



St Mary's University

School Business

**Assessment of Factors that Affect Export of Chemical
and Chemical Products: The Case of sample firms
operating in Addis Ababa”**

By: ABDULGEFAR HUSSEIN SHAFO

ID: SGS/ 0523/2007 A

JANUARY, 2017

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ID: SGS/ 0523/2007 A

ADVISOR: MARU SHETE (PhD and Assoc. Prof).

**A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL OF BUSINESS IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
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DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of **Maru Shete (PhD and Assoc. Prof)**. All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institutions for the purposes of earning any degree.

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ENDORSEMENT

This thesis, titled “Assessment of Factors that Affect Export of Chemical and Chemical Products: the case of sample Firms Operating in Addis Ababa” has been submitted to St. Mary’s University, School of Business for MBA program with my approval as a University advisor.

Advisor

Signature

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ACRONYMS

BA:	Bachelor of Art
BSc:	Bachelor of Science
CCIIDI:	Chemical and Construction Inputs Industries Development Institutes
CSA:	Central Statistics Agency
EEA:	Ethiopian Economics Association
ERCA:	Ethiopian and Customs Authority
ECIC:	Ethiopian standard industrial classification
ETB:	Ethiopian Birr
GDP:	Gross Domestic product
GTP:	Growth and Transformation Plan
ICT:	Information Communication Technology
LDCs:	Least Developed Countries
MoFED:	Ministry of Finance and Economy Development
MoI:	Ministry of Industry
MoTI:	Ministry of Trade and Industry
MLSMI	Medium and Large Scale Manufacturing Industries
NBE:	National Bank of Ethiopia
R&D:	Research and Development
SPSS:	Statistical Package for Social Science
UNCTAD:	United Nation Conference on Trade and Development
US:	United State
USD:	United State Dollar

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ABSTRACT

The export performance of the chemical industry is much lower than the performance of other industries in the manufacturing sector. It contributed 0.052 Million USD in 2012/13, which increased to 18.63 USD million by 2015/16. Even though the export of chemical and chemical products is increasing, the amount of export in terms of value is very low compared to other sectors like leather and leather industries sector, textile industries sector and meat and milk products industries sector. The main aim of the study is to assess and identify the critical factors that hinder export of chemical and chemical product in Addis Ababa. The internal and external factors that can hinder the export of chemical and chemical product manufacturers are given much emphasis in the study. To this end primary data are collected from 43 chemical industries and employee of Ministry of Industry. Questionnaire and interview were the main data collection tools used in collection of primary data. Secondary data are also collected from different institutions. The study has found lack of expertise, not fulfilling international quality standards, shortage, low quality and inaccessibility of raw materials in the local market, inadequate infrastructure, shortage of power, shortage and inaccessibility of loans to finance export business and shortage of foreign exchange to import raw material from the foreign market. Finally the study recommended facilitation of an experience sharing program with exporters, striving and promoting to fulfill international quality standards, investing in firms which can produce raw material, improving the efficiency of infrastructure, avoiding bureaucracy in different government institutions, inviting foreign companies to invest in the sector and strengthening university-industry linkage.

Key Terms: Chemical, Export, Manufacturing, Performance.

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the Study

Economic development is one of the main objectives of every nation and economic growth is fundamental to economic development. There are several variables that contribute to economic growth. Export is considered as one of accelerators of growth. The economics literature supports the contention that development requires economic growth to alleviate poverty, and greater access to world markets is perceived as a necessary condition for more rapid growth. For example, using cross-sectional regression, Agosin (2007) finds that export diversification has a stronger effect on per capita income growth

The export performance of the manufacturing sector showed marked differences between different sub-sectors. According to Central Statistics Agency (CSA, 2013), the major exporting manufacturing industries are food and beverage, leather and leather products, textiles and chemical and chemical products. According to the same report the export performance of food and beverage industries during the GTP I implementation period was ETB 2.77 million and ETB 12.52 million in 2010 and 2012 respectively. The wider margin of export earning in manufacturing sector is generated by leather and leather products next to food and beverage. It recorded an export value of ETB 4.97 million, ETB 12 million and ETB 17 million for the first three consecutive years (from 2010 – 2013) of GTP. Textile industry is one of the early commenced industries in the country but waken up to register better export return only in the GTP period. Even more badly, among the manufacturing industries, the chemical industry in Ethiopia is mushrooming and its export contribution is minimal despite the existence of huge potential in propelling economic growth to the nation.

Under Growth and Transformation Plan II (2015/16- 2019/20) of the Minister of Industry (MoI), production of textile and garments, leather products, cement industry, metal and engineering, chemical, pharmaceuticals and agro-processing are priority areas for investment. The government gives due attention for both export promotion and import substitution strategies in those industries. Especially the chemical and chemical product industries meant to focuses on to

substitute imports and to supply different raw materials for other export oriented industries especially for leather and leather product industries, textile industries and for agro processing industries. In the meantime, the government also promotes these industries to export their product in the foreign markets.

The chemical and chemical products subsector involves the manufacturing of basic chemicals and manufacturing of other chemical products. The manufacturing of basic chemicals includes the manufacturing of basic chemicals except fertilizers and nitrogen compounds, manufacturing of fertilizer and nitrogen compound, manufacturing of plastics in primary form and of synthetic rubber and other basic chemicals. The manufacturing of other chemical products includes manufacturing of pesticides and other agro chemical products, edible salts, manufacturing of pharmaceutical, medicinal chemicals and botanic products, manufacturing of cleaning and cosmetics, manufacturing of polishes, waxes, dressing and incenses, manufacturing of other chemical products except basic chemicals. Most of these industries are focusing on supplying for the growing and promising domestic market. Only some industries which are exporting their product to the foreign market especially to the neighboring countries like Somaliland, Djibouti and Somalia.

The researcher was working in the Ethiopian Chemical and Chemical Products Manufacturing Association as a program officer. Most of the members for this association were from soap and detergent, paint and adhesive and basic chemical industries. These industries have raised different issues during their meeting specially their common problems that are prevailing in the environment. These common problems include shortage of raw material, shortage of foreign exchange, lack of finance, bureaucratic red tape in different government institutions especially in Ethiopian Revenue and Customs Authority and Banks. In addition to the above problems, the industrialists were raising issues related to exporting their product to the foreign market. However, most of them were not able to export their product due to different factors. Hence, this issue attracted the interest of the researcher to assess the factors that affects the export of chemical and chemical products to the foreign market. In the other way, the government is planning to increase export of chemical and chemical products to the foreign market in growth and transformation plan II. Therefore, this paper also analyzed the trends of export of chemical and chemical products.

1.2.Statement of the Problem

The export performance of the chemical industry is much lower than the performance of other industries in the manufacturing sector. It contributed 0.052 Million USD in 2012/13, which increased to 18.63 USD million by 2015/16. Even though the export of chemical and chemical products is increasing, the amount of export in terms of value is very low compared to other sectors like leather and leather industries sector, textile industries sector and meat and milk products industries sector. Of chemical exports, the major ones are soap and detergents, cleaning and polishing, perfumes and toilet preparations that generated about two thirds (73.3%) of the receipts from the sub-sector. The industry has improved its export performance over the periods scoring a larger amount of earnings in the GTP I season.

According to MoI, (2015), the export performance of the chemical industries was \$ 17.77 million USD, which is 88.87 % of what was planned during 2014/15. This figure is 60.7 % higher than that of the previous year. According to the report, the major export items shipped during the period were cement (90.62%), plastics (5.39%), soap (0.19%) and other chemicals (0.02%). From the above figure we can see that the export share of chemical and chemical product manufacturers is very low. However, the export performance of the other sector in the same year shows that textile 98.046 million USD, leather and leather products 132.86 million USD, meat and milk 101.65 million USD, food, beverage and pharmaceuticals 43.85 million USD and metals 14.94 million USD. This shows that export performance of chemical products industries is much lower than other sectors except metal sector.

According to chemical and construction inputs industries development institutes, (2015), there were different factors that hinder chemical product manufacturers to achieve their export plan. Some of the factors include, some industries are still undertaking market research in the neighboring countries, while others have no international quality certificate or targeted only the domestic market, or faced a shortage of raw materials and did not operate at full capacity. Besides, other industries such as paint and soap industries have only the intention to export in the near future to the foreign market without actually committing themselves in entering to foreign market.

The MoI (2014/15) report on the export performance of the industry sector revealed that shortage of raw materials, giving due attention for the promising local market, lack of managerial and technical problems, and poor government service delivery especially in the Ethiopian electric utility and Revenue and Customs Authority were mentioned as critical factor hampering the performance of export of the industrial sector. While these factors are generally important, they are not sub-sector specific. The chemical industry may face different challenges compared to other sub-sectors due to its specific nature.

Different studies have been conducted by different people to analyze the supply and demand side determinants of export performance and to analyze their impact on export performance of different sectors like leather and leather product industries and on flower industries. Besides in different reports of the government, such as MoI and Chemical and Construction Inputs Industries Development Institutes (CCIIDI), different reasons for the low level of export performance has been identified. These reports focuses on what the factors are affecting the export of chemical and chemical products. These reports only show some of the factors only. It does not show all possible factors that hinders export of chemical and chemical products. Besides, this research was done by collecting primary data from the sample chemical industries that are found in the city.

Against the background of the Ethiopian government's endeavor to boost the country's foreign exchange earnings by pursuing concrete policy measures and incentive schemes, the unsatisfactory export performance of the chemical industry calls for studies that aim to systematic identify the factors that affect the growth of export of the chemical and chemical industries in the country.

Hence, in this research the factors that affect export of chemical and chemical products were assessed, identified and analyzed. Besides, the trend of export of chemical and chemical to the foreign market was analyzed.

1.3. Research Questions

The study answered the following questions

- What are the critical factors that hinder export of chemical and chemical products in the country?
- What is the trend of chemical and chemical products manufacturers export looks like?

1.4. Objectives of the Study

1.4.1. General objectives

The overall objective of the study is to assess and identify the critical factors that hinder export of chemical and chemical product in Addis Ababa.

1.4.2. Specific objectives

- To assess the trends of export performance of the chemical and chemical product industry in terms of value of export items.
- To identify the critical factors that hinders export performance of chemical and chemical product in Addis Ababa.

1.5. Significance of the Study

This research assessed the key factors that hinder export of chemical and chemical products in Addis Ababa. It is expected to contribute for the future development of the sector by identifying the factors that hinder export. Thus, it provides policy recommendations to strengthen the sector in general and to enhance the export performance in particular. This study will also provide an exploratory evidence for those who are interested to make further detail studies.

1.6.Scope and Limitation of the Study

The chemical and chemical industries have different sub-sectors. These includes the manufacturing of basic chemicals, other chemical products, pharmaceuticals, medicinal chemical and botanical products, cleanings and cosmetics, polishes, waxes and dressings and incense and manufacturing of other chemicals except basic chemicals.

However, undertaking research on factors that hinders export performance in the whole chemical industry at national level is a complex task since it requires huge finance, time, data source and sufficient knowledge. These constraints forced the researcher to undertake a research in the capital city (Addis Ababa) and focuses only in the three sub sectors such as manufacturer of basic chemicals, cleaning and cosmetics and other chemical products except basic chemicals of the chemical industry.

The study adopted a descriptive research design, while quantifying the causes by testing hypothesis would have been the best design in terms of showing the most significant factors that hindered export of chemical products. However, the absence of quantitative data forced the researcher to focus on only assessing of the factors that affect export of chemical products. Therefore, the reader and user of the finding of this study should consider this as a limitation. In addition lack of reliable data from different secondary sources put its own limitation in this study.

1.7.Organization of the Paper

The chapters of the research are classified according to the following scheme. The first chapters introduces the study, state the problem, raise research questions, set out the objectives of the study, and discusses the scope and limitation of the study. Chapter two dedicated to the review of related literature and deals with factors that hinder export of chemical and chemical products. Chapter three presents the methodology part. In this part the research design, population, sampling technique, type of data, source of data, method of data collection and analysis are described in a detailed manner. Chapter four is dedicated to discuss the findings of the study. Chapter five winds up the study by giving a brief conclusion of the study and at last recommendations are forwarded based on the findings.

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

2.1.Theoretical Review

2.1.1. The Role of Export on Economic Growth

Export-led growth is a trade and economic policy aiming to speed up the industrialization process of a country by exporting goods for which the nation has a comparative advantage. Export-led growth implies opening domestic markets to foreign competition in exchange for market access in other countries. Export-led growth is important for mainly two reasons. The first is that export-led growth can create profit, allowing a country to balance their finances, as well as surpluses their debts as long as the facilities and materials for the export exist. The second, much more debatable reason is that increased export growth can trigger greater productivity, thus creating more exports in an upward spiral cycle (David, 2003).

Whether export is an engine of economic growth has been a contentious issue in the growth literature for various reasons (see, for example, Buffie 1992; Jaffee 1985; Keesing 1967; Riezman, et al. 1996), and there are scholars who support import-substitution strategy to foster development (Prebisch 1950; Singer 1950). Proponents of the export-led growth theory argue for the existence of a strong correlation between exports and economic growth; they believe that the export sector plays a key role in enhancing overall economic performance.

Export expansion fosters higher total factor productivity growth (Krueger 1978; Ram 1987) and better use of resources by offering the potential for economies of scale (Helpman and Krugman 1985; Sharma and Panagiotidis 2004). If there were incentives to increase investment and improve technology, it would imply a productivity differential in favor of the export sector. Thus, an expansion of exports, even at the cost of other sectors, will have a net positive effect on the rest of the economy (Sharma and Panagiotidis 2004).

Exports may benefit economic growth by generating positive externalities on non-exports (Feder 1983), bringing about technological progress through foreign competition (Kavoussi 1984; Moschos 1987), improved allocate efficiency, and better ability to generate dynamic comparative advantage (Sharma and Panagiotidis 2004).

Sectoral exporting is an economic development strategy of many countries. Tourism service exports in Greece are an example (Thompson and Thompson, 2010). With its thousands-year culture and birthplace of philosophy, famous tourist hotspots as its capital Athens, the northern Chalkidiki peninsula etc., Greece is one of the best destinations for global tourists and tourism was found to be a long run factor to economic of the country (Dritsakis, 2004).

The Philippines is the paradigmatic example of a state that deliberately constructed policy for its exports of labor abroad. Yang (2004) has demonstrated that Philippine families with migrant members abroad fared considerably better than family member without migrants. The Philippines have succeeded in developing a large scale labor export regime that provides significant level of remittances to the Philippine economy. Remittances from abroad labor are seen as a particularly stable source of its finance (Ratha, 2003; Kapur, 2004) so that the Philippines try to keep labor exports as more as possible. For its important role in an economic growth of developing countries, sectoral exports are also considered one of important economic development strategy in Vietnam.

2.1.2. Growth and Transformation Plan II and Export

According to MoI (2015/16), the manufacturing industry unlike other industries needs huge and that cannot be returned easily capital, long run perspective and commitment, modern organizational structure and management facilities, intense rivalry and have high risk and the sector which have low profit margin. In the other side trade, service and construction sectors profit can be obtained easily and have less return risk. The presence of rent seeking practice and lack of adequate support from the government makes the manufacturing sector under developed. These conditions not only hinder the attraction of potential investors to the sector but also makes difficult to retain and motivates the existing investors in the sectors. It also creates difficulties in the reduction of rent seeking practices.

Export trade is not only the source of foreign currency that the nation obtains but also enables exporters to build their capacity through enhancing productivity, production of quality products and enables to be competitive in the international market in a sustainable manner. If a company is not competitive in the international trade, it is difficult to be competitive in the domestic

market sustainably. A sector which is competitive in the international market has a key role in sustainable productivity growth, technological transfer, increment in quality production and development of the country. Even if the government has different export promotion strategies, like tax incentives, low level land lease price and providing different infrastructures, the development of the manufacturing sector is still underdeveloped.

Industry minister GTP II document, shows that the government has given due attention to investment projects that substitute strategic import goods, simultaneously with export promotion strategies. However, substitution of strategic imports was focus mainly on foods and beverage industries during GTP I implementation period. This does not enable the transfer of technology, value addition and integration between industries. During the period supporting strategic industries to increase their product and productivity, encouraging for export trade and the attraction of engineering industries which have a key role in the growth of the industries have been not given due attention.

Therefore, in GTP II, according to MoI (2015/16), the government will give due attention for industries which are export oriented and that absorbs abundant labor force.

2.1.3. The Government's Chemical Industry Export Promotion Strategy

The government of Ethiopian has given different types of incentives for the manufacturing industries in general and for the chemical and chemical product industries in particular. Among the different types of incentives, an export incentive is one of them. According to Minister of Trade Regulation No.270/2012, some of the export incentives granted for the chemical and chemical products industry includes:- manufacturing of basic chemicals, ethanol, fertilizers and nitrogen compounds exempts from income tax for **5** years in Addis Ababa and special zone of Oromia and **6** years in other areas., Fertilizers and nitrogen compounds production allows importing duty free 1 pickup, 1 delivery van if the investment is in Addis Ababa and special zone of Oromia and surroundings and 2 pickups, 1 delivery van and 1 truck in other areas. Manufacturing of paints, varnishes or similar coatings; printing, writing and painting inks and mastics, soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations exempts from income tax for **2** year if it is in Addis Ababa and Oromia special

zones and 4 years in others areas and manufacturing of other chemical products (propellant powders, explosives, photographic films and similar products) exempts from income tax for 2 years in Addis Ababa and Oromia special zones and 3 years in other areas. However, the level of export in the chemical and chemical industries is at an infant level.

2.1.4. Ethiopia's Export Base

The major agricultural export crop is coffee, providing about 30.6% of Ethiopian foreign exchange earnings. Coffee is critical to the Ethiopian economy. More than 15 million people (25% of the population) derive their livelihood from the coffee sector. Other exports include live animals, leather and leather products, chemicals, gold, pulses, oilseeds, flowers, fruits and vegetables and chat, a leafy shrub which has psychotropic qualities when chewed (MoFED, 2010/11).

On other hand, recent initiatives have sought to document and regulate this trade. Dependent on a few vulnerable crops for its foreign exchange earnings and reliant on imported oil, Ethiopia lacks sufficient foreign exchange. The financially conservative government has taken measures to solve this problem, including strong import control and sharply reduced subsidies on retail gasoline prices. Nevertheless, the largely subsistence economy is incapable of supporting high military expenditures, drought relief, an ambitious development plan, and indispensable imports such as oil and, therefore, must depend on foreign assistance.

According to MoFED (2010/11), export revenue was highly dependent on few commodities, where Coffee, Chat, Oil Seeds, Hide Skin and Flower accounted for 78% in average. High dependence of exports on primary exports has many drawbacks for the country. Because of the following reasons;

First, traditional exports have been dominated by declining terms of trade which made export earnings not to increase well enough despite increased export volumes, despite the recent spikes in value of traditional exports. This can be revealed from the fact that unit value of exports was 116 in 1981 while it declined to 81 in 2004 showing nearly a 30% decline in 24 years (Sisay, 2010).

Secondly, traditional exports do not have much linkage effects in the economy because mostly LDCs are sent raw product as well as have been problem of commodity and market concentration result stiff competition.

Thirdly, the incentives provided by the new policy to promote exports could not totally eliminate the anti-export-bias incentive structure that originated from heavy protection of the domestic industries. As a result, the export supply response was weak and the export earning mainly resulted from coffee price boom and institutional reforms than the effect of trade and exchange reform.

2.2. Empirical Literature

2.2.1. Determinants of Export Trade

Different studies have been conducted by different people to analyze the determinants of exports and to analyze their impact on export performance. Different studies used the imperfect substitution model proposed by Goldstein and Khan (1985) to analyze the determinants of countries export performance. For example, Munoz (2006) analyze the impact of parallel market and governance factors on Zimbabwe's export performance using quarterly data and found positive and significant relationship between exchange rate and export. Similarly, On a study made on the factors affecting export performance in three different export categories; total merchandize exports, manufacturing exports and exports of machinery and equipment on nine East & South East Asian countries by Jongwanich (2007) using quarterly data and Imperfect Substitutions Model, Results found from the long run equation reveal that real exchange rate to have different elasticity in the three export categories, it was found to have highest elasticity for merchandise export while lowest elasticity for exports of machinery and transport equipment. Real exchange rate impact also varies among the nine countries; it was found to have lowest elasticity for Philippines while the largest elasticity for Indonesia. Contrary to real exchange rate influences, world demand was found to have highest impact for exports of machinery and transport equipment and lowest impact for merchandize export.

World demand as determinants of countries' export has been significant, but it was found to be insignificant for Indonesia's export in all the three categories. The coefficient of world demand

was highly elastic for China, more than 1, but less than 1 for the other countries in the group (ibid). The same study also revealed that, production capacity was found to affect positively and significantly all countries exports in all categories with elasticity nearly above 1 in all cases.

Recent studies on export have been focused on the role of trade facilitation reforms on export performance. A study made by Portuga-Perez and Wilson (2010) tried to analyze the role of hard infrastructure (roads, ports, airports, rail infrastructure and information communications technology) and soft infrastructure (efficiency of customs and domestic transport and business regulatory measures and transparency) on export performance of 101 countries during 2004 -07. The results from their study revealed that an improvement in hard and soft infrastructure leads to more exports which ensure that investments on physical infrastructure have a positive impact on exports, but declining as per capita income increases, on the contrary investments in ICT and soft infrastructures were found to have more impact on richer countries.

Domestic transport infrastructure is one of the major factors affecting export supply capacity of a nation. It is expected to play an important role especially at the early stages of export sector development (UNCTAD, 2005). Most African countries are characterized by poor transport infrastructure, which is a major impediment to trade, competitiveness and sustainable development (Bacchetta, 2007). Due to poor internal transport infrastructure African transport costs are high making their exports expensive and uncompetitive and reducing foreign earnings from exports (Matthee et.al, 2007). Therefore, improvements in transportation services and infrastructure can lead to improvements in export performance (Fugazza et.al, 2008). They argue that infrastructure directly affects transport costs by determining the type of transport used (for example, the type and quality of roads determines the maximum size of trucks) and delivery time for the goods. Fugazza (2004) founds that the internal transport infrastructure has a significant and positive impact in raising exports.

The role of financial development on export has been discussed by many authors as a supply side determinant. Empirical literatures like Berman and Hericourt (2008) tried to study the role of financial development on export. Using a large cross-country firm level database in developing and emerging economies, they found that financial constraints create a disconnection between firms' productivity and their export status. These two authors conclude that an increase in a

country's financial development increases the number of exporters and hence countries overall export performance. Manova (2008) also developed a model to explain the role of financial development on trade flow with countries at different levels of financial development, credit constrained heterogeneous firms, and sectors of varying financial vulnerability. The author showed that financially developed countries are more likely to export more.

The other major factor that affects export supply capacity or export demand decision is the real exchange rate. The real exchange rate can be an important variable in determining export growth, diversification and international competitiveness of goods produced in a country (UNCTAD, 2005). It is a key variable that requires close government supervision in any program to expand and diversify exports (Biggs, 2007) since its management can influence export performance over a large number of different product groups (Mouna and Reza, 2001).

Biggs (2007) explained the real exchange rate is often rendered uncompetitive in low income countries by poor economic management and turbulence in financial markets. Ensuring that the real exchange rate adjusts to more realistic levels is a means of enhancing the economy's incentives for exporting and can lead to an increase in the production of export products (Oyejide, 2007). While an overvalued currency can undermine export competitiveness through a direct loss of price competitiveness for exporting firm's undervaluation of the currency can bolster export competitiveness (Biggs, 2007), enhance the incentives for export activities (Oyejide, 2007).

On the other hand, some studies indicate that the effect of exchange rate on export is negative. For example, in estimating the relationship between exchange rate and export competitiveness for Singapore which may have more relevant for small economies whose export have highly dependent on raw materials and intermediate goods from abroad, Telak and Yeok (1998) showed that in the presence of high import content, export is not adversely affected by currency appreciation. Their justification for this result is in the presence of high import content appreciation results lower import price which in turn reduce cost of export. Similar result was found by Fang and Miller, (2004) but for different reason. They tried to show currency depreciation doesn't improve export rather it resultsexchange rate risk (generated by fluctuations) which significantly impedes export.

The other factor affecting export performance is degree of openness to trade. Opening economic policies to trade with the rest of the world is needed for export and economic growth. This is because in recent decades there is no country achieving economic success in terms of substantial increases in living standards for its people without liberalizing itself to the rest of the world. Trade liberalization has generally taken place in least developed countries (LDCs) as part of the structural adjustment program.

Trade liberalization implies considerable reduction in tariff and non-tariff barriers, so as to establish a noticeable open market as compared with the pre-liberalization era. The empirical researches focusing on the impact of trade liberalization (openness) on export earnings have exhibited positive results. For example, literatures show that countries which get on liberalization programs have improved their export earnings (Ahmed, 2000). Similarly, Seyyed et.al (2011), using panel data evidence for 19 countries found that open trade policy enhances GDP and export growth. Using these results clearly prefer open trade policy over more trade barrier which enhance GDP and export growth. Conversely, Giovani and Levencko, (2007) argue that increased trade openness has contributed to rising uncertainty and exposed countries to external shocks and hence, adversely affects country's export.

Michiel van Dijk (2002) conducted a study to identify the determinants of export performance in developing countries: the case of Indonesian manufacturing. The data were covering all manufacturing firms that were functional, otherwise active in 1995, and in order to analyze the relationship between export and its factors he used an empirical model especially suited for estimating fractional variables. The result indicates that technology and cost related factors determine export behavior in supplier dominated firms and, to a lesser degree, scale intensive firms.

Niringiye and Tuyiragize (2010) studied the determinants of manufacturing firm level Exports in Uganda. In authors incorporated a range of factors that determine the export performance of the manufacturing sector, including business environment factors, factor intensity variables and specific firm characteristics. In order to identify the factors that determine export of manufacturing goods, they employed Tobit and Probit econometric models. They found that

higher levels of capital to labor ratio, firm size, ownership, and being an agro-based and chemical firm are the major determinants of propensity to export.

2.2.2. Overview of Ethiopian Economic Performance

Ethiopia has experienced fast economic growth in recent years. With real GDP growth rate 11.0% (double digit levels) since 2011/12, the country has consistently outperformed. Country's economy is highly vulnerable to exogenous shocks by virtue of its dependence on primary commodities and rain fed agriculture. Ethiopia has experienced major exogenous shocks during the past eight to nine years. These are notably droughts and adverse terms- of -trade (e.g., prices of coffee and fuel). There is a strong correlation between weather conditions and Ethiopian economic growth performance (MoFED, 2011/12).

Ethiopian economy is based on agriculture, which accounts for 44% of gross domestic product (GDP), 80% of exports, and 80% of total employment. However, Ethiopia's agriculture is plagued by periodic drought, soil degradation caused by overgrazing, deforestation, high population density, high levels of taxation and poor infrastructure this is making it difficult and expensive to get goods to market. Yet agriculture is the country's most promising resource. A potential exists for self-sufficiency in grains and for export development in livestock, grains, vegetables, and fruits (MoFED, 2011/12).

The present regime design new economic policy where promote exports to economic growth was given due to importance in the development strategy of the country. Ethiopian exports have been growing at an average rate of 22% during the study period; Ethiopian export sector is still small (passing US \$2.7 billion). Due to this, Ethiopian export is still highly dependent on Agricultural exports. Exports of goods and services as a share of GDP have increased from 12% in 2000/01 to 17% in 2010/ 11. Total export increase from US \$1 billion in 2005/06 to US \$ 2.7 billion in 2010/11. It grew by 22% per year over this period (MoFED, 2010/11).

CHAPTER THREE

3. RESEARCH METHODOLOGY

3.1. Research Design

A descriptive research designs was employed in the study to assess the key factors that affects the export performance of chemical and chemical product industries in Addis Ababa. The reasons for using this designs was that it enables to describe the different determining factors that affects the export performance of chemical and chemical product industries.

According to Kothari (1990), descriptive research includes surveys and fact-finding enquiries of different kinds. The major purpose of descriptive research is description of the state of affairs as it exists at present. This usually means survey research where a sample of population is studied (questioned or observed) to determine its characteristics, and it is then inferred that the population has the same characteristics. Therefore, the researcher employed survey strategy.

3.2. Population

Population is the total group of people or entities from which information is required. In Ethiopia, according to the Ethiopian standard industrial classification (ECIC), revised 1, 2011, manufacturing of chemical and chemical products are sub divided in six different sub sectors which includes, the manufacture of basic chemicals, manufacture of other chemical products, manufacture of pharmaceuticals, medicinal chemical and botanical products, manufacturing of cleanings and cosmetics , manufacture of polishes, waxes and dressing and incense and manufacturing of other chemicals except basic chemicals.

From the above categories of chemical and chemical product industries, the researcher selected purposefully three sub sectors as target population. These sub sectors were manufacture of basic chemicals, manufacturing of cleaning and cosmetics and manufacture of other chemical products except basic chemicals. The reason for this selection was the ease to accesses data, shortage of time and resource to study the whole industry, the presence of many industries in these three sub sectors and the reason that few of them are currently exporting though at low level and some

other industries have a plan to export in the near future. Hence it was convenient to take samples from these sub sectors.

Table 3.1: Number of chemical industries in the country and Addis Ababa

S/No	Industry type	Number of industries in Ethiopia	Number of industries in Addis Ababa
1.	Manufacturers of basic chemicals(gas, alkyd resin,)	13	6
2.	Manufacturers of cleaning and cosmetics(soap and detergent factories)	72	38
3.	Manufacturers of other chemicals except basic chemicals(paint factories)	16	14
Total		101	58

Source: Chemical and Construction Input Industries Development Institute, 2015

3.3.Sample frame

According to Kothari (1990), a decision has to be taken concerning a sampling unit before selecting sample. Sampling unit may be a geographical one such as state, district, village, etc., or a construction unit such as house, flat, etc., or it may be a social unit such as family, club, school, etc., or it may be an individual. Therefore, as the research was done at Addis Ababa city, industries in the three sub sectors that are located in the city were taken as sample unit, which were 58.

3.4.Sampling Technique

As mentioned in the above table, there are 58 chemical and chemical products manufacturer in Addis Ababa in three targeted sectors. However, to draw appropriate sample from these manufacturers, the researcher used Slovin's sample calculating technique which is $n= N/1+Ne^2$.

Where n = is sample size,

N = Population

e = Margin of error.

Hence, $n = N / (1 + Ne^2)$

Accordingly, the sample size was determined using 95% confidence level and 5% margin of error. Therefore, the sample size was $n = 58 / (1 + 58 * (0.05)^2)$ and approximately equal to 50 projects.

The researcher followed the method of proportional allocation under which the sizes of the samples from the different strata were kept proportional to the sizes of the strata. That is, if P_i represents the proportion of population included in stratum i , and n represents the total sample size, the number of elements selected from stratum i is n_i . Hence the sample from the three sub sectors were calculated as follows.

Number of samples (n) = 50 drawn from a population of size $N = 58$ which is divide in to three strata of size $N_1 = 6$, $N_2 = 38$ and $N_3 = 14$. Adopting proportional allocation, the sample for each stratum calculated as follows.

$$n_1 = n \cdot P_1 = 50(6/58) = 5.27 \approx 5.$$

$$n_2 = n \cdot P_2 = 50(38/58) = 33.41 \approx 33$$

$$n_3 = n \cdot P_3 = 50(14/58) = 12.31 \approx 12$$

Therefore, 5 sample industries were selected from the manufacturers of basic chemicals, 33 industries from manufacturers of cleaning and cosmetics (soap and detergent factories) and 12 industries from manufacturers of other chemicals except basic chemicals (paint factories). Random sampling method was employed to take representatives in each stratum.

3.5.Source and Tools of Data Collection

3.5.1. Source of Data

In order to undertake the research, the researcher used both primary and secondary data. The primary data was obtained through semi structured questioners from the sample chemical and chemical product industries. In addition, the researcher undertook a face to face interview with officials in Federal Democratic Republic of Ethiopia Ministry of Industry, Chemical and Construction Inputs Development Institute to obtain deeper information about the industry.

The study also utilized time series secondary data from different sources. Such as CSA'S annual large and medium scale manufacturing industry survey and the statistical abstract documents, Industry Minister (MoI), Chemical and Construction Inputs Industries Development Institute (CCIIDI), Minister of Fiancé and Economic Development (MoFED), Ethiopian Revenue and Customs Authority (ERCA), National Bank of Ethiopia (NBE) and Minister of Trade to assess the factors that determines export performance of the sub sector.

3.5.2. Method of Data Analysis

To achieve the stated objectives and come up with reliable results the researcher used mean frequency tables, graphical presentation and percentage data presentations (descriptive and trend analysis). In order to obtain those required descriptive results, the study employed statistical software known as Statistical Package for Social Science (SPSS).

CHAPTER FOUR

4. DATA ANALYSIS AND DISCUSSION

This research has been conducted to assess factors that are affecting the export business activities of chemical and chemical product manufacturers in Addis Ababa and to see the trends of export performance of the chemical and chemical industry. Of the 50 questionnaires distributed to respondents, 43 were collected yielding a response rate of 86 %. To complement the questionnaire data, interview has been administered to director, in Ministry of Industry chemical and construction inputs development institute. The questionnaires have the value of “r” (Cronbach’s alpha) 0.803.

4.1.Result of the Study

4.1.1. Trends of Export Performance in the Chemical Sector

This part is based on the secondary data collected from Ministry of Industry and Chemical and Construction Inputs Development institutes.

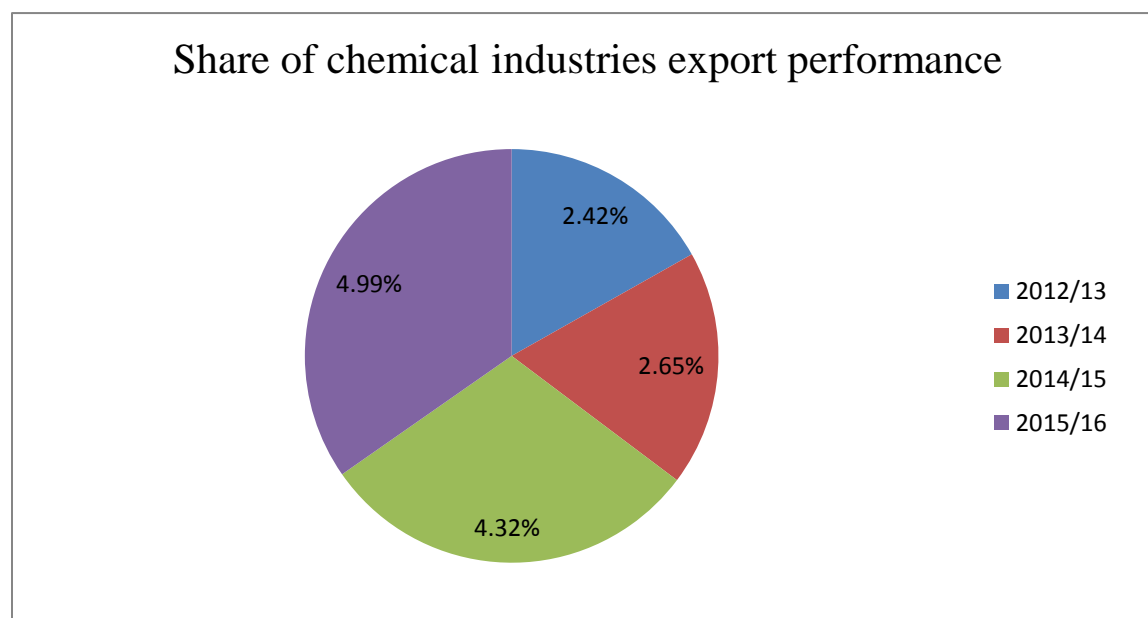
Table 4.1: Trends of export in the chemical industry sector

Sector	(in Thousand Dollar)			
	2012/13	2013/14	2014/15	2015/16
Chemical industries	52.1	10,615.0	17,773	18,636.8
Other manufacturing industries	2156.77	399,939	411,136	373,717.8

Source: Ministry of industry export performance reports, 2016.

As we can see from table 4.1 the chemical industry amount of export is increasing from time to time. It was 52,100, 10,615,000, 17,773, 18,636.8 USD in 2012/13, 2013/14, 2014/15 and 2015/16 respectively. As we see from the following figure, the share of the chemical industry sector from the total manufacturing industries’ export performance is also increasing from time to time. In 2012/13 it had a share of 2.42%, in 2013/14 it was 2.65%, in 2014/15, the sector shares 4.32 % of the total export performance and in 2015/16 it takes the share of 4.99 %. However, the amount of export in the chemical industry sector is still at a lower stage compared to the other manufacturing sectors. The sector is contributing less for the receipt of foreign earning compared to the other sector in the country.

Figure 1: - Share of chemical industry export performance from the total manufacturing industry export performance during 2012/13 to 2015/16.



Source: Ministry of Industry Export Performance reports, 2016.

As Growth and Transformation Plan II document from the industry minister shows, the government is planning to increase the export of chemical and chemical products to the foreign market in the GTP II period. From the following table we can see that, in GTP II period, the government of Ethiopia has planned to export \$ 0.027 billion worth of chemical and chemical products in 2015/16. In 2016/17 the government plans to export \$ 0.049 billion worth of chemical and construction inputs products. In 2017/18, the export plan is \$ 0.062. In 2018/19, \$ 0.080 billion worth of chemical and chemical products is planned to export. In the final year of the GTP period, \$ 0.100 Billion USD worth of chemical products is planned to export.

Table 4.2: Export plan in the chemical industry sector (in US Billion Dollar)

Sector	2013/14 performance	2014/15 expectation	2015/16	2016/17	2017/18	2018/19	2019/20
Chemical industries	0.011	0.020	0.027	0.049	0.062	0.080	0.100
Total Manufacturing Industries	0.398	0.535	0.666	1.11	1.547	2.221	3.162

Source: Ministry of industry Growth and Transformation Plan II document, 2014

When we see the comparison between the plan and performance of export of chemical and chemical products, there is a remarkable difference during the first two years of GTP II period. Let us see the following table

Table 4.3: The comparison between the plan and performance of export of chemical and chemical products.

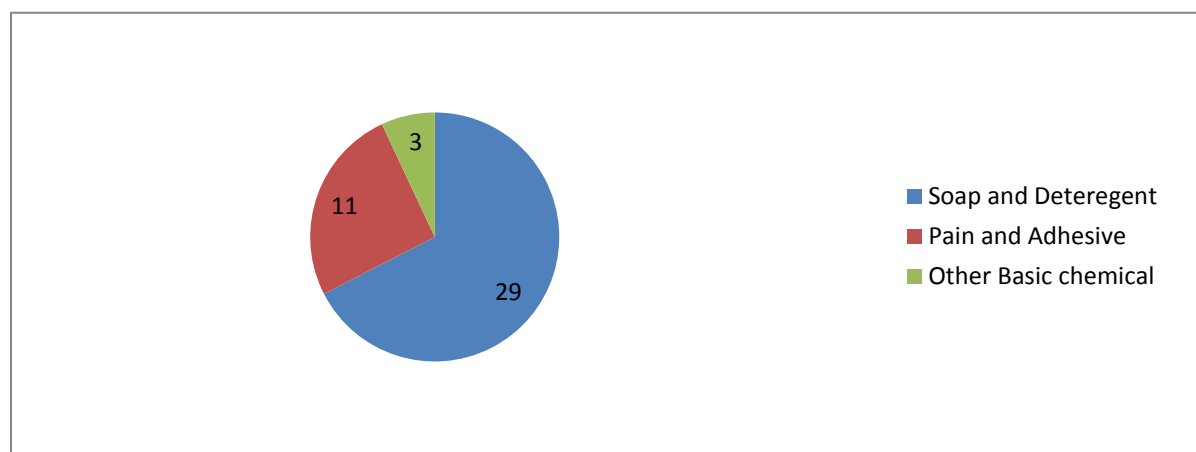
Year	Plan to export (Dollar)	Performance (Dollar)	Variation	Variation in %
2014/15	20,000,000	17,773,000	2,227,000	11.14
2015/16	27,000,000	18,636,800	8,363,200	30.98

Source: MoI, GTP II document and own calculation, 2016

From the above data we can see that there is a big difference in the export plan and performance of chemical and chemical industries. In 2014/15 there was a variation of 2,227,000 USD between the export plan and performance of the chemical industry. In 2015/16, the variation increased to 8,363,200 USD. This shows that the variation between the plan and performance of export of chemical and chemical products is increasing from time to time. If this trend continues, it is very difficult to achieve the GTP II export plan of the sector.

4.1.2. Analysis of Data Collected from Respondents

Figure2: Respondent's Origins



Source: Own Survey, 2016

As shown from the above data 29(67.4%) of the respondent were from the Soap and Detergent industry, 11(25.6%) were from paint and adhesive industry and the remaining 3(7%) were from other basic chemical manufacturers.

Table 4.4: Nationality of Respondents

	Frequency	Percent
Ethiopian	35	81.4
Foreigner	4	9.3
Both Ethiopian and Foreigner	4	9.3
Total	43	100.0

Source: Own Survey, 2016

As the above table shows the among 43 companies, 33(81.4%) were owned by Ethiopian, 4(9.3%) were owned by foreigners and the same numbers were owned by both Ethiopian and foreigners.

Table 4.5: Export status

	Frequency	Percent
YES	2	4.7
NO	41	95.3
Total	43	100.0

Source: Own Survey, 2016

Regarding export status only 2(4.7%) of the respondents are currently exporting their product to the foreign market which are from paint and adhesive sector. These industries provide their product for the both local and foreign market. The other 41(95.3%) industries are not exporting their product. They are currently focusing in providing their product to the local market only.

4.1.2.1. Internal Factor Analysis

According to Thompson and Strickland (2004), one of the most valuable resources a company has is the ability to perform a competitively relevant activity very well. A competitively important internal activity that a company performs better than other competitively important

internal activities is termed as core competence. A company's core competence can relate to any to any several aspects of its business: expertise in building networks and systems that enable e-commerce, speeding new or next generation product to market, good after sale service, skill in manufacturing a high quality product, innovation in developing popular product features, speed and agility in responding to new market trends and changing competitive conditions.

In this part of the paper different internal factors that can affect the export performance of the industries are assessed. In each factors different elements that are proxy to them are examined.

a. Human Resource related factors

Most often, a company's core competence resides in its people and in its intellectual capital, not in its assets on balance sheet. Knowledge and intellectual capital, more than physical asset and tangible organizational resources, is the key ingredient of a core competence and a firm's competitive capability Thompson and Strickland (2004).

To assess the human resource related factors, the respondent of this research were asked three different human resource related factors.

Table 4.6: Human resource factors

Factors	Response	Frequency	Percent
Do managers in the company have good work experience in the export sectors?	Yes	13	30.2
	No	30	69.8
	Total	43	100.0
Do employees in the company have good work experience in the export sectors?	Yes	5	11.6
	No	38	88.4
	Total	43	100.0
Does the company have training and development program for its employee to enhance their effectiveness?	Yes	27	62.8
	No	16	37.2
	Total	43	100.0

Source: Own Survey, 2016

As we can see from the above table 4.7, most managers (69.8%) and employees (88.4%) in the companies do not have good work experience in the export sector business. Though most companies (62.8%) have training and development program to enhance the effectiveness of their employee, 37.2 % of them do not have such scheme.

In this time human resource is a main competitive advantage for any firms who want to compete in the global economy. Experience and skillful human resource is a key for success. Managers that have a good experience of the business that the firm is engaging have an advantage. However, most of the chemical industries' managers and employees do not have good work experience in the export sector business. This may lead to the low level of export motives in the industry and have a negative impact in future export plan of the industries.

b. Marketing strategies related factors.

Export marketing plan can facilitate the objectives of the organization in the international market. In this plan different issues can be raised. When a company prepares export marketing plan it can assess different conditions in the international market. For the marketing strategies related factors eleven sub factors were identified and asked for the respondent to assess their response. The following table 4.8 shows the response of the respondent in each factor.

Table 4.7: Marketing strategies factors

Factors	Response	Frequency	Percent
Does the company have export marketing plan?	Yes	12	27.9
	No	31	72.1
	Total	43	100.0
Does the company have international brand name?	Yes	5	11.6
	No	38	88.4
	Total	43	100.0
Does the absence of international brand name affects export business activity of the company?	Yes	30	69.8
	No	13	30.2
	Total	43	100.0
Does the company promote its product to international markets?	Yes	4	9.3
	No	39	90.7
	Total	43	100.0
Does the company have its own website?	Yes	32	74.4
	No	11	25.6
	Total	43	100.0
Does the company use its website to promote product?	Yes	22	51.2
	No	21	48.8
	Total	43	100.0
Does the price of company's product higher in the international market?	Yes	1	2.3
	No	42	97.7
	Total	43	100.0
Does the company's product does fulfill international quality standards?	Yes	14	32.6
	No	29	67.4

	Total	43	100.0
Does the company have international marketing networks that facilitate exporting?	Yes	2	4.6
	No	41	95.7
	Total	43	100.0
Does the company participate in trade fair and exhibition in the foreign market?	Yes	7	16.3
	No	36	83.7
	Total	43	100.0
Does the company participate in trade fair and exhibition in Ethiopia with foreign companies?	Yes	34	79.1
	No	9	20.9
	Total	43	100.0

Source: Own Survey, 2016

As the above table depicts, many respondents, 31 (72.1%) of the respondent, don't have export marketing plan. This shows that many chemical industries in Addis Ababa do not have a motive to export their product to the foreign market.

Regarding international brand name, 38(88.4%) companies don't have international brand name. 30 (69.8%) of the respondent says the absence of international brand name does affects their export business activity.

Respondents were asked whether they promote their company's product to international markets as a fourth factor. 39(90.7%) of the respondent says that they do not promote their product in the international market. even though 32 (74.4%) of the participant says they have their own website only 22 of them use their website to promote their products. They are not exploiting their available resource in a meaningful way. This finding also shows that there are companies that do not have website and not promoting their product in their website.

The seventh factor of marketing strategies asks about the price of their product in the international market. Hence only 1(2.3%) of the respondents says that the price of its product in the international market is higher but 42(97.7%) of the respondents says that it is not higher in the international market.

Respondents were also asked about quality standards of their product. 29 (67.4%) of the respondents says that their product does not fulfills international quality standards. The rest 14 (32.6%) respondents say their product fulfills international quality standards.

As we can see from the above table from 43 respondents only 2(4.6%) of them have international marketing networks that facilitate exporting. The remaining 41(95.7%) does not have international marketing networks that facilitate exporting.

For the last two factors the companies respond that 7(16.3%) them participates in trade fair and exhibition in the foreign market and the rest 36(83.7%) did not. And 34(79.1%) of the respondents says they have participated in trade fair and exhibition in Ethiopia with foreign companies and the rest 9(20.9%) not participated in trade fair and exhibition in Ethiopia with foreign companies.

c. Production capacity related factors.

When we see the production capacity related factors, there were three factors that the respondents were asked to respond. As the above table 4.9 shows, for the first factor 37(86%) of the total respondent says that the production capacity of their company is only to supply for the local demand. The rest 6(14%) respondents says the production capacity of their company is not only to supply for the local demand.

Table 4.8: - Production capacity

Factors	Response	Frequency	Percent
Does the production capacity of the company is only to supply for local demand?	Yes	37	86.0
	No	6	14.0
	Total	43	100.0
Can the company supply for both foreign and local market?	Yes	10	23.3
	No	33	76.7
	Total	43	100.0
Does the company intent only to supply for the growing and promising domestic market only?	Yes	30	69.8
	No	13	30.2
	Total	43	100.0

Source: Own Survey, 2016

Companies were also asked can they supply for both foreign and local market. Hence, only 10 (23.3%) of the respondents says they can and the other 33 (76.7%) says they cannot supply for both foreign and local demand.

Respondents were also asked for their intention to supply for the growing and promising domestic market only and they answered that 30(69.8%), their intention is to supply for only the growing and promising domestic market. The rest 13(30.2%) respondent says their intention is not to supply for only the growing a promising domestic market.

d. Technological environment related factors

The capacity of firms to innovate depends on a multitude of factors, not least the efforts they make to create new products or improve production processes, the extent of skills in their work force, their ability to learn, and the general environment within which they operate. Of all the innovation-related activities of firms – research and development (R&D), design, marketing, ‘tooling up’, acquisition of patents and licenses, hiring of skilled personnel – R&D expenditures are particularly important, and their volume and intensity help determine both gains in productivity and success in international markets. Moreover, technology affects the accumulation of human capital either directly through R&D investment or indirectly through technology diffusion. In the high-technology sectors, which by definition have a higher intensity of R&D expenditure, direct R&D plays a major role. Human-capital formation in low-technology manufacturing sectors, by contrast, benefits considerably from imported technology (The George Papaconstantino, 1997).

Regarding the company’s technological environment, four technological related factors were raised for the respondents.

Table 4.9: Technological environment

Factors	Response	Frequency	Percent
Does the company uses latest technological facilities in the production system?	Yes	12	27.9
	No	31	72.1
	Total	43	100.0
Does the company have research and development (R&D) department?	Yes	26	60.5
	No	17	39.5
	Total	43	100.0
Does the company’s research and development department have conducted marketing researches in the international market?	Yes	2	4.6
	No	41	95.4
	Total	43	100.0
Does the company’s R&D is the main	Yes	25	58.1

internal source of technology.	No	18	41.9
	Total	43	100.0

Source: Own Survey, 2016

As the table depicts, the first factors assess the use of latest technological facilities in the production system. Based on this question 12(27.9%) respondents answer that their company uses latest technological facilities in the production system and 31(72.1) respondents answers their company does not use latest technological facilities in the production system. For the second factor 26(60.5%) companies have research and development (R&D) department. The remaining 17(39.5%) companies do not have research and development (R&D) department. For the third factor only 2 (4.6%) companies', among 26 companies, research and development (R&D) department has conducted marketing research in the international market. And 25(58.1%) companies' research and development (R&D) department is the main internal source of technology.

4.1.2.2.External Factors Analysis

To assess an external factor that hinders the export of chemical and chemical industries, respondents were asked a set of questions that were answered based on Likert scale. The Likert-scale was a 5-point scale where 1 for strongly disagree, 2 for disagree, 3 for neutral, 4 for agree and 5 for strongly agree. In this analysis 6 main factors which have different sub factors were asked for the respondent. Based on this the following analysis is made.

a. Raw material related factors

Table 4.10: - Raw material related factors

Factors	Response	Frequency	Percent
Raw materials which are used for production of export items are widely available in local market	Strongly disagree	19	44.2
	Disagree	21	48.8
	Neutral	2	4.7
	Agree	1	2.3
	Total	43	100.0
Raw materials which are used for production of export items are widely available in foreign market	Disagree	3	7.0
	Neutral	3	7.0
	Agree	23	53.5
	Strongly agree	14	32.6

	Total	43	100.0
Raw material is obtained in a desired quality in the local market.	Strongly disagree	6	14.0
	Disagree	33	76.7
	Agree	4	9.3
	Total	43	100.0
There are easy procedures to import raw materials from foreign market.	Strongly disagree	5	11.6
	Disagree	28	65.1
	Neutral	4	9.3
	Agree	6	14.0
	Total	43	100.0
Raw materials which are used for production of export items are easily accessible in the market	Strongly disagree	8	18.6
	Disagree	20	46.5
	Neutral	13	30.2
	Agree	2	4.7
	Total	43	100.0
Costs of raw material which are used for production of export items are not costly.	Strongly disagree	1	2.3
	Disagree	26	60.5
	Neutral	12	27.9
	Agree	2	4.7
	Strongly agree	2	4.7
	Total	43	100.0

Source: Own Survey, 2016

Presences of raw materials in the local market, in desired amount and quality have its own strategic advantage in success of a company in the international market. In relation to raw material, the researcher raised several questions to participants to give their response.

For the first factor asked (as shown in table 4.11), almost all participants 40 (93 %), give negative response for the factor which says raw materials which are used for production of export items are widely available in local market. In the contrary 37(86.1%) of the respondents have a positive response for the factor which says raw materials which are used for production of export items are widely available in foreign market. From this finding we can understand that shortage there is a problem in acquisition of raw material that are used for production of export items in the chemical industry in the local market. 90.7% of the respondent also indicates that even if raw materials can be obtained in the local market, it is no in the desired quality.

Respondents were also asked to respond regarding accessibility of raw material in the market. For the factor which said raw materials which are used for production of export items are easily accessible in the market 28 (65.1%) respondents gave negative responses. 13(30.2%)

respondents are neutral and the remaining 2 respondents have positive responses. On the other hand, participants were also asked the cost of raw material in the market. 62.8% of the participant said raw materials which are used to produce export products are costly in the market. 76.7 % of respondents indicate that there is no easy procedure in the country to import raw materials from foreign market. Therefore, from this we can conclude that, raw material is not easily accessible in the market and raw materials which are used for production of export items are costly in the market.

b. Labor market related factors

Table 4.11: -Labor market related factors

Factors	Response	Frequency	Percent
Managers work experience in export business has no effect in export activities	Strongly Disagree	19	44.2
	Disagree	23	53.5
	Agree	1	2.3
	Total	43	100.0
Employee's work experience in export business has no effect in export activities	Strongly Disagree	20	46.5
	Disagree	20	46.5
	Neutral	2	4.7
	Agree	1	2.3
	Total	43	100.0
There is no shortage of skilled labor force in the labor market.	Strongly Disagree	6	14.0
	Disagree	17	39.5
	Neutral	9	20.9
	Agree	6	14.0
	Strongly Agree	5	11.6
	Total	43	100.0
Labor cost is not a problem to perform export activities.	Strongly Disagree	4	9.3
	Disagree	17	39.5
	Neutral	3	7.0
	Agree	15	34.9
	Strongly Agree	4	9.3
	Total	43	100.0

Source: Own Survey, 2016

From the above table it is clear that participants were asked four human resource related factors to collect their response in each of the factor. For the first factors which says managers work experience in export business has no effect in export activities almost all (97.7%) respondents

have negative response. They believe that managers work experience in export business has its own effect in the business. The same is true for employees' experience in export related business.40 (93%) participants disagree or strongly disagree for the statement that says employee's work experience in export business has no effect in export activities.

More than a half of the participants (53.5%) have a negative response towards the factor which says there is no shortage of skilled labor force in the labor market, 9(20.9%) participants are neutral and the remaining 25.6 % respondents have a positive response. Almost the same numbers of respondents believe that labor cost is not a problem to perform export activities.

From these finding we can see that managers and employees work experience in the export business has its own advantage and there is a shortage of skilled labor in the labor market. But labor cost is not a problem to perform export business in the sector.

c. Infrastructure related factors

Recent studies on export have been focused on the role of trade facilitation reforms on export performance. A study made by Portuga-Perez and Wilson (2010) tried to analyze the role of hard infrastructure (roads, ports, airports, rail infrastructure and information communications technology) and soft infrastructure (efficiency of customs and domestic transport and business regulatory measures and transparency) on export performance of 101 countries during 2004 -07. The results from their study revealed that an improvement in hard and soft infrastructure leads to more exports which ensure that investments on physical infrastructure have a positive impact on exports, but declining as per capita income increases, on the contrary investments in ICT and soft infrastructures were found to have more impact on richer countries.

Table 4.12: Infrastructure related factors

Factors	Response	Frequency	Percent
Electricity infrastructure of the country is a problem to export business activity of the country	Disagree	1	2.3
	Neutral	8	18.6
	Agree	30	69.8
	Strongly agree	4	9.3
	Total	43	100.0
Power supply shortage highly affects the day to day activity of the company.	Disagree	2	4.7
	Neutral	1	2.3
	Agree	26	60.5

	Strongly agree	14	32.6
	Total	43	100.0
Water infrastructure of the country is a problem to export business activity of the company.	Strongly disagree	5	11.6
	Disagree	19	44.2
	Neutral	11	25.6
	Agree	6	14.0
	Strongly agree	2	4.7
	Total	43	100.0
	Water supply shortage highly affects the day to day activity of the company.	Strongly disagree	5
Disagree		11	25.6
Neutral		9	20.9
Agree		17	39.5
Strongly agree		1	2.3
Total		43	100.0
Poor internet connection highly affects the day to day activity of the company.	Strongly disagree	1	2.3
	Disagree	8	18.6
	Neutral	4	9.3
	Agree	23	53.5
	Strongly agree	7	16.3
	Total	43	100.0
internet infrastructure of the country is a problem to export business activity of the country	Strongly disagree	2	4.7
	Disagree	3	7.0
	Neutral	8	18.6
	Agree	22	51.2
	Strongly agree	8	18.6
	Total	43	100.0
Telephone infrastructure of the country is a problem to export business activity of the company.	Disagree	13	30.2
	Neutral	16	37.2
	Agree	12	27.9
	Strongly agree	2	4.7
	Total	43	100.0
Poor telephone connection highly affects the day to day activity of the company.	Strongly disagree	1	2.3
	Disagree	7	16.3
	Neutral	20	46.5
	Agree	13	30.2
	Strongly agree	2	4.7
	Total	43	100.0
Poor road transport infrastructure of the country is a problem to export business activity of the company	Strongly disagree	1	2.3
	Disagree	7	16.3
	Neutral	14	32.6
	Agree	19	44.2
	Strongly agree	2	4.7
	Total	43	100.0
Absence of adequate transportation systems affects export business activity of	Disagree	7	16.3
	Neutral	7	16.3

the company.	Agree	25	58.1
	Strongly agree	4	9.3
	Total	43	100.0
Absence of rail transport affects export business activity of the company.	Disagree	3	7.0
	Neutral	11	25.6
	Agree	25	58.1
	Strongly agree	4	9.3
	Total	43	100.0
Cost of road transport service highly affects export business activity of the company	Disagree	5	11.6
	Neutral	15	34.9
	Agree	17	39.5
	Strongly agree	6	14.0
	Total	43	100.0
Cost of air transport service highly affects export business activity of the company	Disagree	4	9.3
	Neutral	20	46.5
	Agree	13	30.2
	Strongly agree	6	14.0
	Total	43	100.0
Cost of water transport service highly affects export business activity of the company	Disagree	12	27.9
	Neutral	15	34.9
	Agree	13	30.2
	Strongly agree	3	7.0
	Total	43	100.0

Source: Own Survey, 2016

Respondents were asked different question regarding infrastructure related factors. They gave their responses in each factors asked. The response is analyzed as follows.

In relation to electricity infrastructure respondents were asked two interrelated question to give their response. For the first question asked whether electricity infrastructure of the country is a problem to export business activity of the country, majority, 34 (79.1%), of the total respondents gives a positive response. And 8 (18.6%) of the respondent are neutral. The same is true for power supply. All most all of the respondents 40 (93.1%) agree or strongly agree that power supply shortage highly affects the day to day activity of the company. This shows that the electricity infrastructure and shortage power supply of the country is a problem for the manufacturer in the industry. This affects the production capacity, the productivity and effectiveness of the companies. Hence these factors have their own effects in the export motives of the company too.

The other infrastructure that the respondents asked was, about water infrastructure. More than half respondents gave negative responses for the factors that they are asked. 55.8% of the respondents disagree or agree for the statement which says water infrastructure of the country is a problem to export business. 25.6% of the respondents are neutral for the statement. But for the factor which says water supply shortage highly affects the day to day activity of the company 5(11.6%) strongly disagree, 11(25.6%) disagree, 9 (20.9%) neutral, 1(2.3%) strongly agree and the other 17(39.5) respondents agree. from this we can say that water infrastructure of the country is not a problem for the export business of the industry. Water is the main inputs for many chemical industries especially for paint and detergent industries. Hence, even if it is not a serious problem, it needs a close follow up from the government.

Participants were also asked about internet infrastructure and connection. Internet infrastructure and connection has a great impact in export business. Internet technology is a powerful tool for facilitating supply chain management: procuring items from suppliers, reducing inventory requirements and expediting the design and production of new components. It is an important new distribution channel that greatly extends a company's geographic market reach

Of 43 respondents 30(69.8%) agree or strongly agree that poor internet connection highly affects the day to day activity of their company and the same percent of the respondents gives positive response for the statement which says internet infrastructure of the country is a problem to export business activity of the country. This finding show that the country's internet infrastructure and poor internet connection is highly affects the export business activity of chemical industries.

Another infrastructure related question which was asked for the company respondents is regarding telephone infrastructure and connection. As it is clear from the above table is that for the question which says telephone infrastructure of the country is a problem to export business activity of the company 16 (37.2%), are neutral, 13(30.2%) gives positive response and the rest 14(32.6%) respondents disagree. Regarding telephone connection, 46.5% respondents are neutral, 15 (34.9%) have a positive response and the rest have a negative response. This shows that telephone infrastructure and connection is not a problem for the day to day activity of the chemical industry and for export business activity of the industry.

Transport plays a crucial role in determining the competitiveness of exports. Transport costs are an important barrier to trade and have an important effect on export. Problems of access to quality transport services manifest themselves in the form of reduced profit margins and reduced competitiveness. At the macroeconomic level they result in failure to develop a country's international trade potential and disadvantageous terms of trade. Direct transport costs include freight charges and insurance which is customarily to the freight charge. Indirect transport user costs include holding cost for the goods in transit, inventory cost due to buffering the variability of delivery dates, preparation costs associated with shipment size (full container load vs. partial loads) and the like. Indirect costs must be inferred. Improvements in transportation services and infrastructure can lead to improvements in export performance.

Regarding road transport infrastructure respondents were asked if poor road transport infrastructure of the country is a problem to export business activity of the company. Almost half, 21 (48.9%), participants agree or strongly agree on the statement, 14(32.6%) are neutral, and the rest 18.5% of the respondent gives negative response. For the other factor which says absence of adequate transportation systems affects export business activity of the company 67.4% respondents gives positive response, 16.3% are neutral and the same percent of respondents give negative response i.e. they disagree or strongly disagree for the statement. From this we can understand that there is a problem in the road transport infrastructure of the country and presence of adequate transportation system.

On the other hand, most respondents, 67.4 %, and gives positive response on the absence of rail transport affects export business activity of the company. 11 (25.6%) are neutral and 3 (7%) respondents disagree. Hence the rail transport that can connect Ethiopian from the neighboring countries especially to Djibouti should be given due attention to boost the export business of the country in general chemical industry in particular.

The last factor that respondents were asked in relation to infrastructure was about cost of transport infrastructure. For the statement which says cost of road transport service highly affects export business activity of the company 23(53.5%) agree or strongly agree and 15 (34.9 %) respondents are neutral. Only 5(11.6%) participants disagree with the statement. With the other factor which says cost of air transport service highly affects export business activity of the

company 13(30.2) participants agree, 6(14 %) strongly agree, 4(9.3%) disagree and the remaining 20(46.5%) are neutral. In relation to cost of water transport, the factor which says cost of water transport service highly affects export business activity of the company 13(30.2%) agree, 3(7%) strongly agree, 12(27.9%) disagree and 15(34.9%) are neutral. It is clear from the above paragraph is that, cost of transportation on road, air and water is not a critical problem for the chemical industry to export their product to the foreign market.

d. Government service giving related factors

The government of Ethiopian has given different types of incentives for the manufacturing industries in general and for the chemical and chemical product industries in particular. According to Minister Regulation No. 270/2012 there are many export incentives granted for the chemical and chemical products industry. This can boost the export status of the chemical industries in the country. The following table shows the response of the respondents.

Table 4.13: Government service giving related factors

Factors	Response	Frequency	Percent
The government gives different incentives to promote chemical industry export business.	Disagree	4	9.3
	Neutral	6	14.0
	Agree	24	55.8
	Strongly agree	9	20.9
	Total	43	100.0
The government service giving activity has no effect in the export business activity of the company.	Strongly disagree	7	16.3
	Disagree	25	58.1
	Neutral	5	11.6
	Agree	6	14.0
	Total	43	100.0
The government encourages to substitute imports rather than to promote export.	Strongly disagree	1	2.3
	Disagree	10	23.3
	Neutral	15	34.9
	Agree	13	30.2
	Strongly agree	4	9.3
There is easy export procedures	Total	43	100.0
	Disagree	30	69.8
	Neutral	11	25.6
	Agree	3	7.0
Land, which is used to produce export items,	Total	43	100.0
	Strongly disagree	7	16.3

can be easily obtained from the government without any problem.	Disagree	23	53.5
	Neutral	11	25.6
	Agree	1	2.3
	Strongly agree	1	2.3
	Total	43	100.0
The cost of land, which is paid to the government annually as a lease fee, is not high.	Strongly disagree	9	20.9
	Disagree	24	55.8
	Neutral	5	11.6
	Agree	5	11.6
	Total	43	100.0
Land is obtained freely for production of export items in chemical industry sector.	Strongly disagree	12	27.9
	Disagree	22	51.2
	Neutral	7	16.3
	Agree	1	2.3
	Strongly agree	1	2.3
	Total	43	100.0

Source: Own Survey, 2016

As shown from the above table that 76.7% of the respondents indicates that the government gives different incentive to promote the export of chemical and chemical industries export status. Only 9.3 respondents disagree and 14 % respondents are neutral for the statement. So, it is clear from this is that the government has no a problem to give different incentives for chemical industry exporters.

For the second factor which says the government service giving activity has no effect in the export business activity of the company majority (74.4%) of the respondents gives negative response, 6 (14%) respondents agree and the other 5(11.6 %) are neutral. This shows that the government service giving activities in different institution like in Customs, Trade ministry, Industry ministry, and National bank and in other service giving areas are key factors in promoting export businesses.

Regarding the third government service giving related factor which says the government encourages substituting imports rather than to promote export 1(2.3%) respondents strongly disagree, 10 (23.3%) respondents disagree, 15(34.9%) respondents are neutral, 13 (30.2%) respondents agree and 4 (9.3%) respondents strongly agree. So it is clear from here is that the

government is not only encouraging to substitute imports. Rather the government encourages both import substitution and export promotion.

For the question that asks whether the export procedure is easy the majority, the majority 30 (69.8%) respondents gives negative response, 11 (25.6%) respondents become neutral and 3 (7%) respondents agrees. from this finding we can say that there are many export procedures in the government institutions. This discourages industries to export their products to the foreign market.

In relation to land, three factors were asked for the participants. The first factor says land, which is used to produce export items, can be easily obtained from the government without any problem. However, 69.8% of participants gave negative response; they disagree or strongly disagree with the above statement. The same is true for the second and third factors related to land that say the cost of land, which is paid to the government annually as a lease fee, is not high and land is obtained freely for production of export items in chemical industry sector respectively. For the first statement 33 (76.7%) respondents' gives negative responses, 5 (11.6%) respondents neutral and the same number of respondents agree with the statement. For the second statement 34 (79.1%) gives negative response, 7 (16.3%) neutral, and the other 2 give positive response. Therefore, in relation to land there are many problems in the working environment.

e. Financial related factors

The role of financial development on export has been discussed by many authors as a supply side determinant. Empirical literatures like Berman and Hericourt (2008) tried to study the role of financial development on export. Using a large cross-country firm level database in developing and emerging economies, they found that financial constraints create a disconnection between firms' productivity and their export status. These two authors conclude that an increase in a country's financial development increases the number of exporters and hence countries overall export performance.

Table 4.14: Financial related factors

Factors	Response	Frequency	Percent
Loans to finance export business can be easily accessed in time the country.	Strongly disagree	3	7.0
	Disagree	28	65.1
	Neutral	7	16.3
	Agree	4	9.3
	Strongly agree	1	2.3
	Total	43	100.0
Amount of loans to finance export business can be easily accessed as demanded amount.	Strongly disagree	4	9.3
	Disagree	29	67.4
	Neutral	8	18.6
	Agree	1	2.3
	Strongly agree	1	2.3
	Total	43	100.0
Bureaucratic nature of financial institutions highly affects export business acclivity of the company.	Strongly disagree	1	2.3
	Disagree	1	2.3
	Neutral	9	20.9
	Agree	25	58.1
	Strongly agree	7	16.3
	Total	43	100.0
Shortage of foreign currency in financial institutions highly affects export business acclivity of the company.	Disagree	2	2.1
	Neutral	7	14.6
	Agree	14	22.9
	Strongly agree	20	60.4
	Total	43	100.0
	Foreign exchange/currency is adequately available.	Strongly disagree	21
Disagree		17	39.5
Neutral		1	2.3
Agree		1	2.3
Strongly agree		3	7.0
Total		43	100.0
Working capital can be easily accessible from the government banks without any bureaucracy.	Strongly disagree	3	7.0
	Disagree	33	76.7
	Neutral	4	9.3
	Agree	2	4.7
	Strongly agree	1	2.3
	Total	43	100.0
Working capital can be easily accessible from the private banks without any bureaucracy.	Strongly disagree	5	11.6
	Disagree	27	62.8
	Neutral	5	11.6
	Agree	6	14.0
	Total	43	100.0
	Interest rates is not favorable	Strongly disagree	2
Disagree		9	20.9

	Neutral	19	44.2
	Agree	12	27.9
	Strongly agree	1	2.3
	Total	43	100.0

Source: Own Survey, 2016

Participants of this research asked different financial related factors to get their response and to know whether these factors are critically affect export performance or not. From the table 4.15, we can see that many, 31(72.1%) respondent gives negative responses for the factor which says loans to finance export business can be easily accessed in time the country. 7(16.3%) neutral and the other 5(11.6%) gives positive response for the statement.

For the second, the response of the respondent is almost the same. For the statement which says amount of loans to finance export business can be easily accessed as demanded amount the majority of the respondent, 33(76.7%) not agree for the statement and 8(18.6%) becomes neutral the remaining 2(4.6%) have a positive response.

For the third and fourth statements, 74.4% and 83.3% of the respondent agree or strongly agree for the factors which say bureaucratic nature of financial institutions highly affects export business activity of the company and shortage of foreign currency in financial institutions highly affects export business activity of the company respectively.

In relation to the factor related to foreign exchange which says foreign exchange/currency is adequately available the majority, 88.3%, of the respondents have a negative response. They strongly disagree or disagree for the statement.

The respondents also give their response regarding the statement which says working capital can be easily accessible from the government banks without any bureaucracy. The majority of respondents, 36 (83.7%) does not agree with the statement. The same is true for the next factor which is stated as working capital can be easily accessible from the private banks without any bureaucracy. 32 (74.4%) respondents disagree or strongly disagree, 5(11.6%) are neutral and another 6(14%) agree for the statement.

For the last factor regarding financial factors which says interest rates is not favorable 19(44.2%) becomes neutral, 12(27.9%) respondents agree, 1(2.3%) strongly agree, 9(20.9%) disagree and 2(4.7%) strongly disagree.

From the above finding it is clear that, there are many critical financial factors that affect export business of chemical industries in Addis Ababa. The major ones include loans to finance export business cannot be easily accessed in time the country, amount of loans to finance export business cannot be easily accessed as demanded amount, bureaucratic nature of financial institutions highly affects export business activity of the company, shortage of foreign currency in financial institutions highly affects export business activity of the company respectively, foreign exchange/currency is not adequately available and working capital cannot be easily accessible from both government and private banks without any bureaucracy. Hence in order to attain the target export level in the chemical industry, the government should reduce the mentioned problems as quickly as possible.

f. External technological environment

International trade has been transformed in recent years: new patterns of specialization, increasing intra-industry and -firm trade and complex patterns of international sourcing are all characteristic of the globalization of industrial activities and trade. Technology is central to this process; it is both what has allowed many of these developments to take place, and it is a competitive tool in itself, since innovation and the successful adoption of technology are essential for success in international markets (George Papaconstantino, 1997).

Table 4.15: External technological environment

Factors	Response	Frequency	Percent
There is adequate internet facility to promote chemical export in the country.	Strongly disagree	5	11.6
	Disagree	26	60.5
	Neutral	10	23.3
	Agree	2	4.7
	Total	43	100.0
Automated systems are used in government institution	Strongly disagree	11	25.6
	Disagree	22	51.2
	Neutral	8	18.6
	Agree	1	2.3
	Strongly agree	1	2.3
Total	43	100.0	

Current Technology development of the country is encouraging chemical industry.	Strongly disagree	15	34.9
	Disagree	15	34.9
	Neutral	7	16.3
	Agree	6	14.0
	Total	43	100.0
Universities provide an important external source of knowledge and technology.	Strongly disagree	10	23.3
	Disagree	25	58.1
	Neutral	6	14.0
	Agree	2	4.7
	Total	43	100.0

Source: Own Survey, 2016

Regarding technological development, the researcher has asked four technological related factors for the respondents to assess the external condition of technological development in the sector. For the first statement which says there is adequate internet facility to promote chemical export in the country many respondents 31(72.1%) have a negative response and 10(23.3%) respondents are neutral for the statement. 76.8% of the respondents also said that automated systems are not used in government institution and 8(18.6%) are neutral. The same data is shown in the next factor. 69.8% of the participants have a negative response for the factor that says current chemical industry technology development of the country is encouraging and 81.4. % of respondents also believes that university-industry linkage is not promising.

This finding shows that in relation to external technological development in the chemical industry there are many critical constraints. There is no adequate internet facility to promote chemical export in the country, in many government institutions automated technologies are not widely used, the current chemical industry technological development is not encouraged and universities do not provide an important external source of knowledge and technology to the chemical industry in the city.

4.2.Interview of Industry Ministry

The researcher has conducted interview for the concerned bodies in the Federal Democratic Republic of Ethiopia ministry of Industry. In the interview different questions were raised to get relevant information.

The first interview question rose about the support that the ministry provides for chemical manufacturers. Based on the question the following answers were obtained.

- Provides different technical supports.
- Giving consultancy service.
- Providing training programs with cooperation of technical and vocational schools.

For the second interview question which asks about how the institution specifically encourages the manufacturers to export their product, the following answers were obtained.

- Manufacturing of basic chemicals, ethanol, fertilizers and nitrogen compounds exempts from income tax for **5** years in Addis Ababa and special zone of Oromia and **6** years in other areas.,
- Fertilizers and nitrogen compounds production allows importing duty free 1 pickup, 1 delivery van if the investment is in Addis Ababa and special zone of Oromia and surroundings and 2 pickups, 1 delivery van and 1 truck in other areas.
- Manufacturing of paints, varnishes or similar coatings; printing, writing and painting inks and mastics, soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations exempts from income tax for **2** year if it is in Addis Ababa and Oromia special zones and **4** years in others areas and manufacturing of other chemical products (propellant powders, explosives, photographic films and similar products) exempts from income tax for **2** years in Addis Ababa and Oromia special zones and **3** years in other areas.

The concerned body has also raised the following issues as the major strength and weakness that chemical industries are facing in relation exporting their products to the foreign market during the interview.

- Strength
 - ✓ The presence of some chemical industries which tries to export their product to the foreign market especially to the neighboring countries like Zemili paints factory and Gast Solar paints factory.

- Weakness
 - ✓ Most of the chemical industries wants to concentrate in the promising local demand
 - ✓ Shortage of capital in the industry.
 - ✓ Shortage of skilled man power in the sector.

In relation to the fourth interview question, the following issues are identified as the major opportunities and challenges that chemical industries are facing in relation exporting their products to the foreign market. Which includes: -

- Opportunities
 - ✓ Encouraging investment proclamation,
 - ✓ Abundant water supply.
 - ✓ The presence of favorable investment environment in the country.
 - ✓ The construction of different infrastructure like rail from Addis Ababa to Djibouti and road infrastructure.
 - ✓ The construction of the Great Renaissance Dam ('Hedase Gedib') and 'Gibe III' dam
 - ✓ The presence of high demand in the domestic market
 - ✓ The presence of high demand in the neighboring countries market
- Threat
 - ✓ Shortage of raw material
 - ✓ Shortage of foreign currency
 - ✓ Shortage of skilled man power in the sector
 - ✓ High capital intensive
 - ✓ Poor internet connection and infrastructure

Finally the institutions try to support exporters in different means. Some of them includes; -

- The government tries to encourage the industrialist in different ways as the ministry mentioned like by giving different incentive who are currently exporting in different means like finding different market in the foreign market with the cooperation of embassies and consuls in different countries
- Encouraging foreign investors to invest in the chemical sector.

- Providing different awareness and training.
- Solving different problems that the chemical industries are facing in different government service giving institutions like in Revenue and Customs authority, Banks, Electricity, Telecommunication etc...

4.3. Summary of Findings

Based on the research question and objectives of the research, the following research findings are obtained.

a. Trends of export of chemical and chemical products

As the analysis of the trend shows, even though the export performance of the chemical industry is increasing in value from time to time, it is still in lowest level when compared to the other sectors in the country. On the other hand the government has planned to increase the export of chemical industry in the GTP II period. However, there is a remarkable difference between the export plan and performance of chemical products in the country.

b. Critical factors that affect export of chemical products in Addis Ababa.

Among many factors, the following are identified as critical factors that hinder export of chemical and chemical products to the foreign market.

- Lack of expertise in the export related work in the chemical industry.
- Absence of international brand name and not fulfilling international quality standards.
- Lack of capacity to supply for both foreign and domestic market and intention to supply for only the growing and promising domestic market.
- Shortage, low quality and inaccessibility of raw materials in the local market.
- The absence of easy procedure in the country to import raw materials from foreign market and presence of bureaucratic export procedure.
- Poor electricity, internet and road transport infrastructure
- Shortage of power in the country.
- Shortage and inaccessibility of loans to finance export business.

- Shortage of foreign exchange to import raw material from the foreign market.
- Low level of technological development in the chemical industry
- low level of relationship in transferring knowledge from the university to chemical industry (low level of university- industry relationship)

CHAPTER FIVE

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. CONCLUSION

The amount of chemical industry export in terms of value is expected to increase from time to time. The government plans to promote both export of chemical products and import substitution in the sector. However, the performance of export of chemical product is at its infant stage. Different factors are hindering the export of chemical products in the country.

On the basis of the finding, it can be concluded that different factors are contributing for the low level of export performance in the Addis Ababa. On the basis of the internal factor analysis most chemical company's manager and employees do not have good work experience in the export business sectors. This may have its own effect in promoting export performance of the company. Regarding marketing strategies most industries do not have export marketing plan, have no international brand name, not promoting their product in the international market, even though half of the respondents have their own website they are not using the website to promote their product, their product is not fulfilling international quality standards, have no international marketing networks that facilitate exporting and not participating in trade fair and exhibitions in the foreign country. As the majority of the respondents believe that the price of their product is not higher in the international market and participated a trade fair and exhibition in Ethiopia with foreign countries, this would have been a great advantage to export their product.

Most of the industries also have a limitation in production capacity. They can only supply for the local demand. They cannot supply for both foreign and local demand. Even though they have a capacity, most of them intent only to supply for the growing and promising domestic market

Presences of raw materials in the local market, in desired amount and quality have its own strategic advantage in success of a company in the international market. However, the majority of the respondent indicates that raw materials which are used for production of export items are not widely available in local market. And they also indicate that raw

materials are not found in the desired quality and are not accessible easily. As they indicate, even though quality raw materials are found in the international market, the import procedure is not easy. There are many bureaucratic ups and downs.

Almost all of the respondents believe that managers and employees experience in the export business is very important. However, they indicate that there is shortage of skilled manpower in the local labor market labor cost is not a problem to perform export activities and labor cost is not a problem to perform export business in the sector.

Respondents were asked different question regarding infrastructure related factors. They gave their responses in each factors asked. The electricity infrastructure and shortage power supply of the country is a problem for the manufacturer in the industry. This affects the production capacity, the productivity and effectiveness of the companies. Hence these factors have their own effects in the export motives of the company too. Even if water is the main inputs for many chemical industries especially for paint and detergent industries, there is no a series problem in water supply and infrastructure in the city. This finding also shows that the country's internet infrastructure and poor internet connection is highly affects the export business activity of chemical industries. Most respondents believe that, telephone infrastructure and connection is not a problem for the day to day activity of the chemical industry and for export business activity of the industry. Transport plays a crucial role in determining the competitiveness of exports. Regarding road transport infrastructure, there is a problem in the road transport infrastructure of the country and presence of adequate transportation system. However, the cost of transportation in road, air and water is not a critical problem for the chemical industry to export their product to the foreign market.

The finding in the government service giving related factors shows that the government gives different incentive to promote the export of chemical and chemical industries export status and the government encourages both import substitution and export promotion. But they indicate that the government service giving activity in different institutions like Banks, Ministry offices, Customs and Revenue Authority, Electricity etc...has an effect in the export business activity industries. In addition, the finding shows that export procedure and getting land in the city is very difficult.

On the basis of the finding regarding financial factors, there are many critical financial factors that affect export business of chemical industries in Addis Ababa. The major ones include loans to finance export business cannot be easily accessed in time the country, amount of loans to finance export business cannot be easily accessed as demanded amount, bureaucratic nature of financial institutions highly affects export business activity of the company, shortage of foreign currency in financial institutions highly affects export business activity of the company respectively, foreign exchange/currency is not adequately available and working capital cannot be easily accessible from both government and private banks without any bureaucracy. Hence in order to attain the target export level in the chemical industry, the government should reduce the mentioned problems as quickly as possible.

In relation to technological development in the chemical industry there are many critical constraints. As shown from the above finding there is no adequate internet facility to promote chemical export in the country, in many government institutions automated technologies are not used widely, the current chemical industry technological development is not encouraged and universities do not provide an important external source of knowledge and technology in the city.

5.2.RECOMMENDATIONS

Based on the finding of the study and participant's response, the following recommendations are made: -

- a) As shown in the finding most of chemical industries' managers and employees don not have any work experience in the export sector. Though some in number, there are exporters in the industry around the country. Therefore, the concerned body should try to facilitate an experience sharing program with those exporters, workshops, panel discussions, training programs and other methods to enhance the experience of managers and employees in the sector.
- b) Having international brand name and meeting international quality standards are key factors to enter in to the global market. However, the finding shows that most respondents do not have International brand name and the products of those industries do not meet international quality standards. Therefore, the companies should strive to have international brand name and to meet international quality standards. The government should also encourage and promote those companies that try to achieve these objectives.
- c) Most of the industries that participates in this study intent only to supply for the growing and promising domestic market. The companies should change their attitude. The government should construct some strategies to bring attitudinal change in the sector, since global competitiveness brings local competitiveness.
- d) Raw materials which are found in the local market are not in the desired quality and not accessible easily yet. However, there are no such industries that supply such raw materials for the market. Therefore, the researcher recommends industrialist to invest in such industries in the local market and the government should encourage such factories to be realized in the long run. In the short run easy procedure to import raw materials from foreign market have to be given priority.
- e) Efficient infrastructure is a key for the export business activities of any country. as the country is currently inaugurating 'Gibe III' hydroelectric power plant the government should give due attention for those exporting industries in terms of avoiding power supply problem and improving power supply infrastructure. Ethio-Djibouti rail project is also

starting to operate fully. Therefore, constructing efficient transport infrastructure system in the country should also be given due attention too.

- f) The government should also avoid the bureaucratic service giving practice in different institutions. Especially in Ethiopian Revenue and Customs Authority and in Banks, special attention should be given for those exporting industries in providing foreign exchange, finance, land, ease of export procedures, and in service delivery time.
- g) The country should invite foreign companies to invest in the chemical industry sector to bring the huge capital, new technology and expertise. Besides these investors can enter to the international market easily since they have an experience as a multinational company.
- h) Regarding technological development, manufacturing industries should strengthen their own R&D department as their internal source of technology and create strong linkage with universities. The government should also give due attention in strengthening university-industry linkage and R&D departments. Workshops, panel discussions and different conference should be conducted regarding technological development in the sector.

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APPENDIX

APPENDIX A



St Mary's University School of Business
Masters of Business Administration
In General Management
Research questioner

Date: September, 2016

Dear Respondents:

My name is Abdugefar Hussein Shafo and I am **Masters of Business Administration (MBA)** graduate student at **St Mary University**. For my final project, I am examining the **Assessment of factors that affect export performance of chemical and chemical product industries in Addis Ababa**. Because you are working in the chemical and chemical product industries sector I am inviting you to participate in this research study completing the attached surveys. This questionnaire is designed to be filled by company General managers.

The following questionnaire will require a maximum of **15 - 20** minutes to complete. There is no compensation for responding nor is there any known risk. Your response will remain confidential and will not be used for any other purposes other than the intended purpose.

I am asking you to look over the questionnaire and, if you choose to do so, complete the questionnaire based on the instructions and send it back to me through my address.

If you have any questions or concerns about completing the questionnaire or about participating in this study, you may contact me at +251 9 19 361076 or at aghussen04@gmail.com

I am grateful for your cooperation in advance!!

Part I. General Information:

1. Sex : Male 1 = Female 2=

2. Your educational level?

Below BA/BSC degree 1=

BA/BSC degree 2=

MA/MSc Degree 3=

PhD Degree 4=

3. Current capital of the company _____

4. Which business sector do your business operates?

Soap and detergent sector 1=

Paint and adhesive sector 2=

Other basic chemical sector 3=

5. Company's Year of Establishment in Ethiopia _____

6. Company ownership condition

Ethiopian 1=

Foreigner 2=

Both Ethiopian and Foreigners 3=

7. Does the company currently export its products to the foreign market?

Yes 1=

No 2=

Part II. Internal Factors

INSTRUCTIONS: Please indicate the extent to which you agree or disagree with each statement by encircling a correspondent number. Yes(1) or No (2),

No.	Factors that affect export performance	Yes	No
1. Human resource			
1.	Do managers in the company have good work experience in the export sectors?	1	2
2.	Do employees in the company have good work experience in the export sectors?	1	2
3.	Does the company has training and development program for its employee to enhance their effectiveness?	1	2
2. Marketing strategies			
1.	Does the company have export marketing plan?	1	2
2.	Does the company have international brand name?	1	2
3.	Does the absence of international brand name affects export business activity of the company?	1	2
4.	Does the company promote its product to international markets?	1	2
5.	Does the company have its own website?	1	2
6.	Does the company use its website to promote product?	1	2
7.	Does the price of company's product higher in the international market?	1	2
8.	Does the company's product does fulfill international quality standards?	1	2
9.	Does the company have international marketing networks that facilitate exporting?	1	2
10.	Does the company participate in trade fair and exhibition in the foreign market?	1	2
11.	Does the company participate in trade fair and exhibition in Ethiopia with foreign companies?	1	2
3. Production Capacity			
1.	Does the production capacity of the company is only to supply for local demand?	1	2
2.	Can the company supply for both foreign and local market?	1	2
3.	Does the company intent only to supply for the growing and promising domestic market only?	1	2
4. Technological Environment			
1.	Does the company uses latest technological facilities in the production system?	1	2
2.	Does the company have research and development (R&D) department?	1	2
3.	Does the company's research and development department has conducted marketing researches in the international market?	1	2
4.	Does the company's R&D is the main internal source of technology.	1	2

Part III. External Factors

INSTRUCTIONS: Please indicate the extent to which you agree or disagree with each statement by encircling a correspondent number. Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4) Strongly Agree (5)

No.	Factors that affect export performance	Likert Scale level				
		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
I. Raw material						
1.	Raw materials which are used for production of export items are widely available in local market	1	2	3	4	5
2.	Raw materials which are used for production of export items are widely available in foreign market	1	2	3	4	5
3.	Raw material is obtained in a desired quality in the local market.	1	2	3	4	5
4.	There are easy procedures to import raw materials from foreign market.	1	2	3	4	5
5.	Raw materials which are used for production of export items are easily accessible in the market	1	2	3	4	5
6.	Costs of raw material which are used for production of export items are not costly.	1	2	3	4	5
II. Human resource						
1.	Managers work experience in export business has no effect in export acclivities.	1	2	3	4	5
2.	Employee's work experience in export business has no effect in export acclivities.	1	2	3	4	5
3.	There is no shortage of skilled labor force in the labor market.	1	2	3	4	5
4.	Labor cost is not a problem to perform export activities.	1	2	3	4	5
III. Infrastructure						
1.	Electricity infrastructure of the country is a problem to export business activity of the country	1	2	3	4	5
2.	Power supply shortage highly affects the day to day activity of the company.	1	2	3	4	5
3.	Water infrastructure of the country is a problem to export business activity of the company.	1	2	3	4	5
4.	Water supply shortage highly affects the day to day activity of the company.	1	2	3	4	5
5.	Poor internet connection highly affects the day to day activity of the company.	1	2	3	4	5

No.	Factors that affect export performance	Likert Scale level				
		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
6.	internet infrastructure of the country is a problem to export business activity of the country	1	2	3	4	5
7.	Telephone infrastructure of the country is a problem to export business activity of the company.	1	2	3	4	5
8.	Poor telephone connection highly affects the day to day activity of the company.	1	2	3	4	5
9.	Poor road transport infrastructure of the country is a problem to export business activity of the company	1	2	3	4	5
10.	Absence of adequate transportation systems affects export business activity of the company.	1	2	3	4	5
11.	Absence of rail transport affects export business activity of the company.	1	2	3	4	5
12.	Cost of road transport service highly affects export business activity of the company	1	2	3	4	5
13.	Cost of air transport service highly affects export business activity of the company	1	2	3	4	5
14.	Cost of water transport service highly affects export business activity of the company	1	2	3	4	5
IV. Government service related factors						
1.	The government gives different incentives to promote chemical industry export business.	1	2	3	4	5
4.	The government service giving activity has no effect in the export business activity of the company.	1	2	3	4	5
5.	The government encourages to substitute imports rather than to promote export.	1	2	3	4	5
6.	There is easy export procedures	1	2	3	4	5
7.	Land, which is used to produce export items, can be easily obtained from the government without any problem.	1	2	3	4	5
8.	The cost of land, which is paid to the government annually as a lease fee, is not high.	1	2	3	4	5
9.	Land is obtained freely for production of export items in chemical industry sector.	1	2	3	4	5

V. Financial factors						
1.	Loans to finance export business can be easily accessed in time the country.	1	2	3	4	5
2.	Amount of loans to finance export business can be easily accessed as demanded amount.	1	2	3	4	5
No.	Factors that affect export performance	Likert Scale level				
		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
3.	Bureaucratic nature of financial institutions highly affects export business acclivity of the company.	1	2	3	4	5
4.	Shortage of foreign currency in financial institutions highly affects export business acclivity of the company.	1	2	3	4	5
5.	Foreign exchange/currency is adequately available.	1	2	3	4	5
6.	Working capital can be easily accessible from the government banks without any bureaucracy.	1	2	3	4	5
7.	Working capital can be easily accessible from the private banks without any bureaucracy.	1	2	3	4	5
8.	Interest rates is not favorable	1	2	3	4	5
VI. Technological Environment						
1.	There is adequate internet facility to promote chemical export in the country.	1	2	3	4	5
2.	Automated systems are used in government institution	1	2	3	4	5
3.	Current Technology development of the country is encouraging chemical industry.	1	2	3	4	5
4.	Universities provide an important external source of knowledge and technology.	1	2	3	4	5

Part VI. Additional personal opinions

1. Are there any other factors, out of the above mentioned, that determines the export performance of your company? Please specify them. _____

2. In your sector, do you think exporting is necessary or it is important only to focus on import substitution?

3. What opportunities are there in the chemical industry sector?

4. What are the main challenges in the chemical industry sector?

5. What do you recommend to avoid the above problems both for the sectors development and for the country's export development?

Thank you!!!

APPENDIX B

Interview Question

**Interview Question for Federal Ministry of Industry: -Chemical and Construction Inputs
Development Institute.**

1. What are the main supports that the institution provides for the manufacturers?

2. How the institution does specifically encourages the manufacturers to export their products to the foreign market?

3. What are the major strength and weakness that chemical industries are facing in relation exporting their products to the foreign market?

3.1.Strength

3.2.weakness

4. What are the major opportunities and challenges that chemical industries are facing in relation exporting their products to the foreign market?

4.1.Opportunities

4.2.Challenges

5. How the institution does tries to solve the above mentioned weakness and challenges to encourage export?

6. Any additional comments regarding export of chemical and chemical products to the foreign market?

Thank you!!

Appendix c

SPSS Results

a. Reliability test

Case Processing Summary

		N	%
Cases	Valid	43	100.0
	Excluded ^a	0	.0
	Total	43	100.0

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.803	.799	43

b. Frequency Table

Do managers in the company have good work experience in the export sectors?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	13	30.2	30.2	30.2
	NO	30	69.8	69.8	100.0
Total		43	100.0	100.0	

Do employees in the company have good work experience in the export sectors?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	5	11.6	11.6	11.6
	NO	38	88.4	88.4	100.0
Total		43	100.0	100.0	

Does the company has training and development program for its employee to enhance their effectiveness?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	27	62.8	62.8	62.8
	NO	16	37.2	37.2	100.0
	Total	43	100.0	100.0	

Does the company have export marketing plan?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	12	27.9	27.9	27.9
	NO	31	72.1	72.1	100.0
	Total	43	100.0	100.0	

Does the company have international brand name?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	5	11.6	11.6	11.6
	NO	38	88.4	88.4	100.0
	Total	43	100.0	100.0	

Does the absence of international brand name affects export business activity of the company?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	30	69.8	69.8	69.8
	NO	13	30.2	30.2	100.0
	Total	43	100.0	100.0	

Does the company promote its product to international markets?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	4	9.3	9.3	9.3
	NO	39	90.7	90.7	100.0
	Total	43	100.0	100.0	

Does the company have its own website?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	32	74.4	74.4	74.4
	NO	11	25.6	25.6	100.0
	Total	43	100.0	100.0	

Does the company use its website to promote product?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	22	51.2	51.2	51.2
	NO	21	48.8	48.8	100.0
	Total	43	100.0	100.0	

Does the price of company's product higher in the international market?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	1	2.3	2.3	2.3
	NO	42	97.7	97.7	100.0
	Total	43	100.0	100.0	

Does the company's product does fulfill international quality standards?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	14	32.6	32.6	32.6
	NO	29	67.4	67.4	100.0
	Total	43	100.0	100.0	

Does the company have international marketing networks that facilitate exporting?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	2	4.7	4.7	4.7
	NO	41	95.3	95.3	100.0
	Total	43	100.0	100.0	

Does the company participate in trade fair and exhibition in the foreign market?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	7	16.3	16.3	16.3
	NO	36	83.7	83.7	100.0
	Total	43	100.0	100.0	

Does the company participate in trade fair and exhibition in Ethiopia with foreign companies?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	34	79.1	79.1	79.1
	NO	9	20.9	20.9	100.0
	Total	43	100.0	100.0	

Does the production capacity of the company is only to supply for local demand?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	37	86.0	86.0	86.0
	NO	6	14.0	14.0	100.0
	Total	43	100.0	100.0	

Can the company supply for both foreign and local market?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	10	23.3	23.3	23.3
	NO	33	76.7	76.7	100.0
	Total	43	100.0	100.0	

Does the company intent only to supply for the growing and promising domestic market only?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	30	69.8	69.8	69.8
	NO	13	30.2	30.2	100.0
	Total	43	100.0	100.0	

Does the company uses latest technological facilities in the production system?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	12	27.9	27.9	27.9
	NO	31	72.1	72.1	100.0
	Total	43	100.0	100.0	

Does the company have research and development (R&D) department?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	26	60.5	60.5	60.5
	NO	17	39.5	39.5	100.0
	Total	43	100.0	100.0	

Does the company's research and development department has conducted marketing researches in the international market?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	2	4.7	4.7	4.7
	NO	41	95.3	95.3	100.0
	Total	43	100.0	100.0	

Does the company's R&D is the main internal source of technology.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	25	58.1	58.1	58.1
	NO	18	41.9	41.9	100.0
	Total	43	100.0	100.0	

Raw materials which are used for production of export items are widely available in local market

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	19	44.2	44.2	44.2
	DISAGREE	21	48.8	48.8	93.0
	NEUTRAL	2	4.7	4.7	97.7
	AGREE	1	2.3	2.3	100.0
	Total	43	100.0	100.0	

Raw materials which are used for production of export items are widely available in foreign market

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	3	7.0	7.0	7.0
	NEUTRAL	3	7.0	7.0	14.0
	AGREE	23	53.5	53.5	67.4
	STRONGLY AGREE	14	32.6	32.6	100.0
	Total	43	100.0	100.0	

Raw material is obtained in a desired quality in the local market.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	6	14.0	14.0	14.0
	DISAGREE	33	76.7	76.7	90.7
	AGREE	4	9.3	9.3	100.0
	Total	43	100.0	100.0	

There are easy procedures to import raw materials from foreign market.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	5	11.6	11.6	11.6
	DISAGREE	28	65.1	65.1	76.7
	NEUTRAL	4	9.3	9.3	86.0
	AGREE	6	14.0	14.0	100.0
	Total	43	100.0	100.0	

Raw materials which are used for production of export items are easily accessible in the market

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	8	18.6	18.6	18.6
	DISAGREE	20	46.5	46.5	65.1
	NEUTRAL	13	30.2	30.2	95.3
	AGREE	2	4.7	4.7	100.0
	Total	43	100.0	100.0	

Costs of raw material which are used for production of export items are not costly.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid STRONGLY DISAGREE	1	2.3	2.3	2.3
DISAGREE	26	60.5	60.5	62.8
NEUTRAL	12	27.9	27.9	90.7
AGREE	2	4.7	4.7	95.3
STRONGLY AGREE	2	4.7	4.7	100.0
Total	43	100.0	100.0	

Managers work experience in export business has no effect in export acclivities.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid STRONGLY DISAGREE	19	44.2	44.2	44.2
DISAGREE	23	53.5	53.5	97.7
AGREE	1	2.3	2.3	100.0
Total	43	100.0	100.0	

Employee's work experience in export business has no effect in export acclivities.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid STRONGLY DISAGREE	20	46.5	46.5	46.5
DISAGREE	20	46.5	46.5	93.0
NEUTRAL	2	4.7	4.7	97.7
AGREE	1	2.3	2.3	100.0
Total	43	100.0	100.0	

There is no shortage of skilled labor force in the labor market.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid STRONGLY DISAGREE	6	14.0	14.0	14.0
DISAGREE	17	39.5	39.5	53.5
NEUTRAL	9	20.9	20.9	74.4
AGREE	6	14.0	14.0	88.4
STRONGLY AGREE	5	11.6	11.6	100.0
Total	43	100.0	100.0	

Labor cost is not a problem to perform export activities.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	4	9.3	9.3	9.3
	DISAGREE	17	39.5	39.5	48.8
	NEUTRAL	3	7.0	7.0	55.8
	AGREE	15	34.9	34.9	90.7
	STRONGLY AGREE	4	9.3	9.3	100.0
	Total	43	100.0	100.0	

Electricity infrastructure of the country is a problem to export business activity of the country

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	1	2.3	2.3	2.3
	NEUTRAL	8	18.6	18.6	20.9
	AGREE	30	69.8	69.8	90.7
	STRONGLY AGREE	4	9.3	9.3	100.0
	Total	43	100.0	100.0	

Power supply shortage highly affects the day to day activity of the company.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	2	4.7	4.7	4.7
	NEUTRAL	1	2.3	2.3	7.0
	AGREE	26	60.5	60.5	67.4
	STRONGLY AGREE	14	32.6	32.6	100.0
	Total	43	100.0	100.0	

Water infrastructure of the country is a problem to export business activity of the company.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	5	11.6	11.6	11.6
	DISAGREE	19	44.2	44.2	55.8
	NEUTRAL	11	25.6	25.6	81.4
	AGREE	6	14.0	14.0	95.3
	STRONGLY AGREE	2	4.7	4.7	100.0
	Total	43	100.0	100.0	

Water supply shortage highly affects the day to day activity of the company.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	5	11.6	11.6	11.6
	DISAGREE	11	25.6	25.6	37.2
	NEUTRAL	9	20.9	20.9	58.1
	AGREE	17	39.5	39.5	97.7
	STRONGLY AGREE	1	2.3	2.3	100.0
	Total	43	100.0	100.0	

Poor internet connection highly affects the day to day activity of the company.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	2.3	2.3	2.3
	DISAGREE	8	18.6	18.6	20.9
	NEUTRAL	4	9.3	9.3	30.2
	AGREE	23	53.5	53.5	83.7
	STRONGLY AGREE	7	16.3	16.3	100.0
	Total	43	100.0	100.0	

internet infrastructure of the country is a problem to export business activity of the country

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	2	4.7	4.7	4.7
	DISAGREE	3	7.0	7.0	11.6
	NEUTRAL	8	18.6	18.6	30.2
	AGREE	22	51.2	51.2	81.4
	STRONGLY AGREE	8	18.6	18.6	100.0
	Total	43	100.0	100.0	

Telephone infrastructure of the country is a problem to export business activity of the company.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	13	30.2	30.2	30.2
	NEUTRAL	16	37.2	37.2	67.4
	AGREE	12	27.9	27.9	95.3
	STRONGLY AGREE	2	4.7	4.7	100.0
	Total	43	100.0	100.0	

Poor telephone connection highly affects the day to day activity of the company.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	2.3	2.3	2.3
	DISAGREE	7	16.3	16.3	18.6
	NEUTRAL	20	46.5	46.5	65.1
	AGREE	13	30.2	30.2	95.3
	STRONGLY AGREE	2	4.7	4.7	100.0
	Total	43	100.0	100.0	

Poor road transport infrastructure of the country is a problem to export business activity of the company

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	2.3	2.3	2.3
	DISAGREE	7	16.3	16.3	18.6
	NEUTRAL	14	32.6	32.6	51.2
	AGREE	19	44.2	44.2	95.3
	STRONGLY AGREE	2	4.7	4.7	100.0
	Total	43	100.0	100.0	

Absence of adequate transportation systems affects export business activity of the company.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	7	16.3	16.3	16.3
	NEUTRAL	7	16.3	16.3	32.6
	AGREE	25	58.1	58.1	90.7
	STRONGLY AGREE	4	9.3	9.3	100.0
	Total	43	100.0	100.0	

Absence of rail transport affects export business activity of the company.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	3	7.0	7.0	7.0
	NEUTRAL	11	25.6	25.6	32.6
	AGREE	25	58.1	58.1	90.7
	STRONGLY AGREE	4	9.3	9.3	100.0
	Total	43	100.0	100.0	

Cost of road transport service highly affects export business activity of the company

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	5	11.6	11.6	11.6
	NEUTRAL	15	34.9	34.9	46.5
	AGREE	17	39.5	39.5	86.0
	STRONGLY AGREE	6	14.0	14.0	100.0
	Total	43	100.0	100.0	

Cost of air transport service highly affects export business activity of the company

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	4	9.3	9.3	9.3
	NEUTRAL	20	46.5	46.5	55.8
	AGREE	13	30.2	30.2	86.0
	STRONGLY AGREE	6	14.0	14.0	100.0
	Total	43	100.0	100.0	

Cost of water transport service highly affects export business activity of the company

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	12	27.9	27.9	27.9
	NEUTRAL	15	34.9	34.9	62.8
	AGREE	13	30.2	30.2	93.0
	STRONGLY AGREE	3	7.0	7.0	100.0
	Total	43	100.0	100.0	

The government gives different incentives to promote chemical industry export business.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	4	9.3	9.3	9.3
	NEUTRAL	6	14.0	14.0	23.3
	AGREE	24	55.8	55.8	79.1
	STRONGLY AGREE	9	20.9	20.9	100.0
	Total	43	100.0	100.0	

The government service giving activity has no effect in the export business activity of the company.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	7	16.3	16.3	16.3
	DISAGREE	25	58.1	58.1	74.4
	NEUTRAL	5	11.6	11.6	86.0
	AGREE	6	14.0	14.0	100.0
	Total	43	100.0	100.0	

The government encourages to substitute imports rather than to promote export.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	2.3	2.3	2.3
	DISAGREE	10	23.3	23.3	25.6
	NEUTRAL	15	34.9	34.9	60.5
	AGREE	13	30.2	30.2	90.7
	STRONGLY AGREE	4	9.3	9.3	100.0
	Total	43	100.0	100.0	

There is easy export procedures

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	23	53.5	53.5	53.5
	NEUTRAL	11	25.6	25.6	79.1
	AGREE	9	20.9	20.9	100.0
	Total	43	100.0	100.0	

Land, which is used to produce export items, can be easily obtained from the government without any problem.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	7	16.3	16.3	16.3
	DISAGREE	23	53.5	53.5	69.8
	NEUTRAL	11	25.6	25.6	95.3
	AGREE	1	2.3	2.3	97.7
	STRONGLY AGREE	1	2.3	2.3	100.0
	Total	43	100.0	100.0	

The cost of land, which is paid to the government annually as a lease fee, is not high.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	9	20.9	20.9	20.9
	DISAGREE	24	55.8	55.8	76.7
	NEUTRAL	5	11.6	11.6	88.4
	AGREE	5	11.6	11.6	100.0
	Total	43	100.0	100.0	

Land is obtained freely for production of export items in chemical industry sector.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	12	27.9	27.9	27.9
	DISAGREE	22	51.2	51.2	79.1
	NEUTRAL	7	16.3	16.3	95.3
	AGREE	1	2.3	2.3	97.7
	STRONGLY AGREE	1	2.3	2.3	100.0
	Total	43	100.0	100.0	

Loans to finance export business can be easily accessed in time the country.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	3	7.0	7.0	7.0
	DISAGREE	28	65.1	65.1	72.1
	NEUTRAL	7	16.3	16.3	88.4
	AGREE	4	9.3	9.3	97.7
	STRONGLY AGREE	1	2.3	2.3	100.0
	Total	43	100.0	100.0	

Amount of loans to finance export business can be easily accessed as demanded amount.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	4	9.3	9.3	9.3
	DISAGREE	29	67.4	67.4	76.7
	NEUTRAL	8	18.6	18.6	95.3
	AGREE	1	2.3	2.3	97.7
	STRONGLY AGREE	1	2.3	2.3	100.0
	Total	43	100.0	100.0	

Bureaucratic nature of financial institutions highly affects export business acclivity of the company.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	1	2.3	2.3	2.3
	DISAGREE	1	2.3	2.3	4.7
	NEUTRAL	9	20.9	20.9	25.6
	AGREE	25	58.1	58.1	83.7
	STRONGLY AGREE	7	16.3	16.3	100.0
	Total	43	100.0	100.0	

Shortage of foreign currency in financial institutions highly affects export business acclivity of the company.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREE	2	4.7	4.7	4.7
	NEUTRAL	7	16.3	16.3	20.9
	AGREE	14	32.6	32.6	53.5
	STRONGLY AGREE	20	46.5	46.5	100.0
	Total	43	100.0	100.0	

Foreign exchange/currency is adequately available.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	21	48.8	48.8	48.8
	DISAGREE	17	39.5	39.5	88.4
	NEUTRAL	1	2.3	2.3	90.7
	AGREE	1	2.3	2.3	93.0
	STRONGLY AGREE	3	7.0	7.0	100.0
	Total	43	100.0	100.0	

Working capital can be easily accessible from the government banks without any bureaucracy.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	3	7.0	7.0	7.0
	DISAGREE	33	76.7	76.7	83.7
	NEUTRAL	4	9.3	9.3	93.0
	AGREE	2	4.7	4.7	97.7
	STRONGLY AGREE	1	2.3	2.3	100.0
	Total	43	100.0	100.0	

Working capital can be easily accessible from the private banks without any bureaucracy.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	5	11.6	11.6	11.6
	DISAGREE	27	62.8	62.8	74.4
	NEUTRAL	5	11.6	11.6	86.0
	AGREE	6	14.0	14.0	100.0
	Total	43	100.0	100.0	

Interest rates is not favorable

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	2	4.7	4.7	4.7
	DISAGREE	9	20.9	20.9	25.6
	NEUTRAL	19	44.2	44.2	69.8
	AGREE	12	27.9	27.9	97.7
	STRONGLY AGREE	1	2.3	2.3	100.0
	Total	43	100.0	100.0	

There is adequate internet facility to promote chemical export in the country.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	5	11.6	11.6	11.6
	DISAGREE	26	60.5	60.5	72.1
	NEUTRAL	10	23.3	23.3	95.3
	AGREE	2	4.7	4.7	100.0
	Total	43	100.0	100.0	

Automated systems are used in government institution

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	11	25.6	25.6	25.6
	DISAGREE	22	51.2	51.2	76.7
	NEUTRAL	8	18.6	18.6	95.3
	AGREE	1	2.3	2.3	97.7
	STRONGLY AGREE	1	2.3	2.3	100.0
	Total	43	100.0	100.0	

Current Technology development of the country is encouraging chemical industry.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	15	34.9	34.9	34.9
	DISAGREE	15	34.9	34.9	69.8
	NEUTRAL	7	16.3	16.3	86.0
	AGREE	6	14.0	14.0	100.0
	Total	43	100.0	100.0	

Universities provide an important external source of knowledge and technology.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREE	10	23.3	23.3	23.3
	DISAGREE	25	58.1	58.1	81.4
	NEUTRAL	6	14.0	14.0	95.3
	AGREE	2	4.7	4.7	100.0
	Total	43	100.0	100.0	