset tracking. The software allows real-time tracking of harvested timber as it progresses through different points in the supply chain ensuring that no illegal harvested timber is introduced into the supply chain and timber is not being removed. [34]

CI World™ the trade mark of HELVETA product is currently being used to monitor 2.7m hectares of forest across the Congo and Amazon basins and in South East Asia. Sources proved that, recent major contract won by HEVELTA include; National timber traceability and compliance validation systems in the Democratic Republic of Congo and Cameroon.

Sources also read that HAVELTA is making supply chain intelligence software as it is called in the market, a rapid supply chain governance software platform of choice with countries becoming involved in the EU's Forest Law Enforcement Governance and Trade (FLEGT) process. [35]

According to the source, Ghana was the first country to sign up the commitment of the treaty commitments under FLEGT. That is why the Ghana government selected HELVETA to implement the system in it's for its timber sector. This market expansion by HELVETA was made possible by 5 million pounds by its venture network capitalist with support of the UK government [35].

The system employed in Congo utilized Helveta's CI World™ technology to map, record inventory, and track & trace wood produced from the Congolese forestry sector, from the standing tree in the forest, through wood processing plant, and finally to the nations export gates and local wholesale markets. Helveta is planning to expand into Central African countries where according to them the European Union is a key market [34; 35]

#### **4.3.4 MHG'S Strength Regarding the Already Penetrated Sectors**

From the above, the best way MHG should compete is to penetrate with their Forest Fire ERP which was noticed in the research that it was not included in HEVELTA package. This is the time for MHG/FSO to act through their wide range of networks.

However it is highly recommended that MHG should compete with a reasonable price otherwise they lose the market cheaply to HEVELTA once they know MHG's strength.

#### **4.3.5 Weaknesses of Partners**

One identified major weakness of various partners is financial constraint. This is because they are young companies but they have potential to grow since they have the potential workforce. Their slow growth can be contributed by the fact that, IT and bioenergy are virgin businesses in Africa. The consumer behavior of these products is not perceived by the consumers. But ABES has observed that Ghana stands to benefit if its entrepreneurs take up the challenge to be innovative and work out technological solutions that suit their own environment.

However, they are committed in attracting more Finnish energy firms to partner them to develop renewable energy systems. This means that in the agreement, It is advice that MHG should take major part of the funding of the pilot project. But the advantage of these is that partnership with them in a form of technology transfer and joint venture exempt MHG from tax and free duty of future exported machinery to Ghana [32][36].

#### **4.3.6 SWOT Analysis of MHG in Nigeria**

As at the time of writing this report, the network contact surveying the Nigeria market predicts 2 reliable partners for MHG. He believes in collaborative effort MHG's can get into the Nigerian market.

Mr.Obi Umunnakwe a marketing graduate from Yaba College in Nigerian and a Microsoft professional underlined many threats and strengths for MHG. But he adjudged the threat to be basically an untamed one. According to him, despite these threats MHG ERP is competitive in the market. He believes that aggressive pursuit of purpose in the Nigerian market by other companies had enabled them to outrun these issues and succeed.

It is recommended that MHG should ask him to conduct a detail search and come out with a detail plan that MHG can become alive in the Nigerian market. In my opinion this will depend on the input of MHG to support him to conduct the survey and link MHG to reliable partners.

A full report will be submitted to MHG later should they allow him to do the survey and support him financially to facilitate his efforts.



#### 4.4 Location and market segmentation for MHG in Africa

The question of where MHG should operate in Africa when the company found itself in the market was also one important consideration in this thesis. As many will agree, colonial rule in Africa has done many African countries more harm than good and this presents a negative picture to many businesses in Europe. Because of single story created by people, one will agree with the Nigerian novelist, Chimamanda Adichie that this has gone a long way to become one thing in people's minds and made them to think that Africa is a continent of war, disease and chaos.

This is what has been immersed in the minds of many European entrepreneurs because of media coverage only to ignore this profitable market and lose cheaply their quality and valuable products and innovations to their Chinese and Arab competitors.

One thing MHG Systems Oy should understand is that Africa is an emerging market for their products and what the media show is a stereotype of Africa even though it is true most of the countries have suffered political turmoil. But the problem with stereotype stories shown in European media is that they are incomplete. [37]

This means that no matter how some parts of the continents are torn apart, as the Senior Advisor of Finnish Trade policy and Developing Countries of the Ministry of Foreign Affairs said, despite the development challenges, crises is reducing. [24]

The question of where MHG should operate in Africa is answered by the World Economic Forum. In The WEF comprehensive Africa Competitiveness Report, published in collaboration with the Harvard Institute for International Development. Below are the lists of top performers in Africa in their order of ranking. [38]

**Table 2 Top performers in Africa in order of ranking [38]**

1. Mauritius,	12. Zambia
2. Tunisia	13. Kenya
3. Botswana	14. Uganda
4. Namibia	15. Burkina Faso
5. Morocco	16. Tanzania,
6. Egypt	17. Ethiopia
7. South Africa	18. Mozambique
8. Swaziland	19. Cameroon
9. Ghana	20. Zimbabwe
10. Lesotho	21. Malawi
11. Cote d'Ivoire	22. Nigeria
	23. Angola

The above reports give an estimate of the medium-term economic growth and the control of their income levels. It however measures how competitive the 23 countries in Africa are. The index is based on national economic characteristics of most interested to business, such as transparency in national decision-making, good governance, financing, labour, infrastructure and institutions. As one of the continent's most vibrant economies, Mauritius ranked number one on this list. [38]

This does not mean MHG should ignore the rest of the countries. Some places are not safe politically to established offices to operate. In those places MHG should only have an agent who caters for that part of Africa. The market segment for MHG should focus on the private sector whilst they persevere in the government sectors.

#### 4.5 Picture of the Graphical Representation of the Propose Network

Figure 1 shows the Graphical representation of the model for smooth market penetration for MHG/FSO. The featured network players were carefully chosen on the perception of having the right products intelligence to make a break through by MHG/FSO.

In the model each network player (EXIMIN, FABIC OY & EXTERNAL PLAYERS) possesses at least one solution to the barriers in the market. Therefore they form a cushion for MHG/FSO to break through these barriers which MHG/FSO would have been entangled with if they would have gone into the market with their own initiatives. For MHG to better understand this model, a single line representation of the concept is shown in Figure 5. This model chain has been nick named in this thesis as the BMP model for Africa, thus Bio-energy Market Penetration model

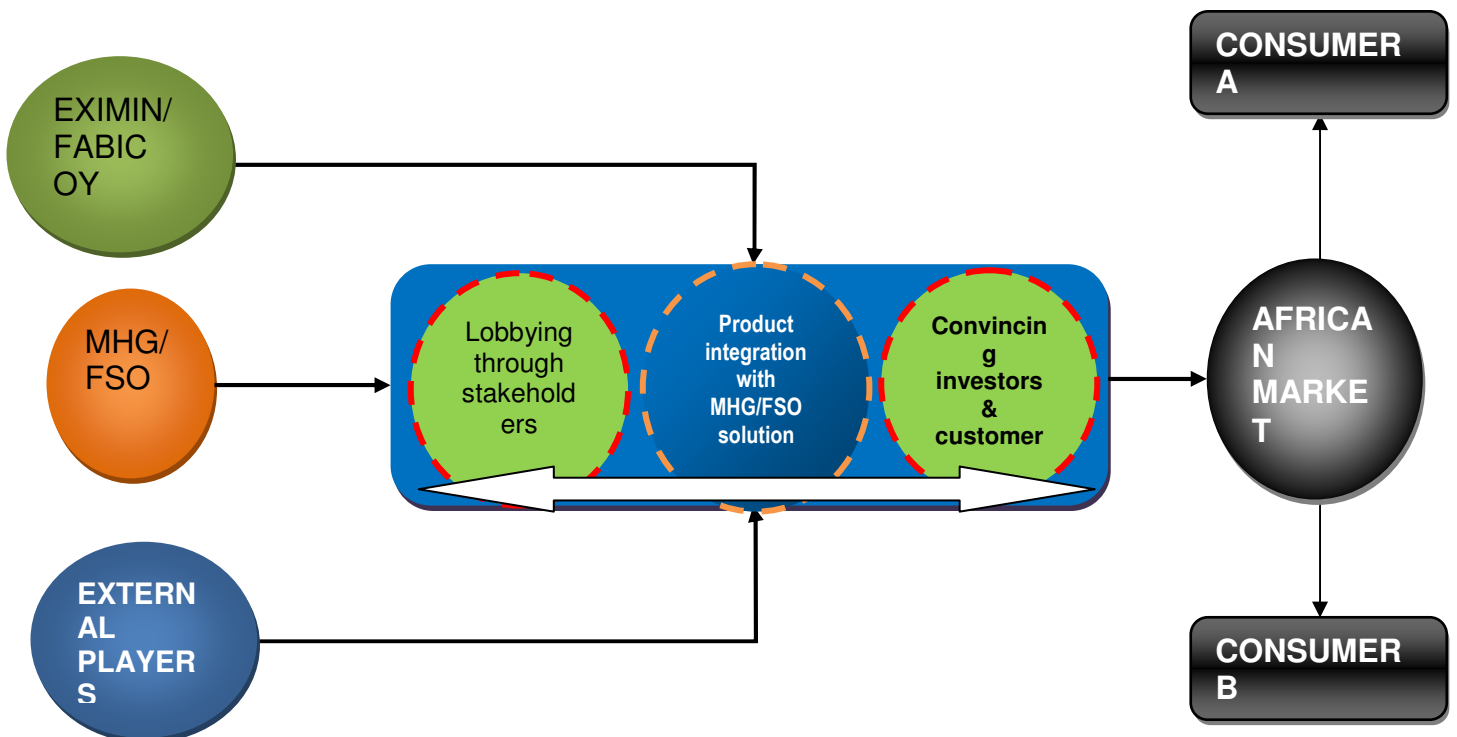


Figure 5 BMP Model for Africa.

In this model, MHG is the IT provider of Bioenergy ERP for managing feedstocks.

FABIC OY brings into the network with its marketing intelligence in linking MHG/FSO to bioenergy product developers. Fabic Oy will help MHG/FSO to expand to other African countries through their network by informing and supplying them with market information and seminars. They will work hand in hand with EXIMIN in lobbying and convincing stakeholders and decision makers.

FSO is the bioenergy technology provider to investors, entrepreneurs and consumers in the market through its partner's solution and product intelligence.

EXIMIN'S presence optimizes the whole chain by communicating MHG/FSO solutions to its clients who are looking forward to establishing bio-energy business in Africa. EXIMIN is also responsible for convincing and lobbying by utilizing its links with stakeholders and investors by promoting MHG/FSO's technology and influencing proposals through its contacts with Ambassadors and high ranking government officials whose voices are heard with contracts regarding energy.

The external partners are the partners whose platform MHG /FSO will work in order not to lose way in the market. The partners will become vendors for MHG/FSO solutions and form an extra eye for MHG/FSO .They will add value to MHG/FSO concept to get a specific product for the market. The external partners also include friends and people whose contacts can be turned into connections to reach to other markets.

The two headed arrow shows the relationship management of all players. The management of all the parties lies in the hands of the researcher who will coordinate all activities to ensure the flow of information in the chain.

This collaborative effort will be realized through license agreements and joint venture partnership on a win- win approach.

## 5 RECOMMENDATION AND CONCLUSIONS

After a couple of months of surveying the market potential for MHG ERP's solutions in Africa, it was discovered that Africa is a very lucrative but it is a price-sensitive market for MHG solutions

The MHG ERP as underlined by the manager of Fabic Oy, who is also a bio-energy doctorate researcher at Vaasa University, said that it has a potential in the market because it will ease the process of bio-waste management in Africa as well as its related issues. Since other students are developing time tested research in this area it will add value to the knowledge base and create a platform for future replication.

Through the research it was observed that bio-energy as a business is a virgin market in Africa which makes the market unpredictable for MHG Bio-energy ERP solutions in the present term. In the long term, the potential of the market is predicted to pre-dominate. As at now HELVETA, a UK based timber tracing Technology Company, is the only competitor identified in the market. There may be other but the research could not establish. One way MHG can avoid competing with HELVETA is simply to collaborate through partnership and fight a common in providing sustainable Green ICT solution to Africa. This partnership is important because it will help fill each partner's weaknesses to have a competitive product in the market which others cannot compete with similar product. It can be foreseen that, MHG's new ForestFire ERP is one competitive product in the market. The product has strong potentials presently but numerous mechanisms and strategies are needed to put in place to penetrate the already penetrated territories but partnership will solve the problem. This can be done through the recommended network organization in this thesis because of its strong links with various African foreign missions in Europe and personal contacts to stakeholders in Africa.

One bigger government contract which was found out in the research awaiting MHG with its Firefighting ERP in the Ghanaian market is the restructuring of the Ghana

National Fire Service. If MHG Systems Oy will play its cards well and utilizes the network of recommended contacts they can win the contract with a strong proposal outlining MHG's plans for the sector. As an incentive they can convince the sector by promoting cooperation between the Finnish Fire Authorities and the Ghana National Service as a form of assisting the Nation in restructuring the sector and in so MHG's Firefighting ERP can be included in the package.

It was also recommended that despite Ghana, being a limited market for ERP products, there is a potential market for the oil industry and waste management sectors in the near future if the oil industry is privatized as in Nigeria. Also because Liberia depends on Ghana's human resources for its reconstruction and capacity building, the opportunity of extending MHG/FSO's solution into the Liberian market is highly possible.

Liberia is indeed an emerging market and it is described by the BMI as one to watch economy in the Sub-Saharan Africa because of the reconstruction of its infrastructure after a long period of civil war. The country's GDP is shown in Appendix 4. The market should be targeted as a playing ground for MHG through its Ghanaian counterparts. [39] This market potential for MHG ERP's solution in Liberia was also evidenced by MHG's potential partner Codesoft which is already in the market with its web solution.

With regards to MHG's future niche into Nigeria and South African market, it is recommended that MHG should continue to rely on the wings of the established network of contacts for MHG in both markets. But, in so MHG should not forget to "rub the back" of all the people helping them. It's one of the business characteristics of the culture in Africa. This will always keep their spirit alive. This is how business goes in Africa. People do not ask for money initially but after achieving success they should be motivated.

However, it is also recommended that with all the lessons learnt during the relationship building phase with Company A, should remind MHG of the 3Ps of African business, thus pensiveness, patience and perseverance. Pensiveness demands the use of

common sense. Success demands a lot of patience and above all they must persevere and be persistent but polite. [26]

In going into the market it is also recommended that MHG should talk to Fabic Oy Ltd whose primary objective is in connection to listening to Africa. They should discuss their objective with the EXIMIN team since they are primarily concerned with export and import innovation for Africa and Finland. If this is done, they could easily link MHG to professionals as well as product developers in the biofuel field.

MHG should not send proposals to the Ghana government without any form of funding. They should always have some partly available fund to finance projects. If they forgo this advice, it will be difficult for MHG to get a bigger contract in Africa because of the unstable economy and the financial crises of various governments.

Aside all this approached, another effective and easy way for MHG to make its presence being felt in Africa market is to establish direct contacts with their business counterparts in the sub-region by participating in Business Trade Fairs as stressed by their Ghanaian counterpart. This will help the company to make noise of its solutions to attract the attention of stakeholders. Internet can be harnessed to promote their products. This can be done by posting their proposals on the African Classified Advertisements section and expect direct responses from their business counterparts in all the African countries.

A personal enquiry made from the African Business directory reveals that the cost of 100 U.S\$ is for simple listing and \$150 for a featured listing for one year. Featured listing means that the organization will carry a full page editorial about MHG Company as well as two pictures of MHG products. In addition to this, MHG will also be provided with a direct link in the Business Links section. [40][41]

However before any partnership agreement is signed in Africa, It is highly recommended that the following documents must be cross checked by MHG from their partners if they are uncertain of their operation. The documentation varies from country to country. In the case of Ghana, the following document must be shown:

- Certificate of Incorporation
- Certificate of commencement of business
- Tax Clearance from the Internal Revenue Service (IRS)
- SSNIT Clearance Certificate.

To sum up market exist for MHG ERP but the market is virgin for their products and collaborative approach is the easiest way to make its presence felt in the market. MHG should not split the partnership with CodeSoft and ABES. They should be made to work as a team to fight a common goal for MHG/FSO.



## 6 SUMMARY

The goal of the thesis was to build and plan a network for market penetration for Finnish bio-energy companies who are interested in doing business in Africa. The idea of the goal was to find markets and help MHG Systems Oy Ltd and Feedstock Optimum to carve itself a niche into the African market.

After intensive research it was noticed that most of the sectors MHG/FSO intelligence lies are state- owned sectors, therefore, collaborative approach was found to be the best strategy in getting them into the market. This is because it was established that one voice does not sing well in Africa and individual undertakings discourage initiatives.

However, the result of this idea was achieved by collaborative approached. This means that a wide network was built with the interest group who is well experienced in the market and through these networks, MHG/FSO was linked to reliable partners who have the same business model as they do and through joint ventured agreement, partnership was promoted among them.

The relationship building phase of the partnership is still ongoing with the Ghanaian partners (ABES and Codesoft Limited). Code soft was asked during the time of preparing this report to conduct a market survey and give MHG/FSO the overview of the potential of their solutions through add value thinking. This approach was found to be a smooth platform to make the presence of MHG/FSO to be felt in the African market. These partners and network players recommended to MHG/FSO will help them to design a price strategy since it was found out in the research that Africa is a price sensitive market and the failure of most Europeans companies had always been the price offer of their products.

With regard to methodology, to enable in-depth investigation and explanation of the subject, qualitative research method was regarded to be the most appropriate for this study. The method utilized includes: market surveys, a case study and interviews with researchers and an interest group who are involved in various energy researches and projects in Africa. All the interviews were digitally recorded with Skype recorder and

transcribed verbatim with the help of Microsoft word processor. Also to clarify inconsistent issues from the interviewees an email communication was used to collect further information. To respect the integrity of the respondents, the real names of some respondents remained anonymous in this study. They were company A and Company B. Also turning contacts of friends in the various scattered social web media like facebook into connections was found to be one effective tool and was utilized in this study. The effectiveness of this approach is evidenced by the master networker of the Entrepreneurs.com ,Dr.Ivan Misner as good approach.

In conclusion, it's a fact that there is an opportunity for MHG/FSO products in Africa and Africa is an emerging market which they should not ignore In going into the market they should be aware of the price wars with competitors. They should be mindful of the recommended 3Ps of African business. As already explained, pensiveness demands the use of common sense. Success demands a lot of patience and above all they must strive and be persistent but polite.

It should not be forgotten that Inter-cultural business is always a challenge but if MHG keeps an open mind they should be able to proceed with confidence and perseverance that they will surely reap the many profitable rewards the dynamic African market offers.

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## APPEDICES

### APPENDIX 1 SURVEY

### CONTACTS OF COMPANIES DURING THE

Ghana

Ghana Forestry Devision

Ghana Volta River Authority

Electricity Compnay of Ghana

Ghana Rubber company

Ghana Bioeful Company

Atlas Business Energy Systems

Softtribe Ltd

CodeSoft Ltd

Ghana Energy Foundation

Ghana Investment promotion council

Ghana Ministry of Energy

Ghana Atomic Energy

### Contacts from Nigeria (Provided by Obi Umunnakwe)

Heyden Petroleum. - Oil and Gas firm

Capital Oil and Gas Limited - Oil & Gas company

Integrated Oil and Gas - Petroleum Marketer

Zenon Oil - Upstream Oil company

Wabeco Limited - Bitumen

May & Baker Plc - Pharmaceutical company with Noodle Food Factory

Fidelity Bank

Skye Bank Plc

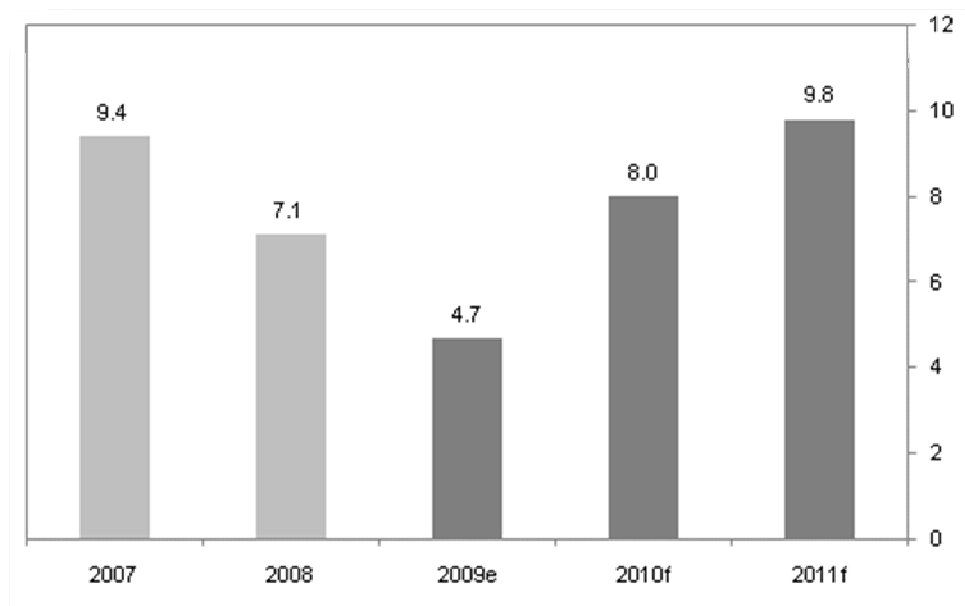
INEC

NNPC

**For partnership:**

SAP Tech  
EiL Telecoms

## APPENDIX 2



Estimated GDP of Liberia [39]

APPENDIX 3

PICTURE OF THE GRAPHICAL REPRESENTATION OF THE PROPOSE NETWORK

