

St. Mary's University
School of Graduate Studies



Challenges on growth of manufacturing industries in Ethiopia
(A case of soap and detergent manufacturing)

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**A Thesis Submitted to the School of Graduate Studies of St.
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DECLARATION

I, **AndargacehwYimam**, declare that this study entitled as “**Challenges of the growth of manufacturing industries in Ethiopia (A case of soup and detergent manufacturing)**”, is my own work.

I have carried out the research work independently with the guidance and support of the research advisor. This study had not been submitted to any degree/diploma in this or any other institution. It is done in partial fulfillment of Masters Degree in Business Administration.

Name of student: _____

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Place:

Date:

ENDORSEMENT

This is to certify that **Andargachew Yimam** has carried out his research work on the topic entitled “**Challenges of the growth of manufacturing industries in Ethiopia (A case of soup and detergent manufacturing)**”, This work is original in nature and is suitable for submission to the award of Masters Degree in Business Administration

Name of advisor: _____ Signature:

Place:

Date:

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It is no exaggeration to state that without insisting the Almighty God, Jesus Christ, would not have been in a position to finalize successfully accomplished of this thesis paper. So, glory to him and his mam.

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Abstract

The manufacturing sector in Ethiopia operates at very low technological level well behind world technological standards even in the activities in which it specializes. Imports of licensed technology are negligible with no sign of increase. The world market for soaps and detergents is valued at \$38 billion, the equivalent of 35 million tons of products. It is a highly concentrated business with 50 companies holding 90 percent of the market. Whereas the sector is not characterized by double digit growth rates, it continues to expand in both industrialized and developing nations at steady 1-3 percent annually. The contribution of industry, particularly manufacturing to the overall GDP of Ethiopia is one of the lowest in the world. The general objective of this research is to assess challenges on the growths of industrial manufacturing assessment specifically on the soap and detergent industries y applying descriptive analysis using frequency tables and bar charts to identify the major challenges of the industrial growth of Soap and Detergent industry in Ethiopia and The study found out that the foreign currency shortage, section dependency of imported raw materials, lack of reliable energy, inaccessibility of external finance and less environmentally friendly relations are the basic challenges of the soap and detergent industry in Ethiopia.

Keyword: Manufacturing growth, challenges on soap and detergent manufacturing

CHAPTER ONE

1. Introduction

1.1 Background of the Study

The Ethiopian government has formulated the five year Growth and Transformation Plan (GTP) to carry forward the important strategic directions in maintaining a fast growing economy in all sectors. The industrial sector, which mainly comprises small and medium enterprise, accounts for about 12.4 percent of GDP in 2012/13. (Ethiopian investment commission, 2014/15).

Besides the least developed, traditional Ethiopian economy, the contribution of industry, particularly manufacturing to the overall GDP of the country is one of the lowest in the world. In this regard, Ethiopian Industrial Manufacturing growth has virtually stagnant per capita level of manufacturing value added relative to population growth. As for the future, much depends on the successful implementation of the reform packages such as managerial reform and the provision of a policy environment conducive to private investment will accessible, then the rate of industrialization is closely linked to the performance of the economy as a whole (WORKU, 2007).

The lion share of Ethiopian GDP comes from agricultural sector. This shows that the industrial manufacturing sector is still on its minimum level for the contribution of growth of the country.

In the Growth and Transformation Plan (2010/11-2014/15) of the country, production of textile and garments, leather products, cement industry, metal and engineering, chemical, pharmaceuticals and agro-processing are priority areas for investment.

Chemicals and chemical products includes Manufacture of basic chemicals (including ethanol) based on local raw materials, including fertilizer and nitrogen, soda ash, rubber, PVC granules from ethyl alcohol; manufacture of caustic soda and chlorine based chemicals; carbon and activated carbon; precipitated calcium carbonate; ballpoint ink, varnishes ;soap and detergent, cleaning and polishing preparations, perfume and toilet preparation and pesticides, herbicides or fungicides.(Ethiopian investment commission)

As the above paragraphs states there are different problems related to the industrial sector. Accordingly the paper will identify the challenges of the industrial sector Ethiopia. Identifying the main bottlenecks of the sector will boost the contribution of the industrial sector are mentioned below; dependency of imported raw material and shortage of row resources, the influence of imported products, deficiency of foreign exchange, reliability of

power, marketing strategy, supply of raw material and finished product, efficiency ,total quality management and business sustainably .

Undertaking this research will have dual advantages for the country. The first one is that the paper will suggest possible solutions to reveal the prominent bottlenecks for the government, investors, policy makers, and for the whole stake holders for the improved achievement of the industrial sector. The second advantage of the paper is it will used as an input for further studies by other scholars in the future.

1.2 Statement of the Problem

For any economy, sustained industrial manufacturing growth rate has a great role in international competing market. Without growth, industrial expansion in general and competitiveness in international markets in particular will not be possible. Thus, investigating the level and rate of growth of industrial manufacturing and its contribution to GDP are of paramount importance for an assessment of its potentiality. Therefore, this research is intended to account the following core questions which should be answered after the completion of the paper.

Ethiopia is endowed with a cheap labor force. By means of the processing of raw materials, political stability and high surface area of manufacturing place ,it is possible to upgrade the manufacturing industry level, and promote the development of the whole economy but practically this is not seen on date. The following two Tables mentioned growth issues and will advocate the importance of conducting this research.

Table 1.1 growth of industrial production in Ethiopia

year	growth rate
2001	7.4
2007	11
2009	10.4
2010	9.9
2011	9.5
2012	9.2
2013	9

Source: [CIA World Factbook](#) - June 30, 2015

Definition of Industrial production growth rate: This entry gives the annual percentage increase in industrial production (includes manufacturing, mining, and construction).

The structure of industrialized economies reveals strong and balanced internal linkages between the manufacturing and the rest of the sectors including; agriculture, mining, construction, transport and communication. This shows the capacity of manufacturing sector to produce and supply capital, intermediate and consumption goods demanded by all other sectors of the economy. The role of Ethiopian Industrial Manufacturing in supporting the transformation of other sectors of the economy, particularly, agriculture, is negligible. As such, the development of other sectors is victimized by lack of modernization in manufacturing; it needs to be transformed, not just for its own sake but for the development of the economy as a whole. (Urgaia, 2007)

Accordingly undertaking research regarding; Challenges for the Growth of industrial manufacturing in Ethiopia (The case of soap and detergent industries) enable to overcome the bottle necks and present possible solutions concerning the sector.

In addition investigating the level and rate of Growth of industrial manufacturing in Ethiopia has importance for an assessment of its potentiality and also the research is intended to bridge knowledge gap the previous works done.

1.3 Basic Research Questions

The basic research questions need to be answered by the research includes:-

- What are the challenges hinder the growth of Ethiopian soap and detergent industry?
- What are the reasons for the poor growth of the soap and detergent industry?
- What are the possible ways to improve and boost the performance of the soap and detergent industry?

1.4 Objective of the Study

1.4.1 The general objective:-

The general objective of this research is to assess challenges on the growths of industrial manufacturing assessment specifically on the soap and detergent industries.

1.4.2 Specific Objectives

The specific objectives are to:

- To identify the basic challenges that hinders the growth of Ethiopian soap and detergent industry.
- To investigate the impact of imported soap and detergents on domestic soap and detergent sector growth
- To identify the availability of sustainable supply on the soap and detergent sector of the country

1.5. Significance of the Study

Basically the output of this paper will be important in many ways accordingly conducting the research will have the following prominent significances. Conducting the research in this very subject matter will identify problems in relation to industries and assessing the growth. It will also provide insight on the importance of manufacturing industries. The paper will also be Help full to aware the society and stakeholders organizations about the sector. The output of the research will forward possible solutions in relation to the problem. And also the research will be used as an input for further studies by other scholars.

Therefore, this research study is believed to give information on the important determinants of the performance of the growth and may also serve as a springboard for further research on the general area.

1.7. Scope and Limitation of the Study

Due to the fact that having time, finance, and resources constraint the researcher is obliged to limit the scope of the study in the following manner,

Even though the concept of manufacturing is a very vast subject the paper will only focus mainly for major challenges on soap and detergent industries.

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

2.1 Introduction

The global chemical industry has experienced steady growth in production, consumption and trade over the last 35 years. The value of the chemical trade rose from US\$171 000 million in 1970 to US\$1.5 million in 1998 (Buccini 2004). The sector is expected to continue to grow until 2020. Four broad trends are evident (Buccini 2004): Global chemical output will continue to rise. In 2010, it is predicted to increase by 63 per cent compared to 1996. Estimated annual growth rates for the global industry range from 2.6 to 3.5 percent, corresponding to the predicted rate of growth for global gross domestic product (GDP). By 2020, global output is expected to increase by 85 per cent over 1995 levels. Globally, per capita consumption is increasing. There will be a shift in chemicals production from OECD countries to non-OECD countries. Nevertheless, OECD countries will remain the largest producers in 2020, but their share will decrease to 69 per cent of total world production, that is 10 percent below 1995 levels Total demand for chemicals will increase more rapidly in the developing than in the developed world. By 2020, the developing world will increase its share from 23 per cent of global chemical demand and 21 per cent of production in 1995 to 33 per cent and 31 per cent, respectively.

The world market for soaps and detergents is valued at \$38 billion, the equivalent of 35 million tons of products. It is a highly concentrated business with 50 companies holding 90 percent of the market. Whereas the sector is not characterized by double digit growth rates, it continues to expand in both industrialized and developing nations at steady 1-3 percent annually. Laundry detergents account for 40 percent of the market, while soaps represent 20 percent and dishwashing detergents 15 percent. The soap and detergents business has been described as the SUV of consumer products - it is old, wasteful and costly for the consumer while profitable for the producers (Gunter Pauli, 2013).

The market is highly diversified with a standard supermarket offering 40 different laundry detergents including liquids and powders. The industry is in a constant flux. First introduced around the turn of the millennium, liquid detergents outpace any other cleaning product by a ratio of 4 to 1. It is a remarkable development since liquid cleansers are typically priced higher than powders, thus securing better profitability and low growth markets (Ibid). As advanced as manufacturing is becoming — with interconnected systems and data running factories, production and the supply chain — cyber security should be a concern for every manufacturer. Andrew Ginter, vice president of industrial security at Waterfall Security

Solutions, took some time to answer our questions about the biggest cyber security problems manufacturers should be mindful of this year.

It is not a secret that American manufacturing has faced a number of significant obstacles recently. Every month there seems to be a new story about a factory closing, a labor dispute between executives and employees, or staff reductions due to offshore labor shifts. People say the industry is known for low wages, subpar working condition, and continual quality control issues, none of which help attract new workers but are those actually the biggest challenges facing manufacturing right now? As someone who's personally involved in the industry, leading a manufacturing company, I see firsthand what the actual biggest challenges are and how they are affecting our industry.

So with that in mind, here are some of the biggest challenges in American manufacturing right now, from a manufacturer's perspective. *(Tom Bonine, 1944)*

Finding good people

No doubt about it, the top problem facing manufacturing, especially traditional manufacturing, is finding good people for your shop. In fact, I'd go so far as to say that this has been the top challenge in manufacturing for more than the last 10 years. The sad part is that it is not necessarily a lack of educated or skilled workers (although that is an issue, too), but it's mostly a matter of finding people who have a good work ethic. Manufacturing companies today have a hard time finding employees who will show up and be on time for work, stay at their work stations, and, bottom line, stick with their jobs. When it's hard to find reliable personnel, employers have to spend excess time hiring and training new employees, then rehiring and training new employees. This is difficult both in terms of financial costs and efficiency.

Rising employer costs

Another big challenge in manufacturing, at least for companies like ours in Illinois, is the extremely high cost of workers' compensation insurance and local property taxes. An employer could make all the right internal cost decisions, only to have them neutralized or canceled out due to workers compensation and taxes. Essentially, these rising costs mean manufacturers are constantly taking two steps forward only to be hit with four steps back. What's especially sad is that those four steps back are often things that we employers have little or no control over.

Big data management

Manufacturing involves a great deal of data, and most American manufacturers are, quite frankly, overwhelmed. The bottom line is that when it comes to big data management, the U.S. needs advanced predictive tools and techniques to compete with their offshore competition. Many companies are unsure of how to access and use that data to leverage positioning within a competitive market. As such, generating data isn't the issue; it's accessing it and then using it to leverage positioning within a competitive marketplace.

In order for manufacturers to leverage their data properly, they must study data management opportunities and challenges, identify data management abilities, and prioritize data analysis plans. These three practices assist manufacturers with making the transition from simply controlling large amounts of data to [uncovering new, highly valuable information](#) about it and then applying it to business practices accordingly.

Gross margins

Currently the gross margin picture illustrates that there may be significant challenges continuing in the future for manufacturing. In February 2013, the [manufacturer price index went up five percentage points](#). As companies lose the capacity to guard their gross margins, management teams tend to go into crisis mode and start attempting to increase sales to fix the problem. This panicked strategy is a proven recipe for disaster, turning minor financial issues into severe ones.

Inventory discrepancies

Discrepancies in inventory are a big problem for manufacturers. When you have inventory that doesn't move, you have two choices: sit on the product or slash prices to promote sales. In either case, you're losing profits. Likewise, from a financing perspective, asset-based lenders are not going to advance nearly as much for inventory as they will for accounts receivable. This means small and mid-sized manufacturers will have even fewer options for keeping inventory available.

Growing role of compliance

American manufacturers have to take compliance seriously. Compliance can include everything from product safety to IT security to fair competition. But when this crucial issue is overlooked, manufacturers deal with major consequences, such as destroyed corporate reputations, annihilated financial performance and even ruined careers.

Negative image of manufacturing

Once upon a time, the field of manufacturing had a positive image that encouraged bright young professionals to pursue careers in it. It was promoted as a guaranteed route to achieving the American dream. Today, it is not often seen this way. When kids are considering career paths in school, few of them think about the potential that manufacturing has for allowing a person to make valuable contributions to society while also earning a respectable income. For this reason, the country could benefit from a targeted campaign to change the way future generations view the possibilities for careers in the field.

Challenges in Manufacturing

The Manufacturing industry can be broken down into three main categories: semiconductors, Electronics Manufacturing Services (EMS), and Original Equipment Manufacturers (OEM). To simplify things, out of these industry sub verticals, we'll focus on the challenges faced by EMS and small to mid-sized contract manufacturers :([Mike Roberts](#), 2012)

1. Shrinking Operating Margins

Global competition and new innovations are driving prices down. Companies must continually become more cost-efficient to remain profitable.

2. Complex Global Supply-Chain

More and more, companies have to juggle internal and external resources while staying within international standards. Issues such as traceability and compliance are increasing Operational burdens. It is not unusual for components and sub-components to embark on a journey that touches three or more continents before reaching the end-consumer.

3. Service and Warranty Management

Leveraging the global supply-chain is putting more focus on supplier quality management. Having a strong quality and traceability system directly affects warranty reserve and post-production service hours.

4. Short Product Lifecycles

With quickly changing consumer tastes and preferences, EMS companies and contract manufacturers need to have effective New Product Introduction (NPI) processes in place. Closed-loop communication between sales, manufacturing, and engineering is vital to ensure product launches hit time, volume, and quality targets.

5. Uncertain Demand

Aggregately, economic volatility and cyclical demand cause fluctuations in production. On a more granular level, consumer preference can cause spikes in demand for an individual product or company. Efficient lean capabilities must be in place to keep inventory aligned with demand.

6. Sustainability

Emerging regulations and standards are forcing companies to account more and more for Corporate Social Responsibility (CSR) in decisions. E-Waste, a popular topic today, is driving conversations about the disposal of products and their impact on the environment. Companies must now consider of the complete product lifecycle in decisions.

The chemical industry in general, the soap and detergent market in particular has constituted insignificant portion from the manufacturing industry in Ethiopia. Why? It is a billion dollar question. Countries like Brazil, China, Netherland, USA and India are the major players in the soap and detergent market in the world. This simply shows there is also a room for emerging and miracle growing economies to get potential demand when there is a concern about the subject matter from the respective organ.

This paper is mainly focused to answer the challenges and prospects of the widely unutilized market from the tremendously growing a double digit economic success with lowest trending increment from the manufacturing sector, the case in Ethiopia. What are the experiences has

shown to reach to successful in the soap and detergent market penetration both in the domestic and international consumers? How can they produce? What can we inferred from the highly demanded soap and detergent fast moving consumer goods where it is produced abroad and imported to the local market? What are the promising raw material supply, effective marketing segments and strategies, affordability of the consumer at cost wise charges and the subsidy of the concerned body for the sector? These all the above questions will be answered while we effectively reviewing the trend, experience and applying the world Produce-Sell-gain becoming big, formula. In this section we assessed the theoretical background and the empirical implications of the soap and detergent market in the world, in Asia, in South America, in Africa and particularly in Ethiopia. The reviews are presented in the next sub-sections.

2.2. THEORETICAL REVIEW

Soap is water soluble compound made by a reaction (called saponification) between caustic soda (sodium hydroxide) or caustic potash (potassium hydroxide) with animal and/or vegetable fats (oils). Soap has surface active properties to wet a greasy (oily) soiled surface and suspend the oil and dirt in the water for rinsing off. Synthetic soaps (called detergents) are made from petroleum-based products, and some heavy soaps (made from lead, zinc, or other heavy-metal compounds) are water-insoluble and are used mainly in lubricating greases. Dictionary.com (2016) defines detergent as any of a group of synthetic, organic, liquid or water-soluble cleaning agents that, unlike soap, are not prepared from fats and oils, are not inactivated by hard water, and have wetting-agent and emulsifying-agent properties.

2.2.1. Soap and Detergent Evolution

Throughout history people were known to have taken bath in herb waters and other additions to the bathing medium thought to be beneficial. Cleopatra of Egypt for example used mare's milk, honey and essential oils in her bathing rites. Historical studies revealed that soap were utilized in both ancient Egypt and Babylonia 5000 years ago.

Mixtures of animal fats and alkaline plant ash were used to produce soap (Phanseil, 1998). Ancient peoples were believed to have employed wood ashes and water for washing and to have relieved the resulting irritation with grease or oil. In the first century A.D., Pliny describes a soap of tallow and wood ashes used by Germanic tribes to brighten their hair. It is recorded that Babylonians were making soap around 2800 B.C and it was known to the Phoenicians around 600 B.C. These early references to soap and soap making were for the use of soap in the cleaning of textiles fibers such as wool and cotton in preparation for weaving into cloth. From the long history of ancient civilizations until today, the basics of

soap making has not fundamentally changed, meaning that the basic process has not changed. Hence, blending the old tradition with modern day knowledge of surface active agents, accuracy, combination of good and carefully selected ingredients mixed and stirred at the right temperature and time can with experience produce the finest soaps (Ellis, 2008).

Soap making in Europe was established by the end of the first millennium, with important centers at Marseilles and Savona, where olive oil was used instead of tallow. Soap making was carried out in these centers by soap making guilds, which guarded their recipes closely. Soap attracted heavy taxation from Stuart times in England - this only stopped when the tax was abolished in 1852 as the Victorians became increasingly obsessed with cleanliness (Hunt, 1999 cited in Newworldencyclopedia.com). Soap still attracts tax in markets across the world - and considerable effect is shown on the market when tax is reduced, as happened in India in 1995, when sales of soap and detergent were effectively doubled.

According to (Gossage, 2016) article, the application of soap in the modern times has become universal in industrialized nations due to a better understanding of the role of hygiene in reducing the population size of pathogenic microorganisms. Manufactured bar soaps first became available in the late nineteenth century, and advertising campaigns in Europe and the United States helped to increase popular awareness of the relationship between cleanliness and health. By the 1950s, soap had gained public acceptance as an instrument of personal hygiene.

Until the Industrial Revolution, soap-making was done on a small scale and the product was rough. In 1789, Andrew Pears started making a high-quality, transparent soap in London. He and his grandson, Francis Pears, opened a factory in Isleworth in 1862. William Gossage produced low-priced, good quality soap from the 1850s. Robert Spear Hudson began manufacturing a soap powder in 1837, initially by grinding the soap with a mortar and pestle. William Hesketh Lever and his brother James bought a small soap works in Warrington in 1885 and founded what became one of the largest soap businesses now called Unilever. These soap businesses were among the first to employ large-scale advertising campaigns to sell the output of their factories. Soap used to be expensive and was only used by the wealthy until the French chemist Nicolas Leblanc found a cheap way to make soap from salt. For centuries, olive oil, widely available in France, Spain and Italy was used as the main ingredient. In the 19th century palm oil gradually replaced olive oil in formulations. The Germans first produced synthetic detergents from coal tar in 1916 and by the 1950s the industry was dominated by petroleum derivatives. The industry is capital-intensive with average worker revenue of \$700,000 per year. Due to a drive towards automation, the industry has been employing fewer workers.

Nicolas Leblanc on its 14th, Oct, 2015 article briefly described and explained about soap and detergents forms, components and their functions, how to make soaps, processes, disadvantages of commercial soaps and environmental suitability of the subject matter. We are also deeply reviewed the article to more explained about the fabrication and other endogenous and exogenous factors to make ease for analysis purpose.

2.2.2 Forms of soap

Soap usually comes in a solid, molded form, called a bar, based on its typical shape. The use of thick liquid soap has also become widespread, especially from soap dispensers in public washrooms. When applied to a soiled surface, soapy water effectively holds particles in suspension, which can then be rinsed off with clean water.

2.3. The evolution of Industrial sector in Ethiopia

Even if industrial revolution has a long history in the westerns, Ethiopia believes industry is a key and determining factor for growth recently. A research made by Gebreyesus (N.A) explains Ethiopia has seen three regimes over the last eight decades. Keeping with the political ideologies governing the economic principles of the time, these successive regimes adopted different policies for the development of industry in the country. The industrial policies have distinctive features when looking at the guiding vision (policy), ownership structure, and market orientation. Broadly, they can be characterized as the import substitution and private sector-led (from early 1950s to 1974, the Imperial regime); the import substitution and state-led (from 1974 to 1991, the Dergue regime), and the export-orientated and private sector-led (since 1991, the Ethiopian People's Revolutionary Democratic Front, (EPRDF)-led government).

Since 1950, the country's export earnings were falling while imports increased at a rapid rate, and the foreign exchange resources earned from exports could not fully cover the country's import needs (Bulti ,N.A). In order to reverse this unfavorable trend and to overcome the foreign exchange problem in the long-run, the substitution of imports by expanding manufacturing activity in the country was perceived as the ultimate remedy. The strategy of import substitution was thus adopted and became the dominant industrial strategy in the country. The importance of this strategy was also underlined from the point of view of utilizing the country's idle natural resources and of creating employment opportunities for the population. However, the implementation of import substitution was constrained by the limited level of savings and investment possibilities, as the number of national capitalists was very small and the amount they were able to invest very low. Moreover, these capitalists were prepared to invest largely in areas that promised quick returns such as building construction,

real estates and commercial activities. As a result, industrial progress was slow, requiring further steps for enhancing the implementation of the strategy.

In the post-1974 period, the political philosophy changed and ownership gravitated towards the state and what it did not own was to be controlled and directed. More affected by the policy changes was the industrial sector in which public ownership became the predominant form of economic organization after 1975. In line with the new policy, 87 manufacturing enterprises were nationalized in 1975. In the following few years their number grew to 134, and by 1983 as many as 159 enterprises were nationalized. However, many of the nationalized enterprises were very old. More than 50 per cent of the enterprises were already operating beyond their technical life and were financially weak because the owners were running them on bank loans while depositing their profits and depreciation charges in banks. Thus they needed immediate renovation and replacement measures, requiring substantial state budget.

The EPRDF-led transitional government soon after it seized power announced that the country will follow a market-led economic policy. Ethiopia has experienced a double digit economic growth following the start of the implementation of these policies. Between 2003/04 and 2010/11, GDP grew by about 10.6 per cent annual average. All the major sectors including industry also grew by more than 10 per cent over this period. Despite high and continuous growth over the last decade, the structure of the Ethiopian economy basically remained unchanged. The only feasible change in the sectoral value added composition is that service has become the largest sector overtaking agriculture since 2007/08. The industry value added share to GDP, however, remained relatively static and never exceeded 14 per cent in the last decade. In contrast, other basic sectors such as chemicals, basic metal, and engineering remain underdeveloped. The chemical sector only accounted for only 6 per cent of employment and 5 per cent of value added in the same year.

2.4. Empirical literature review

In this section we reviewed literatures that are related with the challenges and prospects of the chemical industry in general and the soap and detergent manufacturing in particular all around the world. More emphasis is given for the largest manufacturers and exporters of soap and detergents both in the developed and emerging economies. We have covered from Brazil to the Netherlands, Russia to Belgium, UK to Nigeria and Tanzania and many more. According to data from ABIQUIM (The Brazilian Chemical Industry Association) cited in Uniliver Research(2006) report on Uniliver in Brazil explains, North America, Asia and the Pacific, and Western Europe accounted for more than 50% of the installed capacity of the

chemical sector, while Latin America, accounts for only 5% of installed world capacity. In Latin America, the Brazilian chemical industry is diversified, and of high quality, with production exported to various countries. In 2004, the Brazilian chemical industry achieved production and sales records, with positive impacts on the income of the segment registered net billing of US\$59.4 billion (€49,19 billion), an increase of 30.5% relative to 2003. Measure in real, the net billing grew 24.1%, from R\$ 140 billion (€1,34 billion) in 2003 to R\$ 173,8 billion (€63,447 billion) in 2004.

The segment of soaps, detergents, cleaning products and perfume articles where Unilever is inserted, has a highly heterogeneous composition in Brazil. Besides other large international companies, both diversified and specialized, there are many small and medium companies manufacturing products in this sector. This heterogeneity is principally a result of the simplicity of the technical base needed for the preparation of formulas (Ibid).

Pinto (2011) researched the challenges and prospects of the Brazilian chemical industry. According to the paper the Brazilian chemical industry records \$10.3 billion contribution to the country GDP is estimated at 2.6%-a larger relative contribution than that of the US chemical industry (2% of US GDP) the country's chemical industry of the total manufacturing revenues. Braskem & Petrobras are the well known petrochemical companies in Brazil. Even if the contribution and the opportunity of the sector is huge and wide, the combination of strong dependence on imports and the low value of exports, the small size of its companies and insufficient availability of raw materials are the major bottlenecks of the industry.

A report of Sylvia (2012) discusses the chemical industry is the second largest industrial sector in Austria, representing about 12% of the industrial sector added value. The sector accounts for about 10% of total Austrian industrial employment, 13.5% of R&D expenditure and 17% of industrial spending on environmental protection. In 2012, the value of chemicals production was €16.7 million, which means stagnation at a high level after a 10.5% increase in 2011 over 2010, evidence of a recovery following the global financial crisis. In the past decade, the sector's output has grown by 42% overall. More than two thirds of the chemicals produced in Austria are exported. The value of both imports and exports of chemicals has grown over the past seven years. In 2012, 85% of imports originated in European countries and almost 83% of exports were sold to countries in the same region. Increase in labor cost, demographic development, high energy cost, high administrative and regulatory burden are the main challenges of the sector in Australia.

The chemical, plastics and life sciences industry is the largest industry in Belgium, accounting for nearly 28% of total manufacturing value added (Yves Verschuren, 2012). With 10 million inhabitants, Belgium represents only 2% of the European population, but with the chemical and life sciences industry accounting for 5% of the value added generated by the sector in Europe, it ranks amongst the eight biggest chemical-producing countries in Europe. The sector includes many fields of production activities such as industrial gases, fertilizers, crop protection products, petrochemicals, polymers, plastics and rubber products, agrochemicals, pharmaceuticals and biotechnology (life sciences), cosmetics, soaps, detergents, glues, chemicals for the photographic industry. The main challenges of the industry are, high energy cost, & in particular, increasing additional cost through inadequate eco-energy strategy of government, high labor cost & ageing workforce and insufficient new talent.

In Croatia, the chemical and pharmaceutical industry and plastics and rubber processing represent infrastructural branches of the economy. Chemical science and the chemical industry have a long tradition in Croatia. The country was the birthplace of two world-famous scientists, both Nobel Prize Laureates in Chemistry: Dr. Lavoslav Ružička received the Nobel Prize in Chemistry in 1939 for his work in the area of cyclic organic compounds, and Dr Vladimir Prelog received the Nobel Prize in Chemistry in 1975 for his work in the area of fundamental operations in physical and organic chemistry. These facts point to the long tradition and existence of an experienced and well-educated work force, which is the main comparative advantage of the Croatian chemical industry. The chemical industry sector also constitutes soap and detergents as manufacturers. Heavy dependency on raw material imports, high energy and logistics prices, lack of investment in new & innovative products, insufficient investment in marketing, high cost of taxes, contribution & utility charges and pressure to increase taxes and fees, due to public sector financial deficits (Renata ,2012).

The chemical industry is Finland's biggest export industry and the second largest manufacturing industry. Its share of Finnish industrial output and industrial exports amounts to 25%. Several factors explain this growth. Chemical companies themselves are among the main driving forces: these industrial companies have the know-how to create growth through the introduction of new, innovative products and services to the market. The growth in relative importance of the chemical sector also results partly from the decline in other industrial sectors such as electronics and the forest industry. According to TimoLeppa (2012), location on Northern edge of Europe, lack of road connection to central Europe/dependent on ship transfer, dependence on raw material imports are the main challenges of the industry in Finland.

(Jean Pelion, 2012) explains about the chemical industry of France. In France, the chemical industry is a key component of the national economy and industry. Its added value was estimated to be €18.7 billion in 2012, close to 9% of the overall manufacturing added value and ranking third behind the food and beverages and automotive industries. The chemical industry is one of the leading export sectors, maintaining its position for several years, accounting for 14% of total manufacturing exports, ahead of electric and electronic products, aeronautics and space and automotive. With a trade surplus of €4.4 billion, the chemical industry helps to improve the national trade balance, and is ranked fourth with respect to other industrial sectors behind aeronautics and space, food and beverages and medicines.

The chemical & pharmaceutical industry is the third largest industry in Germany. While the turnover of the automotive industry and machinery & equipment production is higher, it sells more than the food & drink, electrical equipment and metal industries (UtzTillmann, 2012).

The German chemical industry is a strong producer for all segments of the industry: basic inorganic, petrochemicals, polymers, agrochemicals, specialties, cosmetics and pharmaceuticals – just to name the broader segments. In Germany, the challenge of the industry is mainly vulnerability to external shocks due to highly dependent raw material imports (Ibid).

For several decades now, the chemical industry and the Netherlands have been a profitable combination. Due in part to Rotterdam harbor, infrastructure, top universities and the availability of qualified personnel, the chemical industry has found a good home base in the Netherlands. Many of the world's largest chemical industries have opened production facilities in the Netherlands – to the benefit of both the companies and the Dutch economy (Colette Alma-Zeestratern, 2012). The Dutch chemical industry is a player at the global scale as well. In areas such as basic chemistry, biotechnology, food ingredients, coatings and high performance materials, the Netherlands is among the world's top players. This can also be seen in its share of exports. The chemical industry accounts for nearly 20% of all Dutch exports. The Netherlands exports more chemical products than countries such as Japan (Ibid). The country has an attractive business climate for the chemical industry because the proper preconditions are present. For example, important raw materials are available or can be supplied via Rotterdam harbor or via pipelines. In addition, there are direct lines among the most important chemical centers in the Netherlands, Belgium, Germany and northern France. Together, they form a strong cluster in Northwest Europe. Even if they have strong base in the sector, loss of technical personnel due to ageing workforce is the major challenge of the industry.

The chemical industry is a key component of the national economy and industry in Russia. In 2012, the volume chemical and petrochemical products amounted to about €73 billion, representing 2.6% of gross domestic product (GDP) and about 9% of the total value added in manufacturing. In the chemical industry, there are approximately 3 500 large enterprises and SMEs, 100 scientific and design organizations and experimental plants employing approximately 680 000 production workers (Victor Ivanov, 2012). The main challenge of the sector in Russia is low labor productivity.

A study by Wangwe & Mmari et.al (N.A) titles the performance of manufacturing sector in Tanzania challenges and the way forward issue explains success of the emerging manufacturing firms is a function of several factors, both firm-related as well as due to external conditions. After conducive institutional and legal frameworks were put in place for strengthening private sector investment in manufacturing, potential investors have made considerable progress in raising industrial performance in Tanzania. Their survey data highlights the determinant of success in the sector across firms such as quality products; good management; marketing strategies; technology; investment in human capital and innovation; experience, reputation and good relationship; customer services and networking in the manufacturing sector Tanzania. Other elements like access to financing opportunities; timely delivery and attractive credit policy; staff motivation; and availability of raw materials are also determining factor for the growth of the industry. In this study, manufacturers pointed out some of the constraints that are hindering the sector's performance at a time when the world moves swiftly towards knowledge-based growth and development. In this context, the underscored problems are related to the lack of reliable energy, outdated machines and equipment, inadequate technical knowledge and skills, and lack of access to sophisticated information and communication technology.

The Nigerian Industrial Development Plan developed by the government of Nigeria (2014) briefly analyzed the countries industrial grounds with future prospects. Over many years, the Nigerian manufacturing sector has failed to undergo the critical structural transformation necessary for it to play a leading role in economic growth and development. The sector is structurally weak. The technological base for manufacturing is lacking in many sectors. The skilled manpower necessary to guarantee competitiveness in today's dynamic and globalized world is insufficient Systemic issues of infrastructure, mostly related to power and transport, have led to escalating costs and non-competitive operations. Consequently, the sector is unable to attract the necessary investment for economic growth and remains a small player in the economy. In recent years, the sector's share of GDP has remained less than 4 percent, contributions to foreign exchange earnings have been minimal, and the share of employment

and government revenue generated have been low. The above problems contribute for the lagged movement of the manufacturing industry in the country.

As consumption trend of soaps and detergents rise in Ethiopia, assessment of the environmental performance, prospects and retrospect of the industry is also increasing. Hence, Cleaner Production Assessment was conducted on Repi Soap and Detergent Share Company (RSD) by (Mulugeta, 2009). This paper focuses on determining the quantity and quality of waste water generated, the prospect of utilizing laundry wastewater for irrigation in RSD and its impacts on the environment, the amount and type of raw material used and energy consumed by the processes using Cleaner Production Assessment principles. The study suggests that Sodium tri-poly phosphate (STPP), which was used as a raw material in RSD, causes disposal problem due to its potential to cause eutrophication. This raw material is the biggest challenge for the growth of the industry and hurts the environment. Cleaner chemical methodology is adapted to fix the environmental issue inferred the Repi Soap and Detergent Factory.

The industrial sector of Ethiopia is small and highly import dependent (African Development Bank Group, 2010). In turn, this means that Ethiopia's high growth is still vulnerable to foreign exchange shortages. Diversification towards the industrial sector is thus key to sustaining high growth in the long run. The researcher advised to require more private investment, in export oriented economic activities and in import substituting industries including the petrochemical industry.

All the above reviewed papers describe the indispensable role of industrial sector for economic growth of a nation. The prospect of the sector is wider for the developing and emerging economies due to exponential growth of the population and the new consumption habit that has been raised by the hygiene focused healthcare principal of the governments. The challenges are also different both in the western developed world and the developing and underdeveloped countries. Basically, the ageing workforce and dependence of import for most Europeans, demographic structure for some northern hemisphere nations are the major challenges of the chemical industry, particularly the soap and detergent market. In developing countries, poor administration and government concern, lack o skilled man power and innovation are the biggest threats of the chemical industry sector in general, the Soap and detergent sector in particular. The reviewed papers however miss the empirical focuses and application of econometric models particularly in soap and detergent market. This research will also have detailed descriptive analysis of the subject matter.

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

3.1. Research Design:

The study has applied Social exploratory research "seeks to find out how people get along in the setting under question, what meanings they give to their actions, and what issues concern them. The goal is to learn 'what is going on here?' and to investigate the challenges without explicit expectations. This methodology is also at times referred to as a grounded theory approach to qualitative research or interpretive research, and is an attempt to unearth a theory from the data itself rather than from a predisposed hypothesis. descriptive analysis using frequency tables and bar charts to identify the major challenges of the industrial growth of Soap and Detergent industry in Ethiopia because the unavailability of empirical data on the subject matter could not help us to work extensively in quantitative format. The descriptive analysis is systematically and precisely measured the phenomena of interest in clear manner. The study designed and hypothesized the selected variables based from the research objective and Literature that has reviewed under the previous sections. Basically, the challenges of the Soap and Detergent sector in Ethiopia were identified by assessing the raw material import, government concern towards the sector, marketing effort of the manufacturers and so forth. The supply bottlenecks of the industry also identified by the production capacity determinants of the sector. The impact of the imported Soap and Detergent products on the domestic products also evaluated by comparative assessments of the two data sets which will be clarify on the findings.

3.2. Population and Sampling Technique:

The total population of the industry consists of 39 companies. The survey has covered a Stratified random sampling of 20 Soap and Detergent Manufacturers in Ethiopia that means 51% from the total population. in the above selected factories all chief executive officer/the general manager/ and the assistant manager are selected on their position while the supervisors are selected by using stratified simple random sampling due to the number of supervisors in the company were the respondents from each company. The focus of the study was on the Soap and Detergent manufacturers that operate on the territory of Ethiopia which are known by the industry minister of the country.

3.3. Types and Instruments of Data collection:

The study has used primary data collection to analyze challenges and growth prospects of the soap and detergent industry in Ethiopia. The data has been collected by using a questionnaire. The questions constitutes to identify the basic challenges of the soap and detergent market, the supply side bottlenecks and the effect of imported soap and detergent products on the domestic and locally produced products.

3.4. Methods of Data Analysis

The questionnaire used a 5-point Likert scale to measure respondents' attitude about various aspects the industry in each hypothetical determining factors. The scale ranged from 1 (strongly disagree) to 5 (strongly agree). The data has collected through distributing the questionnaires to each respondent.

Likert type question asks respondents to select one of five responses that are ranked in order of strength. The scale produces ordinal data, i.e. the data that can be ranked and only can say one score is higher than another, not the distance between the points. In the study we are used to measure respondent attitudes to a particular questions or statement. In the scale we cannot use the mean as a measurement of central tendency as it has no meaning i.e., what is the average of strongly agree and disagree? The most appropriate measure is the mode: the most frequent responses or the median to analyze the data we coded the response as follows.

1= Strongly Disagree

2=Disagree

3=Neutral

4=Agree

5=Strongly Agree

Therefore, the study has used the mode of the collected data for analysis to indicate the dispersion of the sample for the total inferred population.

CHAPTER FOUR: RESULTS AND DISCUSSION

4.1. Descriptive Analysis

Descriptive analysis is mainly describing the main features of the collected information in quantitative format. In this section we present summary of information for the collected data using frequency tables, and graphs about the phenomena of interest.

We are also given to ask about the age of the managerial and supervision personnel presently working under Soap and Detergent industry. Table 4.2 gives a clue to answer the concentration of the aging workforce in the hierarchical administrative level in the sector. The frequency has shown 53.4 % of the respondents were between the ages 20 to 29. The lowest age category covers only 3.4% of the total respondent proportion of the study. The new entrant of the industry to the manufacturing sector mainly grabs the middle age potential and economically effective work force.

Table 4.1. Frequency Distribution of age distribution

Age	Frequency	Percent	Valid Percent	Cumulative Percent
u20	2	3.4	3.4	3.4
20-29	31	53.4	53.4	56.9
Valid 30-40	20	34.5	34.5	91.4
A40	5	8.6	8.6	100.0
Total	58	100.0	100.0	

The study also assessed all related work experience categories. 32.8% of the respondents have working experience for more than 5 but less than 10 years in the sector. Due to the infancy stage of the sector in the country only 4% of the respondents have more than 15 years related work experience. From the total respondents, the average related work experience in relative to the given categories is also very low.

Table 4.2 Frequency Distribution of Related Work Experience in the sector

Experience	Frequency	Percent	Valid Percent	Cumulative Percent
0-5	18	31.0	31.0	31.0
5-10	19	32.8	32.8	63.8
Valid 11-20	17	29.3	29.3	93.1
over20	4	6.9	6.9	100.0
Total	58	100.0	100.0	

The industry by nature requires extensive knowledge and training to produce soap and detergents. From the total respondents in the study 58.6% were degree holders. Highly qualified and less qualified staffs constitutes the average portion from the respondents. Diploma holders are also takes more than 24% of the staff respondents. The educational qualification frequency of the study is therefore concentrated on the average qualification in the Soap and Detergent market of Ethiopia. The table 4.4 below shows more than half of the industry workforce holds the requiring level of qualification, degree, in the sector. This infers the sector has potential capacity to upgrade the manufacturing of soap and detergents in Ethiopia by effectively utilizing the skilled human capital.

Table 4.3. Frequency Distribution of Educational Qualification

education	Frequency	Percent	Valid Percent	Cumulative Percent
Twelvecomplete	2	3.4	3.4	3.4
Diploma	14	24.1	24.1	27.6
Degree	34	58.6	58.6	86.2
Masters	8	13.8	13.8	100.0
Total	58	100.0	100.0	

Valid

Due to the slow growth of manufacturing industry in addition with the small GDP proportion from the country's annual economic movement, the chemical industry in general and the soap and detergent manufacturing in particular has negligible contribution from the overall economic area of Ethiopia so far. We asked to know how much the sector is dependent on the raw material imports to process the output, 63.8% of respondents strongly agreed that the sector is dependent, 32.8% of respondents agreed on the issue. Therefore, high dependency of the soap and detergent manufacturing on the raw material imports is considered as the major challenge of the Soap and detergent manufacturing in Ethiopia. The figure (*refer Figure 4.1*) below shows how raw materials dependency can be the basic challenge of the industry. The imported soap and detergents producers do not have significant effect on the market. This helps the domestic producers to produce more when there is available material for the production of Soap and Detergents in Ethiopia.

Based from our literatures review majority of developed economies chemical industry sector is much concentrated by aged workforce. What about in Ethiopia? Majority of the respondents skewed and said they are strongly disagreed neutral and not agreed and about the industry is largely composed with aged work forces, 27.6%, 15.5%, 13.8%, respectively. Of course around 20% and 22% of the respondents are agreed and strongly agreed that the industry is largely composed with aged workforces. Is really the major challenge of the industry? Many of the respondents under education and experience category are average qualified young workforces. The response has shown the problem is not really ahead ache for Ethiopia and the developing world too. The developed has been followed tight population policy for the past century. This creates a young workforce shortage parallel with the exponential growth of the chemical industry.

However, in most developing economies, unemployment rate is increasing year to year. This is inclusive for the skilled and qualified workforce due to the low capacity of the industry to snatch the labor supply. Hence, the issue is not the major challenge for the soap and detergent industry in Ethiopia.

In order to know the effect of policy and incentives provided by the government for the industrial growth, we asked the respondents about the concern of the government. 29.3% of respondents agreed that the government gives less concern towards the sector leads to reduce the production capacity and supply. 25.9% of them responded the government gives favorable working environment for the sector and 19% of them are neither confident about the government effort nor could not deny the concern. The 27.6% of respondents also believed the government policy is not encouraging and 17.2% said the government almost neglects the sector but 15.5% of respondents said the government design appropriate policy for the sector. In all three interrelated responses the concern of the government towards the sector, poor policy designing concerning the chemical industry and inadequate incentive mechanisms could not attract both the domestic and foreign investors for the country as the growth and the goal requires. Therefore, the less concern of the government towards the industry, poor government policy designing that helps the sector to utilize potential and inadequate incentives provided by the government is also a major challenge of the soap and detergent industry in Ethiopia.

The issue of infrastructural facility is strong issue for the manufacturing sector in developing countries like Ethiopia. Infrastructural supply such as Road construction to supply the output for the consumer, reliable water supply for production, reliable energy etc. are some of the components to attract domestic & foreign investors towards the industry. For the time being

we only consider the relevance of energy and the supply challenge of the industry. The sector is highly required reliable energy to manufacturing of Soap and detergents. 48.3% of respondents said there is lack of reliable energy for the soap and detergent sector and the issue is the basic challenge that hinders the growth of the soap and detergent industry in Ethiopia. 43.1% respondents also give strong weight that lack of reliable energy affects the output of the soap and detergent industry in Ethiopia. 5.2% from the total respondents believes reliable energy supply is not a big concern for the production of Soap and detergent industry and the remaining 3.4% respondents have doubt on lack of reliable energy affect the output. Therefore, we can simply say that lack of reliable energy is the basic challenge of Soap and detergent industry.

More than 2/3 of respondents, 82.8% are strongly believed that the foreign exchange shortage paralyzing the soap and detergents industry in Ethiopia by exacerbating the raw material shortage in the market. The effect of raw materials shortage pushes the manufacturers' loss their bargaining power at the input market leads to create inefficiency in production and increasing the price of output to get the normal profit weaken the competitive advantage of domestic producers with the imported items. However 10.3% of respondents said shortage of foreign currency is not the major challenge to supply the raw material for the soap and detergent manufacturers in Ethiopia. In other side 6.9% said foreign currency shortage affects the supply of inputs for manufacturers. The seriousness of the foreign currency shortage has multiplier effect (*refer figure 4.2*). In the one hand reduce the supply of raw materials for production. In the other hand shifts the market strong hand from the domestic suppliers for imported soaps and detergents by accessing the mass production. We can simply show from the response that how much the foreign currency shortage worsen the industry and takes the first place of becoming a major threat of the sector so far.

43.1% and 34.5% of respondents agreed and strongly agreed about those manufacturers can get external finance to produce Soap and detergent and 17.2% from the total respondents believed that the manufacturers could not have access for financing for their working capital need. 5.2% of respondents said the issue might not be serious challenge but it might affect their working potential of the industry. From the total 19 private and state-owned banks, and more than 100 microfinance institutions, the belief of financing the sector cannot get full thrust and one of the basic challenges of the industry.

In Ethiopia, there are more than 33 Public universities and 20 recognized private colleges in operation. How many of them are giving adequate knowledge and skill for their graduates particularly in the chemical industry department? It is a billion dollar issue for the sector. We

disseminated questionnaire about the adequacy of skilled and technical knowledge and expertise in the phenomena of interest. Most of the respondents' believed the soap and detergent sector has inadequate technical knowledge and expertise. 56.9% of respondents bold the inadequacy of technical knowledge and expertise is strongly challenging the sector and 31% from the total respondents also agreed that lack of technical knowledge is a challenge. However 5.2 % of respondents believed this is not a strong bottleneck for the growth of the industry and the remaining 3.4% of respondents also have the same attitude. The response has strong tendency towards the inadequacy of technical and skilled expertise in the market. This can be also one of the major challenges of the soap and detergent manufacturing in Ethiopia.

Even if the industry has technical and profession expertise, less motivated worker always produce under the efficient and optimal level than the motivated one. Of course the industry is in its way in Ethiopia and the competition of the sector is in its infancy. All the way is however to grow the industry and maximize the social and economic welfare. Without ethical and motivated staffs the aforementioned goals could not be achieved. In Ethiopia, 29.3% of respondents believed that the industry has motivated and ethical staff in the production process. However 32.8% respondents said the industry has a problem on motivational and ethical workforce. The outlier of the frequency, 3.4%, respondents said they have strong belief that soap and detergent industry constitute motivated and ethical staff in the production process. The small competitive field of the study area give less incentive for staffs and the motivational issue is basically raised that we proved by the response. The issue has also another challenge of the sector; however it has low magnitude and strength to deteriorate the output.

The frequency of respondents puts in two extreme tails. Majority of respondents, 31% and 58.6%, believed that the consumer perceived there is a quality difference among the locally produced and the imported soap and detergents. The lowest proportion, 5.2% and 5.2%, is constituted by the no quality difference. The production needs very careful production and quality supply due to the capacity to change the looking, comfort and appearance of human being. Hence the quality of imported production is one of the strong challenges for the low quality soap and detergent manufacturing of Ethiopia.

In developing economies like Ethiopia, price issue more sensitive than quality. This emanates mainly from the level of income that the people get. 44.8% of the respondents said the consumer is highly sensitive to the percentage change in price and 24.1% of the respondents also said there is price elasticity of demand in the soap and detergent market. However 20.7%

of respondents believed that the demand is inelastic and 10.3% respondents said the market is unitarily elastic demand. Most of the respondents argue and we can simply say that the sensitivity of the demand for the percentage (even if it's slight) change in price has a moderate effect on the industrial growth.

Table 4.4. Frequency Distribution of the domestically produced soap and detergent sector

price elastic of demand	Frequency	Percent	Valid Percent	Cumulative Percent
disagree	12	20.7	20.7	20.7
neutral	6	10.3	10.3	31.0
Valid agree	14	24.1	24.1	55.2
strongly agree	26	44.8	44.8	100.0
Total	58	100.0	100.0	

The promotion strategy is one of the non-price competition determinants. 44.8% of respondents said the domestic soap and detergent industry follows weak promotional effort limits marketability of the product and 25.9% of them were also agreed the weak marketing effort. 6.9% respondents said weak marketing effort does not reduce the marketability of the product. And 13.8% of respondents also said weak marketing effort does not totally reduce the marketability of the product. Therefore weak promotion strategy also has moderate impact on the growth of the industry.

Table 4.5. Frequency Distribution of Weak promotional effort of the soap and detergent production

Weak promotional effort	Frequency	Percent	Valid Percent	Cumulative Percent
strongly disagree	4	6.9	6.9	6.9
disagree	8	13.8	13.8	20.7
neutral	5	8.6	8.6	29.3
Valid agree	15	25.9	25.9	55.2
strongly agree	26	44.8	44.8	100.0
Total	58	100.0	100.0	

Ethiopia is net importer country. Hence the effect of this fact influences the brand sensitivity of the domestic demand. 31 % of respondent's however respond that the domestic demand brand sensitivity reduce the marketability of the locally produced soap and detergent. 29.3% of respondents said the demand brand sensitivity does not reduce marketability of the local products. This has shown brand sensitivity has little impact on the industrial growth.

48.3 % of respondents said that the industry does not apply network marketing strategy to address its customers throughout the country. However 20.7% of respondents believed that the producers follow network marketing strategy to reach the demand. The industry poor network marketing system also slightly hinders the soap and detergent sector of Ethiopia.

Table 4.6. Frequency Distribution of the Brand sensitivity of domestic demand

Brand sensitivity	Frequency	Percent	Valid Percent	Cumulative Percent
strongly disagree	12	20.7	20.7	20.7
disagree	18	31.0	31.0	51.7
neutral	2	3.4	3.4	55.2
Valid agree	17	29.3	29.3	84.5
strongly agree	9	15.5	15.5	100.0
Total	58	100.0	100.0	

In most of the time, such kind of medically advisable but sensitive products should be segmented by age, naturally friendly products, type, kind and other medically breaking factors. 36.2% of respondents believed that the soap and detergent manufacturers does not consider the market segment based on the customers need. 25.9% of respondents however agreed that there is market segmentations by the soap and detergent manufacturers. A slight response also deviated for unreliable market segmentation and considered as a challenge for the sector.

Table 4.7. Frequency Distribution of the soap and detergent manufacturers market segments

market segments	Frequency	Percent	Valid Percent	Cumulative Percent
strongly disagree	10	17.2	17.2	17.2
disagree	21	36.2	36.2	53.4
Valid neutral	12	20.7	20.7	74.1
agree	15	25.9	25.9	100.0
Total	58	100.0	100.0	

The contemporary global situation obliged us to approach in to the environmentally friendly principle by fear or by love. We have taken a lesson from the majority of respondent perception about the soap and detergent manufacturing in Ethiopia is not environmentally friendly. 36.2%, majority of respondents, were strongly agreed that the sector does not create conducive and friendly environment. This is therefore the basic challenge of both current and future generation of the chemical industry sector in general and the soap and detergent manufacturing in particular.

Table 4.8. Frequency Distribution of the soap and detergent sector environmentally friendly response

environmentally friendly	Frequency	Percent	Valid Percent	Cumulative Percent
strongly disagree	21	36.2	36.2	36.2
disagree	16	27.6	27.6	63.8
neutral	4	6.9	6.9	70.7
agree	9	15.5	15.5	86.2
strongly agree	8	13.8	13.8	100.0
Total	58	100.0	100.0	

58.6% of respondent disprove that the imported soap and detergent products are provided at lower price than the domestic one. Despite the above there is less perception that the imported soap and detergent products are provided at lower price than the local products, not more than 5%. Therefore the imported products suppliers do not take price advantage in the market and negligible impact and power to determine the market price.

According to the collected data most of the domestic demand is brand loyal and proved by 46.6% and 34.5% respondent response. Less response is given for the imported items brand loyalty has less impact on the domestic demand. Therefore the domestic demand is brand loyalty to the imported soap and detergent products than the domestically produced items.

34.5% from the total respondents agreed about the imported soap and detergent products do not take into consider the income level of the domestic demand. Average number of response is also given from the respondents that the imported items consider the income level of the consumer. Therefore the imported soap and detergent products are not segmented for different income level and category appropriate for potential demand that the domestic producers.

The packaging material of the products makes difference in the sector. The respondents have proved the theoretical assumption. 36.2% of respondents believed that packaging of the products makes difference with the local production. However the respondents do not agree that the packaging items are environmentally friendly and easily renewed. The average frequency response also has neutral perception about the renewable nature of the packaging materials. Therefore imported soap and detergent products take the non-price competitive advantage of having good packaging material than the local producers.

Most of domestic soap and detergent manufacturers believed that the mass supply of the imported soap and detergent products does not help to penetrate the market easily. 41.4% of them did not accept the mass supply of imported items has impact on the domestic producers. This is due to the fast moving consumer goods nature always requires bulk supplies and both the imported and the domestically produced products could not satisfied the need of the market so far. Therefore production capacity of the imported product manufacturers does not have impact on the domestic producers.

Both the mass supply and the production capacity advantage of the imported soap and detergent manufacturers do help to determine the market price. It means, differentiated products in the market give a power to set and determine the price. Indirectly the response has a message about the domestic producers that mass supply and supply side power of imported product manufacturers has low market influence does help the local producers produce up to the efficient level.

As compared with the imported products the domestic producers could not have access to get enough working capital finance to expand their potential and remain competitive in the market. 37.9% of respondents believed the fact that there is low access of external finance to become the small and medium sized manufacturer competitive with the imported soap and detergent manufacturers.

The production scale of the industry can be measured by the use of sophisticated technology and the quality of the work force integral effort. 37.9% respondents agreed that the production scale of the domestic soap and detergent manufacturing are comparative with the imported product manufacturers. The average frequency response however believed that there is unbalanced production capacity between the imported products manufacturers and the domestic producers.

43.1% of respondents strongly agreed that the imported products suppliers use effective marketing strategy to address the unutilized demand than the domestic manufacturers. The average frequency data describes the disagreement and the neutrality of the respondents on

the phenomena of interest. These responses arguable about the imported product suppliers take the non-price competition by marketing on the domestic producers.

Most of the respondents disproved the government poor policy and strategy towards the sector discourage potential investors enters in to the industry. In figure, 29.3% of respondents show their support that the government policy does not discourage the soap and detergent manufacturing. The average frequency however rolls over the neutral response and a slight agreement of the policy problem designed by the government. 29.3% of respondents strengthen their perception as the government gives incentives and duty free import scheme for the installation of the soap and detergent manufacturing. 20.7% of respondents have doubt to decide whether there is incentives and duty free import access or not at the initial stage. This can be also restricting the supply of the local production.

However 29.3% of respondents said the government gives less attention to expand the skilled and technical labor force to the labor market. The average frequency distribution has shown there is government concern about the labor market and neutral to decide the government attention towards it reduces the supply of the products.

44.8% of respondents believed that the soap and detergent manufacturers used outdated machineries for production. 20.7% of respondents said the sector does not use the obsolete machineries and equipment. The average number of respondents said they are neutral about the machinery and equipment modernization. The obsolete and outdated machineries and equipment reduce the supply of the soap and detergent products.

CHAPTER FIVE:

5. CONCLUSION AND RECOMMENDATION

5.1. CONCLUSION

The contribution of industry, particularly manufacturing to the overall GDP of Ethiopia is one of the lowest in the world, assign post of its least industrialized economic structure overall. However the contribution of the industry for the developed world cannot be expressed in one simple statement. The chemical industry is one of the biggest industry sub sector in developed world while at the early stage in the developing countries, like Ethiopia. The study aims to investigate the level and the growth of the industry on particular focus of the soap and detergent manufacturing in Ethiopia. The study has also assessed the basic challenges and the supply side bottlenecks of the sector and the impact of the imported Soap and Detergent on the domestic production of the phenomena of interest.

Even if there are few literatures have found on the subject matter, the researcher tried to identify and address the major research objective in line with the contemporary research methodology. The study has used descriptive analysis to identify and assessed the major challenges of the Soap and Detergent industry in Ethiopia, to investigate the impact of imported soap and detergent products on the domestic manufacturing and found out the supply side bottlenecks of the industry. The study has used primary data collection method for analysis. We have assessed 20 sample companies from the total 39 soap and detergent producers in Ethiopia. We applied stratified random and stratified simple random sampling technique to infer the sample to the total population. Liker scale mechanism has also been developed to measure the level of agreement of the respondents, from 1; strongly disagree to 5 strongly agree. We asked questions to select one of five responses that are ranked in order of strength in order to measure respondent attitudes to a particular questions or statement. In the scale we cannot use the mean as a measurement of central tendency as it has no meaning. The frequency of the data has been analyzed from the raw Liker response.

The study found out that the foreign currency shortage, sartorial dependency of imported raw materials, lack of reliable energy, inaccessibility of external finance and less environmentally friendly relations are the basic challenges of the soap and detergent industry in Ethiopia. The government concern towards the sector, poor policy design by the government and inadequate financial and non-financial incentives provided by the government, inadequate technical and skilled expertise, the quality difference among the imported and the locally produced items, the price elastic demand in the sector, weak promotional and marketing effort by the domestic manufacturers and suppliers have a moderate effect on the growth of the industrial sector in general and the soap and detergent sub-sector in particular. The composition of the industry with the aged workforce however has a slight effect on the growth of the industry. Due to few numbers of literatures that has been presented so far we

provided an interesting output from the study. Based from the above findings we shall design appropriate and relevant solution to eliminate or reduce the magnitude of the industry challenges. This can be strongly forwarded in the next sub-section, recommendation.

5.2. RECOMMENDATION

So far, we tried to address the challenges and prospects of the soap and detergents industry in Ethiopia. Now, we shall recommend options and mechanisms to solve and reduce the pressure and become efficient in the production of the sector. These are the solution to get rid the industry challenges.

- The National Bank of Ethiopia shall give priority, like other priority sectors, for the imported raw materials used to process and produce soap and detergents to reduce the foreign exchange shortage problem.
- The government should continue to provide industrial zones and give chance to invest and produce raw material locally to reduce the foreign currency shortage and easily providing the imported raw materials challenge as usual.
- The government is sole provider of energy in Ethiopia. Therefore the government should either open the energy sector for private companies to become efficient or manage the reliable energy for the sector to reduce the downtime of the industry.
- State-owned, Private and Microfinance financial institutions should design appropriate and industry wise financing policy to solve the working capital shortage of the domestic soap and detergent manufacturers.
- The manufacturers should take responsibility to tend the environment favorable both for the current and the future generation by using environmental friendly chemicals that helps to reduce the environmental pollution and the societal welfare.
- The manufacturers should produce competent products (both in price and quality) to address the potential demand in the market.
- The manufacturers and or soap and detergent product suppliers should design contemporary marketing strategy by themselves or outsource the marketing issue to become more competent in the industry.
- The manufacturers should follow preliminary foreign currency requisition for their raw material.

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Annex

Annex 1

Summary of licensed Soap & Detergent Manufacturing projects(1992-2015)

Region	Total No of Projects	Pre-Implementation	Implementation	Operation			
		No of Projects	No of Projects	No of Projects	Capital in '000' Birr	Perm Empl.	Temp Empl.
1992	2	2					
1993	3	2		1	4,126	80	0
1994	5	2	1	2	70,614	326	0
1995	5	2	2	1	4,050	25	0
1996	11	4	1	6	84,331	293	34
1997	3	3					
1998	4	2	1	1	1,668	14	0
1999	1	1					
2000	6		2	4	56,384	368	70
2001	2	1	1				
2002	2	1		1	30,942	94	0
2003	4	2		2	13,427	94	0
2004	11	9		2	105,117	35	71
2005	8	5	2	1	1,300	10	0
2006	16	9	2	5	47,096	665	252
2007	11	8	2	1	70,580	20	0
2008	25	19	3	3	28,000	177	185
2009	13	10		3	15,210	28	25
2010	29	20	4	5	359,346	431	464
2011	23	23					
2012	23	22	1				
2013	20	20					
2014	23	22		1	4,000	18	
2015	1	1					
Grand Total	251	190	22	39	896,191	2,678	1,101

Annex 2

**Summary of Licensed All Manufacturing Investment Projects
by region of investment and Status
Since January 29, 1992 - December 10, 2015 G.C**

Region	Total No of Projects	Pre-Implementation	Implementation	Operation			
		No of Projects	No of Projects	No of Projects	Capital in '000' Birr	Perm Empl.	Temp Empl.
Addis Ababa	7,314	5,819	584	911	43,983,395	59,341	20,562
Afar	35	27	3	5	55,438	131	510
Amhara	1,039	832	87	120	7,609,432	10,986	6,188
B.Gumze	26	13	3	10	48,779	215	250
Dire Dawa	673	613	34	26	500,666	1,479	461
Gambella	8	3		5	8,934	283	242
Harari	282	244	28	10	103,215	903	162
Multiregional	123	7	32	84	2,340,174	4,839	3,175
Oromia	4,207	3,238	322	647	34,059,044	50,656	21,976
SNNPR	1,187	457	149	581	2,676,371	11,436	38,214
Somali	88	66	3	19	115,523	859	1,573
Tigray	1,165	613	249	303	4,107,901	18,819	5,301
Grand Total	16,147	11,932	1,494	2,721	95,608,872	159,947	98,614

Annex 3

**Summary of Licensed All Manufacturing Investment Projects
by investment type and Status
Since January 29, 1992 - December 10, 2015 G.C**

Investment Type	Total No of Projects	Pre- Implementation	Implementation	Operation			
		No of Projects	No of Projects	No of Projects	Capital in '000' Birr	Perm Empl.	Temp Empl.
Domestic	13,957	11,143	1,035	1,779	10,713,635	65,536	51,914
Foreign	2,117	752	443	922	74,048,207	90,800	45,830
Public	73	37	16	20	10,847,031	3,611	870
Grand Total	16,147	11,932	1,494	2,721	95,608,872	159,947	98,614

QUESTIONER

ST. MARRY UNIVERSITY

SCHOOL OF BUSINESS

Dear Respondents,

This questionnaire is designed to gather data on Assessing perception`s on the challenges of industrial growth in Ethiopia. The purpose of the study is to fulfill a thesis requirement for the Masters of Business Administration (MBA) at St. Merry University. Your highly esteemed responses for the questions are extremely important for successful completion of my thesis. The information that you provide will be used only for the purpose of the study and will be kept strictly confidential. You do not need to write your name. Finally, I would like to thank you very much for your cooperation and sparing your valuable time for my request.

Address

Andargachew Yimam , St Mary's University MBA graduate class.

Tel. 0911364196

Email andargachewy@yahoo.com

1. BASIC QUESTIONS

N.B indicates your response by putting “ “in the provided box.

1. Sex Male
 Female
2. Age under 20
 20-29
 30-40
 Above 40
3. How long have you been in operation?
- 0-5 years
 5-10 years
 11-20 years
 Over 20 years

4. Education level

- High school complete
- Diploma
- Degree
- Masters Degree and above

2. QUESTIONS REGARDING CHALLENGES OF INDUSTRIAL GROWTH IN ETHIOPIA

The following questions are prepared to evaluate the challenges on the growth of soap and detergent industries in Ethiopia. Answering the questions properly will help the researcher to understand your opinion towards the sector.

Each question contains (5) choices and each number represents answers for the questions representing different level of response.

5. Strongly Agree 4. Agree 3. Neutral 2. Disagree 1. Strongly Disagree

2.1. To identify the basic challenges that hinders the growth of Ethiopian soap and detergent industry

S.N	The sector faces challenges that hinder the growth of the soap and detergent manufacturing	5	4	3	2	1
1	The Soap and Detergent manufacturing is dependent on the raw material imports.					
2	The Soap and Detergent industry largely composed with aging workforces.					
3	Less concern of the government towards the sector reduces the production capacity of the Soap and Detergent manufacturing.					
4	The industrial policy of the government encourages the Soap and Detergent industry in the country.					
5	Lack of reliable energy for the Soap and Detergent manufacturing reduces the production capacity of the sector.					
6	The supply of raw materials for the Soap and Detergent manufacturing is highly affected by the foreign exchange shortage.					
7	The Soap and Detergent sector has access of financing opportunity for the working capital need of the industry.					
8	The Soap and Detergent sector has inadequate technical knowledge and expertise.					
9	The Soap and Detergent industry constitutes motivated and ethical staffs in the production processes.					
10	The consumer believes there is a quality difference among the locally produced and the imported soaps and detergents.					
11	There is price elastic demand for the domestically produced soaps and detergents production.					
12	Weak promotional effort of the soap and Detergent production reduces the marketability of the product					
13	The Brand sensitivity of domestic demand reduces the marketability of the locally produced Soaps and Detergents.					
14	The Soap and detergent industry applying networking strategy to address its customers throughout the country.					
15	The Soap and detergent manufacturers considers the market segments.					
16	The Soap and Detergent manufacturers assess the comments and feedbacks of the consumers to remain competitive in the market.					
17	The soap and Detergent sector is environmentally friendly.					

2.2. To investigate the impact of imported soap and detergents on domestic soap and detergent sector growth

S.N	The imported Soap and Detergent has an impact on the domestic soap and Detergent sector growth	5	4	3	2	1
1	The imported Soap and Detergent products are provided at lower price than the domestically produced items.					
2	The imported Soap and Detergent products are well known in quality than the domestically produced items.					
3	The domestic demand is brand loyal to the imported Soap and Detergent products than the domestically produced items.					
4	The imported Soap and Detergent products are segmented for different income level and category appropriate for potential demand than the domestic manufacturers.					
5	The imported Soap and Detergent products have good packaging materials than the domestic producers.					
6	The imported Soap and Detergent items packaging materials are easily renewable and environmentally friendly than the domestic.					
7	Mass supply of the imported soap and detergent products helps to penetrate the market easily.					
8	The production capacity of the imported soap and detergent manufacturers helps to set the price on the domestically manufacturer competitors.					
9	The domestic manufacturers can have access to get working capital finance that helps to compete with the imported soap and detergent.					
10	The production scale of the domestic soap and detergent manufacturers are comparative with the imported item manufacturers.					
11	The imported Soap and detergent suppliers use effective marketing strategies to address the unutilized demand than the domestic manufacturers.					

2.3 To assess the Supply of the soap and detergent sector in the country

S.N	There is supply side bottlenecks of Soap and Detergent manufacturing	5	4	3	2	1
1	The government policies discourage the investors to establish soap and detergent manufacturing.					
2	The government does not give incentives and duty free scheme for the establishment and installation of soap and detergent manufacturing.					
3	The government does not give grace period for taxes and other government fees for the new entrants.					
4	The government gives less attention to introduce skilled and technical labor forces to the market.					
5	There is shortage of raw material supply in the market.					
6	There is foreign currency approval delay for the import of raw materials.					
7	The Soap and Detergent manufacturers used obsolete machineries and equipments for production					
8	The industry has following insufficient marketing strategy					
9	There is weak supply management system in the Soap and Detergent industry					