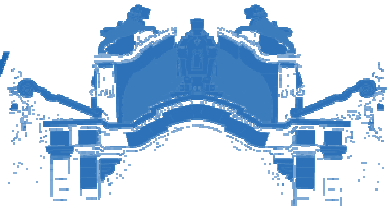

Addis Ababa University

College of Business and Economics

Department of Management

Masters of Science in International Business

The Effect of Firm Characteristics and Firm Capability on Export Performance and the Mediation Role of Export Assistance: The Case of Ethiopian Oil Seed Exporters

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A Thesis Submitted to Addis Ababa University Faculty of Business and Economics Department of Management in Partial Fulfillment of the Requirement for the Award of Masters of Science Degree in Management

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This is to certify that thesis prepared by Tizita Solomon entitled "The Effect of Firm Characteristics and Firm Capability on Export Performance and the Mediation Role of Export Assistance: The Case of Ethiopian Oil Seed Exporters" which is submitted for the partial fulfillment of the requirement of Masters of Science in Management, complies with the regulations of the university and meets the accepted standards with respect to originality and quality.

Approved by the Examiners

Research Advisor	Signature	Date
Internal Examiner	Signature	Date
External Examiner	Signature	Date

Declaration

I, the undersigned, declare that this thesis entitled "The Effect of Firm Characteristics and Firm Capability on Export Performance and the Mediation Role of Export Assistance: The Case of Ethiopian Oil Seed Exporters" is my original work and has not been submitted for a degree in any other university and that all sources of materials used for the thesis have been duly acknowledged.

Tizita Solomon		
Declared By	Signature	Date

Certification

This is to certify that Tizita Solomon Woldesenbet has done her research work on the topic entitled "The Effect of Firm Characteristics and Firm Capability on Export Performance and the Mediation Role of Export Assistance: The Case of Ethiopian Oil Seed Exporters" for the partial fulfillment of Masters of Science in Management at Addis Ababa University with my guidance and approval as a university advisor.

Zelalem G/Tsadik (PhD)		
Advisor	Signature	Date

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List of Abbreviations

SSA	Sub-Saharan Africa
NBE	National Bank of Ethiopia
GDP	Gross Domestic Product

Abstract

The objective of this study was to examine the effect of firm characteristics and firm capability on export performance and the mediating role of export assistance of oil seed exporters in Ethiopia. The study applied quantitative research method and adopted explanatory survey design in order to address the research questions. In order to collect data closed ended survey questionnaires were distributed to 98 target respondents selected using stratified sampling technique. In order to analyze the data collected, the study applied inferential statistics tools; Pearson correlation analysis and linear regression using SPSS 20 and SPSS Amos 20. The finding of the study revealed that firm characteristics and firm capability had positive and statistically significant effect on export performance. Moreover, the study exhibited through Baron and Kenny (1986) and Smart PLS 3.3.8 that export assistance mediates the relationship between firm characteristics, firm capability and export performance. Hence, the entire hypotheses formulated were accepted. The general implication of the study is that firm characteristics and firm capability have significant positive effect on export performance and this effect is partially mediated by export assistance. The study recommended that organizations should give emphasis on their firm characteristics and capability and properly manage export assistances received.

***Keywords**: Firm Characteristics, Firm Capability, Export Assistance, Export Performance*

Chapter One
Introduction

The aim of this chapter is to provide very concise introductory of the research. The first section of this chapter gives very brief introduction on background of the research topic and study followed by statement of the problem to be addressed in the study. This chapter also defines the research questions which are rooted from statement of the problem. It also tries to deal with objective of the study, significance of the study, scope of the study, limitations of the study, organization of the study and definition of key terms sequentially.

1.1 Background of the Study

Exporting is all about transfer of products across boarder; it is selling of products which are produced in one country for a customer in another country (Cavusgil, Knight, and Riesenberger, 2017). Exporting provides very high flexibility, low risk and low control for the exporter. Exporters can easily enter and withdraw with a minimum risk and expense in a foreign market, due to this most companies prefer exporting as their primary foreign market entry strategy (Cavusgil et. al, 2017 and Mulamuhic, 2013).

According to Plecher (2021) Ethiopia's trade deficit in 2019 fiscal year was amounted to around 11.79 billion U.S. dollars. Trade deficit of a country is the difference between total imports and exports of a nation. In this sense the nation’s value of total export is less than its total cost of import; it is said to be in a state of trade deficit (Awan and Mukhtar, 2019). Since trade balance is affected by import and export transaction value it requires consistent evaluation of hindering factors will help to manage the deficit to the minimum.

The global market of Sub Sahara African countries are basically depends on exporting basic and fundamental agrarian commodities in which they have comparative advantages and preference due to affordable labor and tropical climate. According to Allaro (2011), agriculture is the backbone of Ethiopian economy; it contributes more than 40% of the overall GDP. Agriculture has a significant contribution on foreign currency generation and job creation. Almost half of the country’s foreign currency is generated and 80% of jobs are originated from this sector. Other industries and service sectors of the country are relay on the performance of agriculture, which produces basic materials and creates foreign currency for the import of basic inputs and consumables for the quick growing population.

Despite its significance in the national economy, agriculture is based on subsistence farm households, whose modes of life and operation have remained unaltered for hundreds of years.

Ethiopia has potential plow able land, sufficient rainfall, water resource and different climatic region from below sea level up to over 4,500m above sea level. This empowers Ethiopia to grow a great variety of oilseeds, within which it has extended tradition (Allaro, 2011) Oilseeds are the second largest exports of agricultural product for Ethiopia. It accounts 483 million USD which is 18.7% of export earnings of 2019 (Rachel, 2020).

Globally produced major oilseeds are: Soybean, rapeseed, cottonseed, safflower seed, groundnut, palm, copra, Sesame, Castro seed, maize oil and coconut oil (Allaro, 2011). Ethiopia is one of the five largest producers of sesame and linseed in the world. It is also a major Niger seed producer. Castoro, linseed and safflower have good export potential. The growing demand in the world market for these specialty products and the existing capacity to expand production could make oilseeds one of the engines of economic growth of Ethiopia.

Export performance influenced by both firm and industry level factors. According to Zou and Starn (1998), firm level factors are internal to the firm and sum of managerially controllable and uncontrollable factors. Hence, the objective of this study is to investigate the effect of firm characteristics and firm capability on export performance through the mediation effect of export assistance and to suggest some useful guidance to enhance oil seed export performance by investigating the effect and synergy between firm characteristics, capability, export assistance and export performance.

1.2 Statement of the Problem

Ethiopia faces a growing trade deficit for the past ten years. The World Bank report also shows there is a wide increment in trade imbalance between the total import and export of Ethiopia along the period. According to export.gov (2019) Ethiopia's total import steadily increasing on average by 12.5% per year since from 2010. Ethiopia's trade deficit which was 6.05 billion U.S Dollar in 2009 ballooned and reached 11.79 billion U.S Dollars (Plecher, 2021). The trend shows that the trade deficit almost doubles itself within one decade time and this is a very poor performance and at the same time it has hindering effect for a country like Ethiopia that aspires to grow fast and become the next China in Africa.

Countries, regardless of their economic condition either they are developed or developing or technological advanced or laggard requires to export so as to maintain their trade balance. Ethiopia's export is mostly dependent on agricultural products and needs tough endeavor in improving quality and quantity of exported materials so as to remain competitive in the international market. To be competent in global market the governments of Ethiopia apply investment and export trade motivational schemes. Beside this scheme's National Bank of Ethiopia devaluate the currency to encourage exporters to be competent. However; Ethiopia has not been able to motivate the export as expected to narrow down the trade deficit.

Ethiopian export, like many other developing countries, is limited to few primary products, which are mainly agricultural (Ayana, 2015). Ethiopia's oilseed sector is one of rapidly growing sector which intends to meet both local and foreign demand. It plays crucial and important economic role in generating foreign exchange and source of earnings for the country (Staff, 2016). Ethiopia's traditional agricultural crops, coffee and oilseeds are the two leading agricultural crop which contributes to largest export share, at USD 839mn and USD 423mn respectively in 2018. Coffee and oilseeds combined and managed 45 percent of market share of the total exports of Ethiopia, out of which nearly 15 percent is oilseed (Cepheus, 2019).

Most oilseed crops grown in Ethiopia are also grown in many other countries in large volumes. There is also an intensive competition in the global market of oilseeds and now days it becomes very difficult for Ethiopia to compete on the world market due to different major determinant factors. According to International Trade Center data Ethiopian's oilseed export market share is less than 0.6% of the world export and 14.7% of African export for the year 2019. In the year 2015 Ethiopian oilseeds export share from Africa was 17.4% and it shrinks dawn and become 14.7% in 2019.

The capacity of improving export performance is constrained by structural rigidities in production capacity, macro environment; poor infrastructure; access to inputs (like fertilizer and credit to increase production); access to information about the market price, standards; and structural and quality of institutional arrangements and excessive tax on agriculture are among the major supply side constraints that hinder agricultural export of developing countries like Ethiopia (Ackah and Morrissey, 2005; Tesfaye, 2014).

The supply conditions are core and fundamental in defining the export potential of the economy and, for a given level of access to international markets, countries with better supply conditions are expected to export more and secure better market share (Kandiero and Randa, 2004; Tesfaye, 2014).

There are very many studies conducted in the area of firm characteristics and firm capability in determining export performance in different context and locations. Peyman, Karimi and Danaee, (2013) investigates the influence of firm characteristics on export marketing strategies and export performance. Accordingly, their findings asserted that firm characteristics influence export performance indirectly and through marketing strategies. Similarly Behmiri, Rebelo, Gouveia and António (2019), realized that firm size is an influential factor to improve the export performance, there is also a positive relationship between export intensity and age of firms.

Research output of Hosseini, Hamedani and Nikbakht, (2014) indicate that management knowledge about export market was number one important factor followed by the level of technology used, competitive advantage, believe in being profitable. Lack of knowledge to locate foreign opportunities and promising markets is perceived to be a major barrier to export from developing countries (Siringoringo, Prihandoko and Kowanda, 2009).

According to Karelakis, Mattas and Chryssochoidis (2008), firms with different and unique mix of resources (including tangible and intangible) are able to select suitable export markets as well as design and implement export marketing strategy suitable for the chosen markets to attain the desired objectives. The research findings of Kabagambe, Ogutu and Munyoki (2012) revealed that marketing and sales competencies had significant positive effects on export performance. Similarly Tooksoon and Mohamad, (2016) found out that market capability in terms of price capability and promotion capability affects export performance significantly and positively.

Studies on the export performance of the agricultural sector (including oil seeds) are limited and many of these studies applied secondary data for their analysis. Tesfaye (2014) examined whether the supply side or the external/demand side factors significantly determine the agricultural export performance of Sub-Saharan Africa (SSA) countries. In his empirical investigation he found out that both the supply and demand side factors are equally important in determining the total agricultural export of SSA countries.

In addition to the above studies using secondary data Baker and Yuya (2020) conducted a study to identifying the major determinant factors of the supply-side and demand-side factors of the Ethiopia's sesame export performance. They found out that the Ethiopia's sesame exports performance to the importing countries mainly depends on real gross domestic product of importing countries, weighted distance between Ethiopia and its importing countries and real exchange rate were statistically significant.

Moreover, in different years various researches have been conducting on the related and similar title through different research methodology. The result of the study would also be different on affecting or determining Ethiopian oil seeds export performance in global market.

In general, taking the above mention data for the low growth rate of Ethiopia's oilseeds export and different researchers consider different factors that affect oilseeds export, the researcher initiate to conduct a study on this area. In order to improve oilseeds export performance and to achieve a beneficial market position on the world market this research focus on investigating firm level determinants, firm characteristics and firm capability effects on export performance, in addition export assistances from different institutions how it mediates the relationship between firm characteristics, capability and export performance.

1.3 Research Questions

On the basis of the above mentioned problems the study tried to answer the firm characteristics and capability on the export performance of Ethiopian oil seed exporters. To this end, this study addresses and guided by the following research questions.

1. What is the relationship between firm characteristics and export performance in the context of Ethiopian oil seed exporters?
2. To what extent does firm characteristics affects export performance of oil seed in Ethiopia.
3. What is the relationship between firm capability and export performance in the context of Ethiopian oil seed exporters?
4. Does firm capability influence export performance of oil seed exporters in Ethiopia?
5. How does export assistance affects export performance of oil seed exporters in Ethiopia?

6. Does export assistance mediate the relationship between firm characteristics, firm capability and export performance?

1.4 Research Objectives

1.4.1 General Objective

The general objective of this study was to investigate the effect of firm characteristics and firm capability on export performance through the mediation role of export assistance on oil seed exporters in Ethiopia.

1.4.2 Specific Objectives

The study also has the following specific objectives.

1. To investigate the relationship between firm characteristics and export performance in the context of Ethiopian oil seed exporters.
2. To reveal how firm characteristics affects export performance of oil seed in Ethiopia.
3. To disclose the relationship between firm capability and export performance in the context of Ethiopian oil seed exporters.
4. To investigate how firm capability influence export performance of oil seed exporters in Ethiopia.
5. To investigate how export assistance affects export performance of oil seed exporters in Ethiopia.
6. To evaluate the mediation of export assistance in relationship between firm characteristics, firm capability and export performance.

1.5 Significance of the Study

This study finds out the effect of firm characteristics and firm capability on export performance and evaluates the relationship through the mediation effect of export assistance in the context of Ethiopian oilseed exporters. It is very essential and significant to understand the effects of controllable factors that affects performance equivalent to uncontrollable one. Identifying the leak point in the internal factors helps to device remedy and maintains the strategy accordingly in order to maximize sales and profit.

This study also examined the effects of firm characteristics; firm size, export experience, export knowledge and level of technology on export performance.

Moreover, the effect firm capability in terms of production capability, logistics capability and marketing capability on export performance through the mediation effect of export assistance received from different stakeholders. Hence, the outputs of this study contribute both to theory and practice. This study is relaying on the resource based view theory and competitive advantage theory and both of these theories are better explained in the context of Ethiopian Oil seed exporters.

The study also helps for oil seeds exporters to grasp information regarding firm characteristics and firm capability which are controllable factor to their firm and export assistance they received so as to manage their energy and valuable resources so as to maximize their performance. Furthermore, the outcome of this study are helpful in providing a clue and understanding the effects of firm characteristics and firm capability on export performance. Finally, this study can provoke other such studies to be studied and to be employ as a reference document for further researcher in firm characteristics and firm capability effects on export performance.

1.6 Scope of the Study

According to Ministry of Trade, Customs Commissions and Ethiopian pulse, oil seeds and Spice exporter's association database Ethiopia has 263active oilseed exporters as of June, 2020 out of which about 184 are based in Addis Ababa, the capital of Ethiopia. The total number of exporters dwelled in Addis Ababa is about 70% of the total exporter, which is significant and sufficient enough to infer for the total exporter. Hence, considering available time, financial and other resources this study conducted in Addis Ababa only.

Ethiopia exports varieties of agricultural products including oilseed in to the global market. This study emphasis only in oilseeds sector and investigate the effect of firm characteristics and firm capability on export performance related to exporting oilseeds. Therefore, data and information input for this study was collected from oilseed exporters found in Addis Ababa, specifically top ten best performs and those who operate more than five years in the industry. In this regard, the sample frame excludes exporters less than five years of age.

1.7 Limitation of the Study

There are very many challenges and hindering factors in conducting a research and it is a predictable fact that it is not possible to conduct a study without any limitation and challenges. Conducting a study demand and consume much money and time due to this constraint, short time pace and financial limitations this study is limits itself only to oilseed exporters found in Addis Ababa. Furthermore, this study excludes exporters whose annual revenue is less than 1.5million USD and operates less than five years in the industry. If it includes other exporters from different parts of the country regardless of their experience and annual revenue, the result will be more accurate and representative.

Moreover, this study limits itself in area of firm characteristics; firm size, export experience, export knowledge and level of technology in addition to firm capability which can be measured in terms of production capability, logistics capability and marketing capability due to the constraint of budget and time as it is explained above.

1.8 Definitions of Key Terms

Exports are the goods and services produced in one country and purchased by residents of another country (Kimberly, 2020).

Export Performance: Export performance refers to the composite outcome of a firm or a country's international sales, which includes: export intensity is the ratio of export sales to a country's total sales (Katsikeas, Leonidou, and Morgan, 2000).

Oil Seeds: Oilseeds are generally, seeds grown primarily for the production of edible (i.e. cooking) oils. Nigger seed, sesame seed, sunflower seed, cotton seed, grape seed, olives and groundnuts (peanuts), from which edible oils are produced (Directorate, 2001).

Firm Characteristics: firm characteristics are a firm's demographic and managerial variables which, in turn, comprise part of the firm's internal environment (Zou and Stan, 1998).

Firm Capability: is defined as 'the ability of an organization to perform a coordinated set of tasks, utilizing organizational resources, for the purpose of achieving a particular end result' (Helfat and Peteraf, 2003).

Export Assistance: Export assistance is defined as the amount of support received from different sources (national government, Unions, and trade associations) that may enhance the exporting activity of a firm (Lages and Montgomery, 2005).

1.9 Organization of the Paper

The study organized in to five chapters. Chapter one deals with background of the study, statement of the problem, research question, objectives of the study, significant of the study, Scope of the study, Limitation of the study and Definitions of terms. In chapter two literature review of the study which consists of theoretical discussion and empirical review of the study, which mainly focuses on export performance, oil seeds product description, Ethiopia's global oil seeds export performance and firm characteristics in addition to firm capability dimensions are briefly discussed. This chapter also present conceptual framework of the study. Chapter three of this study addresses the methodology that applied in this research. It comprises of: research methods, research approach, research design, sampling technique, data analysis method and ethical considerations. Data analysis and interpretation of the research result which obtained by using the appropriate instrument for the methodology discussed in chapter four. The fifth chapter discusses results of discussion, conclusion and recommendations.

Chapter Two

Literature Review

Literature review help to identify what was done in the past and the knowledge gap on a particular topic. The literature study in this paper discuss in detail about firm characteristics, firm capability and export performance. This literature review addresses theoretical reviews, empirical reviews and conceptual framework of the study. Finally, this chapter presents the issue of proposed hypothesis based on the conceptual framework.

2.1. Theoretical Review

2.1.1.Export Performance of Ethiopia

The sector of export covers all those commercial operations involved when a firm markets its products outside its main (domestic) base of operation as well as when products are physically shipped from one market to another. Economic development is among the main objectives of all societies in the world and economic growth is key to economic development. There are various variables that contribute to financial growth. Export is considered as one of the very important accelerators of growth (Goshu, 2020). For this study, Export performance is defined as: (i) the success or failure of the efforts of a nation to sell domestically produced goods and services in other nations markets (Zou and stan, 1998) (ii) the export effectiveness, export efficiency and continuous engagement in exporting (Shoham, 1987).

Ethiopia, like many other developing countries export has been limited to few primary products which are mainly agricultural commodities (Abebe and Degiye, 2020). Similarly, Mengistu (2014) also argued that Ethiopia's export sector is dominated by export of few primary commodities which include agricultural products mainly coffee, oilseeds, gold, pulses, live animals, chat, flower, and hide and skins. Ethiopia has a trade relationship with many of the nations in the world especially with nations from Europe, Africa and south East Asian. The Ethiopian export supply of agricultural products has subject to large fluctuations mainly because of the price and non price factors. And the economic growth of the country is too weak to absorb the effect of these exogenous shocks; it is less flexible to deal with both internal and external disturbances (Gebreyesus, 2015).

2.1.2 Oil Seeds Product Description

Oilseeds are grown mainly for the production of edible oils. Cotton seed, grape seed, Sesame seed, soybean, niger seed, olives and groundnuts (peanuts). Globally, main oilseeds are: Soybean, Sesame, safflower seed, rapeseed, groundnut, cottonseed, palm, copra, Castro seed, maize oil and coconut oil. Ethiopia has altitudes from below sea level up to more than 4,500m above sea level having diverse climates that supports Ethiopia to produce varieties of oilseeds. The three major oilseed crops in Ethiopia are (sesame, soybean, and niger seed) (Allaro, 2011).

2.1.3 Ethiopian and Global Oil Seeds Export Performance

The worldwide major oilseeds are; Soybean, rapeseed, cottonseed, safflower seed, groundnut, palm, copra, sesame, castro seed, maize oil and coconut oil. The major producers of oilseeds are USA, China, Brazil, India, Malaysia, Indonesia, EU-15 Countries, Central Europe, Canada, and Argentina. According to Food and Agriculture Organization (FAO) database the world oilseeds production is 449 million tons for 2010.Edible oil and oil crops are among the commonly traded commodities in the world. Production and export of oilseeds are however, dominated by a group of producing countries. The United States, China, Brazil, India, Argentina, the EU, and Canada are the world's largest producers, which account for about 70 percent of global oilseeds output (Hoffman, Dohlman and Ash, 1999).

According to International Trade Centre (ITC), sesame exports have increased on average by about 20% from 2006 to 2015. On average from 2006 to 2015, the major five sesame seed exporters (suppliers) of the world are India, Nigeria, Ethiopia, Sudan and United Republic of Tanzania with a world share of 20.57%, 16.37%, 16%, 8.96% and 4.06%, respectively. In Ethiopia, sesame seed is the second most important agricultural commodity after coffee in foreign exchange earnings (Food and Agriculture Organization, 2016).

As explained by Mandefro (2011), Ethiopia has a substantial potential for oilseeds production resulting from its diverse and fortunate climate conditions as well as the existing large size of uncultivated land. Common and specialty Ethiopian oilseeds (safflower, castor beans and rapeseeds) are under high international demand due to their organic nature. Regardless of its potential and high international demands, the oilseeds sector in Ethiopia is constrained by several factors.

Oilseeds are the second largest agricultural export earner for the country next to coffee in which more than 3 million smallholders are involved in its production. Exports actually consist of sesame and Niger seed, for which there is a growing demand in the world market. Ethiopia ranks among the top 5 world producers of sesame seed and linseed. It is also an important producer of Niger seed. Castoro, linseed and safflower have good export potential. The growing demand in the world market for these specialty products and the available capacity to expand production could make oilseeds turn into one of the engines of economic growth of Ethiopia. Oilseeds are the second largest export earner for the country (483 million USD which cover 18.7% of export earnings for the year 2019) after coffee in which more than 3 million smallholders are involved in its production. Exports actually consist of sesame and Niger seed, for which there is a growing demand in the world market (Wijnands, Biersteker and Van Loo, 2009).

2.1.4 Firm Characteristics

There always a relationship and impact of internal firm factors and performance (Katsikeas, Leonidou, and Morgan, 2000). According to Chen, Sousa and Xinming (2016), firm characteristics are firm's basic characteristics like export size and export experience. On the other hand Nassimbeni (2001) argued that number of employees, firm age, information, communication, and innovation capacity are some of firm characteristics. In order to properly utilize firms recourses, firms need to have capabilities and complex skills so that they can coordinate activities in a way to achieve the highest advantage (Krasnikov and Jayachandran, 2008).

Firm size is one of the controllable firm characteristics and it has positive effect on export performance if it is measured in terms of total sales and it will have a negative effect if it is measured using number of employee a firm has (Zou and Stan, 1998). According to Peyman, Karimi and Danaee, (2013), large firms have better advantages in the international market due to the increasing competition and improvements in communication network. Large firms are more likely to adapt in contrast with smaller firms who have restricted resources (Wagner, 1995).

Export business has considerable amount of uncertainty which emanates from lack of information and knowledge about foreign market which can be acquired through experience and practical operations (Forsgren and Johanson, 1992).

International experience is the experience gained outside the home country through career development or international assignments (Takeuchi et al., 2005). Successful international assignments occur where a manager overcomes cross-cultural barriers and completes the assignment (Shaffer and Harrison, 1998). International experience is acquired through current or past events and is determined by the "domain" (work or non-work) and cultural specificity either of which may or may not be work related (Leonidou and Theodosiou, 2004). International experience is described as the experience in selling to foreign markets and includes the factors that reflect a firm's exposure to foreign market environment (Reuber and Fischer, 1997).

Another factor is market knowledge which is very vital for decision making and is a competitive advantage for the firm (Peyman, Karimi and Danaee, 2013). Firms' export market knowledge is a critically important competence which influence export performance (Aaby and Slater, 1989). Similarly, Bertrand (2010) reveals that export experience positively affects export performance. O'Cass and Julian, (2003) also argued that when a firm has more international experience there is more likely hood of gaining worthy results through adaptability to the environment. A firm without knowledge of market demands and customers will face difficulty in employing market opportunities (Ling-Yee, 2004).

According to Peyman, et al. (2013) technology innovation affects export activities by increasing the production, reducing cost and developing new products for international markets. Firm with technology diversity have more expertise in similar technologies, thus increasing the possibilities of technological combinations. The resultant technology may improve product and services (Hortinha, Lages and Lages, 2011). Exporters with more diverse technological knowledge capture more opportunities and tend to develop more radical innovativeness (Quintana-García, and Benavides-Velasco, 2008).

2.1.5 Firm Capability

2.1.5.1 Production Capability

According to Zou and Stan (1998), firm competencies both international and overall business competencies are critical factors in determining export performance. Firm's capability has a huge impact on international business success; it is one of the essential aspects in enhancing sustainable competitive edge and influencing exports performance (Sousa et al, 2016).

To this end, firm capacities are sources of competitive advantages for the firm which in turn provides persistent sustainable success for the firm (Knight and Cavusgil, 2004; Yalcinkaya, et al., 2007).

Supply conditions are fundamental in defining the export potential of the economy and, for a given level of access to international markets, countries with better supply conditions are expected to export more (Kandiero and Randa; 2004; Taylor 2007). According to Leonidou, Katsikeas, and Samiee, (2002), the firm's ability to offer a complete product or brand mix in export markets is positively correlated with export performance. Production capability extends the skills pertinent with adoption of new methods and ideas in the production and manufacturing processes (Kabagambe, Ogutu and Munyoki, 2012). Morgan, Kaleka and Katsikeas (2004), also asserted that production competencies enable the firm to develop, combine and transform resources into value creating offerings for the export market.

2.1.5.2 Logistics Capability

Logistics capability is one of the most critically important capabilities that enable to acquire a competitive advantage in this high competition global market (Xu and Wang, 2012). According to Stank, Goldsby, Vickery and Savitskie (2003), superior logistics capabilities can strength customer loyalty and lead to increase sales volume and enhance large market share. Logistics management tries to have the “right product”, in the “right quantity”, at the “right place”, at the “right time”, with the “right cost”. However balancing between total logistics cost and customer service level is essential to successful logistics Alan, et al. (2014).

The significance of logistics has evolved from a more passive and cost minimization oriented activity to a key success factor for firm competitiveness. More recently it has become an integral part of a firm’s strategic planning process (Carter, et al., 1997). It is now also recognized that distribution and logistics can be source of competitive advantage to company by helping to achieve either least cost or by offering value in the form of positioning the product or service exactly where, when and how the customer want it. According to Mentzer, Min and Bobbitt (2004), logistics capability has four broad categories, which are customer service and logistics quality, low cost distribution and low cost supply, information sharing and information technology and coordination capabilities (both internal and external coordination capabilities).

2.1.5.3 Marketing Capability

According to Day (1994), as cited by Al-Aali, Khan, Khurshid and Lim (2013) marketing capabilities are complex bundles of accumulated knowledge exercised through marketing processes, which enable a firm to coordinate marketing activities and make use of its assets Kabagambe, et al. (2012), argued that the growth in export sales, profitability, market share, and the like, largely depends on the ability of the exporter to visualize, plan, execute and control marketing and sales efforts better than the competition.

Firm's strategies of segmenting market and price adaptation and ability to offer lower prices are positively correlated to the export performance (Leonidou et. al. (2002). Export sales promotion and personal selling are positively correlated to export performance (Leonidou, et al. 2002; Shamsuddoha and Ali, 2006). Rose and Shoham (2002), recognized that market oriented firms are better able to identify and respond to the global business environmental changes and potential opportunities. Madsen (1987) and Zou and Stan (1998), found that marketing research capability has positive relationship with export performance.

2.1.6 Export Assistance

In recent decades, the number of support agencies for export has tripled in the context of the development of national strategies for global exports (Lederman, Olarreaga, and Payton, 2010). Export assistance can be offered to firms indirectly through elimination of bureaucracy, financing of production, and policies to support innovation (Diamantopoulos, Schlegelmilch and Tse, 1993; Lages and Montgomery, 2005).

Exporters from developing countries face intense competition and business risks increase, so the potential costs, and the consequences of failure, are higher (Arvis et al., 2013). In order to help firms to overcome many barriers that hinder exporting, export assistance program have been designed. They refer to the services provided by external bodies, such as government agencies, trade associations, and the chamber of commerce, for the purpose of enhancing the export activity of the firm (Diamantopulous et al., 1993; Lages and Montgomery, 2005; Sousa and Bradley, 2009). Besides, the amount and quality of export support that governments in different countries provide differs, as well as the familiarity and awareness among firms of the importance and usefulness of these program (Leonidou et al., 2011).

2.1.7 Export Performance

Lu and Beamish (2001), argued that investigating the firm level export performance is important so as to improve productive capacity, financial performance and competitive edge in addition it provides foundation for future international expansion. Based on the findings of Chen, Sousa, and Xinming (2016), among the measures of export performance, economic measures are the most frequently utilized, accordingly export profitability; export sales growth, export sales, and export intensity are most utilized as per their order. On the other hand Leonidou, et al. (2002), as cited by Nazar and Saleem (2009) most commonly and frequently used export performance measures are export proportion of sales or export intensity, export sales growth, export profit level, export sales volume, export, market share, and export profit.

The "sales" category includes measures of the absolute volume of export sales or the export intensity. The "profit" category consists of absolute measures of overall export profitability and relative measures such as export profit divided by total profit or by domestic market profit (Zou and Stan, 1998).

2.1.8 Resource Based Theory

The resource based view considers a firm as a unique parcel of valuable tangible and intangible resources, and these controllable resources and capabilities determine a firm's competitive advantage and performance in export market (Katsikeas et al., 2000, Barney et al., 2001). Competitive advantage derived from a firm's resources, and influenced by institutions, is neither fixed nor infallible (Chen, Sousa and Xinming, 2016).

Most scholars acknowledge that resources, by themselves, cannot be a source of competitive advantage. This is to mean that resources can only be a source of competitive advantage if they are used to 'do something;' if those resources are exploited through business processes (Ray, Barney and Muhanna, 2004). Resources and capabilities, owned by the firm must be organized, and combined properly, so that they can acquire competitive value, and thus help the firm achieve high performance levels (Newbert, 2008). Firms that fail to efficiently and effectively translate their resources and capabilities into business processes cannot expect to realize the competitive advantage potential of these resources (Ray, et al., 2004).

2.2. Empirical Review

Organizational characteristics explain both exporter weaknesses and their strategic underperformance (Muranda, 2003). Research results indicate that export performance is significantly influenced by a firm's choice of market expansion strategy, product breadth and promotion strategy. The formation of these strategies is, in turn, determined by a firm's characteristics (Hoang, 1998). The study results of Peyman, et al. (2013), asserted that internal firm factors namely, market knowledge, commitment, international experience and innovation affected the application of adaptation strategies and the export performance were significantly related and concluded that firm characteristics could influence export performance indirectly and through marketing strategies. Similarly Behmiri, Rebelo, Gouveia and António (2019), realized that size is an influential factor to improve the export performance, and the importance of size is higher for younger firms. There is a positive relationship between export intensity and age of firms.

Research output of Hosseini, Hamedani and Nikbakht, (2014) indicate that management knowledge about export market was number one important factor followed by the level of technology used, competitive advantage, believe in being profitable. Export Marketing knowledge and information problems are about lack of knowledge of foreign markets, business practices, and competition; and lack of management to generate foreign sales. Lack of knowledge to locate foreign opportunities and promising markets is perceived to be a major barrier to export from developing countries (Siringoringo, Prihandoko and Kowanda, 2009).

Many exporters in developing countries lack information about marketing channels and fail to establish marketing networks. Lack of information causes failure to see the entirety of the market, which at the same time can distract firms from possible opportunities (Nalcaci and Yagci, 2014). Exporters with poor past performance may achieve higher export performance levels by focusing more on customers than on technology. Conversely, firms performing well may risk export performance if they ignore technology orientation (Hortinha, Lages and Lages, 2011).

According to Karelakis, Mattas and Chryssochoidis (2008), firms with different and unique mix of resources (including tangible and intangible) are able to select suitable export markets as well as design and implement export marketing strategy suitable for the chosen markets to attain the desired objectives.

Production capability can be achieved through combining the process and development engineering, which is relational, but independent of each other (Zafer and Zehir, 2009). Product quality is another major factor from the supply side constraint of agricultural export of the region. The impact of institutional quality on export of primary commodities is likely differing from its effect on manufactured exports. As mentioned in Meon and Sekkat, (2006) export of primary products may be positively rather than negatively associated with lack of institutional quality.

Access to foreign markets is one of the major factors that directly influence export performance. It is directly related to the characteristics of the trading partner countries, such as the size of their market, transport facilities, and inversely to their own internal transport costs. It also depends positively on the size of the export basket and the number of differentiated items and their prices, which in turn are affected by market entry conditions. Trans border costs, which also include tariff and non-tariff barriers, have the expected negative impact on foreign market access (Anderson, 2008; Fugazza, 2004).

Domestic transport infrastructure is one of among the major factors affecting export supply capacity of a nation. Majority of African countries are known to be characterized by poor transport infrastructure, which is a major barrier to trade, competitiveness and sustainable development (Bacchetta, 2007). As a result of poor internal transport infrastructure African transport costs are high and resulted exports expensive and uncompetitive and reducing foreign currency earnings from exports. For instance, enhancements in transportation services and infrastructure can lead to progresses in export performance (Fugazza, 2004). 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) found out that the internal transport infrastructure has a significant and positive impact in raising exports.

Effective application of logistics has long been viewed as a significant enabler for firms seeking to achieve competitive superiority (Stank and Lackey, 1997). Novack, Rinehart and Wells (1992) argue that logistics backs to the creation of four types of value: form, time, place and possession utilities. The broader fundamental perception of combined logistics management has also been portrayed in a positive light with its promise to bring higher customer service levels simultaneously with decreasing distribution costs (Manrodt and Davis, 1993).

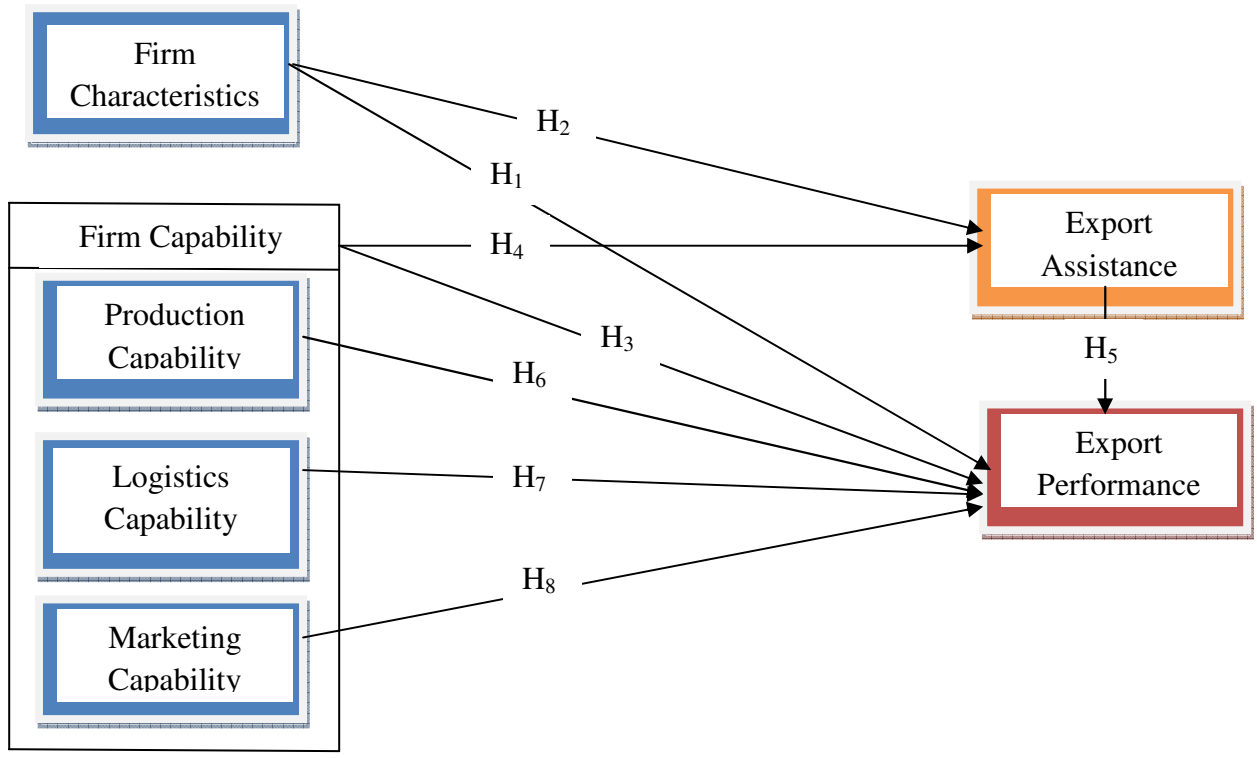
The research findings of Kabagambe, Ogutu and Munyoki (2012) revealed that marketing and sales competencies had significant positive effects on export performance. Surprisingly, the effect of production competencies on export performance, though significant was negative. Similarly Tooksoon, and Mohamad, (2016), found out that market capability in terms of price capability and promotion capability affects export performance significantly and positively. Aligning export channel choice with firm-level market orientation capabilities and institutional distance yields better export performance (He, Brouthers and Filatotchev, 2013). According to Al-Aali, et al. (2013), Product and distribution capabilities show a significant direct effect on export performance for the low involvement exporters. For the high involvement exporters, the promotion and distribution capabilities have a significant effect on export performance. The impact of the three marketing capabilities on export performance is moderated by export involvement.

2.3. Conceptual Framework

Conceptual framework contains key variables and presumed relationships amongst them (Miles and Huberman, 1994). Similarly, Rocco and Plakhotnik (2009) describes conceptual framework as a means that concepts that relate to one another, used to explain the study objectives. As a type of manuscript, a conceptual framework relates concepts, empirical research, and relevant theories to advance and systematize knowledge about related concepts or issues.

Considering the objective of this study, the above theoretical and empirical review shows different writers argue differently on some of the identified factors that determine and influence performance of export. Hence, the researcher tried to show some of the independent variables that influence export performance of Ethiopian oil seeds export. Therefore, this conceptual model will draw to show causal relationship between firm characteristics, firm capability and export assistance on export performance of Ethiopian oil seeds exporters.

The figure below shows the conceptual model for the effect of firm characteristics, firm capability and export assistance on export performance of oil seeds export in Ethiopia.



Source: Own Source

Figure 2.1 Conceptual Framework

The researcher observed that from empirical literature review are listed as follow:

- ✓ Different researcher consider different independent variables in their study
- ✓ Some of the finding of different researchers are contradict each other's
- ✓ Different researchers had been applied different research methodology
- ✓ Frequent business environmental change in different period

Therefore, Ethiopia have good potential for agricultural product like oil seeds but for the year 2015 Ethiopian oil seeds export share from Africa was 17.4% whereas for the year 2019 was 14.7 % (International trade center data). These indicate the improvement of oil seeds export performance of Ethiopia decrease compared to Africa through time. To this end this study will find out the effect of firm characteristics and firm capability on export performance through the mediation effect of export assistance pertained from different authorities.Hence, the study researcher will use both descriptive and inferential analysis to find out the relationship and effect of firm characteristics and capabilities to the export performance through the mediation of export assistance.

2.4 Research Hypothesis

Depending on the theoretical and empirical review made in the previous sections, the researcher has developed the following ten hypotheses so as to meet the research objectives proposed above.

This study empirically explored the effect of firm characteristics and capability on export performance through the mediation effect of export assistance.

H_1: Firm characteristic has positively and significantly influence on export performance.

H_2: Firm characteristic has positively and significantly influence on export assistance.

H_3: Firm capability has positively and significantly influence on export performance.

H_4: Firm capability has positively and significantly influence on export assistance.

H_5: Export assistance positively and significantly influence export performance.

H_6: Production capability positively and significantly influence export performance.

H_7: Logistics capability positively and significantly influence export performance.

H_8: Marketing capability positively and significantly influence export performance.

H_9: Export assistance significantly mediates the relationship between firm characteristic and export performance.

H_{10}: Export assistance significantly mediates the relationship between firm capability and export performance.

Chapter Three

Research Methodology

This study examined the effect of firm characteristics and firm capability on export performance with the mediation effect of export assistance. To this end, this chapter describes and discusses the research process as well as sampling procedures and modes of data analysis. It includes description of the study area, research approaches to be followed, research design to employed, population and sample size determination, sampling method and procedure, data type and source, data collection procedure and ethical consideration are presented sequentially.

3.1 Description of the Study Area

Ethiopia exports different agricultural commodities in to various global markets. The agricultural sector managed the major contribution of the export business in Ethiopia. Ethiopia's oilseed sector plays an important role in generating foreign exchange earnings. The three major oilseed crops (sesame, soybean, and niger seed) contribute to nearly 20% of Ethiopia's total agricultural export earnings, second only to coffee (Rachel, 2020). The main objective of this study is to investigate the effect of firm characteristics and firm capability on export performance of oil seed exporters in Ethiopia.

To meet the above mentioned objective this study conducted in the area of oil seed exporters in Ethiopia. According to the database of Ethiopian Custom Commission, Ministry of Trade and Ethiopian pulse, oil seeds and Spice exporter's association data there are about 263 active oil seeds exporters are found in Ethiopia as of June 2020, out of which 184 are found in Addis Ababa. This shows 70% oil seed exporters have office in the capital city Addis. It is a good opportunity for the researcher to conduct survey that related to firm characteristics, firm capability and export performance of oil seeds exports in Ethiopia. Therefore, this study mainly focus on top ten exporters found in Addis Ababa and operated more than five years in the industry due to scope and limitations of the study stated above.

3.2 Research Approach

There are four main research approaches these are, quantitative research, qualitative research, mixed methods and finally advocacy/participatory approach to research (Alzheimer, 2009).

According to Kothari (2004), the quantitative approach involves the generation of data in quantitative form which can be subjected to rigorous quantitative analysis in a formal and rigid fashion.

Every researcher collects data using one or more techniques. In this study the researcher applied quantitative method of analysis using different statistical techniques. The quantitative research approach is intended to find out the effect of firm characteristics and firm capability of oil seeds export performance through the method of survey, regression and correlation between two or more variables. Moreover, a quantitative research approach is appropriate for a deductive research which test hypothesis and measuring relationships among variables, being able to generalize and replicate the findings. In addition, in order to address the key research objectives, this research applied findings of other researchers in order to triangulate findings of this research.

3.3 Research Design

The research design is intended to provide an appropriate framework for a study. According to Saunders, Lewis and Thorn hill (2009), research deign is concerned with the overall plan for the research. The main objective of this study is to investigate the effect of firm characteristics and firm capability on export performance and the mediation role export assistance of oil seeds exporters in Ethiopia. Studies that establish causal relationships between variables may be termed as explanatory research. The emphasis here was on studying a situation or a problem in order to explain the relationships between variables (Saunders, et. al, 2009). Explanatory research is useful for studying relations between causes and symptoms.

According to Sanders, et al. (2009), survey strategy allows the collection of a large amount of data from a sizeable population in a highly economical way. Often obtained by using a questionnaire administered to a sample, these data are standardized, allowing easy comparison. The survey strategy allows the researcher to collect quantitative data which you can analyze quantitatively using descriptive and inferential statistics.

As to this study strategy, after considering the available time, cost and suitability, this study applied explanatory survey research design so as to find out the effect of firm characteristics and firm capability on export performance of oil seeds exporters in Ethiopia.

Therefore, this study applied primary data collection methods through a series of well-structured questionnaires focus on oil seed exporters to find out the effect of firm characteristics and firm capability on export performance.

3.4 Data Source

According to Kothari (2004) primary data are those which are collected afresh and for the first time, and thus happen to be original in character. The secondary data, on the other hand, are those which have already been collected by someone else and which have already been passed through the statistical process. Most research questions are answered using some combination of secondary and primary data (Sanders, et al., 2009)

Therefore, this research applied primary data source for investigation and answer the research questions raised above. In order to collect primary data the researcher prepared well-structured questionnaires which distributed for oil seed exporters so as to get first hand primary data.

3.5 Population and Sampling

3.5.1 Population

Krieger (2012) defined population as all members of any well-defined class of people, events or objects. It means therefore that any entity, group or set which constitutes a population must have at least one attribute or characteristic which is common to all of them. The population of a study therefore represents the target of the study as defined by the aims and objectives of the study. Therefore, the target population of this study is top ten oil seeds exporters found in Addis Ababa and stayed for more than five years in the market.

According to the database of Ethiopian pulse, oil seeds and Spice exporter's association, Ethiopian custom commission and Ministry of Trade there are about 263 active oil seeds exporters as of June 2020. Accordingly, out of 263 oil seeds exporters 184 are found in Addis Ababa as per the data from Ethiopian Custom Commission, Ministry of Trade and Ethiopian pulse, oil seeds and Spice exporter's association. Moreover, the sampling frame excludes firms whose revenue less than 1.5million USD and those who served less than five years in the industry.

In consequence, the total population under investigation (after excluding firms less than five years experience) comprises 131 employees and the complete list is prepared based on each firm's database. The following table, Table 3.1 summarizes total population distribution.

Table 3.1: Summary of Population of the Study

Item	Name of Company	Department				Total
		Production	Marketing	Logistics	Export	
1	GirmaTeferiWondimagegne	4	2	3	3	12
2	YordanosBerhaneAbadi	4	3	2	2	11
3	MulatuMengeshaWabe	3	2	2	2	9
4	Coma Import and Export PLC	4	2	3	2	11
5	Albar Trading P L C	5	3	4	2	14
6	Wilcom Trading PLC	5	2	3	2	12
7	KidanemariamGebreyesusWoldekidan	3	2	4	3	12
8	BelaynehKindeMokonnen	6	3	4	3	16
9	Kaki Private Limited Company	7	2	3	3	15
10	Warka Trading House Private Limited	6	4	5	4	19
Grand Total		44	25	33	26	131

Source: Ethiopian pulse, oil seeds and Spice exporter's association and Ministry of Trade and Industry Data Base

Hence, the total target population of this study is 131 oil seed exporters. The survey respondents are managers, supervisors, team leaders and senior employee responsible for the export of oil seeds process.

3.5.2 Sampling Technique

A sample is the number of items selected to represent the whole population (Kothari, 2004). The two broad categories of sampling techniques are probability or representative sampling and non-probability or judgmental sampling (Saunders, et al., 2009).This study employed probability sampling particularly stratified sampling technique. According to Kothari (2004), stratified sample is a probability sampling technique in which the researcher divides the entire target population into different sub-groups, or strata, and then randomly selects the

final subjects proportionally from the different strata. Random sampling techniques is one of the most outstanding features of this method is that each member of the population has an equal chance of being selected (Wimmer and Dominick, 2006).

There are 131 target populations from ten best oil seed exporters in Addis Ababa who have served the industry more than five years. The study considers each company as a different strata and follow stratified random sampling technique. Hence, from the source population of selected companies appropriate samples for questionnaire administration have been determined by using stratified sampling technique and the respondents are randomly selected. This method helps to get appropriate and enough cases from each group to make meaningful conclusion.

3.5.3 Sample Size

Once the appropriate and suitable sampling method is determined, the next major task is determining the accurate sample size. According to Kothari (2004), sampling may be defined as the selection of some part of an aggregate or totality on the basis of which a judgment or inference about the aggregate or totality is made. As a general rule, one can say that the sample must be of an optimum size. It should neither be excessively large nor too small. If the sample size of a research is too small, it may not serve to achieve the objectives and if it is too large, we may incur huge cost and waste resources (Kothari, 2004).

This study applied stratified random sampling technique and implements a formula to determine appropriate sample size which was developed by Kothari (2004). As it is shown in the formula calculated below, a sample size of 98 is appropriate for a given population size of 131 at the confidence level of 95% and a margin of error of 5%.

$$n = \frac{Z^2.\,p.\,q.\,N}{e^2(N-1)+Z^2 p.\,q}$$

Where:

n: sample size

N: number of total population

Z: value of confidence level from *Z*-table

E: precise (error) margin of error

P: proportion of sample in the universe

Thus

$$n = \frac{Z^2.\,p.\,q.\,N}{e^2(N-1)+Z^2 p.\,q}$$

$$n = \frac{1.96^2 x0.5x0.5x131}{(0.05)^2(131-1)+(1.96)^2 x0.5x0.5}$$

n = 97.88 ≈98

Therefore, 98numbers of sample representatives are selected for analysis from oil seed exporters. Therefore, in this study, 98 questionnaires were distributed for oil seed exporters under study.

Table 3.2 Total Target Population and Sample Size Selected

Item	Name of Company	Population	Proportion	Sample
1	GirmaTeferiWondimagegne	12	9%	9
2	YordanosBerhaneAbadi	11	8%	8
3	MulatuMengeshaWabe	9	7%	7
4	Coma Import and Export PLC	11	8%	8
5	Albar Trading P L C	14	11%	11
6	Wilcom Trading PLC	12	9%	9
7	KidanemariamGebreyesusWoldekidan	12	9%	9
8	BelaynehKindeMokonnen	16	12%	12
9	Kaki Private Limited Company	15	11%	11
10	Warka Trading House Private Limited	19	15%	14
Total		131	100%	98

3.6 Data Collection Procedure

The study used primary data source. The researcher collected primary data through preparing structured questionnaires as per the objective of the study. In preparing a questionnaire, researcher carefully chooses the questions and their form, wording, and sequence.

As per the sample size the researcher distributed 98 questionnaires to the sample selected. The sample respondents are managers, supervisors, team leaders and senior employee of oil seed exporters.

Based on the sample size, sample plan prepared to distribute questioners to selected exporters. The researcher distributed and collected the questionnaires to and from the respondents by visiting them at their place.

3.7 Data Collection Instrument

The primary data from selected respondents were collected using questionnaire. The questionnaire are adopted and modified from prior authors and literature review. The following table summarizes source of instrumentation and their measures

Table 3.2: Research Variables and their Corresponding Measures

Item	Construct	Source	Number of Item
1	Firm Characteristics	Peyman, Karimi and Danaee, (2013)	4
2	Production Capability	Zafer and Zehir, (2009)	7
3	Logistics Capability	Zafer and Zehir, (2009)	5
4	Marketing Capability	Zafer and Zehir, (2009)	5
5	Export Assistance	Lages and Montgomery, (2005)	4
6	Export Performance	Zou, Taylor and Osland,(1998)	9

The questionnaire is divided in to four sections. The first section is regarding the demographic characteristics of respondents and firm's status. The second section is about the independent variable firm characteristics and firm capability. The third section is concerning the mediating variable export assistance. Finally, the export performance measuring instrument is presented.

For all questions in the questionnaire included starting section two the respondents are requested to indicate their level of agreement on a five point Likert scale ranges between1 = strongly disagree and 5 = strongly agree.

3.8 Reliability and Validity of Instruments

Reliability and validity are the two pillars of scientific research methods. According to Cooper and Schindler (2003), the reliability of measuring instrument shall be insured even before considering the validity of the instrument. Reliability is defined as the degree to which the measures are free from error so that the consistency of the results is assured (Fuchs and Diamantopuolos, 2009). Hence, in this research the reliability and validity of instruments were checked using SPSS. The reliability is evaluated in terms of the Cronbach's Alpha test.

Since the questionnaires are collected from different journal articles and for its reliability the researcher conducted a pilot test distributing 40 questionnaires in order to identify inconsistencies with the research instruments. Based on the result of the pilot test, improvements made to the instrument before the full scale data collection commencement.

3.9 Methods of Data Analysis

In order to address the research questions and key research objectives, this research used quantitative analysis method. To investigate the effect of firm characteristics and firm capability on export performance related to exporting oil seeds in Ethiopia the researcher used questioners through Likert Scale running from 1 (strongly disagree) to 5 (strongly agree). The survey data analyzed using SPSS (Statistical Package for Social Scientists), version 20 for data analysis and interpretation.

To assess Ethiopian oil seeds export performance and to describe the variables descriptive analysis are used. Descriptive analysis such as percentages, frequency and cross tabulation applied for respondents' background, to provide basic information about variables in a dataset and to highlight potential relationships between variables under study.

To investigate the relationship between firm characteristics, firm capability, export assistance and export performance correlation analysis were applied. Moreover, in order to find out the effects of firm characteristics and firm capability on export performance and the mediation effects of export assistance analyzed using simple linear and multiple regressions.

3.10 Ethical Consideration

Researchers designing and conducting studies using human data should consider the values and principles of ethical conduct. There are certain ethical protocols that have been followed by the researcher throughout the study process.

In this study before collecting data from respondents, the researcher aware objective and purpose of the study and also request their willingness. In collecting the data the researcher take in to account ethical considerations of the respondents, exporting companies and any other parties that have negative effect on them. Information collected from the exporters are be kept confidential and will not be used for any other purpose than this study. The other ethical measure that exercised by researcher was treating the respondents with respect and courtesy to make them fill at ease and to give frank responses to the questionnaire.

Chapter Four

Data Presentation, Analysis and Discussion

Introduction

This study aims to investigate the effect of firm characteristics and firm capability on export performance and the mediation role of export assistance. Hence, this chapter presents a detailed discussion and analysis based on the data collected. The first section of the chapter is a descriptive analysis. The second section is about inferential analysis, in this section both correlation and regression analysis will be briefly discussed. The third section of this chapter is regarding mediation analysis of the relationship between firm characteristics, firm capability, export assistance and export performance. To analyze the collected data in line with the general and specific objective of the study statistical procedures were carried out using SPSS version 20.

4.1 Response Rate

A total of 98 questionnaires were distributed so as to collect primary data, out of which 91 questionnaire were returned back to the researcher. From 91 questionnaires which were returned back 4 questionnaires were rejected due to incomplete response and inconsistency. Hence, the researcher received 87 workable questionnaires which has 88.87% response rate. According to Muganda and Muganda (2003), recommended that a response rate of 70% and above are found to be very well for data analysis and reporting results. Therefore, the response rate is adequate to carry out analysis. The following table, Table 4.1 summaries the response rate of respondents.

Table 4.1: Response Rate of Respondents

Response Rate	Frequency	Percentage
Returned	91	92.86%
Not Returned	07	7.14%
Incomplete and Inconsistence	04	4.08%
Workable Questionnaire	87	88.78%
Total	98	100%

Source: Own survey

4.2 Reliability and Validity of Instruments

4.2.1 Reliability

In order to determine the reliability of the instrument by establishing how variables of the study related to each other Cronbach's Alpha was applied. It was first named by Lee Cronbach in 1951, as he intended to measure reliability, internal consistency. The Cronbach Alpha coefficient of 0.90 has high degree of acceptability, 0.80 or greater is acceptable, 0.70 or above is appropriate and 0.60 is the minimum requirement. Accordingly the researcher tasted the reliability of the instruments and result of reliability obtained between 0.624 and 0.792. The overall reliability of the instrument is 0.908 which fall under high degree of reliability. The reliability test result of the items are summarized and presented in Table 4.2 below.

Table 4.2: Reliability Test of Study Variables

No	Variables	Number of Items	Cronbach's Alpha
1	Firm Characteristics	4	.633
2	Production Capability	7	.715
3	Logistics Capability	5	.721
4	Marketing Capability	5	.745
5	Export Assistance	4	.624
6	Export Performance	9	.792
Overall Reliability of Instruments		34	.908

Source: Own survey

4.2.2 Validity

According to Fraenkel and Wallen (2006), validity of an instrument is all about appropriateness, correctness, meaningfulness and usefulness of the specific inference that researchers make based on the data they collected using a particular instrument. Accordingly, for this study the researcher tested the questionnaire through logic where a logical link between the questionnaires and the objectives of the study. Moreover, the literature review in previous chapter supports and provides evidence regarding face validity of the instruments.

4.3 Demographic Characteristics

4.3.1 Gender

Table 4.3 Gender Distribution

No	Gender	Frequency	Percent	Valid Percent	Cumulative Percent
1	Male	59	67.82%	67.82%	67.82%
2	Female	28	32.18%	32.18%	100%
	Total	87	100%	100%	

Source: Own survey

Based on table 4.3 above out of 87 respondents 59 (67.82%) were male and the remaining 28 (32.18%) respondents were female.

4.3.2 Age

Respondents were asked to indicate their age within the intervals. The result of the study, respondents who filled their response in the intervals in the questionnaire summarized in table 4.4 below.

Table 4.4 Respondents Age

No	Age Intervals	Frequency	Percent	Valid Percent	Cumulative Percent
1	25 to 30	19	21.84%	21.84%	21.84%
2	31 to 40	35	40.23%	40.23%	62.07%
3	41 to 49	26	29.89%	29.89%	91.95%
4	50 or More	7	8.05%	8.05%	100%
	Total	87	100%	100%	

Source: Own survey

As it is shown in the above table, Table 4.4 the majority of the respondents are between 31 to 40 years of age which covers 40.23% of the total sample. It is followed by 41 to 49 years of age which is 29.89%.

4.3.3 Educational Status

As shown in table 4.5 below, 41 (47.13%) respondents have first degree and 46 (52.87%) of respondents completed their master's degree. Hence, the educational background of respondents indicates that the respondents are well educated to understand the instrument and respond the required information in an efficient manner.

Table 4.5 Respondents Educational Status

No	Educational Status	Frequency	Percent	Valid Percent	Cumulative Percent
1	First Degree	41	47.13%	47.13%	47.13%
2	Masters Degree	46	52.87%	52.87%	100%
	Total	87	100%	100%	

Source: Own survey

4.3.4 Department of Respondents

Respondents were asked to indicate their current department within the organization and the result is summarized and presented in table 4.6 below. From the total of 87 respondents 12 (13.79%) are from production, 26 (29.89%) are from marketing, 14 (16.09%) are from logistics and the remaining 35 (40.23%) are from export department. This shows that respondents are different departments which have a stack on export performance.

Table 4.6 Respondents and their Departments

No	Departments	Frequency	Percent	Valid Percent	Cumulative Percent
1	Production	12	13.79%	13.79%	13.79%
2	Marketing	26	29.89%	29.89%	43.68%
3	Logistics	14	16.09%	16.09%	59.77%
4	Export	35	40.23%	40.23%	100%
	Total	87	100%	100%	

Source: Own survey

4.3.5 Current Position

Respondents were also asked to indicate their current position in the organization and responses obtained are summarized and presented in table 4.7 below. From the total of 87 respondents 16 (18.39%) are managers, 23 (26.44%) are supervisors, 19 (21.84%) are team leaders and the remaining 29 (33.33%) are senior officers. Thus, the majority of the respondents are from supervisory and managerial positions.

Table 4.7 Respondents Current Position

No	Positions	Frequency	Percent	Valid Percent	Cumulative Percent
1	Manager	16	18.39%	18.39%	18.39%
2	Supervisor	23	26.44%	26.44%	44.83%
3	Team Leader	19	21.84%	21.84%	66.67%
4	Senior Officer	29	33.33%	33.33%	100%
	Total	87	100%	100%	

Source: Own survey

4.3.6 Respondents Export Experience

Respondents were asked to indicate their export experience within the intervals and the result of the study, respondents who filled their response in the intervals in the questionnaire summarized in table 4.8 below. Therefore, respondents were found experienced enough to tap information regarding the relationship and effects of firm characteristics and capability on export performance.

Table 4.8 Export Experience of Respondents

No	Experience	Frequency	Percent	Valid Percent	Cumulative Percent
1	4 to 6	18	20.69%	20.69%	20.69%
2	7 to 10	36	41.38%	41.38%	62.07%
3	11 to 15	23	26.44%	26.44%	88.51%
4	Above 15	10	11.49%	11.49%	100%
	Total	87	100%	100%	

Source: Own survey

4.3.7 Category of Company

Respondents were asked to indicate their company to which category fall under either from Sole proprietorship and private limited company. Accordingly, 39 (44.83%) of the respondents are from Sole proprietorship and 48 (55.17%) of them are from Private Limited Company.

4.3.8 Company Export Experience

Respondents were asked to indicate their company export experience within the intervals and the result of the study, respondents who filled their response in the intervals in the questionnaire summarized in table 4.9 below.

Table 4.9 Export Experience of Companies under Study

No	Experience	Frequency	Percent	Valid Percent	Cumulative Percent
1	4 to 6	26	29.89%	29.89%	29.89%
2	7 to 10	61	70.11%	70.11%	100%
	Total	87	100%	100%	

Source: Own survey

Based on the above table, Table 9 26 (29.89%) of respondents are from a company which operates between 4 to 6 years in the industry and 61 (70.11%) of respondents are from a company operates between 7 to 10 years. This shows that majority of respondents are from well experienced company in the industry.

4.3.9 Company Membership

Respondents were also asked to indicate their company membership and all respondents are underline that their companies are member of both export association and chamber of commerce. Thus, respondents are aware of any assistance received from either the export association or chamber of commerce.

4.4 Descriptive Analysis of Variables

One statistical approach for determining equivalence between groups is to use simple analyses of means and standard deviations for the variables of interest for each group in the study (Marczyk et al. 2005). The mean indicates to what extent the sample group on average agrees or does not agree with the different statement. The lower the mean, the more the respondents disagree with the statement. The higher the mean, the more the respondents agree with the statement.

The responses of the respondents for the variables indicated below were measured on five point Likert scale with: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree. While making interpretation of the results of mean and standard deviation the scales were reassigned based up on the suggestion of (Best, 1977) so as to make interpretation easy and clear. Accordingly, 1.00 - 1.80 = Strongly Disagree, 1.81 – 2.60 = Disagree, 2.61 – 3.40 = Neutral, 3.41 – 4.20 = Agree and 4.21 – 5.00 = Strongly Agree.

Table 4.10: Mean and Standard Deviation of Variables

No	Variable	N	Minimum	Maximum	Mean	SD
1	Firm Characteristics	87	1	5	3.70	.6062
2	Production Capability	87	2	5	3.50	.5264
3	Logistics Capability	87	1	5	3.62	.5502
4	Marketing Capability	87	2	5	3.62	.5260
5	Export Assistance	87	2	5	3.76	.5107
6	Export Performance	87	3	5	3.92	.4304

As it is shown in the above table, Table 10 the variables has the highest mean score of 3.92. In the mean time firm characteristics, production capability, logistics capability, marketing capability, export assistance and export performance has mean score of 3.70, 3.50, 3.62, 3.62, 3.76 and 3.92 respectively.

Accordingly, firm characteristics, production capability, logistics capability, marketing capability, export assistance and export performance variables lie in the category between 3.41 and 4.20 which means respondents agree to the variables under consideration. On the other hand, the standard deviation shown on each variable was relatively low. Low standard deviation means that the data are narrow spread, which tells that customers gave close opinion on each variable.

4.5 Correlation Analysis

Correlation is a linear relationship between two variables. The most widely used method of measuring the degree of relationship between two variables is Karl Pearson's coefficient of correlation (Kothari, 2004). A correlation coefficient is a very useful means to summarize the relationship between two variables with a single number that falls between -1 and +1 (Field 2005). In this study, Pearson correlation was used to examine the relationship between each of the independent variables and the dependant variable using a two tailed test of statistical significance at the level of 99% confidence and significance < 0.01

Therefore, based on the questionnaires and response obtained the following correlation analysis was made and summarized in the following table, Table 4.11.

Table 4.11 Correlation Coefficients between Variables

			1 FC	2 PC	3 LC	4 MC	5 EA	6 EP
1	FC	Pearson Correlation	1					
		Sig. (2-tailed)						
		N	87					
2	PC	Pearson Correlation	.687**	1				
		Sig. (2-tailed)	.000					
		N	87	87				
3	LC	Pearson Correlation	.551**	.424**	1			
		Sig. (2-tailed)	.000	.000				
		N	87	87	87			
4	MC	Pearson Correlation	.561**	.372**	.422**	1		
		Sig. (2-tailed)	.000	.000	.000			
		N	87	87	87	87		
5	EA	Pearson Correlation	.525**	.487**	.490**	.456**	1	
		Sig. (2-tailed)	.000	.000	.000	.000		
		N	87	87	87	87	87	
6	EP	Pearson Correlation	.469**	.496**	.506**	.423**	.591**	1
		Sig. (2-tailed)	.000	.000	.000	.000	.000	
		N	87	87	87	87	87	87

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

A correlation analysis with Pearson's correlation coefficient was conducted in this study. According to guidelines suggested by Field (2005) to interpret the strength of relationship between variables, the correlation coefficient(r) is as follows: Correlation coefficient falls between; 0.1 to 0.29 weak relationships 0.3 to 0.49 moderate relationship and > 0.5 strong relationship.

The correlation coefficient analysis main purpose is to examine and indicate the strength and direction that exist between variables of the study. It shows the extent to which a change in one variable depends on a change in other variable (Zikmund, Carr and Griffin, 2013). The Pearson's coefficient of correlation 'r' normally ranges from -1.0 to +1.0. The positive sign indicates as one variable increases the other variable also increases. Whereas, the negative sign indicates as one variable increases the other variable decreases.

The result of correlation analysis in the above table shows that firm characteristics, production capability, logistics capability, marketing capability and export assistance were positively and significantly correlated with export performance at 99 percent confidence interval with $p < .001$. The highest correlation is signified by the relationship between production capability and firm characteristics ($r = .687$, $p < .001$), followed by the relationship between export assistance and export performance ($r = .591$, $p < .001$). The minimum correlation coefficient is between the relationship of market capability and production capability ($r = .372$, $p < .001$).

4.5.1 Relationship between Firm Characteristics and Export Performance

Table 4.12 Correlation between Firm Characteristics and Export Performance

		Firm Characteristics	Export Performance
Firm Characteristics	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	87	
Export Performance	Pearson Correlation	.469**	1
	Sig. (2-tailed)	.000	
	N	87	87

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.12 above revealed the relationship between firm characteristics and export performance. Based on the correlation coefficient, there is positive and statistically significant association exists between firm characteristics and export performance ($r = .469$, $p < .001$). Moreover, the result obtained from the correlation analysis above is found similar with the findings of Peyman, Karimi and Danaee, (2013);Behmiri, Rebelo, Gouveia and António (2019) who found out that firm characteristic has significant positive relationship with export performance.

4.5.1 Relationship between Firm Capability and Export Performance

Table 4.13 Correlation between Firm Capability and Export Performance

		Firm Capability	Export Performance
Firm Capability	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	87	
Export Performance	Pearson Correlation	.612**	1
	Sig. (2-tailed)	.000	
	N	87	87

**. Correlation is significant at the 0.01 level (2-tailed).

The above Table 4.13 revealed that the relationship between firm capability and export performance. The correlation coefficient shows that there is positive and statistically significant association exists between firm capability and export performance ($r = .612$, $p < .001$). This finding is in line with the findings of Fugazza (2004); Meon and Sekkat, (2006); Tooksoon, and Mohamad, (2016) who establish positive and significant relationship between firm capability dimensions and export performance.

4.6 Regression Analysis

The objective of this study is to examine the effect of firm characteristics and firm capability on export performance and the mediation role of export assistance. Hence, regression analysis was applied in order to reveal the effect and relationship of variables. However, before making the analysis the models was tested by the regression assumptions of linearity, normality, multicollinearity, autocorrelation and homoscedasticity as follows.

Linearity Test

There must be a linear relationship between the independent variable firm characteristics and firm capability and the dependent variable export performance. This is to mean that export performance is assumed to be effected with the change in firm characteristics and firm capability linearly. The figure 4.1 below shows that the relationship between firm characteristics and firm capability with export performance.

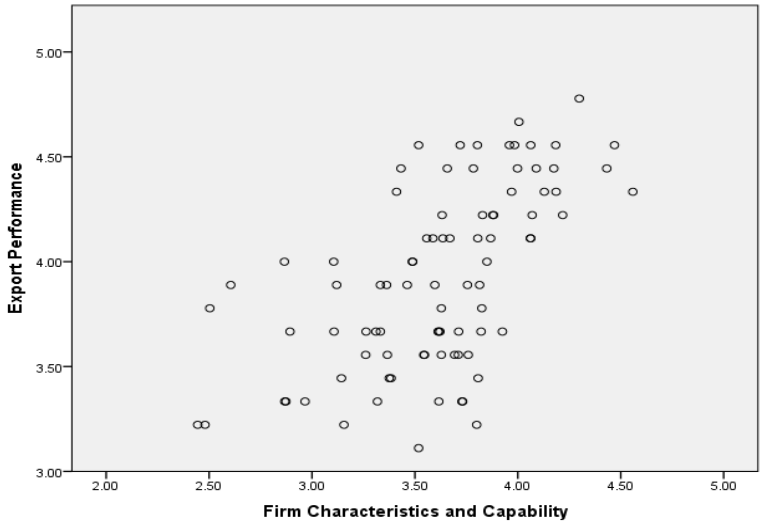


Figure 4.1 Linearity Test

Figure 4.1 above shows that dots are scattered from left to right which shows that there is a positive linear relationship between the independent variable firm characteristic and capability and the dependent variable export performance. Hence, assumption of linearity was not violated.

Normality Test

The second most important assumption in linear regression is normality test. Normality assumption can best be checked with a histogram and aligned with a normal curve or a P-P (Probability-Probability) Plot (Keith, 2006).

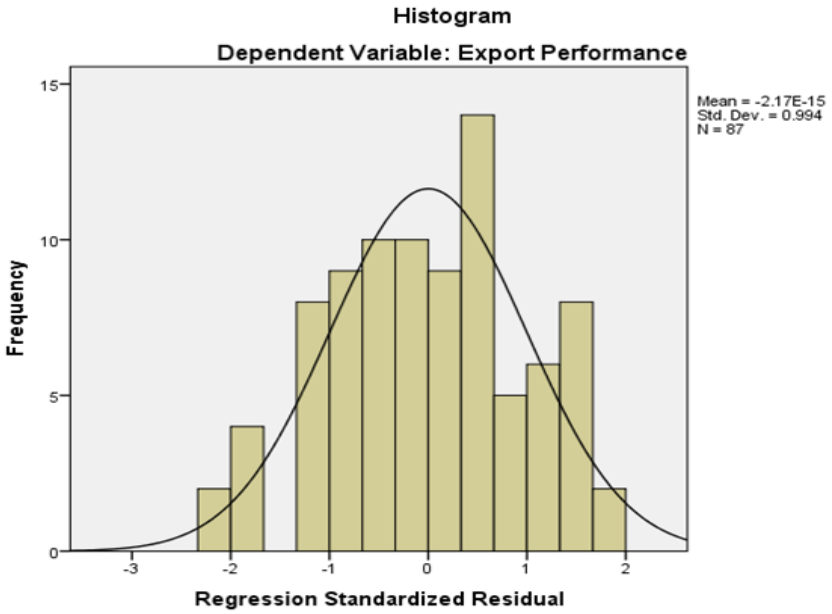


Figure 4.2 Histogram Normality Test

The normality test was done to determine whether the error term is normally distributed. As it is shown in figure 4.2 above the histogram is closely bell shaped. Moreover, Figure 4.3 below shows the P-P Plot, the straight line represents the normal distribution and the dots scattered around the straight line are very close which shows data are relatively normally distributed. Thus, the residuals or error terms are normally distributed. This shows that normality assumption was not violated in this study.

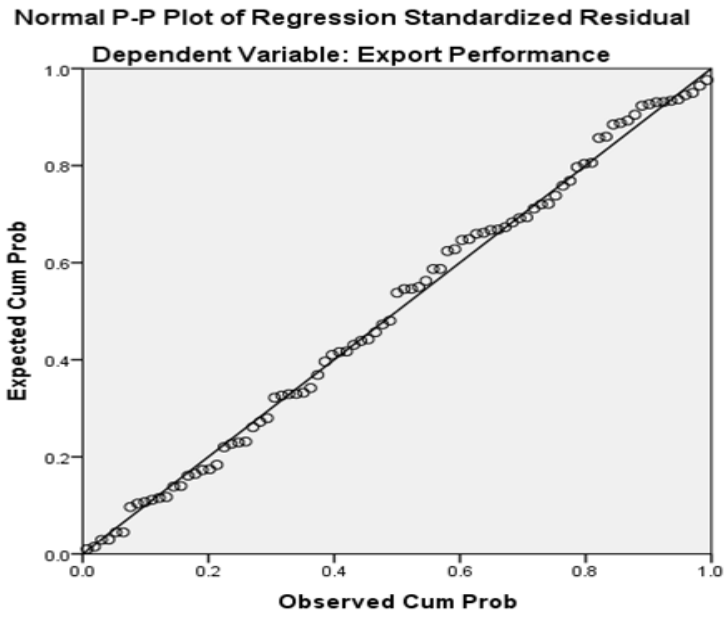


Figure 4.3 P-P Plot Normality Test

Source: Own survey

Multicollinearity

In this study multicollinearity is tested using the Variance Inflation Factor (VIF) which quantifies the severity of multicollinearity in regression. According to Myers (1990), the VIF factor should not exceed 10 and it will be ideal if it is close to one. Moreover, Field (2005) underlines that very small tolerance value, which is less than 0.10 indicates that the multiple correlation with other variable is high. To this end the following table, Table 4.14 summarizes the value of tolerance and VIF of variables and revealed that there is no multicollinearity problem between independent variables and confirms absence of multicollinearity problem.

Table 4.14 Multicollinearity Test

Coefficients[a]			
Model		Collinearity Statistics	
		Tolerance	VIF
1	Firm Characteristics	.382	2.617
	Production Capability	.524	1.908
	Logistics Capability	.674	1.485
	Market Capability	.665	1.503
a. Dependent Variable: Export Performance			

Source: Own survey

Autocorrelation

In order to determine the autocorrelation assumption between observations Durbin – Watson test was used. The Durbin – Watson statistics ranges from 0 to 4 and a value near to 2 indicates no autocorrelation and a value towards zero indicates positive autocorrelation, a value towards four indicates negative autocorrelation (Filed, 2005). The following table 4.15 summarizes the model summary of Durbin – Watson value and it is 2.000 which is very close to 2 indicates that the autocorrelation assumption is not violated.

Table 4.15 Autocorrelation Test

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.616[a]	.380	.349	.34712	1.984
a. Predictors: FC,PC,LC,MC					
b. Dependent Variable: EP					

Source: Own survey

Homoscedasticity

Homoscedasticity refers to the assumption that the dependent variable exhibits similar amounts of variance across the range of values for an independent variable (Burns and Burns, 2008). In the figure 4.4 below scatter plot dots are distributed from left to right and accumulated at the value of zero and scatter again. Hence, from visual inspection on figure 4.4 hetroscedasticity is not a serious problem for this data.

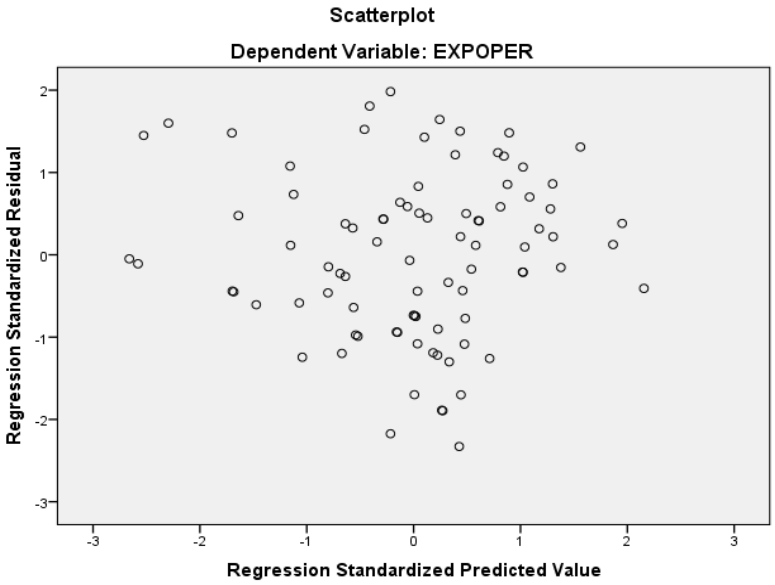


Figure 4.4 Homoscedasticity Test

4.6.1 The Effect of Firm Characteristics on Export Performance

Table 4.16: Model Summary Firm Characteristics as a predictor to Export Performance

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.469[a]	.220	.211	.38226
a. Predictors: (Constant), Firm Characteristics				

As it is shown on Table 4.16 above, the value of R, R-square and adjusted R-square of this model was .469, .220, and .221 respectively. The value of r = .469 indicates that there exists medium correlation between the independent variable firm characteristics and dependent variable export performance.

The value of R-square is .22 and it indicates that 22.00% of the variation on export performance of oil seed exporters in Ethiopia was influenced by the variation of firm characteristics. Hence, the remaining 78.00% of the variation on export performance of oil seed exporters was explained by other variable.

Table 4.17 ANOVA Firm Characteristics as a predictor to Export Performance

ANOVA[a]						
Model		Sum of Square	df	Mean	F	Sig.
1	Regression	3.508	1	3.508	24.010	.000[b]
	Residual	12.420	85	.146		
	Total	15.929	86			
a. Dependent Variable: Export Performance						
b. Predictor: (Constant), Firm Characteristics						

Source: Own survey

The ANOVA table above revealed the analysis between the independent variable firm characteristics and the dependent variable export performance. The above Table 4.17 shows that the ANOVA has F-ratio 24.01 and p value .000. Since the p value is less than the significant level the model is statistically significant and fit to explain the analysis. Therefore, the model revealed that there exists a statistically significant and positive relationship between firm characteristics and export performance.

Table 4.18 Coefficients Firm Characteristics as a predictor to Export Performance

Coefficients[a]						
Model		Unstandardized		Standardize	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.689	.255		10.546	.000
	Firm Characteristics	.333	.068	.469	4.900	.000
a. Dependent Variable: Export Performance						

Source: Own survey

As it is exhibited in the above Table 4.18, the regression unstandardized coefficient for the independent variable firm characteristics is 0.333 with constant coefficient of 2.689 and beta value 0.469. The significance levels are .000 which is less than 0.05. This indicates significant relationship between firm characteristics (independent variable) and export performance (dependent variable).

The linear multiple regression equation coefficients were determined to compare the effect of firm characteristics on the variability of export performance. The regression coefficient explains the average amount of change in dependent variable that is caused by a unit of change in the independent variable. Therefore, a unit changes in firm characteristics lead to an increase on the export performance by 0.333 units through making the other variables constant. The regression equation based on the coefficients on the table 4.14 above is:

$$EP = 2.689 + 0.333FCHA$$

Moreover, the result obtained in the above regression analysis is found similar and aligned with the findings of Bertrand (2010); Peyman, Karimi and Danaee, (2013); Behmiri, Rebelo, Gouveia and António (2019) who found out firm characteristics dimensions has positive and significant effect on export performance.

4.6.2 The Effect of Firm Capability on Export Performance

Table 4.19: Model Summary Firm Capability as a predictor to Export Performance

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.612[a]	.375	.367	.34233
a. Predictors: (Constant), Firm Capability				

The above Table 4.19 exhibits that the value of r = .612 indicates that there exists high correlation between the independent variable firm capability and dependent variable export performance. Moreover, the value of R-square is .375 and it indicates that 37.50% of the variation on export performance of oil seed exporters in Ethiopia was influenced by the variation of firm capability. Hence, the remaining 62.50% of the variation on export performance of oil seed exporters was explained by other variables.

Table 4.20 ANOVA Firm Capability as a predictor to Export Performance

ANOVA[a]						
Model		Sum of Squares	df	Mean	F	Sig.
1	Regression	5.968	1	5.968	50.924	.000[b]
	Residual	9.961	85	.117		
	Total	15.929	86			
a. Dependent Variable: Export Performance						
b. Predictor: (Constant), Firm Capability						

Source: Own survey

The goodness of fit result of linear multiple regression with export performance as the dependent variable and firm capability as predictor is reported in Table 4.20. The model reveals a statistically significant relationship between firm capability and export performance, $F(1, 85) = 50.924$, $p < .001$. Hence, the model was fit and significant.

Table 4.21 Coefficients Firm Capability as a predictor to Export Performance

Coefficients[a]						
Model		Unstandardized		Standardize	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.649	.321		5.144	.000
	Firm Capability	.634	.089	.612	7.136	.000
a. Dependent Variable: Export Performance						

Source: Own survey

Table 4.21 above shows that the predictor variable firm capability made a statistically significant prediction in predicting the dependent variable export performance. Hence, so as to evaluate the contribution or influence of independent variable to dependent variable, the beta value is used. Here in this model the beta value for predictor variable firm capability was

0.612 which implies firm capability made positive and statistically significant influence in explaining or predicting the dependent variable export performance. Moreover, keeping the other variables constant, a unit change in firm capability would lead to an increase on export performance by 0.634. The regression equation based on the coefficients on the table 4.14 above is: EP = 1.649 + 0.634FCAP

Furthermore, the result obtained from the regression analysis above is found similar with the findings of Fugazza (2004); Meon and Sekkat, (2006); Tooksoon, and Mohamad, (2016); He, Brouthers and Filatotchev, 2013 who found firm capability significantly affects export performance.

4.6.3 The Effect of Production Capability on Export Performance

Table 4.22: Model Summary Production Capability as a Predictor to Export Performance

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.496[a]	.246	.238	.37580
a. Predictors: (Constant), Production Capability				

Source: Own survey

As it is illustrated in Table 4.22 above, the value of R-square for the regression model was 0.246. This indicates that the independent variable production capability explain 24.60% of the variation in the export performance of oil seed exporters. The remaining 75.40% of the variation in export performance are explained by other variables which are not included in the model.

Table 4.23 ANOVA Production Capability as a predictor to Export Performance

ANOVA[a]						
Model		Sum of Squares	df	Mean	F	Sig.
1	Regression	3.925	1	3.925	27.789	.000[b]
	Residual	12.004	85	.141		
	Total	15.929	86			
a. Dependent Variable: Export Performance						
b. Predictor: (Constant), Production Capability						

Source: Own survey

The ANOVA table above, revealed the analysis between the independent variable production capability and the dependent variable export performance. Table 4.23 above shows that, the ANOVA has F-ratio 27.789 and p value .000. Since the p value is less than the significant level the model is statistically significant and fit to explain the analysis. Therefore, the model revealed that a statistically significant and positive relationship between production capability and export performance.

Table 4.24 Coefficients Production Capability as a Predictor to Export Performance

Coefficients[a]						
Model		Unstandardized		Standardize	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.500	.273		9.166	.000
	Production capability	.406	.077	.496	5.272	.000
a. Dependent Variable: Production Capability						

Source: Own survey

The above Table 4.24 exhibited that the value of beta for predictor variable production capability was 0.496 which implies production capability made positive and statistically significant influence in explaining or predicting the dependent variable export performance. Moreover, the model also revealed that a unit change that occurred on production capability by making other dimensions constant can lead to an increase on export performance by 0.406. Therefore, the regression equation based on the coefficients on the table 4.24 above is:

EP = 2.500 + 0.406PC

4.6.4 The Effect of Logistics Capability on Export Performance

Table 4.25: Model Summary Logistics Capability as a Predictor to Export Performance

Model Summary				
Model	R	R Square	Adjusted R	Std. Error of
1	.506[a]	.256	.248	.37330
b. Predictors: (Constant), Logistics Capability				

Source: Own survey

The above regression model table, Table 4.25 shows the value of R-square was 0.256. This indicates that the independent variable logistics capability explain 25.60% of the variation in export performance. The remaining 74.40% of the variation in export performance are explained by other variables which are not included in the model.

Table 4.26 ANOVA Logistics Capability as a Predictor to Export Performance

ANOVA[a]						
Model		Sum of Squares	df	Mean	F	Sig.
1	Regression	4.084	1	4.084	29.308	.000[b]
	Residual	11.845	85	.139		
	Total	15.929	86			
c. Dependent Variable: Export Performance						
d. Predictor: (Constant), Logistics Capability						

Source: Own survey

The ANOVA table above, revealed the analysis between the independent variable logistics capability and the dependent variable export performance. Table 4.26 above shows that, the ANOVA has F-ratio 29.308 and p value .000. Since the p value is less than the significant level the model is statistically significant and fit to explain the analysis. Therefore, the model revealed that a statistically significant and positive relationship between logistics capability and export performance.

Table 4.27 Coefficients Logistics Capability as a Predictor to Export Performance

Coefficients[a]						
Model		Unstandardized		Standardize	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.487	.268		9.278	.000
	Logistics capability	.396	.073	.506	5.414	.000
b. Dependent Variable: Logistics Capability						

Source: Own survey

The above Table 4.27 exhibited that the value of beta for predictor variable logistics was 0.506 which implies logistics made positive and statistically significant influence in explaining or predicting the dependent variable export performance.

Moreover, the model also revealed that a unit change that occurred on logistics capability by making other dimensions constant can lead to an increase on export performance by 0.396. Therefore, the regression equation based on the coefficients on the table 4.27 above is:

EP = 2.487 + 0.396LC

4.6.5 The Effect of Marketing Capability on Export Performance

Table 4.28: Model Summary Marketing Capability as a Predictor to Export Performance

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.423[a]	.179	.170	.39216
c. Predictors: (Constant), Marketing Capability				

Source: Own survey

The above regression model table, Table 4.28 shows the value of R-square was 0.179. This indicates that the independent variable market capability explain 17.90% of the variation in export performance. The remaining 82.10% of the variation in export performance are explained by other variables which are not included in the model.

Table 4.29 ANOVA Marketing Capability as a Predictor to Export Performance

ANOVA[a]						
Model		Sum of Squares	df	Mean	F	Sig.
1	Regression	2.857	1	2.857	18.576	.000[b]
	Residual	13.072	85	.154		
	Total	15.929	86			
e. Dependent Variable: Export Performance						
f. Predictor: (Constant), Marketing Capability						

Source: Own survey

The ANOVA table above, revealed the analysis between the independent variable market capability and the dependent variable export performance.

Table 4.29 above shows that, the ANOVA has F-ratio 18.576 and p value .000. Since the p value is less than the significant level the model is statistically significant and fit to explain the analysis. Therefore, the model revealed that a statistically significant and positive relationship between market capability and export performance.

Table 4.30 Coefficients Marketing Capability as a Predictor to Export Performance

Coefficients[a]						
Model		Unstandardized		Standardize	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.667	.294		9.062	.000
	Marketing capability	.347	.080	.423	4.310	.000
c. Dependent Variable: Marketing Capability						

Source: Own survey

The above Table 4.30 exhibited that the value of beta for predictor variable marketing capability was 0.423 which implies market capability made positive and statistically significant influence in explaining or predicting the dependent variable export performance. Moreover, the model also revealed that a unit change that occurred on market capability by making other dimensions constant can lead to an increase on export performance by 0.347. Therefore, the regression equation based on the coefficients on the table 4.30 above is:

EP = 2.667 + 0.347MC

4.6.6 The Effect of Export Assistance on Export Performance

Table 4.31: Model Summary Export Assistance as a predictor to Export Performance

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.591[a]	.349	.342	.34923
d. Predictors: (Constant), Export Assistance				

Source: Own survey

As it is clearly described in table 4.31 above, the value of R-square for the regression model was 0.349. This indicates that the independent variable export assistance explain 34.9% of the variation in the export performance of oil seed exporters.

The remaining 65.10% of the variation in export performance are explained by other variables which are not included in the model.

Table 4.32 ANOVA Export Assistance as a predictor to Export Performance

ANOVA[a]						
Model		Sum of Squares	df	Mean	F	Sig.
1	Regression	5.562	1	5.562	45.603	.000[b]
	Residual	10.367	85	.122		
	Total	15.929	86			
g. Dependent Variable: Export Performance						
h. Predictor: (Constant), Export Assistance						

Source: Own survey

The ANOVA table above revealed the analysis between the variable export assistance and the dependent variable export performance. Table 4.32 above shows that, the ANOVA has F-ratio 45.603 and p value .000. Since the p value is less than the significant level the model is statistically significant and fit to explain the analysis. Therefore, the model revealed that a statistically significant and positive relationship between export assistance and export performance.

Table 4.33 Coefficients Export Assistance as a predictor to Export Performance

Coefficients[a]						
Model		Unstandardized		Standardize	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.050	.280		7.332	.000
	Export Assistance	.498	.074	.591	6.753	.000
d. Dependent Variable: Export Performance						

Source: Own survey

The above Table 4.33 exhibited that the value of beta for predictor variable export assistance was 0.591 which implies export assistance made positive and statistically significant influence in explaining or predicting the dependent variable export performance.

Moreover, the model also revealed that a unit change that occurred on export assistance by making other dimensions constant can lead to an increase on export performance by 0.498. Therefore, the regression equation based on the coefficients on the table 4.33 above is:

EP = 2.050 + 0.498EA

4.7 Mediation Analysis

4.7.1 Model Specifications

According to Baron and Kenny (1986) mediation testing framework the following four models were specified.

Model 1: $Y = \alpha_1 + aX + \varepsilon_y$

Where: Y = Export Performance, X = Firm Characteristics / Firm Capability,

α_1 = Intercept of Export Performance, a = Coefficient, ε_y = Random Error

Model 2: $M = \alpha_2 + bX + \varepsilon_m$

Where: M = Export Assistance, X = Firm Characteristics / Firm Capability,

α_2= Intercept of Export Assistance, b = Coefficient, ε_m= Random Error

Model 3: $Y = \alpha_3 + cX + dM + \varepsilon_y$

Where: Y = Export Performance, X = Firm Characteristics / Firm Capability, M = Export Assistance, α_3 = Intercept of Export Performance, c and d = Coefficient,

ε_y= Random Error

Model 4: $Y = \alpha_4 + eM + \varepsilon_y$

Where: Y = Export Performance, M = Export Assistance, α_4 = Intercept of Export Performance, e = Coefficient, ε_y= Random Error

In order to carry out the mediation test Baron and Kenny (1986) model for testing mediation was applied as a guiding framework. Based on the suggestion of Baron and Kenny (1986) the mediation test was commenced through the three regression models, Model 1, Model 2 and Model 3 specified above.

4.7.2 Model Analysis - Mediation of EA the Relationship between FCH and EP

As indicated in Table 4.34 below, R-square value for regression Model 1, Model 2 and Model 3 was .220, .275 and .384 respectively. This implies that in this study firm characteristics explain 22.00% of the variation in export performance oil seed exporters in Ethiopia. Similarly, firm characteristics explain 27.50% of variation in export assistance. Moreover, firm characteristics and export assistance explains 38.40% of the variation in export performance oil seed exporters in Ethiopia.

Table 4.34 Regression Model summary

Model Summary				
Model Description	R	R Square	Adjuster R	Std. Error of
Model 1				
a. (Constant), Firm Characteristics	.469[a]	.220	.211	.38226
b. Export Performance				
Model 2				
a. (Constant), Firm Characteristics	.525[a]	.275	.267	.43727
b. Export Assistance				
Model 3				
a. (Constant), FC,EA	.620[a]	.384	.369	.34174
b. Export Performance				
Model 4				
a. (Constant), Export Assistance	.591[a]	.349	.342	.34923
b. Export Performance				
a: Predictor Variable, b: Dependent Variable				

Source: Own survey

As it is exhibited in the ANOVA table, Table 4.35 below the p-value for Model 1 is .000 which is less than the significant level 0.05. This implies that the sample data provides sufficient evidence to deduce that the regression model was well fit. This is to mean that the p-value is highly significant and can be concluded that firm characteristics can predict export performance significantly.

Similarly, the p-value for Model 2 and Model 3 is .000 which is less than the significant level 0.05. Based on the p-values we can conclude that firm characteristics can predict export assistance significantly in Model 2 and firm characteristics and export assistance can predict export performance significantly in Model 3.

Table 4.35 ANOVA of Models

ANOVA[a]						
Model Descriptions		Sum of	df	Mean	F	Sig.
Model 1	Regression	3.508	1	3.508	24.010	.000[b]
Dependent Variable: EP	Residual	12.420	85	.146		
Predictor: (Constant), FCH	Total	15.929	86			
Model 2	Regression	6.179	1	6.179	32.315	.000[b]
Dependent Variable: EA	Residual	16.252	85	.191		
Predictor: (Constant), FCH	Total	22.431	86			
Model 3	Regression	6.119	2	3.059	26.198	.000[b]
Dependent Variable: EP	Residual	9.810	84	.117		
Predictor: (Constant), FCH,EA	Total	15.929	86			
Model 4	Regression	5.562	1	5.562	45.603	.000[b]
Dependent Variable: EP	Residual	10.367	85	.122		
Predictor: (Constant), EA	Total	15.929	86			

Source: Own survey

The following Table 4.36, revealed the regression coefficient result of Model 1 to Model 4. In Model 1 firm characteristics has positive and significant effect on export performance (a = .333, p = .000). The positive effect of firm characteristics on export performance implies that if there is an increase in firm characteristics there will also be an increase in export performance. Hence, a unit change in firm characteristics will result an increase in export performance by 0.333 units. Similarly, in Model 2, one unit change in firm characteristics will result an increase in export assistance by 0.442 units.

Moreover, Model 4 revealed that export assistance has a positive and significant effect on export performance (a = .498, p = .000). This indicates that one unit change of export assistance will result an increase in export assistance by 0.498 units.

Table 4.36 Coefficients of the Regression Model

Model Description		Unstandardized		Standardize d	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.689	.255		10.546	.000
	Firm Characteristics[a]	.333	.068	.469	1.900	.000
2	(Constant)	2.122	.292		7.276	.000
	Firm Characteristics[b]	.442	.078	.525	5.685	.000
3	(Constant)	1.838	.290		6.331	.000
	Firm Characteristics[c]	.156	.071	.220	2.184	.032
	Export Assistance	.401	.085	.476	4.728	.000
4	(Constant)	2.050	.280		7.332	.000
	Export Assistance[d]	.498	.074	.591	6.753	.000
a. Dependent Variable: Firm Characteristics, b. Dependent Variable: Firm Characteristics, c. Dependent Variable: Firm Characteristics, d. Dependent Variable: Export Assistance						

Source: Own survey

4.7.3 Model Analysis - Mediation of EA the Relationship between FCA and EP

Table 4.37 Regression Model summary

Model Summary				
Model Description	R	R Square	Adjuster R	Std. Error of
Model 1				
a. (Constant), Firm Capability	.612[a]	.375	.367	.34233
b. Export Performance				
Model 2				
a. (Constant), Firm Capability	.615[a]	.378	.370	.40526
b. Export Assistance				
Model 3				
a. (Constant), FCA,EA	.670[a]	.449	.436	.32331
b. Export Performance				
Model 4				
a. (Constant), Export Assistance	.591[a]	.349	.342	.34923
b. Export Performance				
a: Predictor Variable, b: Dependent Variable				

Source: Own survey

As indicated in Table 4.37 above, R-square value for regression Model 1, Model 2 and Model 3 was .375, .378 and .449 respectively. This implies that in this study firm capability explain 37.50% of the variation in export performance oil seed exporters in Ethiopia.

Similarly, firm capability explains 37.80% of variation in export assistance. Moreover, firm capability and export assistance explains 44.90% of the variation in export performance oil seed exporters in Ethiopia.

Table 4.38 ANOVA of Models

ANOVA[a]						
Model Descriptions		Sum of	df	Mean	F	Sig.
Model 1	Regression	5.968	1	5.968	50.924	.000[b]
Dependent Variable: EP	Residual	9.961	85	.117		
Predictor: (Constant), FCA	Total	15.929	86			
Model 2	Regression	8.471	1	8.471	51.580	.000[b]
Dependent Variable: EA	Residual	13.960	85	.164		
Predictor: (Constant), FCA	Total	22.431	86			
Model 3	Regression	7.148	2	3.574	34.191	.000[b]
Dependent Variable: EP	Residual	8.781	84	.105		
Predictor: (Constant), FCA,EA	Total	15.929	86			
Model 4	Regression	5.562	1	5.562	45.603	.000[b]
Dependent Variable: EP	Residual	10.367	85	.122		
Predictor: (Constant), EA	Total	15.929	86			

Source: Own survey

As it is exhibited in the ANOVA table, Table 4.38 above the p-value for Model 1 is .000 which is less than the significant level 0.05. This implies that the sample data provides sufficient evidence to deduce that the regression model was well fit. This is to mean that the p-value is highly significant and can be concluded that firm capability can predict export performance significantly.

Similarly, the p-value for Model 2 and Model 3 is .000 which is less than the significant level 0.05. Based on the p-values we can conclude that firm capability can predict export assistance significantly in Model 2 and firm capability and export assistance can predict export performance significantly in Model 3.

Table 4.39 Coefficients of the Regression Model

Model Description		Unstandardized		Standardize d	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.649	.321		5.144	.000
	Firm Capability[a]	.634	.089	.612	7.136	.000
2	(Constant)	1.051	.380		2.769	.000
	Firm Capability[b]	.756	.105	.615	7.182	.000
3	(Constant)	1.344	.316		4.250	.000
	Firm Capability[c]	.415	.106	.400	3.896	.000
	Export Assistance	.291	.087	.345	3.360	.001
4	(Constant)	2.050	.280		7.332	.000
	Export Assistance[d]	.498	.074	.591	6.753	.000

a. Dependent Variable: Firm Capability, b. Dependent Variable: Firm Capability,
c. Dependent Variable: Firm Capability, d. Dependent Variable: Export Assistance

Source: Own survey

The following Table 4.39, revealed the regression coefficient result of Model 1 to Model 4. In Model 1 firm capability has positive and significant effect on export performance (a = .634, p = .000). The positive effect of firm capability on export performance implies that if there is an increase in firm capability there will also be an increase in export performance. Hence, a unit change in firm characteristics will result an increase in export performance by 0.634 units. Similarly, in Model 2, one unit change in firm characteristics will result an increase in export assistance by 0.756 units.

Moreover, Model 4 revealed that export assistance has a positive and significant effect on export performance (a = .498, p = .000). This indicates that one unit change of export assistance will result an increase in export assistance by 0.498 units.

4.7.4 Baron and Kenny (1986) Mediation Testing

According to Baron and Kenny (1986), mediation testing model the following four conditions must be fulfilled for a variable to be considered as a mediator.

1. The independent variable must significantly affect the dependent variable in Model 1.
2. The independent variable must significantly affect the mediator variable in Model 2.
3. Both the independent and mediating variable must significantly affect the dependent variable in Model 3.

4. The independent variable must predict the dependent variable less strongly in Model 3 than in Model 1. If the independent variable has no effect on the dependent variable in Model 3 perfect mediation holds but if the independent variable explains the dependent variable less strongly in Model 3 than in Model 1 partial mediation occurs.

4.7.4.1 Mediation Analysis of EA the Relationship between FCH and EP

The regression result of Mode l on Table 4.36 revealed that the effect of firm characteristics on export performance is positive and significant (a = .333, p = .000). This indicates that the first condition of mediation is fulfilled at this stage.

The regression analysis result of Model 2 on Table 4.36 also showed that the effect of firm characteristics on export assistance is positive and significant (b = .442, p = .000). Therefore, the second condition also satisfied.

The regression analysis result of Model 3 on Table 4.36 above, showed that the regression coefficient for export assistance (mediator variable) on export performance (dependent variable) is positive and significant (d = .401, p = .001). This implies that third condition is fulfilled.

As it can be seen in Table 4.36 above, the coefficient of the independent variable firm characteristics in Model 1 is 0.333 with p value of .000, while the coefficient of the same independent variable in Model 3 is 0.156 with p value of .032 which is less than that of the coefficient in Model 1. This indicates that firm characteristics predicts export performance less strongly in Model 3 than in Model 1 but the coefficients remain significant in both models. Therefore, it can be concluded that export assistance partially mediates the relationship between firm characteristics and export performance.

Moreover, in order to reveal the indirect effect of firm characteristics on export performance through export assistance is analyzed using SPSS Amos.

Total Effect

The following figure, Figure 4.5 revealed and quantifying the effect of firm characteristics on export performance. Hence, the figure 4.5 shows the effect of firm characteristics on export performance without the effect of export assistance.

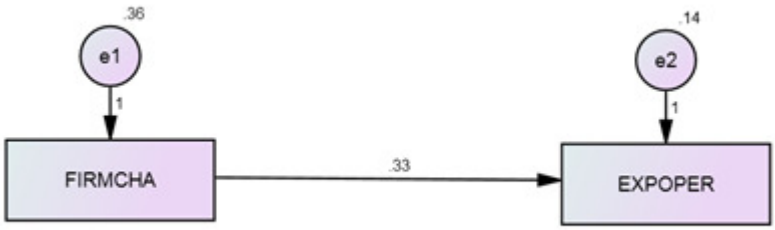


Figure 4.5 Total Effects of Firm Characteristics on Export Performance

Direct Effect

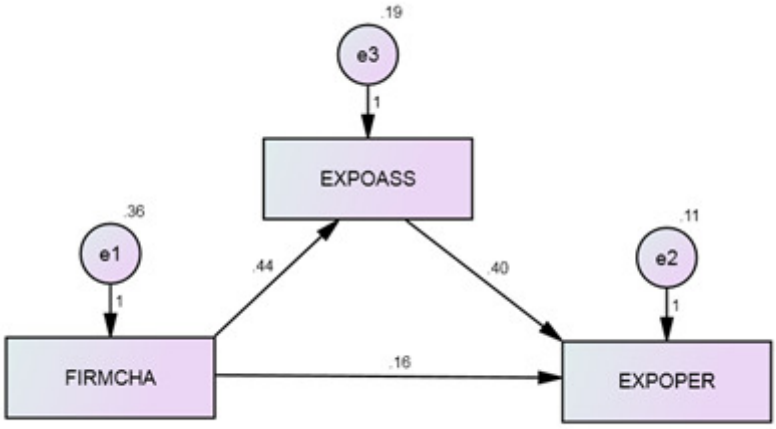


Figure 4.6 Mediation Effect of Export Assistance between FCHA and EP

Figure 4.6 above shows the effect of firm characteristics on export assistance and export performance. Moreover, figure 4.6 revealed and quantifying the relationship between export assistance and export performance.

Table 4.40 Regression Weights of Direct Effect

	Estimate	S.E.	C.R.	P	Label
EXPOASS <--- FIRMCHA	.442	.077	5.718	***	
EXPOPER <--- FIRMCHA	.156	.071	2.210	.027	
EXPOPER <--- EXPOASS	.401	.084	4.784	***	

Table 4.40 above shows that direct effect, estimation of firm characteristics on export performance is .156 and is significant at $p = 0.027$. It also revealed the estimates of firm characteristics on export assistance and quantified .442 at $p < 0.001$.

Similarly, the effect of export assistance on export performance quantified as .401 at a significance level of $p < 0.001$.

So as to estimate the indirect effect of the relationship the standardized total effect, direct effect and indirect effect of the SPSS Amos out puts are summarized below.

Table 4.41: Standardized Total Effect

	FIRMCHA	EXPOASS
EXPOASS	.525	.000
EXPOPER	.469	.476

Table 4.42: Two Tailed Significance

	FIRMCHA	EXPOASS
EXPOASS	.010	...
EXPOPER	.010	.010

Table 4.43 Standardized Direct Effects

	FIRMCHA	EXPOASS
EXPOASS	.525	.000
EXPOPER	.220	.476

Table 4.44 Standardized Direct Effects

	FIRMCHA	EXPOASS
EXPOASS	.010	...
EXPOPER	.006	.010

Table 4.45 **Standardized Indirect Effects**

	FIRMCHA	EXPOASS
EXPOASS	.000	.000
EXPOPER	.250	.000

Table 4.46 Standardized Indirect Effects

	FIRMCHA	EXPOASS
EXPOASS	...	...
EXPOPER	.010	...

The above tables 4.41 shows standardized total effect of firm characteristics on export performance. Accordingly, the total effect .469 which is significant at $p = 0.01$. Moreover, the standardized direct effect of firm characteristics on export performance exhibited on table 4.43 is .220 and it remain significant at $p = 0.06$. Table 4.45 revealed that the indirect effect of firm characteristics on export performance and it is quantified as .250 and significant at $p = 0.01$.

4.7.4.2 Mediation Analysis of EA the relationship between FCA and EP

Table 4.39, the regression result of Mode l in determining the mediation of export assistance between the relationship of firm capability and export performance exhibited that the effect of firm capability on export performance is positive and significant ($a = .634$, $p = .000$). This indicates that the first condition of mediation is fulfilled at this stage.

The regression analysis result of Model 2 on Table 4.39 also showed that the effect of firm capability on export assistance is positive and significant (b = .756, p = .000). Therefore, the second condition also satisfied.

The regression analysis result of Model 3 on Table 4.39 above, showed that the regression coefficient for export assistance (mediator variable) on export performance (dependent variable) is positive and significant (d = .415, p = .001). This implies that third condition is fulfilled.

As it can be seen in Table 4.39 above, the coefficient of the independent variable firm capability in Model 1 is 0.634 with p value of .000, while the coefficient of the same independent variable in Model 3 is 0.415 with p value of .000 which is less than that of the coefficient in Model 1. This indicates that firm capability predicts export performance less strongly in Model 3 than in Model 1 but the coefficients remain significant in both models. Therefore, it can be concluded that export assistance partially mediates the relationship between firm characteristics and export performance.

Similarly, so as to reveal the indirect effect of firm capability on export performance through the mediation effect of export assistance is analyzed using SPSS Amos. Hence, total effect, direct effect and indirect effects are summarized as follows.

Total Effect

Figure 4.7 below revealed and quantifying the effect of firm capability on export performance. Hence, figure 4.7 shows the effect of firm capability on export performance without the effect of export assistance.

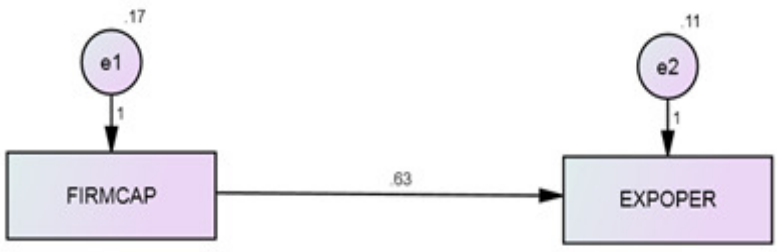


Figure 4.7 Total Effects of Firm Capability on Export Performance

Direct Effect

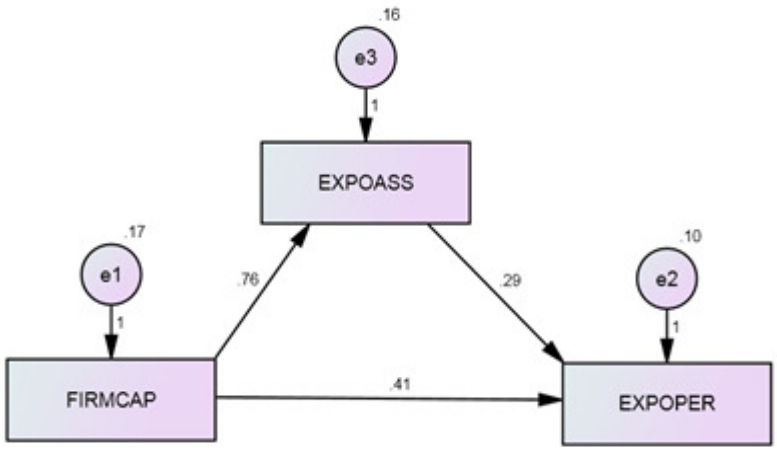


Figure 4.8 Mediation Effect of Export Assistance between FICAP and EP

Figure 4.8 above revealed the effect of firm capability on export assistance and export performance. Moreover, figure 4.8 quantified the relationship between export assistance and export performance.

Table 4.47 Regression Weights of Direct Effect

	Estimate	S.E.	C.R.	P	Label
EXPOASS <--- FIRMCAP	.756	.105	7.224	***	
EXPOPER <--- FIRMCAP	.415	.105	3.942	***	
EXPOPER <--- EXPOASS	.291	.086	3.400	***	

Table 4.47 above exhibited direct effect estimation of firm capability on export performance is .415 and is significant at $p < 0.001$. It also revealed the estimates of firm capability on export assistance and quantified .756 at $p < 0.001$. Similarly, the effect of export assistance on export performance quantified as .291 at a significance level of $p < 0.001$.

In order to estimate the indirect effect of the mediation relationship; standardized total effect, direct effect and indirect effect of the SPSS Amos out puts are summarized below.

Table 4.48 Standardized Total Effects

	FIRMCAP	EXPOASS
EXPOASS	.615	.000
EXPOPER	.612	.345

4.49 Two Tailed Significance

	FIRMCAP	EXPOASS
EXPOASS	.010	...
EXPOPER	.010	.010

Table 4.50 Standardized Direct Effects

	FIRMCAP	EXPOASS
EXPOASS	.615	.000
EXPOPER	.400	.345

Table 4.51 Two Tailed Significance

	FIRMCAP	EXPOASS
EXPOASS	.010	...
EXPOPER	.010	.010

Table 4.52 Standardized Indirect Effects

	FIRMCAP	EXPOASS
EXPOASS	.000	.000
EXPOPER	.212	.000

Table 4.53 Two Tailed Significance

	FIRMCAP	EXPOASS
EXPOASS	...	...
EXPOPER	.010	...

The above table 4.48 reveals standardized total effect of firm capability on export performance. Accordingly, the total effect .612 which is significant at p = 0.01. Moreover, the standardized direct effect of firm capability on export performance exhibited on table 4.50 is .400 and it remain significant at p = 0.01. Table 4.52 revealed the indirect effect of firm characteristics on export performance and it is quantified as .212 and significant at p = 0.01.

4.7.5 Mediation Testing with Smart PLS

Mediation analysis test is a hypothetical causal chain relationship between an independent variable (Firm Characteristics and Firm Capability) affects a second mediating variable (Export Assistance) intern affects a third variable called dependent variable (Export Performance). A connection between two constructs with a single arrow designates direct effects.

4.7.5.1 Mediation Analysis of EA the Relationship between FCH and EP

The figure below, Figure 4.9 represents a well developed path model explaining the relationship between Firm Characteristics and Export Performance through the mediation role of Export Assistance. In this study the Value of R^2 of Export Assistance is 0.295 and Export Performance is 0.430. This implies that firm Characteristics can explain 29.5% of variance in Export Assistance and Firm Characteristics and Export Assistance together can explain 43.0% of variation on Export Performance.

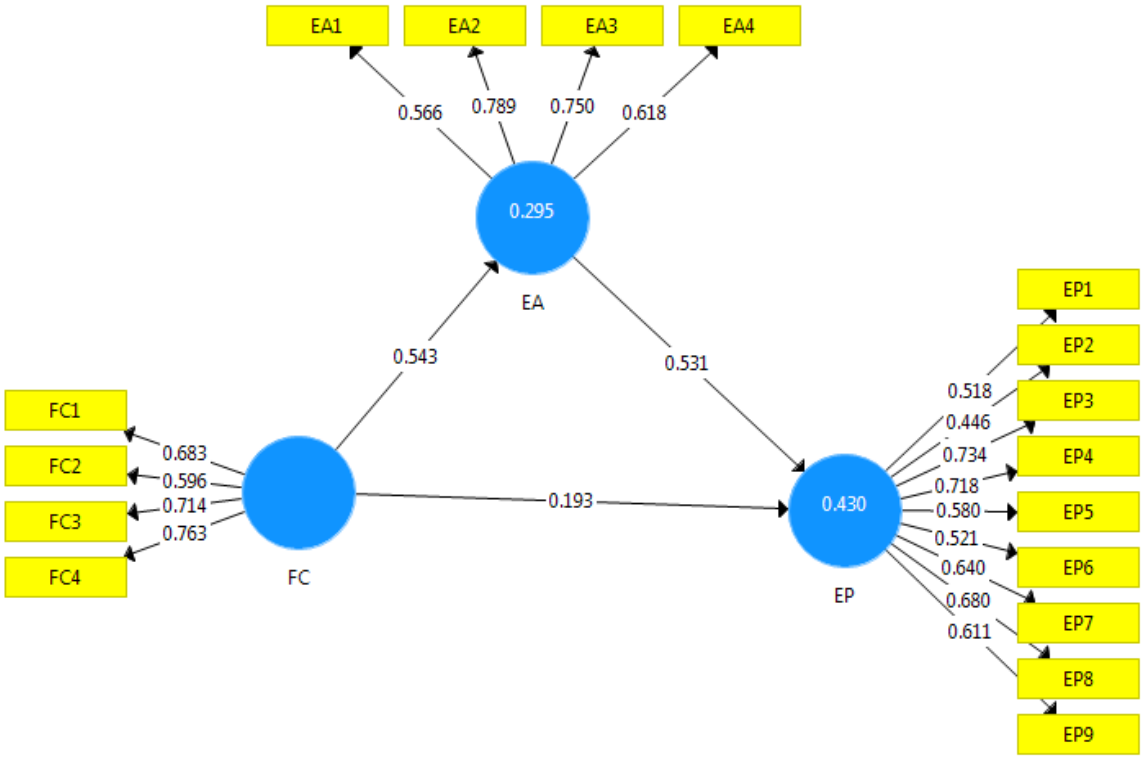


Figure 4.9 Mediation Effect of Export Assistance between FCH and EP

Table 4.54 Mediation Analysis of FCH →EA→EP Using Smart PLS Output

		Path Coefficie	t Values	p Values	95% CI	Significance
FCH→ EP	Total Effect	0.481	6.295	0.000	(0.335,0.636)	Accepted
FCH→ EP	Direct Effect	0.193	1.851	0.065	(-0.017,0.401)	Rejected
FCH → EA → EP	Indirect Effect	0.288	4.205	0.000	(0.166,0.440)	Accepted

Mediation analysis was performed to assess the mediating role of Export Performance on the relationship between Firm characteristics and Export Performance. The results as shown on Table 4.54 above exhibited the total effect of Firm Characteristics on Export Performance was significant (β = 0.481, t = 6.295, p < .001). With inclusion of the mediating variable Export Assistance the impact of firm characteristics on export performance becomes insignificant (β = 0.193, t = 1.851, p = .065). The indirect effect of Firm Characteristics on Export Performance through Export Assistance was found significant (β = 0.288, t = 4.205, p < .001). This shows that the relationship between Firm Characteristics and Export Performance fully mediated by Export Assistance.

4.7.5.2 Mediation Analysis of EA the relationship between FCA and EP

The following figure, Figure 4.10 is also represents a well developed path model explaining the relationship between Firm Capability and Export Performance through the mediation role of Export Assistance. In this study the Value of R^2 of Export Assistance is 0.403 and Export Performance is 0.510. This indicates that Firm Capabilities; Production Capability, Logistics Capability and Market Capability can explain 40.30% of variation on Export Assistance. Similarly, Firm Capabilities; Production Capability, Logistics Capability, Market Capability and Export Assistance together can explain 51.0% variation on Export Performance.

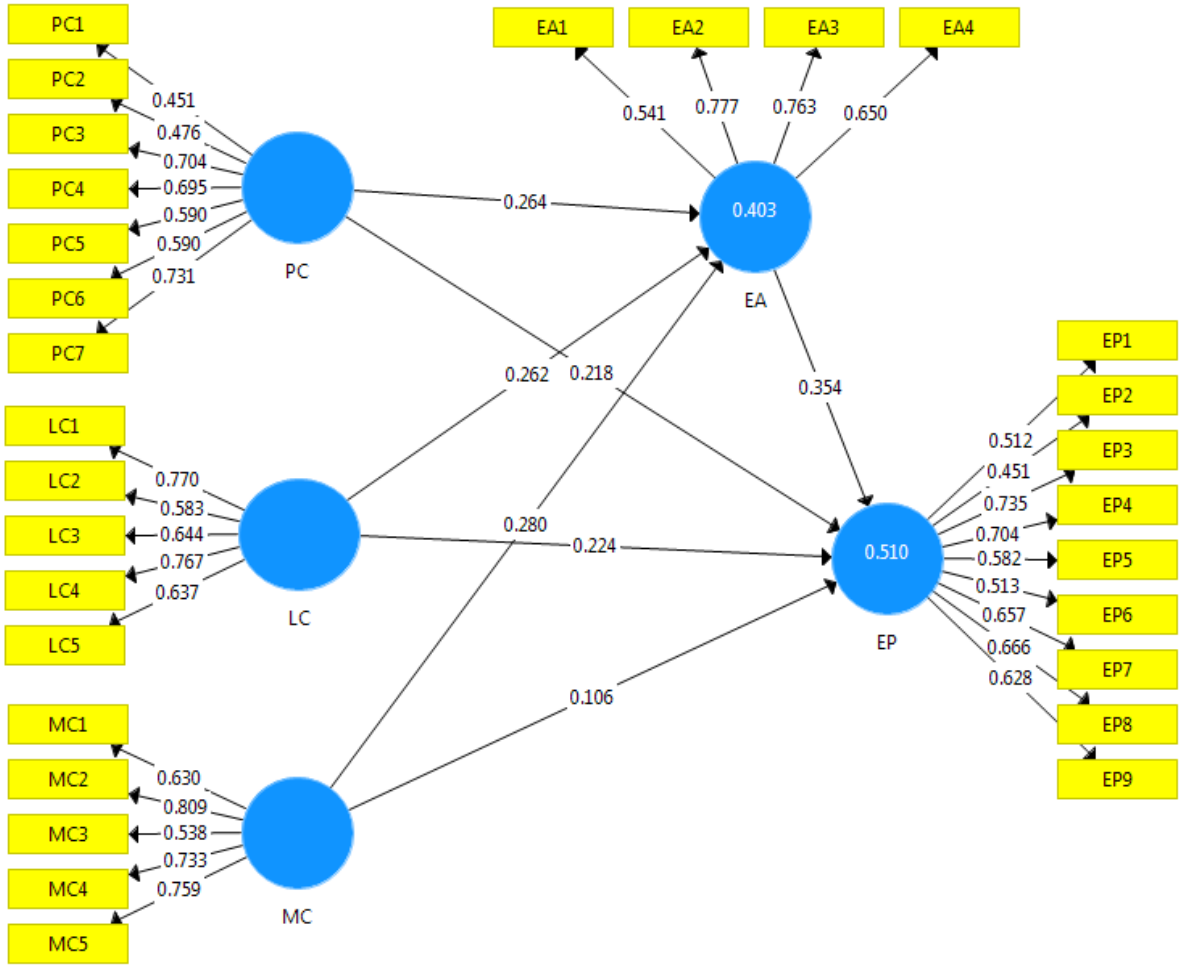


Figure 4.10 Mediation Effect of Export Assistance between FCA and EP

Table 4.55 Mediation Analyses – Direct Effect

	Path Coefficient	t Values	p Values	95% CI	Significance
EA→ EP	0.354	3.091	0.002	(0.112,0.571)	Accepted
LC→ EA	0.262	2.750	0.006	(0.062, 0.443)	Accepted
LC → EP	0.224	2.767	0.006	(0.080, 0.382)	Accepted
MC→ EA	0.280	2.988	0.003	(0.101,0.465)	Accepted
MC→ EP	0.106	2.216	0.225	(-0.061,0.268)	Rejected
PC→ EA	0.264	2.540	0.011	(0.050, 0.466)	Accepted
PC→ EP	0.218	2.023	0.044	(0.036, 0.447)	Accepted

According to Table 4.55 above the study indicates the direct effect of Export Assistance (β = 0.354, p = 0.002), Logistics Capability (β = 0.224, p = 0.006), Production Capability (β = 0.218, p = 0.044) have statistically significant and positive effects on export performance. However, the effect of Market Capability (β = 0.106, p = 0.225) was not statistically significant to affect export performance of the firm.

Moreover, Logistics Capability (β = 0.262, p = 0.006), Market Capability (β = 0.80, p = 0.003) and Production Capability (β = 0.264, p = 0.011) have statistically significant and positive effects on export assistance. This shows that those variables statistically significant meaningfully represent export assistance and export performance. Moreover, Logistics Capability was found to be the key determinant factor which directly affects to achieve superior export performance. Furthermore, the firm capability variables; Logistics Capability, Market Capability and Production capability are areas which require considerable amount of Export assistance.

Table 4.56 Mediation Analyses – Indirect Effect

	Path Coefficient	t Values	p Values	95% CI	Significance
LC →EA→ EP	0.092	1.951	0.050	(0.016,0.200)	Accepted
PC →EA→ EP	0.093	1.785	0.075	(0.005, 0.211)	Rejected
MC →EA → EP	0.099	2.136	0.033	(0.024, 0.203)	Accepted

As it is exhibited on Table 4.56 above, Export Assistance was found a significant mediator of Logistics Capability (β = 0.092, p = 0.050) and Market Capability (β = 0.099, p = 0.033).

On the other hand, Export Assistance was not observed statistically mediator of Production Capability on affecting Export Performance.

Table 4.57 Direct and Indirect Effect Summary

	Direct Effect on EP		Indirect Effect on EP		Type of Mediation
	Path Coefficients	Conclusion	Path Coefficients	Conclusion	
LC	0.224	Accepted	0.092	Accepted	Partial Mediation
PC	0.218	Accepted	0.093	Rejected	No Mediation
MC	0.106	Rejected	0.099	Accepted	Full Mediation

Table 4.57 above revealed that Logistics Capability has both direct and indirect effect on Export Performance. The direct effect ($\beta = 0.262$, $p = 0.006$) and the indirect effect ($\beta = 0.092$, $p = 0.050$). Thus Export assistance was a partial mediator of the relationship between Logistics Capability and Export Performance.

No mediation effect was observed in the case of Production Capability ($\beta = 0.218$, $p = 0.044$) which has a direct significant effect on Export Performance and the indirect effect ($\beta = 0.093$, $p = 0.075$). Hence, Export assistance was not mediator of the relationship between Production Capability and Export Performance.

Regarding the effect of Market Capability on Export Performance, it is fully transmitted through Export Assistance. Therefore, Export Assistance is a full mediator of Market Capability to affect Export Performance. The sum of direct and indirect effect is referred to as total effect. The following table, Table 4.58 summarizes the total effect of firm capability on export performance.

Table 4.58 Mediation Analyses – Total Effect

	Path Coefficient	t Values	p Values	95% CI	Significance
LC → EP	0.316	3.640	0.000	(0.151, 0.491)	Accepted
PC→ EP	0.312	3.163	0.002	(0.126, 0.508)	Accepted
MC→ EP	0.205	2.216	0.027	(0.032,0.380)	Accepted

4.8 Hypothesis Testing

H_1: Firm characteristics positively and significantly influence export performance.

The result of Pearson's Product Moment Correlation Coefficient on Table 4.11 above justifies that there is a statistical significant positive relationship found between firm characteristics and export performance, where r = .469, p < .001. Moreover, the result of linear regression analysis on Table 4.16, above shows that 22.00% of the variation on export performance was influenced by the variation of firm characteristics. Table 4.17, the ANOVA table revealed that the model is significant and Table 4.18, the coefficients table also shows that a unit changes in firm characteristics lead to an increase on the export performance by 0.333 units and p < .001. This can be interpreted as, "Firm characteristics makes significant and positive contribution in predicting export performance". Hence, H_1 is accepted.

H_2: Firm characteristic has positively and significantly influence on export assistance.

The result of Pearson's Product Moment Correlation Coefficient on Table 4.11 above justifies that there is a statistical significant positive relationship found between firm characteristics and export assistance, where r = .525, p < .001. Moreover, the result of linear regression analysis on Table 4.34, above shows that 27.50% of the variation on export assistance was influenced by the variation of firm characteristics. Table 4.35, the ANOVA table revealed that the model is significant and Table 4.36, the coefficients table also shows that one unit changes in firm characteristics lead to an increase on the export assistance by 0.442 units and p < .001. This can be interpreted as, "Firm characteristics makes significant and positive contribution in predicting export assistance". Hence, H_2 is accepted.

H_3: Firm capability has positively and significantly influence on export performance.

The result of Pearson's Product Moment Correlation Coefficient on Table 4.13 above justifies that there is a statistical significant positive relationship found between firm capability and export performance, where r = .612, p < .001. Moreover, the result of linear regression analysis on Table 4.19, above shows that 37.50% of the variation on export performance was influenced by the variation of firm capability. Table 4.20, the ANOVA table revealed that the model is significant and Table 4.21, the coefficients table also shows that one unit changes in firm capability lead to an increase on the export performance by 0.634 units and p < .001. This can be interpreted as, "Firm capability makes significant and positive contribution in predicting export performance". Hence, H_3 is accepted.

H_4: Firm capability has positively and significantly influence on export assistance.

The result of Pearson's Product Moment Correlation Coefficient on Annex 2 justifies that there is a statistical significant positive relationship found between firm capability and export assistance, where $r = .615$, $p < .001$. Moreover, the result of linear regression analysis Annex 2 also revealed 37.80% of the variation on export assistance was influenced by the variation of firm capability. The ANOVA table revealed that the model is significant and coefficients table also shows that one unit changes in firm capability lead to an increase on the export assistance by 0.756 units and $p < .001$. This can be interpreted as, "Firm capability makes significant and positive contribution in predicting export assistance". Hence, H_4 is accepted.

H_5: Export assistance positively and significantly influence export performance.

The result of Pearson's Product Moment Correlation Coefficient on Table 4.11 above justifies that there is a statistical significant positive relationship found between export assistance and export performance, where $r = .591$, $p < .001$. Moreover, the result of linear regression analysis on Table 4.31, above shows that 34.90% of the variation on export performance was influenced by the variation of export assistance. Table 4.32, the ANOVA table revealed that the model is significant and Table 4.33, the coefficients table also shows that a unit changes in export assistance lead to an increase on the export performance by 0.498 units and $p < .001$. This can be interpreted as, "Export assistance makes significant and positive contribution in predicting export performance". Hence, H_5 is accepted.

H_6 Production capability positively and significantly influence export performance.

The result of Pearson's Product Moment Correlation Coefficient on Table 4.11 above justifies that there is a statistical and significant positive relationship found between production capability and export performance, where $r = .496$, $p < .001$. Moreover, the result of linear regression analysis on Table 4.22, above shows that 24.60% of the variation on export performance was influenced by the variation of production capability. Table 4.23, the ANOVA table revealed that the model is significant and Table 4.24, the coefficients table also shows that a unit changes in production capability lead to an increase on the export performance by 0.406 units and $p < .001$. This can be interpreted as, "Production capability makes significant and positive contribution in predicting export performance". Hence, H_6 is accepted.

H_7: Logistics capability positively and significantly influence export performance.

The result of Pearson's Product Moment Correlation Coefficient on Table 4.11 above justifies that there is a statistical and significant positive relationship found between logistics capability and export performance, where r = .506, p < .001. Moreover, the result of linear regression analysis on Table 4.25, above shows that 25.60% of the variation on export performance was influenced by the variation of logistics capability. Table 4.26, the ANOVA table revealed that the model is significant and Table 4.27, the coefficients table also shows that a unit changes in logistics capability lead to an increase on the export performance by 0.396 units and p < .001. This can be interpreted as, "Logistics capability makes significant and positive contribution in predicting export performance". Hence, H_7 is accepted.

H_8: Marketing capability positively and significantly influence export performance.

The result of Pearson's Product Moment Correlation Coefficient on Table 4.11 above justifies that there is a statistical and significant positive relationship found between marketing capability and export performance, where r = .423, p < .001. Moreover, the result of linear regression analysis on Table 4.28, above shows that 17.90% of the variation on export performance was influenced by the variation of market capability. Table 4.29, the ANOVA table revealed that the model is significant and Table 4.30, the coefficients table also shows that a unit changes in market capability lead to an increase on the export performance by 0.396 units and p < .001. This can be interpreted as, "Market capability makes significant and positive contribution in predicting export performance". Hence, H_8 is accepted.

H_9: Export assistance significantly mediates the relationship between firm characteristics and export performance.

The result of multiple regression summarized on Table 4.36 for the proposed models and based on Baron and Kenny (1986), mediation testing criteria revealed that all the three models are found significant and firm characteristics determines export performance less in model three than model 1. That is value of B for Model 1 is .333 at p < .001 and value of B for Model 1 is .634 at p < .001. This can be interpreted as export assistance mediates the relationship between firm characteristics and export performance. Moreover, Smart PLS path analysis confirmed those paths are well estimated and significant. Hence, export assistance significantly mediates the relationship between firm characteristics and export performance. Therefore, H_{10} is accepted.

H_{10}: Export assistance significantly mediates the relationship between firm capability and export performance.

The result of multiple regressions summarized on Table 4.39 for the proposed models and based on Baron and Kenny (1986), mediation testing criteria revealed that all the three models are found significant and firm capability determines export performance less in model three than model 1. That is value of B for Model 1 is .333 at $p < .001$ and value of B for Model 1 is .634 at $p < .001$. This can be interpreted as export assistance partially mediates the relationship between firm capability and export performance. Moreover, Smart PLS path analysis confirmed those paths are well estimated and significant. Hence, export assistance significantly mediates the relationship between logistics capability, market capability and export performance. Therefore, H_{11} is accepted.

Item	Hypothesis	Test	Result
H_1	Firm characteristic has positively and significantly influence on export performance.	Pearson Correlation and regression analysis	Accepted
H_2	Firm characteristic has positively and significantly influence on export assistance.	Pearson Correlation and regression analysis	Accepted
H_3	Firm capability has positively and significantly influence on export performance.	Pearson Correlation and regression analysis	Accepted
H_4	Firm capability has positively and significantly influence on export assistance.	Pearson Correlation and regression analysis	Accepted
H_5	Export assistance positively and significantly influence export performance.	Pearson Correlation and regression analysis	Accepted
H_6	Production capability positively and significantly influence export performance.	Pearson Correlation and regression analysis	Accepted
H_7	Logistics capability positively and significantly influence export performance.	Pearson Correlation and regression analysis	Accepted
H_8	Marketing capability positively and significantly influence export performance.	Pearson Correlation and regression analysis	Accepted
H_9	Export assistance significantly mediates the relationship between firm characteristic and export performance.	Pearson Correlation and regression analysis	Accepted
H_{10}	Export assistance significantly mediates the relationship between firm capability and export performance.	Pearson Correlation and regression analysis	Accepted

Chapter Five

Findings, Conclusion and Recommendation

5.1 Findings

The main objective of this study was to investigate the effect of firm characteristics and firm capability on export performance of oil seed exporters in Ethiopia. Moreover, this study tries to address the following research questions, (1) what is the relationship between firm characteristics and export performance in the context of Ethiopian oil seed exporters? (2) To what extent does firm characteristics affects export performance of oil seed in Ethiopia. (3) What is the relationship between firm capability and export performance in the context of Ethiopian oil seed exporters? (4) Does firm capability influence export performance of oil seed exporters in Ethiopia? (5) How does export assistance affects export performance of oil seed exporters in Ethiopia? (6) Does export assistance mediate the relationship between firm characteristics, firm capability and export performance?

In examining the relationship between firm characteristics and export performance in the context of Ethiopian oil seed exporters correlation coefficient result ($r = .469$, $p < .001$) revealed that, positive and statistically significant relationship was found between firm characteristics and export performance. In investigating the effect of firm characteristics affects export performance of oil seed in Ethiopia, simple linear regression analysis evidenced that, 22% of the variation in export performance is explained by firm characteristics, Beta value of .469 and significant at $p < .001$.

Similarly, in examining the relationship between firm capability and export performance correlation coefficient result ($r = .612$, $p < .001$) revealed that, positive and statistically significant relationship was found between firm capability and export performance. In investigating the effect of firm capability on export performance, simple linear regression analysis revealed that, 37.5% of the variation in export performance is explained by firm capability, Beta value of .612 and significant at $p < .001$.

In addition in examining the relationship between firm capability components; production capability, logistics capability and marketing capability with export performance is analyzed using Pearson correlation coefficient.

Hence, Pearson correlation coefficient results are ($r = .496$, $p < .001$), ($r = .506$, $p < .001$) and ($r = .423$, $p < .001$) respectively. The result revealed that there is positive and statistically significant relationship between firm capability components and export performance. In investigating the effect of production capability, logistics capability and marketing capability on export performance the simple linear regression analysis revealed that, 24.6%, 25.6% and 17.9% of the variation in export performance is explained by firm capability components respectively.

Similarly, in examining the relationship between export assistance and export performance correlation coefficient result ($r = .591$, $p < .001$) revealed that, positive and statistically significant relationship was found between export assistance and export performance. In investigating the effect of export assistance on export performance simple linear regression analysis revealed that, 34.9% of the variation in export performance is explained by export assistance, Beta value of .591 and significant at $p < .001$.

Moreover, to check whether export assistance mediate the relationship between firm characteristics, firm capability and export performance Baron and Kenny's (1986) mediation testing model and Smart PLS 3.3.8 was applied and found that export assistance significantly mediates the relationship between firm characteristics and export performance. In addition, the analysis also revealed that export assistance mediates the relationship between logistics capability, market capability and export performance. On the other hand export assistance does not mediate the relationship between production capability and export performance.

5.2 Conclusion

The following conclusions are drown from the major findings based on the analysis conducted on previous chapter to address the research objective and research questions.

Based on the study findings indicated on Pearson Correlation coefficient firm capability and firm characteristics significantly correlate with export performance. Hence the researcher conclude from this export performance of oil seed exporters are dependent on the effort of firm characteristics and firm capability. Therefore, it can be inferred that firm characteristics and firm capabilities with its dimensions; production capability, logistics capability and marketing capability tends to build up export performance.

Furthermore, there is a cause and effect relationship between firm characteristics and firm capability with its dimensions on firm performance. The regression analysis result indicates that firm characteristics and firm capability have positive and statistically significant effect on export performance. Therefore, the researcher concluded from the objective and finding of the study effort on firm characteristics and firm capability of the company have significant effect on export performance.

Moreover, this study also validate the mediation effect of export assistance using Baron and Kenny's (1986) mediation testing model and Smart PLS 3.3.8. In this regard the above analysis guide the research to conclude that export assistance mediates the relationship between firm characteristics and export performance. In addition, the analysis also revealed that export assistance mediates the relationship between logistics capability, market capability and export performance. On the other hand export assistance does not mediate the relationship between production capability and export performance.

5.3 Recommendations

The researcher made the following recommendations based on the finding and conclusions of the study so as to enjoy better export performance of oil seed exporters in Ethiopia.

- The study revealed that firm characteristics are strongly correlated and it is also statistically significant in affecting export performance of oil seed exporters. Therefore, companies should work on intensively in order to enhance export performance to the next level.
- The study also revealed that firm capability is strongly correlated and it is also statistically significant in affecting export performance of oil seed exporters. Therefore, companies should improve their capabilities so as to enhance export performance to the next level.
- Based on the findings of the study, export assistance which is the mediating variable was found curtail to affect and enhance export performance. Hence, exporters have to pay a certain level of attention assistance received from different stakeholders so as to improve export performance.

5.4 Future Research Direction

This study is only focuses oilseed exporters whose annual revenue is more than 1.5 million USD and operates more than five years in the industry. It would have been more comprehensive if it could see other sectors who have engaged in export business. Therefore, a comprehensive study that includes major Ethiopian export items could be an area that can be undertaken with similar studies.

In this study the dependent variable firm characteristics accounted for 22% variation on export performance. Similarly firm capability accounted 37.5% of variation on export performance. Thus, the remaining 48% and 32.5% of the maximum threshold 70% is not explained by firm characteristics and firm capability. Therefore, this should be studied further through identify other major variables that affect export performance.

5.5 Contribution of the Study

The primary objective of this study is to investigate the effect of firm characteristics and firm capability on export performance through the mediation role of export assistance. Hence, this particular study has filled the gap in investigating the effect and relationship of firm characteristics, firm capability and export assistance on export performance. This study is believed to contribute to both theory and practice. As a result firms, industries and government body could have their slice of the findings so as to improve the export performance. Moreover, this study contributes by explaining how firm characteristics and firm capability affects export performance based on resource based theory. As a result resource based theory will better understood on how firm characteristics and firm capability affects export performance through the mediation role of export assistance.

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SEEK WISDOM, ELEVATE YOUR INTELLECT AND SERVE HUMANITY !

Annex 1

Addis Ababa University

College of Business and Economics

Department of Management

Master's of Science in International Business

Dear Respondents,

My name is Tizita Solomon, a graduate student of Addis Ababa University College of Business and Economics. As part of my study I am conducting a research on **"The Effect of Firm Characteristics and Capability on Export Performance and the Mediation Role of Export Assistance: The Case of Ethiopian Oil Seed Exporters".** The purpose of this questionnaire is to collect data for the study under subject. Hence, you are cordially invited to participate in this survey. This study is purely academic purpose and all information in this material are remain confidential.

Thank you in advance for your cooperation and dedication to fill this questionnaire.

Sincerely yours,

Tizita Solomon

+251 911 396668

General Instruction:-

1. No need to write your name.
2. Please put [✓] mark on the space provided.

Section One

General Background

1.1 Gender

Male ☐ Female ☐

1.2 Age

Under 25 ☐ 25 to 30 ☐ 31 to 40 ☐ 41 to 49 ☐ 50 or More ☐

1.3 Educational level

College Diploma ☐ First Degree ☐ Masters Degree ☐ PhD ☐

1.4 Which department you are currently working for?

Production ☐ Marketing ☐ Logistics ☐ Export ☐

1.5 Your position in the company?

Manager ☐ Supervisor ☐ Team Leader ☐ Senior Officer ☐

Other _____

1.6 How many years you involved in export business?

1 to 3 ☐ 4 to 6 ☐ 7 to 10 ☐ 11 to 15 ☐ Above 15 ☐

1.7 Category of your company?

Sole Proprietorship ☐ Private Limited Company ☐ Share Company ☐

Other _____

1.8 How many years your company exists (operates) in the industry?

1 to 3 ☐ 4 to 6 ☐ 7 to 10 ☐ 11 to 15 ☐ Above 15 ☐

1.9 Please indicate your company membership status?

Exporters Association ☐ Chamber of Commerce ☐ Both ☐

Other _____

Section Two

Firm Characteristics and Capability

This part of the questionnaire is subjected to measure firm characteristics, firm capability, export assistance and export performance of your firm. Please put a tick mark (✓) based on your experience on the number that best represents your opinion.

Item	Firm Characteristics, Firm Capability, Export Assistance and Export Performance Constructs	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
		1	2	3	4	5
Firm Characteristics						
1	My firm size affects export sales.					
2	My firm is experienced in exporting.					
3	My firm market knowledge and research affects access to export market.					
4	My firm level of technology and innovation enhance the export.					
Production Capability						
5	My firm supplies superior product quality.					
6	My firm's guaranty system for all products is reliable.					
7	My firm applied modern technology in our products.					
8	My firm is good at developing new product.					
9	My firm is good at improving/modifying existing products					
10	My firm adopts new methods and ideas in the production/ value adding process					
11	New, advanced and modern technology equipment are used in production process					

		1	2	3	4	5
Logistics Capability						
12	My firm has fast and reliable delivery lead time.					
13	My firm able to minimize its cost of distribution.					
14	Flexible on operational procedures and on volume and mix change depending on demand.					
15	Fast in resolving customer complaints.					
16	My firm is good at solving logistics and warehousing complications					
Marketing Capability						
17	My firm performs promotion strategies by itself, in spite of the other (i.e. sellers, agents, importers).					
18	My firm perform extend of systematic analysis when selecting market.					
19	My firm has strong sales and marketing forces.					
20	My firm able to respond to changes in the target market conditions.					
21	The degrees of after-sale service ability help us to ensure sale success.					
Export Assistance						
22	The African Union supports the export business in the region.					
23	The government supports the export business.					
24	Chamber of commerce provides export supports.					
25	Associations provide export support for exporters.					

		1	2	3	4	5
Export Performance						
26	My company has been profitable in the recent past years.					
27	My company has generated a high volume of sales in the past consecutive years.					
28	My company has achieved rapid growth in the past few years.					
29	My company has improved our global competitiveness.					
30	My company has strengthened our strategic position.					
31	My company global market share has significantly increased over the year.					
32	The performance of my company has been very satisfactory.					
33	My company has been very successful in the past consecutive years.					
34	My company has fully met owner's expectations.					

Thank you for your participation!

Appendix 2

Relationship between firm capability and export assistance

Correlations

		FIRMCAP	EXPOASS
FIRMCAP	Pearson Correlation	1	.615**
	Sig. (2-tailed)		.000
	N	87	87
EXPOASS	Pearson Correlation	.615**	1
	Sig. (2-tailed)	.000	
	N	87	87

**. Correlation is significant at the 0.01 level (2-tailed).

The effect of firm capability on export assistance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.615[a]	.378	.370	.40526

a. Predictors: (Constant), FIRMCAP

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.471	1	8.471	51.580	.000[b]
	Residual	13.960	85	.164		
	Total	22.431	86			

a. Dependent Variable: EXPOASS

b. Predictors: (Constant), FIRMCAP

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.051	.380		2.769	.007
	FIRMCAP	.756	.105	.615	7.182	.000

a. Dependent Variable: EXPOASS

Annex 3

Model analysis of firm characteristics and firm capability on export performance using export assistance

Model 1

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.596[a]	.356	.348	.34752

a. Predictors: (Constant), FCARCAP

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.664	1	5.664	46.896	.000[b]
	Residual	10.265	85	.121		
	Total	15.929	86			

a. Dependent Variable: EXPOPER

b. Predictors: (Constant), FCARCAP

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.810	.311		5.828	.000
	FCARCAP	.585	.085	.596	6.848	.000

a. Dependent Variable: EXPOPER

Model 2

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.617[a]	.381	.374	.40419

a. Predictors: (Constant), FCARCAP

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.545	1	8.545	52.302	.000[b]
	Residual	13.886	85	.163		
	Total	22.431	86			

a. Dependent Variable: EXPOASS

b. Predictors: (Constant), FCARCAP

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.165	.361		3.224	.002
	FCARCAP	.718	.099	.617	7.232	.000

a. Dependent Variable: EXPOASS

Model 3

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.660[a]	.436	.422	.32709

a. Predictors: (Constant), EXPOASS, FCARCAP

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.942	2	3.471	32.442	.000[b]
	Residual	8.987	84	.107		
	Total	15.929	86			

a. Dependent Variable: EXPOPER

b. Predictors: (Constant), EXPOASS, FCARCAP

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.457	.310		4.704	.000
	FCARCAP	.367	.102	.374	3.591	.001
	EXPOASS	.303	.088	.360	3.456	.001

a. Dependent Variable: EXPOPER