The Impact of Management, Technology and Finance

On Export Performance:

Analyzing the Garment Industry in Bangladesh.

Master's Thesis in Business Administration

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This master's thesis is carried out as a part of the education at the University of Agder and is therefore approved as a part of this education. However, this does not imply that the University answers for the methods that are used or the conclusion that are draw.

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Abstract

Drawing on resources-base view theory and approaching from quantitative field work, this study examines the three factors influencing the export performances of Bangladeshi Readymade Garments industries: Financial resources, Technology and managerial skill. This study also investigates the role of mediating effect in the relationship between factors and export performance. Most of the previous studies about export performance are based in developed economies countries but this study is about a developing and emerging economy Bangladesh and possibly this attempt will contributes to literature. This study uses regression analysis to test the hypotheses in a sample of 100 Bangladeshi RMG firms. The findings show that financial resources are positively related to export performance. So, a good financial resource is important for the development of export performance of RMG firms in the context of Bangladesh. This study also confirms that there is no mediation effect between the factors and export performance.

TABIL OF CONTENT:

CHAPTER ONE

1. INTRODUCTION AND PROBLEM DEFINITION

This chapter presenting an introduction of the empirical facts about readymade garments industry and export sector in the Bangladesh context, problem definition and objectives of the study.

1.1Introduction

Bangladesh is a developing country like other 3rd world countries. Its economic development mostly depends on Agriculture, remittance and industry. So the foreign trade is important to the development of Bangladesh economy. At present Remittance is the first main source of foreign exchange earnings and secondly, the source is garment and textile products. After independent from 1971 to medal of the 1980 Bangladesh mainly exported were traditional items (agricultural products like jute). On that time the value of imports was doubled as compared to the value of export. Science the early 1980s the ready-made garments industry (who export non-traditional items) has expended dramatically over the least three decade and now the RMG industry is an important player in context of the Bangladesh economy. After that the Bangladesh economy is rapidly changing according to market based economy (http://en.wikipedia.org/wiki/Bangladesh). At present, the main export items textile, garments, seafood, pharmaceuticals, and ceramics ECT (Wikipedia).

Export growth is the most important issue of development strategy of the present government of Bangladesh. The large part of the export products are now industrial based. At present per capital income was US$1,700 in 2010. According to the international Monetary Fund, Bangladesh is the 47th largest economy country in the world in 2010 in PPP terms. (News web site “the news today”)

However, Bangladesh export growths are significantly increased in last three decades. Export earnings in 1972-73 was US$ 348 million, in 2001-02 it was around US$ 6 billion, in 2008-09 the export earnings was US$ 15.56 billion, 2009-10 the export earning was US$16.7 billion and 2010-11 the export earning had reached US$22.93 billion, meaning that growth is almost 4,472 percent over the period from 1972-72 to 2008-09. Though, Bangladesh at present exports around 160 products where non-traditional products show a growing trend while traditional products (agricultural products) show slowing growth. 90 percent export earnings come by only 6 products. Only textile industry is participating of 80% of the total export earnings of $15.56 billion in 1009 by exporting readymade garments and knitwear. The single product RMG (Readymade Garments) accounts for 79 percent of export earnings (Wikipedia.org and information web site "tourtobangladesh.com").

In terms of exporte the RMG (Readymade Garments) industry of Bangladesh improving every years. Now for bangladesh RMG industry is the leading sector in export erea. Currently, approximately 5150 RMG industry in bangaldesh; and provided job for 4.5 millionpeople, from them 80% were women workers and 95 percente firms are locally wonned. In the year 1983-84 the total export earning was US$ 0.9 billion, which was 3.89% of the tolat export earning of bangladesh. The year 1998-99 it was US$ 5.51billion, which was 75.67% of the earning of the country. At presennt RMG covers 76 % of the total export earning of bangladesh. The main export destinations for RMG firms are the United States and European Union market. In the year of 1998-99, RMG firms of Bangladesh exported 52.4 % in the EU market and the same year it's exported 43.2 % of its exports to USA.

In this situation, this study will investigate the factors (financial resources, technology and managerial skill) in order to address the impact on export performance of the Bangladesh RMG industry. The term "export performance" is a board concept. Its meaning, implementation and results depend firm to firm country to country. Most of the export-related studies focus on export performance or factors that influence on export performance. The studies consider export sale growth, export profitability, export sales volume, market

diversification and export intensity as a objective measurement and CEO's or owner's perception about export activities, normally as subjective measurement (Zou, Taylor and Osland, 1998 & Woodcock, Beamish and Makino, 1994) and the other indicators to measure export performance, whereas considering firm's size, age, managerial skill, financial resources, technology, and other issues as factors influencing export performance.

According to the methodological thinking, there are evidence that most studies on the export performance of firms has done on manufacturing companies of the developed countries (Calof and Viviers 1995) and few of the studies focused on the manufacturing firms (like readymade garments industry) in developing countries as (Mckay and Morrisey, 2005) contend on the same that, there are very few studies has done on export performance of RMG firms Bangladesh. Thus, the contribution of the similar studies for developing countries will play vital role and this study aims to fill up this gap by determinants of firm's export performance on Bangladeshi RGM manufacturing firms

1.2**Problem Definition:**

The ability of increasing export earning is the key element to generate wealth for many countries both develop and developing. Because export plays a vital role to improve economic growth for a country and also it's improve the balance of payment for that country.

Due to this, every countries main strategy is to increase their export. Bangladesh being one of these countries which begun attracting foreign investors and increasing export in the 1980s due to cheap labor. In 2009-10 fiscal years Bangladesh exported US$12.6 billion. At April 2010, according to USA based rating agency S&P, Bangladesh credit rating is below India and well from Pakistan and Sri Lanka due to continuous improvement of economic. At present ready-made garments industry along earning 76% of the total export earnings and Bangladesh has been ranked 4th largest cloth exporter country by WTO (world trade organization). However, till now Bangladesh trade and fiscal policy trying to rising export of RGM industry. To fulfilling the purpose, challenging question is "**which factors impact to increase the export performance of RMG firms in Bangladesh?"**

To examine the export performance many researchers have used different regression variables. For example firm's size, age, lead time, R&D/technology, Resources & capabilities, Managerial commitment to exporting and so on. However, we cannot study in-depth all of these factors. We wish to study in this research, to focus only the three factors (Financial resources, Technology and Managerial skill) which may have impact on export performance of RGM sectors in Bangladesh. Similarly, Stavroula Spyropoulou, Dionysis Skarmeas, Constantine S. Katsikeas, (2010) and Li Ling-yee Gabriel O. Ogunmokun, (2001) puts special emphasis on the "financial resources and management skill" and Guido Nassimbeni (1999), emphasis on the "technology" as factors that influences the export performance of a firm.

The study deal with export performance issue from two ways: first focusing the impact of factors on export performance. Second, investigate the mediation effect between the factors and export performance. The study will also be interested in examining whether each item of factors have any link to each item of export performance and from this results, we will be introduced the best model of export performance.

1.3Research Objectives:

Based on the above presented challenge, the purpose of the study is to determine the impact of factors on firm's export performance of Bangladesh RMG firms. However the more specific study is to: in order to qua

- To define and measure the concept of export performance.
- To define and measure the concepts of financial resources, technology and managerial skill.
- To examine and analyze the impact of factors on export performance.
- To analyze moderating effect between the factors and export performance.

In meeting and attaining these objectives, the paper is structured as follows; Next Chapter presents the theoretical framework of factors and firms' export performance, Chapter three presents the conceptual framework. Methodology and procedures are presented in Chapter Four. Then, presentation of findings and analysis of results are presented in Chapter Five and finally, in Chapter Six I present the Discussion of findings and conclusion.

CHAPTER TWO

2.0THEORETICAL FRAMEWORK ON FACTORS THAT IMPACT FIRM'S EXPORT PERFORMANCE

2.1Introduction:

In this section presents an overview of the main theories that we will be used in the analysis part: resources-based view, mediating effect, export performance. First we present the Resource-Based View (RBV) theory which investigating export performance. Secondly, we present the export performance. And finally, we present the mediation theory which is used to analyze the mediating effect between dependent and independent variables.

There is no specific agreement about what a theory is. Theory is an analytical tool to understanding, explaining the matter and to make prediction about given subject matter. In my study I use the following definition of theory. "Theory is a set of interrelated concepts, definitions, and propositions that present a systematic view of phenomena by specifying relations among variables, with the purpose of explaining and predicting phenomena" (Kerlinger, 1986, p.9).

Over the last three decades, there is a lots of export research that showed the several theoretical framework of firm's export performance (Guido Nassimbeni, 2001 Li Ling-yee Gabriel O. Ogunmokun, 2001, Stavroula Spyropoulou, Dionysis Skarmeas, Constantine S. Katsikeas(2010). *Charles Dhanaraj and Paul W. Beamish (2003)* Ling-Yee, L., & Ogunmokun, G. O. (2001). This chapter introduces a theoretical review on export performance from different scientific journals and empirical studies with its determinants by developing conceptual framework for empirical test from data collected in a survey of Bangladesh RMG firms.

2.2Theoretical perspectives:

2.2.1Export Performance

By definition "Export performance" consists two parts: export and performance. Export means the international, marketing related decisions and firm's activities in internationally (Shoham, 1988).

Over the past three decades, the export research tried to evaluate the firm's export performance. (Charles Dhanaraj and Paul W. Beamish 2003). The first decade was exploratory stage such as, 1. Why firm export? 2. What types of factors behind that impact on export performance? and 3. Have any improvement in export activety? (Bilkey and Tesar 1977). The second decade could be characterized as an advance in the number of empirical studies. Charles Dhanaraj and Paul W. Beamish 2003). In this stage researchers tried to explain about managerial attitudes, organizational resources and product features that has an impact on export performance (Beamish and Munro 1987). The third decade the export research was based on methodology, comparative research and large research (Charles Dhanaraj and Paul W. Beamish 2003).

At the macro level researchers have examined various variables including exchange rate fluctuation, comparative advantage, government policy and domestic market characteristics. In micro-level researchers gave attention to specific firm level of variables that lead to performance differences and significant influenced on export performance. The factors were recognized include managerial afford to export, firm's resources and capabilities (Fung et al, 2007). Firm resources and capabilities are important factors that influence firm's export performance, from previous study we found a positive relationship between firm resources and capabilities and export performance (Holzmuller and Stottinger, 1996).

Export performance is a multifaceted concept and many researchers have provided its measurement (Shoham, 1998). At the same time the export activities for the firms remain unquestionable and there are several debates have been devoted on its measurement and operationalization problem of export performance (Majocchi et al, 2005). Recently many imperial studies have been organized and performed on export performance (cf. Cavusgil and Zou 1994; Sousa 2004; Leonidou and Katsikeas 1996; Zou and Stan 1998) but still the debate is highlighted in a number of paper reviews. However, increased attention from researchers confirmed that understanding the drivers of export performance remains suffer in conceptual, methodological and practical limitation that hinder theory development in international business field (Neil, douglas and Bodo, 2006).

The main reason of these limitations is lack of knowledge on how to conceptualize and operationalize of export performance (Diamantopoulos, A. 1998). Secondly, there is no specific agreement on which measures should use to explain complex concept export performance which needs clear and critical understanding. In this regards, recent time there have been a lot of studies conducted to investigating and developing a multi-item measurements of export performance (Sousa 2004 ; Zou, Taylor and Osland 1998;). These empirical studies of export performance measures have explained into two categories: these are subjective measures (Zou, Taylor and Osland, 1998) and objective measures (Majocchi et al, 2005).

Objective measures are economic value for example export sales volume, export sales growth and export profitability, market diversification and export intensity (Zou, Taylor and Osland, 1998; Mojacchi et al, 2005). They gave a comparable measurement of firm's export performance. These objective measures are more accurate measurement than subjective measures since this information can be obtained with minimal influence of firm's CEOs. On the other hand, subjective measures refer based on CEO's or owner's perception about export activities, normally; these measures have been used in comparative studies (Woodcock, Beamish and Makino, 1994).

Generally, researchers have been used these both types of measures of their empirical studies in export performance (Shoham, 1998). From this two measures, the objective measure are to be more reliable measurements of export performance for short term while subjective measurements are more valid for export performance in long term (Huber and Power 1985; Venkatraman and Ramanujam 1987).

Export performance having many different concepts that require more than one measurement for a reliable and valid judgment towards ending- up with accurate results. Thus, taking this consideration of the complexity of firm's export performance, in this study I applied objective measurements.

2.2.2The Resource-Based View (RBV) of the firm and Export Performance:

From theoretical perspective resources-based view (RBV) theory shows firms capabilities as the driving forces of firm's export performance. (Stavroula Spyropoulou, Dionysis Skarmeas, Constantine S. Katsikeas 2010). Normally Firms wants to enter new markets both domestic and foreign where they have match between firm's resource and capabilities (Andersen and Kheam, 1998). According to this consideration firm's resource and capabilities are the key components for a firm to enter new markets whether it is domestically or internationally, that is why firm has to do lots of thing with firm's export performance. According to peng (2006), firm's resources are two type tangible and intangible assets (Peng, 2006). Furthermore, these two types of resources and capabilities can be classified into seven sub-categories. These are; physical, financial, organizational, technological, innovation, human, and reputation. From there, the first four subcategories represent firm's tangible assets and the last three subcategories represent firm's intangible resources and capabilities. In the same direction, Stavroula Spyropoulou, Dionysis Skarmeas, Constantine S. Katsikeas (2010), defines firm's resources are the main controller that use for activities and ensure the raw materials availability to the firm on the other hand, "capabilities are a firm's complex bundles of skills that enable the firm to make the best use of its assets" (Stavroula Spyropoulou, Dionysis Skarmeas, Constantine S. Katsikeas, 2010).

However, its importance to identifying and define specific resources and capabilities from RBV literature that are related in a particular research context (e.g., Rouse & Daellenbach, 1999; Neil A. Morgan, Douglas W. Vorhies , Bodo B. Schlegelmilch, 2006). Defining these two terms (resources and capabilities), we needs to closer attention regarding the definition of capabilities and how it differ from resources. Many authors argue that capabilities are the firm's capacity to deploy resources. The differences between these two terms are suggested by strategists and they advocate a dynamic capability view in dealing with the two terms (Peng, 2006). These are less important issue in this study because the most important issue is to understand how these firm's assets contribute to improving firm's export performance.

This theory considers that a firm will start its export activities after development of its resource capability. Since development of resource capabilities it's go through time horizon, in this situation larger firms are expected to develop their export strategy than small firms. These resources capabilities could be both tangible and intangible resources.

However, to identifying the specific resources are important to determining industrial export performance. According to the Neil A. Morgan, Douglas W. Vorhies, Bodo B. Schlegelmilch, (2006); they identified six types of resources in their study's that are particularly important sources for export namely: reputational resources, human resources, cultural resources, relational resources and informational resources.

In several empirical studies hypothesized that firm's tangible resources and capabilities are able to enter more distant international markets on the other hand firm's with more intangible resources and capabilities are able to enter closely related markets (Chatterjee and Wenerfelt, 1991). This firm's tangible resources and capabilities such as financial, and innovation help to entry international markets. In addition to that, intangible resources and capabilities such as; foreign market knowledge, experience, and potential networks have been found to have a positive correlation to export performance (Yang, Leon and Alder 1992, Cavusgil and Zou 1994, Kogut and Zender 1993). In this study assumes that both tangible and intangible assets are important to for firms' export activities. From this consideration, I took three variables from both tangible and intangible assets and each of these resources and capabilities and their task to determining the export performance is explained below:

Financial resources:

Financial resources deal with the ability to access cash and capital to export (e.g., Stavroula Spyropoulou, Dionysis Skarmeas, Constantine S. Katsikeas, 2010; Gomez-Mejia, 1988), The RBV theory suggested that export financing resource play a vital role for exporting firms to compete in international market effectively. (Stavroula Spyropoulou, Dionysis Skarmeas, Constantine S. Katsikeas, 2010; Kaleka, 2002; Ling-Yee & Ogunmokun, 2001). In my fieldwork I found that the relatively high working capital and financial liquidity is the one of the most notable characteristics for successful industrial export operations. At the pre-shipment stage, financial resources require to purchasing and producing of goods whereas at the post shipment stage financing is require because international customers pay on a deferred basis (Asian Development Bank, 1990). The RBV of the firm, it seems that the stock of financial resources require for better export and to build up its unique competency in international market that helps to gain superior export performance (Li Ling-yee Gabriel O. Ogunmokun, 2001).

Technology:

From last two decades the amount of research published on export performance, from there only few of the research studies have been focused on technological issues (Lefebvre et al., 1998). However, according to the Buckley and Casson, (1991) technology is an important factor in a manufacturing firm's to move product freely in international marketplace. The impact of technology on export performance is a well-researched issue (*Charles Dhanaraj and Paul W. Beamish, 2003).* For any kind of firm technology is one of the key element, and base on its technology a firm can be able to take advantages from international market *(Charles Dhanaraj and Paul W. Beamish, 2003*). Moreover, technology is an important variable that explain internationalization of a firm, and it is seen in many international business research.

Managerial skill:

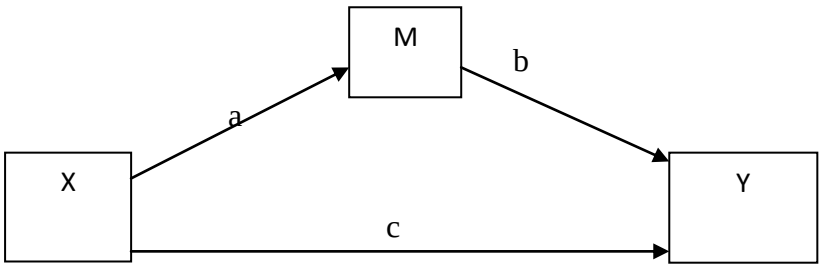
Several studies have mentioned that management team's influence on firm's export performance (Ibeh, 2003; Li Ling-yee Gabriel O. Ogunmokun, 2001). The firm's decision makers or managers play a vital role to development of export strategy. Management capability provide superior support to international customers and it helps to develop a close relationship with them (Stavroula Spyropoulou, Dionysis Skarmeas, Constantine S. Katsikeas, 2010). Managers, who bring international opportunities that is profitable for firm and a means for expanding the business internationally. Managers' deal with the cost, profit, and risk of exporting of the firm's that important to export performance (Kedia and Chhokar, 1985). Furthermore, many empirical studies indicated that managerial attitudes and experiences towards exporting their firms' have a positive impact between managerial attitude, international experience and export performance (Ibeh & Young, 2001; Kuemmerle, 2002; Preece et al., 1998).

2.2.3Mediation:

About the study of mediation there is a long history (David A. Kenny, 2012; Hyman, 1955; MacCorquodale & Meehl, 1948). At present mediation is a popular topic. A mediation model constructs the relationship between the independent and dependent variable through establishing identified cause that raise from the independent and affecting the dependent variable. Rather than, establishing direct interrelation between independent and dependant variable, meditational model is a cause of independent variable, which in turn causes the latter. Mediator variable also provide explanation the nature of relationship between independent and dependent variables. It acts as a third variable in the causal pathway between an independent variable and a dependent variable (Yan Li, Julie A. Schneider and David A. Bennett, 2006).

For example, David A. Cole, Scott E. Maxwell, (2003); Kanner, Coyne, Schaeffer, and Lazarus, (1981); “proposed that minor life events or hassles mediate the effect of major negative life events on physical and psychological illness”

Above this example, a mediator is a method of action, a medium in which a putative cause has its putative effect (David A. Cole, Scott E. Maxwell, (2003). We can easily describe the mediation effect with the help of path diagrams.



Above in path analysis, there are three types of effect; these are total effect, direct effect and indirect effect. The total effect is the measure which is change the outcomes such as Y by the independent variable X. A direct effect is the measure to which is one variable effect another variable without going through any other variable. For example, X directly effect on M is represented by path “a”; the direct effect of M on Y is represented by path ‘b”; and by path “c” mentioned the direct effect of X on M. This diagram mentioned the indirect effect of X on Y through intervening variable M (David A. Cole, Scott E. Maxwell, (2003). The total amount of mediation effect is called indirect effect.

The moderator effect is an interaction that depends on the effect of one variable to the level of another (Patricia A. Frazier, Andrew P. Tix, Kenneth E. Barron, (2004). According to the (Baron & Kenny, 1986; Judd & Kenny, 1981; Kenny, Kashy, & Bolger, 1998); mediator variavle effect by the following conditions. First, if X has a direct effect on M (according to above model) than a≠0. Second, if M has a direct effect on Y controlling for X than b≠0. Third, if the direct effect of X on Y must approach c≠0. In this case M completely mediates the X and Y relationship. Alternatively, the direct effect of X on Y relation, “c” may not be zero, but X has an indirect effect on Y through M than a, b≠0 and it is partially effect.

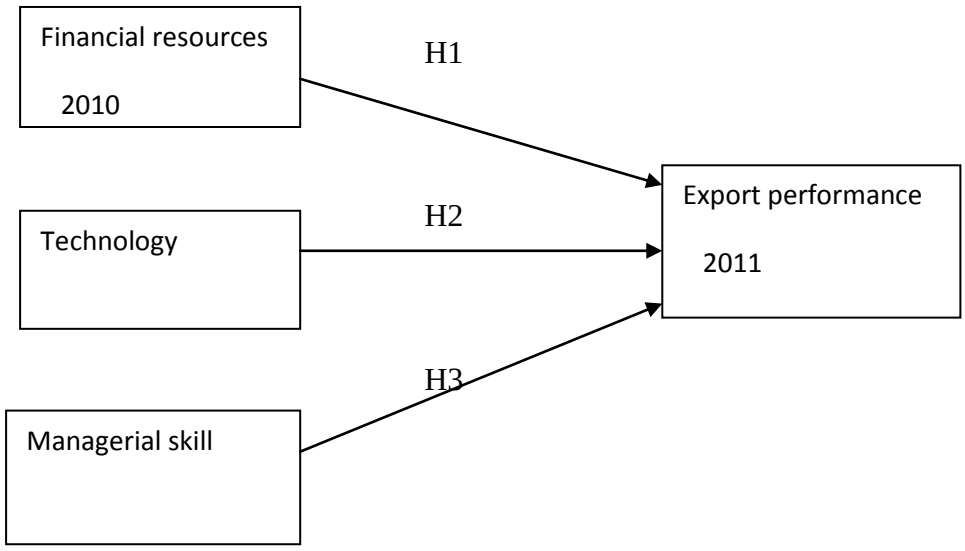
CHAPTER THREE

3.1CONCEPTUAL FRAMEWORK AND HYPOTHESES:

A conceptual framework is relevant in the wider perspective of relationships and the type of relationships among the concepts. Each of the conceptual frameworks gives a brief explanation of the variables below before we turn to discuss our variables of interest. Firm's characteristics; such as firm's financial resources, technology and management skill, have an impact on export performance, but in a different extent.

In this study, I assume that all of the above firm's characteristics have direct and indirect (mediation effect) impact on the firm's export performance, and each of the present conceptual frameworks provides a basis for testing for the relationships between the firm's characteristics and firm's export performance. Each of the three firm's characteristics is presented with its relations to firm's export performance in different individual model.

Model 3.1.1: Factors that effect on export performance:



The main figure (1), illustrates the relationships forming among firm's financial resources, technology, managerial skill and export performance of the theoretical model that we sought to test in this study.

There are lots of studies mentioned that RBV theory directly link with the firm's resources and export performance (Neil A. Morgan, Douglas W. Vorhies, Bodo B. Schlegelmilch; 2006). Whereas, only few of the studies directly mentioned about the relationship between Financial resources and export performance. The ability of financial resources present little organizational activities and literature suggests an overall weak positive relationship with financial performance (Anna Kaleka, 2012; Levinthal, 1997; March & Simon, 1993). On the other hand, according to Ling-yee & Ogummokum, (2001); in international context, availability of financial resources can have a positive impact on export performance and aslo strong financial resources can cover all of lacking in export related processes and unexpected difficulties.

From this perspective, firm's financial resources refer to the ability of the firm's cash and capital that play a vital role to effectively compete in export markets for better outcomes (Stavroula Spyropoulou, Dionysis Skarmeas, Constantine S. Katsikeas, 2010; Kaleka, 2002; Ling-Yee & Ogunmokun, 2001). For example, better industrial export activities require the high liquidity and working capital (e.g., Yaprak, 1985). Thus, the following hypothesis is postulated:

H1: Superiority in financial resources will be positively impact on export performance.

In the case of developing countries, technological capabilities are considered as an important factor of competitiveness at national level, as well as, firm's level (Lall, 2001; Siddharthan & Rajan, 2002). Technological capabilities solve technical problems of firm's and superior technical ability provides the better production process for the finished products (Nicholls-Nixon, 1995, p. 7). At present competition is increasing technology- based, the developing countries facing pressures developed countries that are adopting the new technologies (Ashoka Mody and David Wheeler, 1987). So, it is clear now that modern technological capabilities can play a vital role to increase the firm's export activities in international market Khon (1997, p.50) strongly suggests that small firms are capable to compete in international markets through their advance technological capabilities. Sriram (1989); found negative relationship between technology and export performance and Reid (1986); observed no relationship between them. Therefore, this deserves further investigation.

The use of advanced manufacturing technologies as a key factor for the manufacturing firms to compete in international markets (Ashoka Mody and David Wheeler, 1987; Naik and Charkravarty, 1992), because high technologies productivity, improve the product quality by reducing rejection rates, all of these are essential for both domestic and foreign market. (Ashoka Mody and David Wheeler, 1987). MacPherson, (1994), supported that technology is positively impact to export. For this study, we hypothesize the fundamental link in one direction:

H2: New technology has positive impact on export performance.

The traditional approach suggested that internal and external factors are the key determinants of export performance, and from internal factors; managerial characteristics have been referred as the important internal determinants of firm's export performance (Luis Filipe Lages, 2008, De Luz, 1993; Koh, 1991). According to Voerman (2003), managerial characteristics are two types: objective and subjective managerial characteristics. The objective managerial characteristics are manager's age, education level (Scblegelmilch 1986), language skill, foreign country exposure (Reid 1981), professional and export experience (Luis Filipe Lages, 2008); whereas subjective characteristics are associated with the perceptions, attitudes, and predictor (Luis Filipe Lages, 2008). In this study, however, I used both subjective and objective measures of managerial characteristics. From objective measure, I took manager's education level, age and international experience and from subjective measure manager's perception to export.

Kammath, Ro m, Patton and Brooks (1 987), in their research they found that the skill managers are a key factor in term of export performance. Also in several studied suggested that the training of managers, knowledge of foreign languages and their export experience influence the export performance (Luis Filipe Lages, 2008). Accordingly, I suggest the following hypothesis:

H3: A positive relationship between firm's managerial skill and export performance.

3.2. Linking firm's characteristics activities, moderator variable activities, and firm's export performance

3.2.1. Financial resources of the firm and firm's export performance mediate by technology and managerial skill:

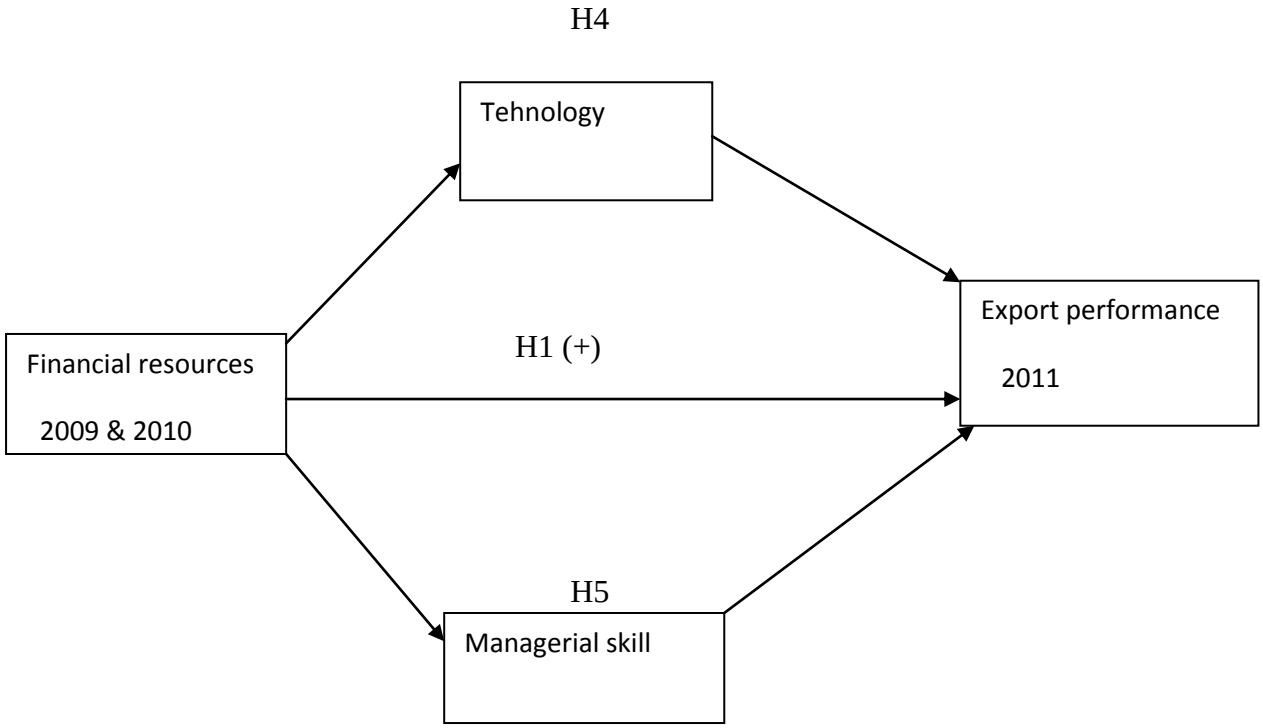


Figure.2. illustrates the mediating effect between firm's financial resources, and export performance by technology, managerial skill of the theoretical model that we sought to test in this study.

Taken from, Hypotheses-4 implies that technological capabilities mediate the relationship between financial resources and export performance. Our interest is the direct examination of a mediation effect that involves in our proposed model. The mediation hypothesis suggests that financial capabilities are the driving force for better export performance. This is only because the financial resources have positive impact on technological capabilities. In this case technological capabilities would be seen to the generative means by which financial resources affect export performance.

The first factor in this study thought that the amount of resources has an impact on exporting. Firms need to have clear and implementable plans to globalize their business activities in the foreign market. Second is the "technological asset" factor, which can be facilitates the entry into the international market. In international business literature mentioned that technology has been a significant factor to internationalization of a firm (Charles Dhanaraj and Paul W. Beamish, 2003; Buckley and Casson 1991). Now the logic is that advance technology for competitive international markets are important for the firm's internationalizing their activities. But these are so costly and thus require huge financial resources. According to Kiyohiko Ito and Vladimir Pucik, (1993), the level of technological expenditures are directly associated with increased the movement of export markets. Thus, this study gives opinion that technology plays a mediating role between the financial resources and export performance. So the following hypothesis is proposed;

H4: A direct positive association of firm's financial resources with export performance is mediated by technology.

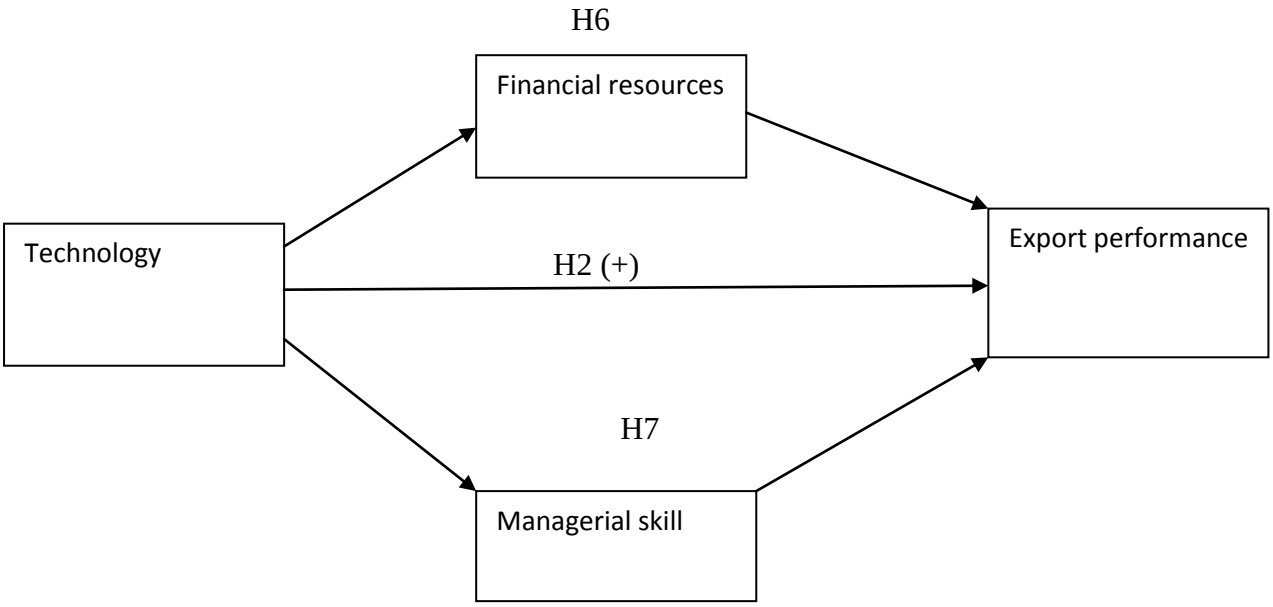
According to the traditional theories of business internationalization, the small and medium enterprises are highly depending on insufficient managerial ability and financial means to expand their business in abroad (Guido Nassimbeni, 1999; McDougall et al., 1994). The preceding hypotheses link relationship among financial resources capabilities, management capacity and export performance. Implicitly, in my fieldwork I found that financial capabilities affect the export performance through their management capacities. That is, firms can hire skill human resources or management team, which is promote better export performance.

According to the Gomez-Mejia, (1988); financial resources show the ability of the export activities to access cash and capital, while the management capabilities provide superior support to export distribution and to develop a better relationship with customer (kaleka, 2002). In the absence of sufficient financial resources, companies may be face difficulties in export operations. Specifically, the establishment and development of close relationship with the foreign customers require a skill management team (Stavroula Spyropoulou, Dionysis Skarmeas, Constantine S. Katsikeas, 2010; Samiee &Walters, 2003; Skarmeas, Katsikeas, Spyropoulou, & Salehi-Sangari, 2008).

Also to do the export activities in the international market they need to makes and face-to-face contact, which is difficult and expensive (Stavroula Spyropoulou, Dionysis Skarmeas, Constantine S. Katsikeas, 2010; Bello & Gilliland, 1997; Samiee &Walters, 2006). At the same time, understanding the requirements and satisfying the foreign customers in export markets is a time-consuming, human-intensive task (Bello, Chelariou, & Zhang, 2003; Skarmeas & Robson, 2008). Superior export financing resources can hire sufficient staff whose are specialized in the export function, arrange training programs for export personnel, and allocating more employees to the foreign consumer (Bonaccorsi, 1992). The development of close relationship with foreign customer is an expensive process (Katsikeas, Skarmeas, & Bello, 2009). So, sufficient financial resources comparatively in a strong position to affect management activities that offer superior foreign customer relationship for better export performance. Thus, this study argues that managerial capabilities play a mediating role in the relationship between independent variable of financial resources and dependent variable of export performance. So, this study proposes following hypothesis:

H5: managerial skill has mediated the effect of financial resources and export performance.

3.2.2. Technology of the firm and firm's export performance mediate by financial resources and managerial skill:



Figure, 3, summarized conceptual model of mediating effect between technology, and export performance by financial resources, managerial skill.

In the literature has been widely recognized that growing technology are importance to determining the success in today's marketplace (Shaker A. Zahra, 1996). However, there are few evidences are exists that mention technology has an impact on export performance (Shaker A. Zahra, 1996). According to the Ludovico Alcorta, (1994), "The impact of technological change may allow the firm to produce a higher level of output at the same cost, or the same level of output at a lower cost". In manufacturing firms, advance technology may lead to lower levels production cost not only due to cost saving but also efficient production for fewer rejection.

Hartmarx Corp recently said: By using new technology firms can improve production process, reduce the rejection and provide better customer service. Nevertheless, reduce the production cycle apparel companies can gain two advantages. These are: (a) they can the cost of working capital, and (b) they can gain competitive advantage providing quick services to customers (Ashoka Mody and David Wheeler, 1987). From above discussion we can say that technology directly impact on export performance.

Finally, even though technological improvement forecasting is crucial for the firm's success and it is positively associated with export performance, the payoff from this effort also depends on the financial resources. So, we can hypothesize the link of direction:

H6: financial resource has mediating effect on technology and export performance.

In this study, it may be more elusive that the link between technology and management skill that lead export performance. However, researchers and practitioners have recently paid great attention technological impact on management decision. The contribution of technology, researchers studied from a different perspective: managerial, strategic and organizational (Vittorio Chisa and Raffaella Manzini, 1998). For example, computer technology solution is a decision support system (DSS) that help managers to take complex decision and to solve the problem. "This DSS tool design for (i) sophisticated database management capabilities with access to internal and external data, information, and knowledge, (ii) powerful modeling functions accessed by a model management system, and (iii) simple user interface designs that enable interactive queries, reporting, and graphing functions" (J.P. Shim, Merrill Warkentin, James F. Courtney, Daniel J. Power, Ramesh Sharda, Christer Carlsson, 2002). Not only that, Sirkka L. Jarvenpaa, Blake Ives, (1991); suggested that they "take an active personal interest: learning what advantages the computer can offer their organization, recruiting talented specialists for the technical staff, encouraging communication and interaction between technical and 'line' personnel, and putting the new system to use in their own daily activities". In this study, we observe that the DSS system helps managers to take a decision, to solve a critical problem, in other way its increase managerial skill. While, several

studied explored skill management teams influence export performance. Ibeh & Young, (2001) find a positive relationship between manager's experience and export performance. Therefore, we can say that managerial skill mediating the relationship between technology and export performance.

H7: managerial skill has mediating effect on technology and export performance.

3.2.3. Managerial skill of the firm and firm's export performance mediating effect by financial resources and technology:

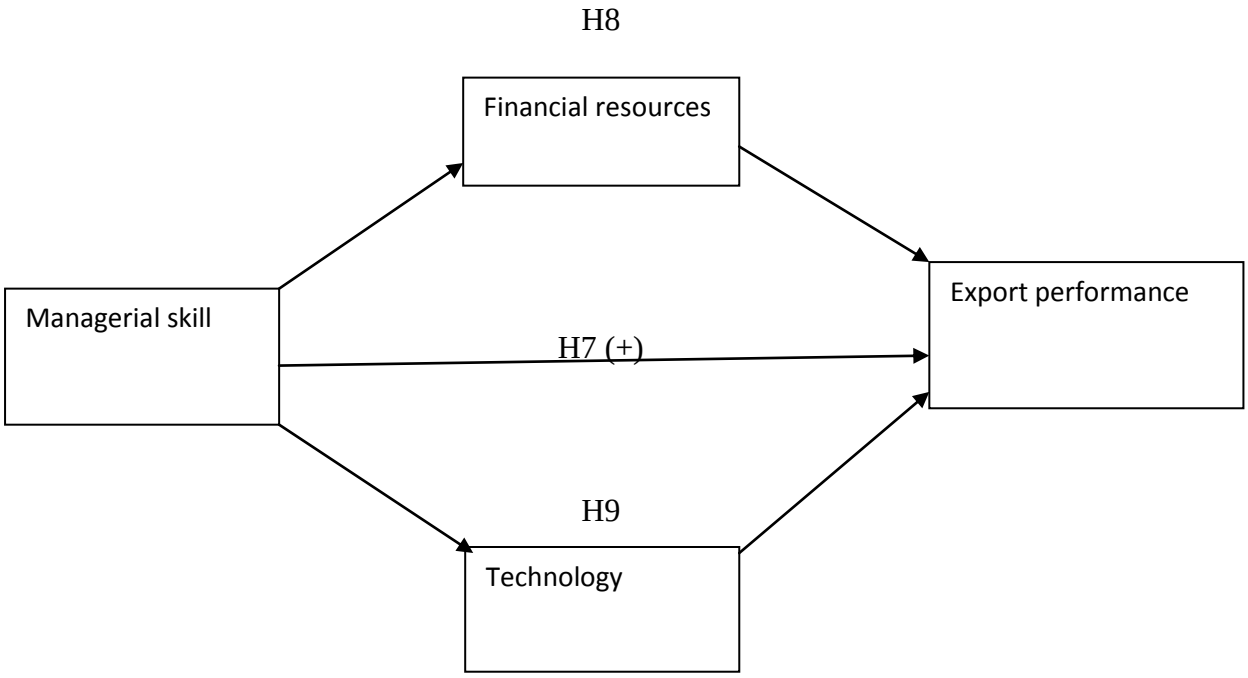


Figure.4. illustrates the mediating effect of firm's managerial skill and export performance by financial recourses, technology of the theoretical model that we sought to test in this study.

Management capacity concerns the ability to provide superior customer service through export distribution. However, the present export markets are unpredictable; therefore, it is difficult to understand the customers view. Now a day, film's are facing international competition, unpredictable markets and rapidly changing technology. For firms, these different types of thing afford new challenges for managers (Charles B. Shrader, Virginia B. Blackburn, Paul lies, 1997). Because normally managers have an enormous influence over the

decision making process, the actors can often influence the final outcome (PaulDunn, 2002).

Recently, several researchers have examined the link between management and financial performance. According to Youndt,(1996), a good management is important to enhancing financial performance. Kevin B. Hendricks, Vinod R. Singhal, (2000), provide evidence that effective quality management implementations progress long term profitability. Based on this discussion it is clear that managerial skill directly affects the firm's financial performance. Also in hypothesize 1we see that financial performance impact on export performance. Therefore, it is possible to advance that moderator variable (financial resources) play a mediating role between independent variable of managerial skill and dependent variable of export performance.

H8: financial resource has mediating effect on managerial skill and export performance.

We identify the three sets of resources that affect the firm's export performance, namely skill managerial resources, financial resources and technological resources. There is a positive link between managerial knowledge and technological innovation (Rajiv Sabherwal, Sanjiv Sabherwal, 2005). Managerial resources are the firm's capability, which are primarily responsible for the firm's growth, while technology is the tangible assets of the firm's (Charles Dhanaraj and Paul W. Beamish, 2003). Innovation (technology) can also be defined as the "generation, acceptance and implementation of new ideas, processes, products, or services" (Thompson, 1965). Most of the present organizational offices are automation system; some of them used decision support systems (DSS) to take critical decision and the technical work. The technology helps managers to recruiting, communicating with customers, development and implementing the plan and their own daily activities.

At present competitive markets, it is critical to the organization's success without modern technology. To be involved in technology, a CEO does not need to take managing role on his hand. Rather, the involved in technology, CEO can contribute the firm's success. On the other hand, as we know that technological capabilities would play a major role to increase the firm's export activities. So, we can conclude that technology mediates the relationship between managerial skill and export performance.

H9: Technology mediates the effect of managerial skill and export performance.

CHAPTER FOUR

4.0METHODOLOGY AND PROCEDURES:

4.1 Research approach:

The remainder of this paper is given an explanation of relationship between the factors (financial resources, managerial skill and technology) and export performance, and at the same time, it also given an explanation of mediating effect of the export performance of the firms, focusing in particular on the role of technological, financial and managerial factors.

Research (re-search) means "to search again". According to Bryman and Bell (2007), a research design is a master plan that provides a framework for the collection and analysis of data. This chapter provides an explanation of the research procedures by selecting correct approaches that depend upon information. To collect the information we have to know which information is available and what kind of information/data is required to find out the solution for the problem. This paper presents the empirical study that performed with the sample of 100 Garments manufacturing firms. The fundamental ground of this research was to "identifying the mediating effect on factors that impact on export performance of RMG firms in Bangladesh". In the next section, we explain about the research design, sample selection, Explanation of variables, estimated model and Reliability and validity.

4.2. Research design:

A research design provides structure of any scientific work or plan of action for the research. The research also determines the sources of data, the design technique and the sampling method. It gives direction and systematizes the research (Bryman & Bell, 2007). A research design represents the master plan or framework for the study as a guide in collecting and analyzing data (Saunders, Lewis, & Thornhill, 2007). There is no standard, correct research design. There are several designs which are used in research, namely: Exploratory research, descriptive research and causal research.

- Explorative research starts with prior knowledge about the phenomenon studied.
- The purpose of the descriptive research is to describe the characteristics of object, specified population or organization.
- Causal research that establish the causes and effect relationship. (Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. 2010).

According to Shelby D. Hunt (1976), marketing phenomenon can be classified into three dichotomies concepts, such as profit sector/ nonprofit sector, micro/macro and positive/normative. Author, also said that all marketing phenomena, issues, problems, models, theories and research can be categorized by using these concepts.

This study followed the normative research for profitable organization at a macro level because our main research objective was “how marketing (exporting) can be made more efficient”. Normative research explains “what marketing organizations and individuals ought to do or what kinds of marketing systems a society ought to have” (Andreas Wyller Felkenberg, 1994). In other words, it is prescribed what should be the research and what organizations should do.

4.3 Sample and Data collection:

An important part of the research is how to collect the relevant data for the study. The research focuses on the Bangladeshi Readymade Garments (RMG) firm. In this research population consists of all listed firms from Bangladesh. But it is impossible to collect data about all the listed firms. So, we chose three regions to the target study area in which the sample was drawn. The listed firms are from Dhaka, Narayanganj and Comilla. These regions were chosen based on the accessibility criterion. The sample exporting firms were based on the Bangladesh Export Promotion Bureau and from Bangladesh Garments Manufacturers and Exporters Association (BGMEA). In addition, the data base of the year 2009 and 2010.

The task was writing questions and designing the format of the printed questionnaires for research investigation. This may happen by telephone or e-mail, on the internet or in person. After preparing the concepts in detail, the next step describes types of data used in this research. There are two types of data we can use for our study these are primary data and secondary data. For this study, we used both primary and secondary data. A total of 150 copies of the questionnaire were sent to exporters firms through personal contact and e-mail. All of these data based on the year of 2009 and 2010. To collect primary data, we requested to the CEO/managers of firms to fill the questionnaire in personal interviews and also we send the questionnaires by e-mail to fill at their own free time through personal contact. We collated the primary data by three ways. First, the CEOs/managers instantly fill out the questionnaires. Second, CEOs/ managers left the questionnaires after fill out that collated by representative. Third, only three feedbacks were getting through by e-mail.

	No. of questionnaires supplied	No. of questionnaires returned			Total respondents
		DHA	NAR	COM	
Exporters firms	150	31	50	19	100

DHA = Dhaka
NAR = Narayanganj
COM = Comilla

For secondary data was collated from the annual report of the companies, Bangladesh export promotion bureau and Bangladesh Garment Manufacturers and Exporters Association (BGMEA).

4.4. Operationalization and measurement of variables:

Operational definition of a variable is techniques to measure the variable. Without operational definition, a concept cannot be measured and analyzed. That means without measurement the researcher cannot identify variation between a dependent variable and one or more independent variables. In order to be able to test the variables used in this study, we discuss how both dependent and independent variables were measured and operationalize as follows:

4.4.1 Dependent variable:

The dependent variable will represent the phenomenon that is to be studied. Dependent variable is also called criterion variable. As discussed in the literature about dependent variable, export performance can be classified into two categories. These are subjective measures and objective measures (Peter C. Thirkell, Ramadhani Dau,1998; Carlos M. P. Sousa, 2004). According to the author subjective measures of export performance are export intensity, export intensity growth, export sales growth, export sales volume and export sales efficiency. Objective measures may also include profitability indicators such as export profit margin and export profit growth. The author argues that export intensity was the most

common measurement to assess export performance. Similarly, the author argues that many of the studies subjective measure assess the construct based on the five or seven point scales.

In this study, I used only objective measures of export performance. Three indicators were used to explain the current export performance, compare to the performance of their major competitors in the international market. The items were borrowed from Peter C. Thirkell, Ramadhani Dau,(1998); Carlos M. P. Sousa, (2004). These are annual sales, volume sales growth and sales profitability of the year of 2010 and 2011. The respondents answered on a 7-point scale, with (0) indicating "Low", and (7) indicating "High".

The choice of these measures was not random; therefore, it is important to explain why we chose these measures instead of other measures of export performance such as export intensity and export sales efficiency. Based on with prior empirical studies (Carlos M. P. Sousa, 2004) there was a number of reasons. First, sales growth was the most useable measure, "which criticized for overemphasizing performance because of price rise and market growth". We used measure because in case, managers may be unwilling or unable to provide another objective and subjective data therefore, this indicator may be encourages the managers to respond given information. Third, countries export values tend to be externally determined by trends in world prices, so these countries are price takers in world markets (Oliver Morrissey, 2007). The authors emphasize the use export sales volume if studies are conducted in countries categorized as price takers.

4.4.2 Independent variables:

Independent variable (also called predictor variable or explanatory), a variable that is assumed to explain or predict the dependent variable (Hair, 2007). As indicated in the models, there are three explanatory variables that need to be explained with regard to their measurement and Operationalization. These variables are: Financial resources, technological capabilities and managerial skill.

Managerial skill

Sometime expected exporting can be perceived from management's perception. Firms may utilize some of or all of capabilities to export, but cannot do so because that is not perceived as an important in the management's point of view. Managerial factors are two types, subjective and objective and both have a positive impact on export performance. We had chosen four objective managerial characteristic to evaluate the capability of export management. These are as follows: manager's age, education level, year of working experience and international experience. The items were borrowed from previous studies in the field (Leonidas C. Leonidou, Constantine S. Katsikeas and Nigel F. Piercy, 1998). The Educational level was measured by asking managers to indicate
the level of degree completed. However, after talking to several decision makers it was discovered that education is not important in this business area. The respondents answered MCQs and filled in the gaps.

Financial resources:

Five items were used to review the financial resources. The measures are as follows: Financial resources ability, speed of acquiring and deploying financial resources, size of financial resources (debt + equity), ability to find additional financial resources when needed and Ability to meet competitive prices to supplier. The items were drawn from prior research (Stavroula Spyropoulou, Dionysis Skarmeas, Constantine S. Katsikeas, 2010; Li Ling-yee Gabriel O. Ogunmokun, 2001). I used a seven-point scale, ranging from (1) "weak" to (7) "strong" to assess manager's perceptions about the financial strength of their firms.

Technology:

This study considers a number of factors and technology is one of them, which
may create the firm's capability for competition in both local and international markets. Technology explains the main areas of manufacturing, quality control, management, design, communication, handling, storage (Guido Nassimbeni, 1999).

For the clothing industry, technologies are chosen for three stages of the production process: pre-assembly (Spreading, making and cutting of fabrics); assembly (sewing), and post assembly(Embroidery, Ironing,, Labeling, and packaging) and Design technology (Ashoka

Mody and David Wheeler, 1987; Alessandro Sterlacchini, 1999). The following stages are considered synonymous: "high technology" or CAD_CAM technology; "medium technology" (M) or semi- automated technology; and "low technology" (L) or manual technology. For each stage a score was ascribed to the machinery employed which ranged from 1 to 3 according to its complexity and potential for automation, 1 for low technology, 2 for medium technology and 3 for high technology.

4.5. The estimated Model:

As discussed in Chapter two, there are different variables used in this study; thus the present relation between dependent and independent variable will be analyzed by multiple regression method. For this study, four regression models were developed. These four models can be categorized as the main model and the model with mediation effect.
The main model was tested using equation 1 as follows:

$$EXP = \alpha + \beta_1 (FIN) + \beta_2 (MANS) + \beta_3 (TEC) + \varepsilon \text{---------- (1)}$$

Where,

EXP = Export performance

FIN = Firm's Financial resources

MANS = Managerial Skill

TEC = Technology

β_1 FIN = The slope of the relationship of firm's Financial resources and export performance.

β_2 MANS = The slope of the relationship of Managerial Skill and export performance.

β_3 TEC = The slope of the relationship of Technology and export performance.

α = Intercept

As mentioned in the conceptual framework, the main model, correlation coefficient was used to find out the relationship between firm's financial resources, managerial skill, and technology and export performance. In addition to that, these variable's (financial resources, managerial skill, and technology), the coefficient of determination was used to find out the variation of dependent variable explained by associating with the independent variable and moderating variable. According to literature all the variables interact with each other, this is call mediation effect. Mediation effect was tested using equation 2, 3, 4, 5, 6 and 7.

$$EXP = \alpha + \beta_1 (FIN) + \beta_2 (MANS) + \beta_3 (FIN)(MANS) + \varepsilon \text{---------- (2)}$$

β_3 = the slop of both managerial skill and financial resources and export performance (indirect effect). Others are the same as mentioned in the equation 1.

$$EXP = \alpha + \beta_1 (FIN) + \beta_2 (TEC) + \beta_3 (FIN)(TEC) + \varepsilon \text{---------- (3)}$$

β_3 = the slop of both technology and financial resources and export performance (indirect effect).

$$EXP = \alpha + \beta_1 (TEC) + \beta_2 (FIN) + \beta_3 (TEC)(FIN) + \varepsilon \text{---------- (4)}$$

β_3 = the slop of both financial resources and technology and export performance (indirect effect).

$$EXP = \alpha + \beta_1 (TEC) + \beta_2 (MANS) + \beta_3 (TEC)(MANS) + \varepsilon \text{---------- (5)}$$

$\boldsymbol{\beta_3}$ = the slop of both financial resources and managerial skill and export performance (indirect effect).

$$\boldsymbol{EXP = \alpha + \beta_1 (MANS) + \beta_2 (FIN) + \beta_3 (MANS)(FIN) + \varepsilon} \text{---------- (6)}$$

$\boldsymbol{\beta_3}$ = the slop of both financial resources and managerial skill and export performance (indirect effect).

$$\boldsymbol{EXP = \alpha + \beta_1 (MANS) + \beta_2 (TEC) + \beta_3 (MANS)(TEC) + \varepsilon} \text{---------- (7)}$$

$\boldsymbol{\beta_3}$ = the slop of both technology and managerial skill and export performance (indirect effect).

Above all analysis one question needs to be answered that is: is the main and mediating effect statistically significant?

To find out this answer, significant a null and alternative hypothesis is set up as follows:

$\mathbf{H_0: \beta_3 = 0}$

$\mathbf{H_A: \beta_3 \neq 0}$

After setting the hypothesis, the calculated regression coefficients R^2 were considered for both models. To prove this whether the predicted hypothesis is significant or not, F test was used. If the value is greater than the critical value, null hypothesis is rejected. If the F value is lower than the critical value, null hypothesis is accepted. To do all of this statistic calculation, SPSS will be used.

4.6 Reliability and validity:

Are the conclusions from the qualitative or quantitative research correct? Are they valid, in the sense that we have correctly measured what we are trying to measure? Are they reliable, in the sense that we could get the same results if we repeated the study? These questions are crucial, whether we use a qualitative or quantitative approach. Every researcher tries to get the accurate results as much as possible in their studies. Validity and reliability measures exactly this.

Validity is synonymous with accuracy or correctness. It is not possible to determine 100 per cent validity simple because we do not know the true value of what we want to measure. What we do, therefore, is to infer the validity of the measure by looking different types of validity measurements. These are predictive (validity is ascertained by how well the measure predicts the criterion), content (validity focuses on to what degree the items cover the concept we wish to measure) and construct (validity is most direct concerned with the question of what the measurement instrument are, in fact measure) validity. According to, Nahid Golafshani, (2003); describe construct validity is using for quantitative research. The construct validity is two types: convergent and discriminate.

In order to test the validity of measurement, factor analysis was conducted. The factor analysis indicated sufficient correlation between the items of variables. The factor loading matrix which showed how similar items in one scales actually load to the construct they are measuring. The rotated component matrix is used for the items in this study. The results are given in the following table 4.6.1. This factor analysis results allowed us to retain all measurement items of three independent variable's except three items (Ability to meet competitive prices to supplier, CEO's/ manager's international experience & age of machineries) due to their weaker correlations.

Table 4.6.1 factor loading for three components.

Rotated Component Matrix[a]

	Component		
	1	2	3
financial resources ability		,918	
speed of acquiring and deploying finance		,893	
Size of financial resources (debt + equity)		,844	
Ability to find additional financial resources when needed		,842	
age of CEOs/Manager			,886
education of CEOs/manager			-,727
experience CEOs/ Managerial			,876
Spreading and cutting of fabrics machine	,726		
Sewing machine	,882		
Embroidery machine	,760		
Ironing machine	,709		
Labeling machine	,813		
Design technology	,740		

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

[comp 1: Technology, comp 2: financial resources & comp 3: managerial skill]

Cronbach's alpha is use in order to calculate the correlation between the items. If there is a good correlation between the items, than its lead to a higher value of Cronbach's alpha. Generally, higher alpha value represents a higher validity. Similarly, a Cronbach's alpha higher than 0,6 is considered to indicate a satisfactory item scale reliability.

Although the term ‘Reliability’ is use in research for testing or evaluating quantitative research (Nahid Golafshani, 2003). Reliability refers for replication of the same result when same measures are carried out (Bryman and bell, 2007). One of the most popular way to establishing the reliability is that test-retest method. There are three types of reliability that can be used in quantitative research, these are: “(1) the degree to which a measurement, given repeatedly, remains the same (2) the stability of a measurement over time; and (3) the similarity of measurements within a given time period” (Nahid Golafshani, 2003).
The reliability of this study was tested using Cronbach alpha coefficient. Also Cronbach’s alpha is use in order to calculate the correlation between the items. If there is a good correlation between the items, than its lead to a higher value of Cronbach’s alpha. Generally, higher alpha value represents a higher validity. Similarly, a Cronbach’s alpha higher than 0,6 is considered to indicate a satisfactory item scale reliability. We tested reliability of the scales during the survey and obtained the Cronbach’s alpha coefficient value of .850 for the scale used to measure export performance, .916 for the scale used to measure financial resources, .680 to measure managerial skill and .868 for the measurement of technology. Thus, alpha statistic suggested us that we can next regression analysis by using these items. Cronbach alpha coefficient statistic mentioned in Appendix 2.

CHAPTER FIVE

5.0PRESENTATION OF FINDINGS:

This chapter is the main part of the thesis where the output of the test statistics of study will be tested. 100 respondents have answered surveys to evaluate the export performance. The results were fined by running SPSS software version 19. The results are very important to explain the hypothesis and thereby making relevant conclusions. This chapter includes different section, such as in section 5.1 the results related about the main model studies. The section 5.2 contains the results of the mediation effect. Finally, section 5.3 explains the information about the hypothesis.

5.1 Main Model (Regression results):

In this part we will used multiple regression analysis in order to test the hypothesis 1, 2, 3.

H1: Superiority in financial resources will be positively impact on export performance.

H2: New technology has positive impact on export performance.

H3: A positive relationship between firm's managerial skill and export performance.

As described in the methodological part, the relationship will be explained by regression model (***EXP = α*** + β_1 ***FIN +β₂ MANS + β₃ TEC +ε)*** technique. In that model β value is the percentage of variance in export performance (constant variable) that is explained by Firm's financial resources, Managerial Skill and Technology (independent variables).

Similarly, the Standardized Coefficients or Beta Coefficients also explain the variance in export performance (constant variable) that is explained by Firm's Financial resources, Managerial Skill and Technology (independent variables).

Table 5.1.1 Dependent Variable: Export performance.

Coefficients[a]

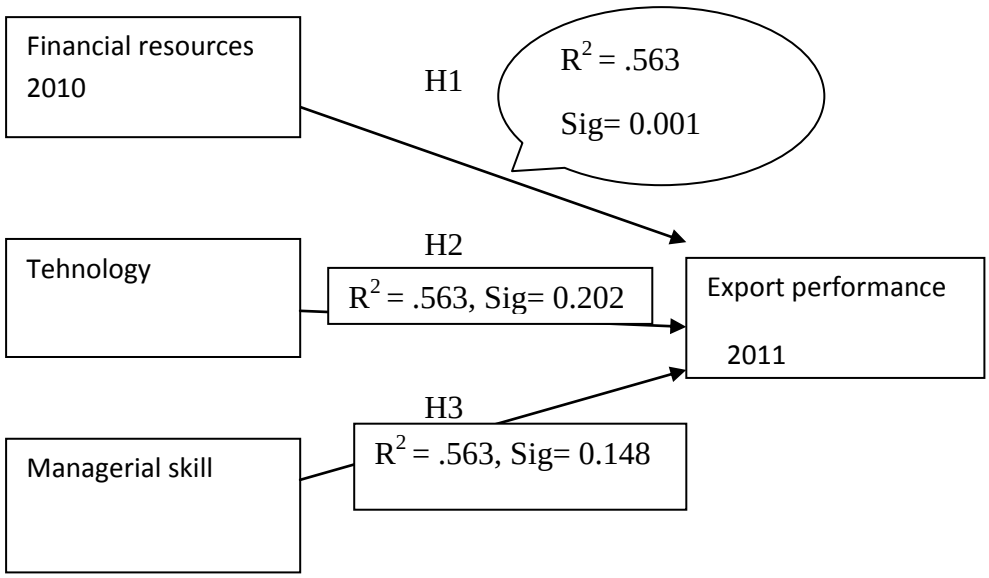
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	,083	,076		1,084	,282		
	Technology	,096	,075	,096	1,288	,202	,993	1,007
	Finance	,783	,079	,741	9,954	,000	,999	1,001
	Managerial skill	,118	,081	,109	1,462	,148	,993	1,007

a. Dependent Variable: export performance

In this study, the main objective was to find out the impact of financial resources, technology and managerial skill on the firm's export performance. The values of the coefficients (β) are mentioned in table 5.1.1, therefore now it is possible to state the equation.

$$\boldsymbol{EXP = .083} + .783\ \boldsymbol{FIN + .118\ MANS + .096\ TEC + \varepsilon}$$

Model 5.1.2: Dependent Variable: Export performance



Is this model is useful? In order to explain this question, we have to use T- test. The T- values are calculated in order to compare with critical value to see if they are significant or not. Thus, T- test is use to see the significant relationship with independent variables and dependent variable. The table 5.1.1 mentioned regression coefficient (β), Standardized beta Coefficients, and t values. By looking the beta value of technology is .096 and managerial skill is .109 both insignificant at p > .005 (sig =.202 & sig =.148). In another word this two variables have no impact on export performance. So, hypothesis 2 and 3 was rejected. On the other hand, the beta value of financial resources is .741. According to the table 5.1.1, the significance value is 0.000. So, it can be conclude that the financial resources make a significant contribution ($p<0.001$) to the export performance. Therefore, hypothesis 1 was accepted.

Table 5.1.1 also examined the multicollinearity. Multicollinearity deals with the problem of correlated independent variables in the regression analysis. The term refers to describe the situation when a high correlation may exist between independent variables. To test the multicollinearity, we can check the multicollinearity among the variables with the help of collinearity diagnostics (VIF and tolerance value). The table indicates the tolerance values of .993 for technology, .999 for financial resources and .993 for managerial skill. Further, this table indicates the VIF values of technology is 1.007, financial resources 1.001 and managerial skill 1.007 are less than the required value of 10. According to the rule of thumb,

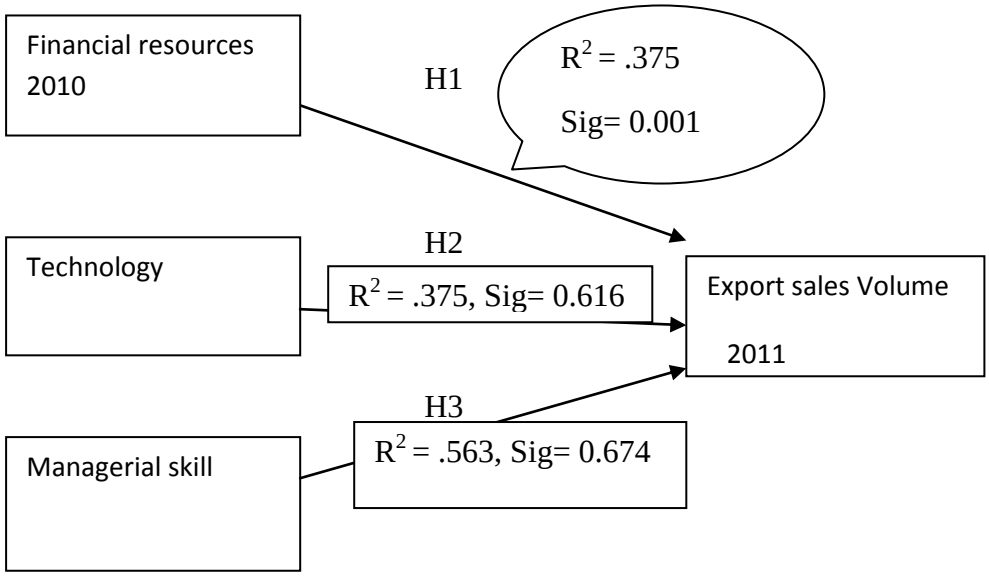
when VIF values more than 10 and tolerance values are less than .10. It means here is no multicollinearity. However, the results indicate that we can proceed for regression analysis.

The appendix 3 provided by SPSS is a summary of regression model for export performance. In this model, the value of R = .750 which represents the simple correlation between dependent and independent variables. The value of adjust R^2 = .563 which notify that the 56.3% of variation in export performance can be predicted by independent variables.

Also the appendix 3 reports the analysis of variance (ANOVA). The table show the various sum of squares and degrees of freedom. In this table, the most important part is F-value, which is 33.905, which is significantly at $p < 0.001$. This means that the export performance is influenced by financial resources, Technology and Managerial skill.

In further investigation, I used OLS method. This method explained details about the correlation between dependent and independent variables. The results based on objective measures (export sales growth and export sales volume and export profitability) of export performance.

Model 5.1.3 Dependent Variable: sales Volume 2011



Sources: survey Data (2012), multiple regression analysis- data analysis.

From the regression analysis (appendix 4) I obtained the values of the coefficients "b", therefore, now I can state the linear regression equation.

$$EXP_{SVOL} = \alpha + .071\ TEC + 1.016\ FIN + .061\ MANS + \varepsilon$$

The appendix 4 mentioned regression coefficient (β), Standardized beta Coefficients, and t values. According to the model 5.1.3, the first hypothesis is significantly related to the dependent variable ($sig_{=}$.000). It can be said that at a 95% confident level. On the other hand, the regression results indicate that the coefficient of technology and managerial skill (hypothesis 2 & 3) has a positive impact but insignificant ($sig_{=}$ .616 and $sig_{=}$ .674).

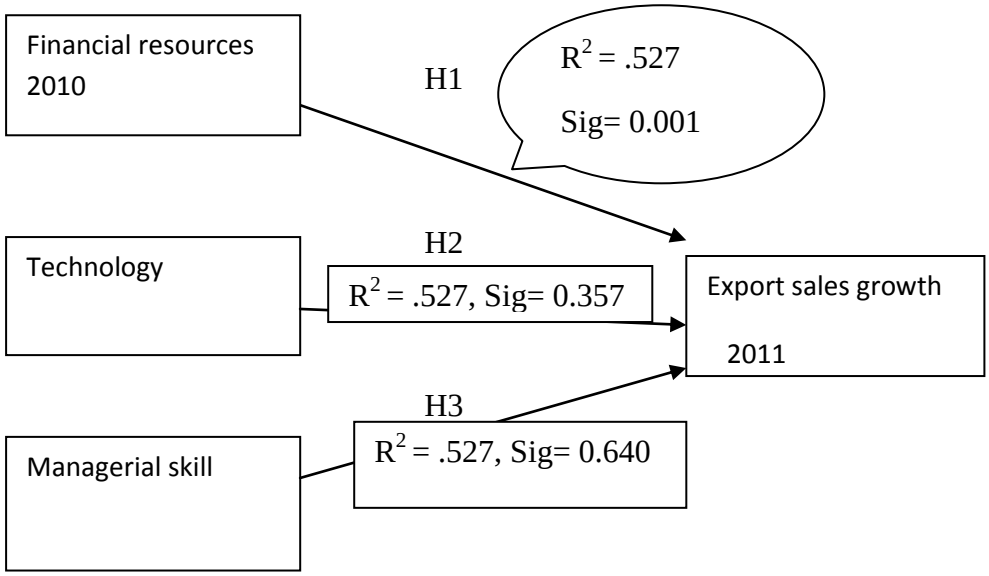
Based on the results, it may be argued that firm's financial measured by financial resources ability, Speed of acquiring and deploying financial resources, size of financial resources (debt + equity) and ability to find additional financial resources when needed resources has a positive impact on export performance. On the other hand, managerial skills measured by manager's age, education level, year of working experience and technology measured by Spreading and cutting of fabrics machine, Swing machine, Embroidery machine, Ironing machine, Labeling machine (with High technology/ CAD_CAM, Medium technology /semi-automated technology, And low technology/ manual technology) have no impact on export performance.

Further, the regression results mentioned (appendix 4) the **R^2 = .375** means 37.5% of the variants in "export performance" can be predicted by Financial resources, Technology and Managerial skill. The adjusted R square is to consider reducing the inflation of the R square when adding the more independent variables into the model. So, adjusted **R^2 = .353** means that 35.3% of the variation of export performance is explained by these three independent. The F value 16.811 and it is highly significant ($p_{=}$.000). It can be said that the regression model is statistically significant this means that the export performance is influenced by Financial resources, Technology and Managerial skill.

The second regression results were generated from the same model, but dependent variable is based on export sales growth. According to the linear regression (appendix 5) the equation is:

$$EXP_{SGROWTH} = \alpha + .108\ TEC + 1.148\ FIN + .056\ MANS + \varepsilon$$

Model 5.1.4 Dependent Variable: sales growth (%) 2011



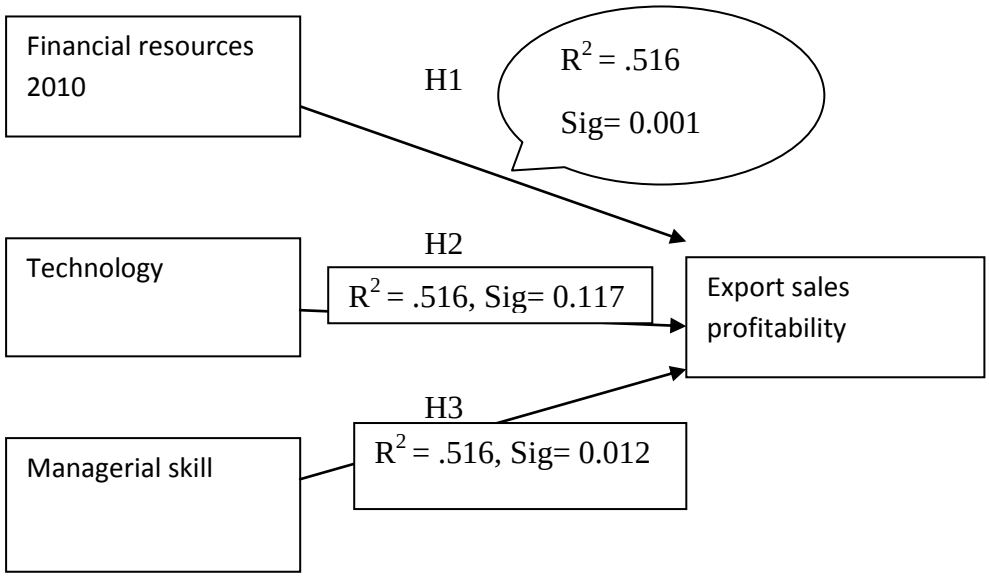
Sources: survey Data (2012), multiple regression analysis- data analysis.

The results of export sales growth as a measure of export performance are almost same with previous results. The technology and managerial skill are still insignificant. Therefore, these results do not support the hypothesis 2 & 3 that technology and managerial skill has no impact on export performance. The firm's financial resource is significant at $p<.01$ and 95% confident level. The variance in this model is 52.7% for R^2 and 51% for adjusted R^2. The F value is 31.235 and it is highly significant (p=0.01) mentioned in appendix 5.

The last regression results were generated using the same model but the measure was based on export sales profitability as a measure of export performance. The linear regression equation is based on β coefficient mentioned in appendix 6:

$$EXP_{SPROFIT} = \alpha + .160\ TEC + .940\ FIN + .275\ MANS + \varepsilon$$

Model 5.1.5 Dependent Variable: sales profitability (%) 2011



Sources: survey Data (2012), multiple regression analysis- data analysis.

In this model, the results bring a different picture that the firm's financial resources and managerial skill both have a significant relationship ($p<0.01$ and $p<0.012$) with the export performance and they reached 95% confidence levels respectively. As we mentioned earlier that managerial skill has no impact on overall export performance. But this result supported that the managerial skill has a positive impact on only export sales profitability. In addition, we can say that, in the context of Bangladesh skilled Managers have a positive impact on profitability of RMG firms. On the other hand, the technology is still insignificant with export performance. This model explained the variance 51.6% for R^2 and 49.8% for adjusted R^2. The F value is 29.795 and it is highly significant ($p=0.01$). The results are indicated in appendix 6.

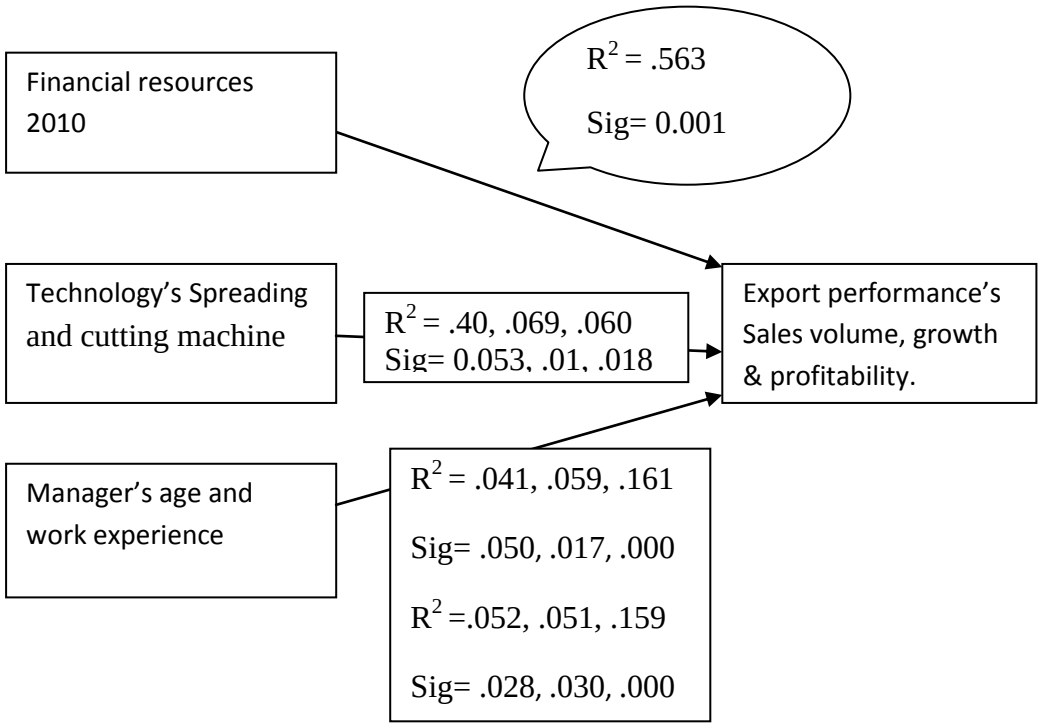
All of four regression results are mixed. The four regression results are consistency on the positive sing between independent variables and dependent variable but sometime significant sometime insignificant. In this four regression analysis, the firm's financial resource has a regularity positive relationship with export performance. That is H1 supported which implies that the strong financial capability the higher the firms export performance. On the other hand, we saw that insignificant relationship between technology and export performance in all regression. In this regard, H2 is not supported. The results of the effect of managerial skill are mixed. In the first analysis and further two investigation with the firm's export sales volume and export sales growth are used as a measure of export performance, managerial skill become insignificant but positive sing. As a result, H3 is not supported. On the other hand, with the firm's profitability is used as a measure of export performance, the managerial skill become significant and positive sing.

Table 5.1.6 analyzed each individual independents item with each export items.

(Appendix 7)

	Export performance		
Financial resources	sales volume	sales growth	sales profitability
Financial resources ability	R^2 = .417 & sig = 0.000	R^2 = .492 & sig = 0.000	R^2 = .446 & sig = 0.000
Size of financial resources (debt + equity)	R^2 = .242 & sig = 0.000	R^2 = .423 & sig = 0.000	R^2 = .419 & sig = 0.000
Speed of acquiring and deploying financial resources	R^2 = .242 & sig = 0.000	R^2 = .315 & sig = 0.000	R^2 = .419 & sig = 0.000
Ability to find additional financial resources when needed	R^2 = .296 & sig = 0.000	R^2 = .405 & sig = 0.000	R^2 = .379 & sig = 0.000
Managerial skill			
CEO/ Manager's age	R^2 = .041 & sig = 0.050	R^2 = .059 & sig = 0.017	R^2 = .161 & sig = 0.000
CEO/Manager's education level	R^2 = .015 & sig = 0.234	R^2 = .025 & sig = 0.128	R^2 = .002 & sig = 0.689
CEO/ Manager's working experience	R^2 = .052 & sig = 0.028	R^2 = .051 & sig = 0.030	R^2 = .159 & sig = 0.000
Technology			
Spreading and cutting of fabrics machine	R^2 = .40 & sig = 0.053	R^2 = .069 & sig = 0.010	R^2 = .060 & sig = 0.018
Sewing machine	R^2 = .005 & sig = 0.497	R^2 = .018 & sig = 0.200	R^2 = .028 & sig = 0.106
Embroidery machine	R^2 = .023 & sig = 0.146	R^2 = .004 & sig = 0.565	R^2 = .006 & sig = 0.450
Ironing machine	R^2 = .000 & sig = 0.924	R^2 = .036 & sig = 0.067	R^2 = .018 & sig = 0.197
Labeling machine	R^2 = .009 & sig = 0.363	R^2 = .007 & sig = 0.412	R^2 = .018 & sig = 0.196
Design technology	R^2 = .010 & sig = 0.334	R^2 = .026 & sig = 0.120	R^2 = .019 & sig = 0.189

Model 5.1.7: the best model where all the independent variables support export performance.



Sources: survey Data (2012), multiple regression analysis- data analysis.

The table 5.1.6 shows, the further more details investigation, where analyzed the each independents items with each dependents items. And from these results I created a best model where all the independents are significantly relationship with export performance.

As I mentioned early, in main regression and OLS method analysis, technology had no impact on export performance. Similarly, managerial skill had no impact on export performance except export profitability. But from further micro regression results, we can see now, one item (Spreading and cutting of fabrics machine) from technology and two (CEO/ Manager's age & CEO/ Manager's working experience) managerial skill have significant relationship with all items of export performance or overall export performance. The R^2 respectively .40, .069, .060 means 40%, 6.9%, 6% of the variants in "export sales volume, growth & profitability" can be predicted by Spreading and cutting of fabrics machine as a measurement

of technology and highly significant with all items of export performance (Sig= 0.053, .01, .018). Likewise, this results mentioned the R2 = .041, .059, .161 for age and R^2 =.052, .051, .159 for work experience, and both the items as a measurement of managerial skill have an impact on export performance.

However, we surprise that the education of manager's has no impact on export performance in the context of Bangladeshi Garments industry. According to my knowledge, the reasons behind:

- First, these firms, they mostly depend on buying house firms to export their products in the international markets. In Bangladesh buying house are vastly active in RMG sectors consecutive expanding in worldwide production and exporting. Approximately 759 buying house/agent firms are working in Bangladesh. The reasons working behind the existence of these buying/trading houses are due to fulfilling the demand of foreign customers and companies to utilize the cheap labor market of Bangladesh. These foreign companies are extremely attracted to Bangladesh market due to cheap labor cost, increasing their profit limit in a high range.

- Second, these buying houses, populated with local people with a good skill on foreign languages and understanding about customers around the world could work as a local branch for these foreign companies/brands to provide them the local support for assuring global quality products.

- Third, though Bangladeshi garments are the 4th largest exporters in international market but they do not create their own brand, therefore, they do not need innovative and educated managers.

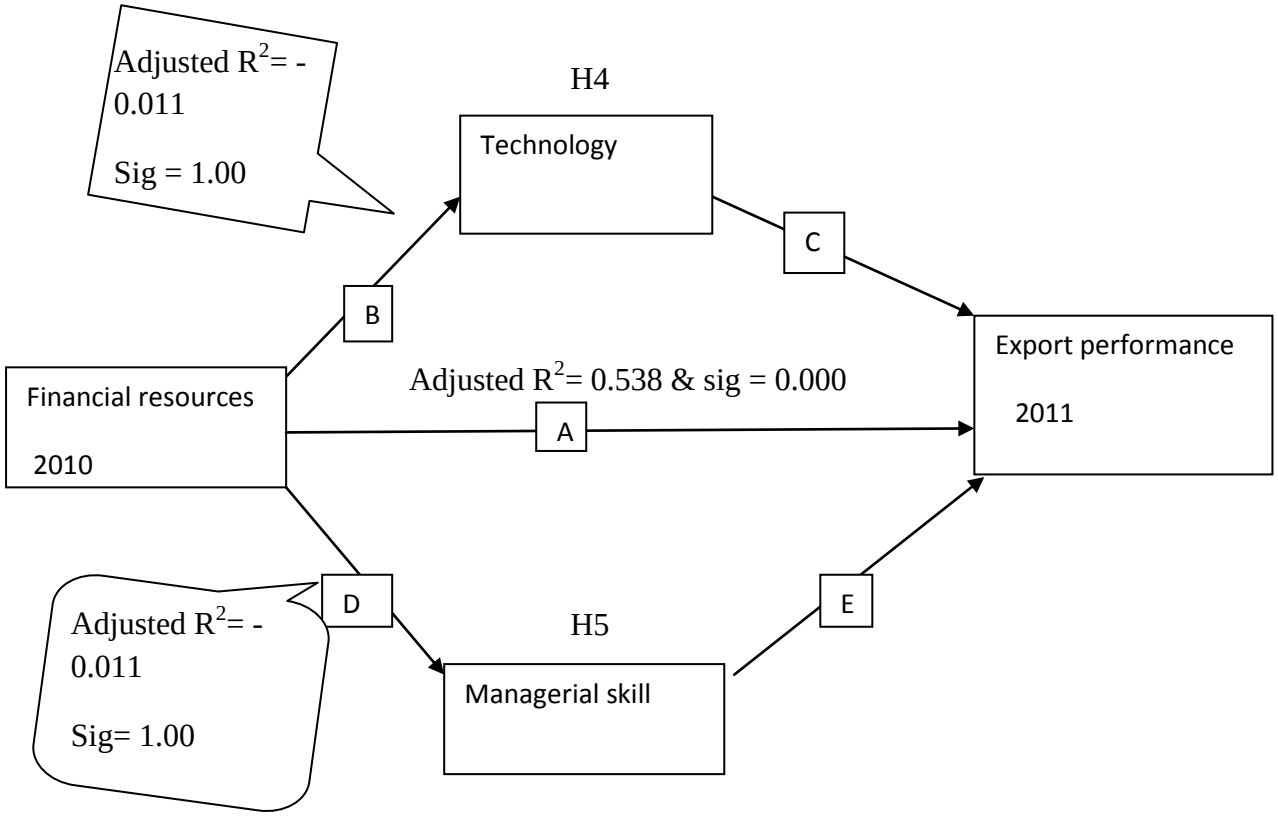
Finally, in all above regression analysis we saw that financial resource has positive impact on export performance. Therefore, we can say, financial resources pay a vital role to develop export performance of RMG firms in the context of Bangladesh. This model explained the variance 56.3% for R^2 and it is highly significant (p=0.01).

5.2: Contains the results of the mediation effect:

In this section, the main objective is to explain the mediation effect by moderator variables between independent variables and dependent variable. Baron and Kenny (1986) established three steps to analyze mediation effect. These are; first, independent variable has to correlate with dependent variable. Second, independent variable has to correlate with moderator variable. Finally, show that the moderator effect the dependent variable. In order to find the mediation effect, the analytical data have to pass the all steps than we can say moderator variable mediates the dependent and independent relationship.

As we mentioned in the methodology part, mediation effect on variables can be estimated statistically as; $\mathbf{Y} = \boldsymbol{\alpha} + \boldsymbol{\beta}_1 \boldsymbol{X}_1 + \boldsymbol{\beta}_2 \boldsymbol{X}_2 + \boldsymbol{\beta}_3 \boldsymbol{X}_1 \boldsymbol{X}_2 + \boldsymbol{\varepsilon}$. In table 5.2.4 below, explained the moderating effect of all variables on the relationship between independent and dependent variables.

Model 5.2.1: Financial resources of the firm and firm's export performance mediate by technology and managerial skill:



Sources: survey Data (2012), multiple regression analysis- data analysis.

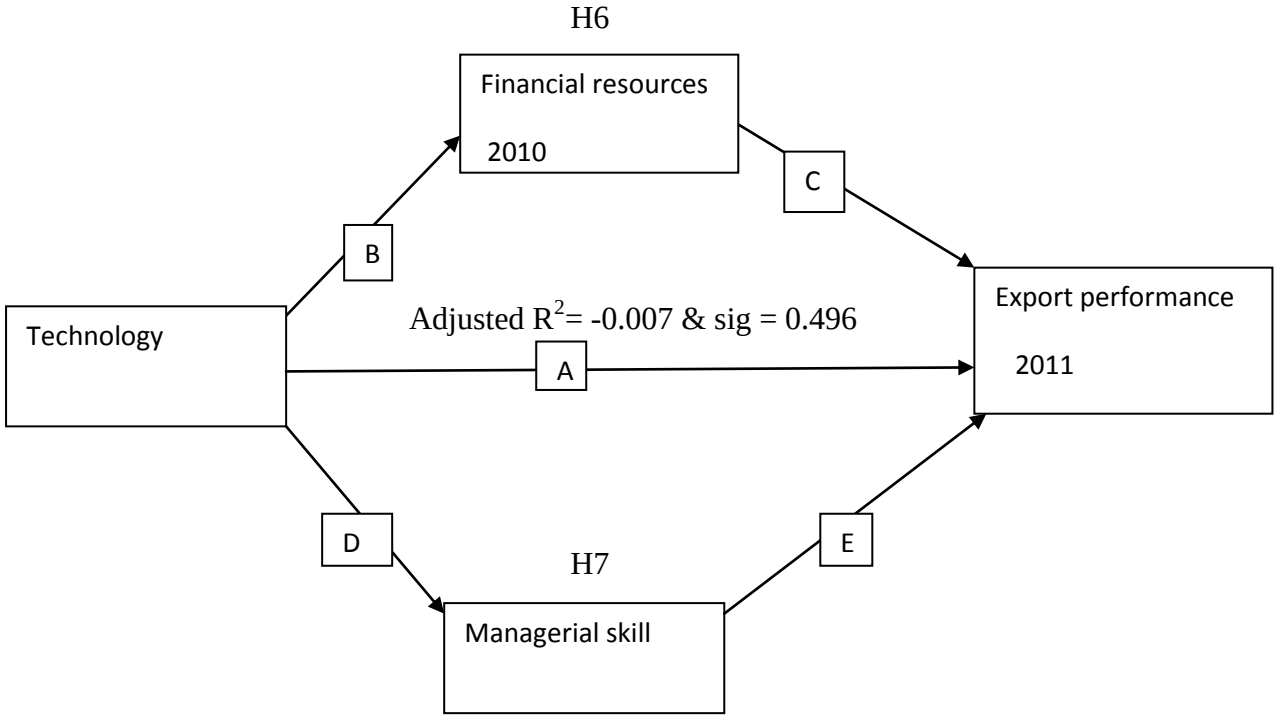
The results from the table 5.2.2, in the model 5.2.1, we can see that path "A" has a significant effect between finance and export performance. On the other hand, in this model 5.2.1, we can see path "B" & "D" have no significant effect between finance and managerial skill and finance and technology. Therefore, according to the "Baron and Kenny" steps theory as this model does not pass step 2. So here is no mediation effect and hypothesis 4 & 5 were rejected.

Table 5.2.2: Testing mediation effect on export performance. (Appendix 8)

variable	Step 1 Coeff. (SE)	Step 2 Coeff. (SE)	Step 3 Coeff. (SE)	Sobel Test Z-Value	Conclusion
IV: Financial resources. M: Managerial skill	β= 0.779 SE= 0.079 Adjusted R^2= 0.538	β= 0.001 SE= 0.105 Adjusted R^2= -0.011	_	_	No mediation effect. Did not pass step 2.
IV: Financial resources. M: Technology	β=1.015 SE=0.142 Adjusted R^2= 0.365	β= 0.001 SE= 0.105 Adjusted R^2= -0.011	_	_	No mediation effect. Did not pass step 2.
IV: Technology M: Financial resources	β= 0.076 SE= 0.111 Adjusted R^2= -0.007	_	_	_	No mediation effect. Did not pass step 1.
IV: Technology M: Managerial skill	β= 0.076 SE= 0.111 Adjusted R^2= -0.007	_	_	_	No mediation effect. Did not pass step 1.
IV: Managerial M: Finance resources	β= 0.095 SE= 0.119 Adjusted R^2= -0.005	_	_	_	No mediation effect. Did not pass step 1.
IV: Managerial M: Technology	β= 0.095 SE= 0.119 Adjusted R^2= -0.005	_	_	_	No mediation effect. Did not pass step 1.

[IV= Independent variable, M: moderator variable, SE= standart error.]

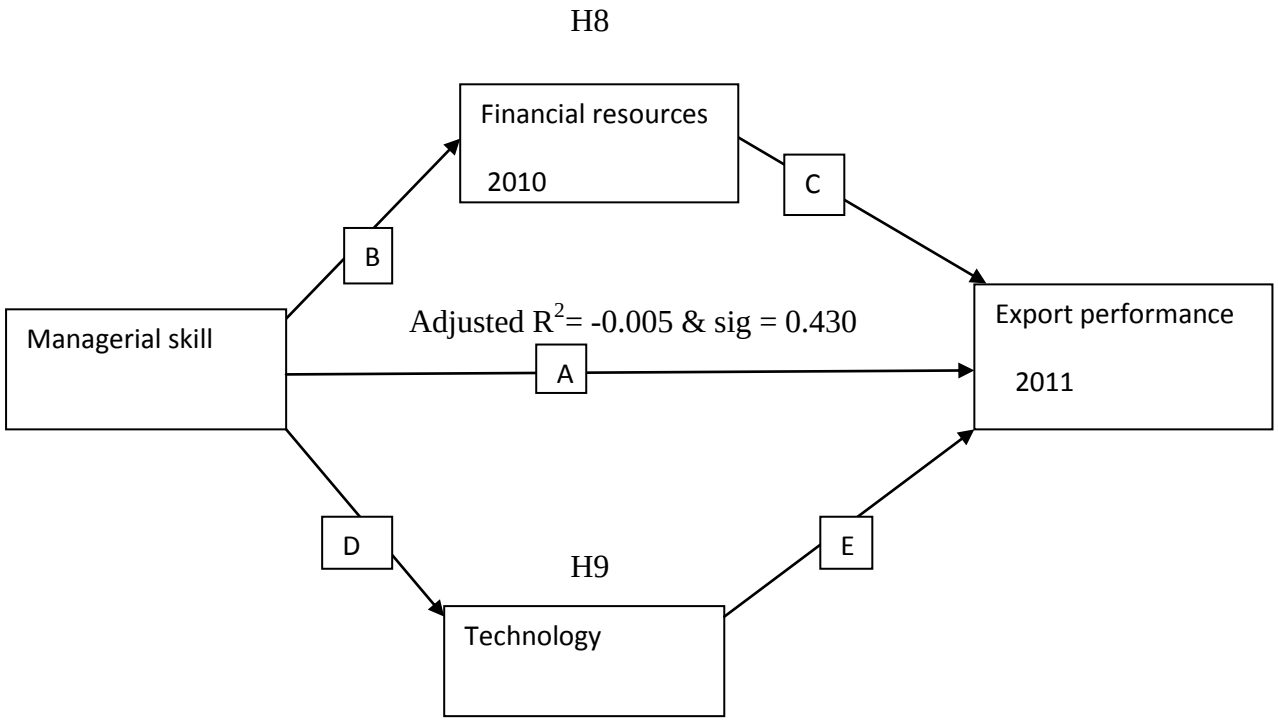
Model 5.2.3: Technology of the firm's and firm's export performance mediate by financial resources and managerial skill:



Sources: survey Data (2012), multiple regression analysis- data analysis.

This model 5.2.3 shows that technology has no significant relationship with export performance (sig = 0.496). In another word, this model cannot pass the step 1, so we do not need to do further regression analysis because the main independent variable (technology) do not support the export performance. For further analysis with managerial skill and financial resources, technology should significantly relate with export performance. Therefore, according to this model, hypothesis 6 & 7 were rejected.

Model 5.2.4: Managerial skill of the firm and firm's export performance mediating effect by financial resources and technology:



The model 5.2.4 also shows the same results as model 5.2.3. In this model we can see that managerial skill has no impact on export performance because their significant level is very high (.430). So, according to the "Baron and Kenny" steps theory, this model does not pass all three steps that mention mediating effect. For that reason, hypothesis 8 & 9 were rejected.

In tables 5.2.5, 5.2.6 and 5.2.7 below, I further investigated the moderating effect by analyzed the relationship with independent variables and each item of dependent variables.

Table 5.2.5: Testing mediation effect on export sales volume (2010) as a measure of export performance. (Appendix 9)

variable	Step 1 Coeff. (SE)	Step 2 Coeff. (SE)	Step 3 Coeff. (SE)	Sobel Test Z-Value	Conclusion
IV: Financial resources. M: Managerial skill	β= 1.015 SE= 0.142 Adjusted R^2= 0.365	β= 0.001 SE= 0.105 Adjusted R^2= -0.011	_	_	No mediation effect. Did not pass step 2.
IV: Financial resources. M: Technology	β=1.015 SE=0.142 Adjusted R^2= 0.365	β= 0.001 SE= 0.105 Adjusted R^2=-0.011	_	_	No mediation effect. Did not pass step 2.
IV: Technology M: Financial resources	β= 0.077 SE= 0.177 Adjusted R^2= -0.009	_	_	_	No mediation effect. Did not pass step 1.
IV: Technology M: Managerial skill	β= 0.077 SE= 0.177 Adjusted R^2= -0.009	_	_	_	No mediation effect. Did not pass step 1.
IV: Managerial M: Finance resources	β= 0.031 SE= 0.180 Adjusted R^2= -0.011	_	_	_	No mediation effect. Did not pass step 1.
IV: Managerial M: Technology	β= 0.031 SE= 0.180 Adjusted R^2= -0.011	_	_	_	No mediation effect. Did not pass step 1.

[IV= Independent variable, M: moderator variable, SE= standart error.]

Table 5.2.6. Testing mediation effect on export sales growth (2010) as a measure of export performance. (Appendix 10)

variable	Step 1 Coeff. (SE)	Step 2 Coeff. (SE)	Step 3 Coeff. (SE)	Sobel Test Z-Value	Conclusion
IV: Financial resources. M: Managerial skill	β= 1.143 SE= 0.118 Adjusted R^2= 0.516	β= 0.001 SE= 0.105 Adjusted R^2= -0.011	_	_	No mediation effect. Did not pass step 2.
IV: Financial resources. M: Technology	β= 1.143 SE= 0.118 Adjusted R^2= 0.516	β=0.001 SE=0.105 Adjusted R^2= -0.011	_	_	No mediation effect. Did not pass step 2.
IV: Technology M: Financial resources	β= 0.100 SE= 0.166 Adjusted R^2= -0.007	_	_	_	No mediation effect. Did not pass step 1.
IV: Technology M: Managerial skill	β= 0.100 SE= 0.166 Adjusted R^2= -0.007	_	_	_	No mediation effect. Did not pass step 1.
IV: Managerial M: Finance resources	β= -0.028 SE= 0.172 Adjusted R^2= -0.011	_	_	_	No mediation effect. Did not pass step 1.
IV: Managerial M: Technology	β= -0.028 SE= 0.172 Adjusted R^2= -0.011	_	_	_	No mediation effect. Did not pass step 1.

[IV= Independent variable, M: moderator variable, SE= standart error.]

Table 5.2.7. Testing mediation effect on export sales profitability (2010) as a measure of export performance. (Appindix 11)

variable	Step 1 Coeff. (SE)	Step 2 Coeff. (SE)	Step 3 Coeff. (SE)	Sobel Test Z-Value	Conclusion
IV: Financial resources. M: Managerial skill	β= 0.941 SE= 0.109 Adjusted R^2= 0.458	β= 0.001 SE= 0.105 Adjusted R^2= -0.011	_	_	No mediation effect. Did not pass step 2.
IV: Financial resources. M: Technology	β= 0.941 SE= 0.109 Adjusted R^2= 0.458	β=0.001 SE=0.105 Adjusted R^2= -0.011	_	_	No mediation effect. Did not pass step 2.
IV: Technology M: Financial resources	β= 0.132 SE= 0.172 Adjusted R^2= -0.002	_	_	_	No mediation effect. Did not pass step 1.
IV: Technology M: Managerial skill	β= 0.132 SE= 0.172 Adjusted R^2= -0.002	_	_	_	No mediation effect. Did not pass step 1.
IV: Managerial M: Finance resources	β= 0.284 SE= 0.143 Adjusted R^2= 0.030	β= 0.001 SE= 0.105 Adjusted R^2= -0.011	_	_	No mediation effect. Did not pass step 2.
IV: Managerial M: Technology	β= 0.284 SE= 0.143 Adjusted R^2= 0.030	β= 0.001 SE= 0.105 Adjusted R^2= -0.011	_	_	No mediation effect. Did not pass step 2.

[IV= Independent variable, M: moderator variable, SE= standart error.]

According to above all tables (5.2.4, 5.2.5, 5.2.6 and 5.2.7) showed that there is no mediation effect. Because, all of the variables unable to pass all three steps, which require for mediation effect. This analyses further exposes that the main model are very good for explaining the export performance by the three independent variables (financial resources, technology & managerial skill) without any mediation effect. This means the model clearly interprets the variation of the export performance from the three independent variables. But there is no moderating effect. However, if there was a significant moderating effect from moderator variables, than the relationship between independent and dependent would be weak.

5.3 Hypothesis testing information:

There were nine hypotheses for this study. In order to test the hypothesis, we should assess the estimated regression coefficient, or beta coefficient because both represent the type of relationship and the impact of relationship between independent and dependent variables in the model. Table 5.3.1 & 5.3.2 summarizes the expected relationship between dependent and independent variables.

5.3.1 Summary of hypotheses and expected relationship between dependent and independent variables.

Hypotheses	Expected Relationship	Measurement			Supported or Not supported
		Export Sales Valume	Export sales growth	Export profitabality	
H1	+	sig	sig	sig	Supported
H2	+	Not sig	Not sig	Not sig	Not supported
H3	+	Not sig	Not sig	Not sig	Not supported

5.3.2 Summary of hypotheses and expected mediation effect between dependent and independent variables.

Hypotheses	Expected Relationship	Measurement	Supported or Not Supported
H4	Moderating effect	No effect	Not Suppordet
H5	Moderating effect	No effect	Not Suppordet
H6	Moderating effect	No effect	Not Suppordet
H7	Moderating effect	No effect	Not Suppordet
H8	Moderating effect	No effect	Not Suppordet
H9	Moderating effect	No effect	Not Suppordet

Chapter six
Discussion, Conclusion and Limitation.

In this chapter, we will present the discussion on the significance of research found in chapter 5. There will be a discussion for each analysis that was measured i.e. financial resources, technology, managerial skill and export performance. This chapter includes with different section such as discussion, conclusion and limitation.

6.1Discussion of findings:

Generally, export performance is commonly used to evaluate the international competitiveness of an industry (Kiyohiko Ito & Vladimir Pucik, 1993). The study has contributed to the analysis of export performance, a field where more research is needed. Based on the resource-base view theory of the firm, this study presents a new approach to develop export performance for RMG firms in Bangladesh. The finding if the study also presents which items from the factors influence the export performance. Discussion of the study findings follows.

There are three main objectives of this study. These are, to examine the impact of financial resources on export performance, to examine the impact of technology on export performance and to examine the impact of managerial skill on export performance. The last objective was to test the mediation effect from moderator variables between independent variables and dependent variable. It is important to note that I did further analysis used OLS method and analyzed the each independent items with each dependent items.

- In keeping with the RBV theory, the outputs of the study investigation indicate that there is a positive impact from financial resources to export performance. This resulted that the study hypothesis (Superiority in financial resources will be positively impact on export performance) was supported in term of resource based-view theory of financial resource. Moreover, the finding of this study was matched with the findings of Neil A. Morgan, Douglas W. Vorhies , Bodo B. Schlegelmilch (2006). The results of the study mentioned that it is obviously in a Bangladesh context that the financial resources will have strong impact to develop export performance of RMG firms. It is

also mentioned that a good amount of investment is needed if organization opts for superior customer service and also to meet operational costs such as market research, transportation cost, employees' salary and for supplier's payment. According to Ling-yee, L., & Ogunmokun, G. O. (2001), they found that financial resources are important to employing adequate support staff for export function and sufficient funds are needed to increase export production.

- On the other hand, the same regression results mention that there is no impact between technology and export performance. Therefore, the base on the results hypothesis 2 (New technology has positive impact on export performance) was rejected. It is quite surprising that technology fail to increase the export of RMG firms in context of Bangladesh. For this reason, I did further analysis based on OLS method but unfortunately results was same. Then, I investigated again each individual independents item with each export items. In third analysis, I found that "Spreading and cutting of fabrics machine" as a measurement of technology has impact on export performance. The question is why the technology has no impact on export performance. There are several reasons behind that I found, in my fieldwork. These are:

    1. The garments industry is the low profile industry according to industrialization cycle.

    2. These RMG industries are not innovative industry and their basic tasks are totally production oriented, since companies are not selling finished product but only offering cut and assembled the cloths, packed and shipped back to the customers. Therefore, they are not so much depending on high technology except "Spreading and cutting of fabrics machine".

    3. In Bangladesh, "Bureau Veritas-European Clothing/Apparel Test Standard" they do the quality control test and K2, Hamkyorex they inspection the production process on the production time on behalf of customers. So, this is another reason that these manufacturing companies don't need any technology to test the quality.

- Similarly, the studies also suggested that the first regression analysis results indicate that there is no impact of managerial skill on export performance. According to the study results, hypothesis 3 (Firm's managerial skill has a positive impact on export performance) was not supported. This result is also go against my prediction, for this reason I did further investigation of each individual independent items with each export items and OLS regression analysis. However, the further investigation results were mixed. According to OLS method analysis, I found that the managerial skill has a positive impact on only export sales profitability. On the other hand, in details analysis I found CEO/ Manager's age and CEO/ Manager's working experience as a measurement of managerial skill has a positive impact on overall export performance. Now question is why three regression analyses provided three types of results.

    1. First, maybe the measurement of managerial skill was wrong, because I measured this variable based on only objective managerial characteristics rather than subjective characteristics.
    2. Second, this was a particularly appropriate measure for developed countries firms, where all the items were international sales based on resource-based view theory. **Therefore, this** measure particularly CEO's education is not important in context of Bangladeshi RMG firms. Only for this measure (CEO's education), the managerial skill did not support export performance. Now question is why CEO's/Managers education is not important for Bangladeshi RMG firms. The reasons behind:

        - First, these firms, they mostly depend on buying house firms to export their products in the international markets. These buying houses, populated with local people with a good skill on foreign languages and understanding about customers around the world could work as a local branch for these foreign companies/brands to provide them the local support for assuring global quality product.

        - Second, Though Bangladeshi garments are the 4th largest exporters in international market but they do not interest to create their own brand, therefore, they do not need innovative and educated managers.

3. Third, as I found in third regression analysis that CEO/ Manager's age and CEO/ Manager's working experience as a measurement of managerial skill has a positive impact on overall export performance except CEO/Manager's education level. So, we can say that manager's or CEO's age and experience are important to develop the export in context of Bangladeshi RMG firms. The reasons behind:
    - The business environment of Bangladesh is not clean like developed countries. There are many barriers that hamper the export activity, such as inefficient and corrupt port and direct involvement of powerful local politician ETC. Therefore, RMG firms needed old age managers or CEOs who has work experience to deal with this kind of problems.

    - These companies are enormous labor oriented where most of the workers are uneducated. So, in this situation these RMG firms need experience managers rather than educated managers to deal with them.

- Finally, the analyses were regarding the mediation effect. I examined mediation effect by moderating variables with the three factors (financial resources, technology and managerial skill) and export performance. However, the findings of the all regressions results were negative. There was no significant moderating effect between independent and dependent variables. Therefore, hypotheses 4, 5, 6,7,8,9 are rejected. The reason for this is that the moderating variables were the same independent variable and as we know from factor analysis none of variable has correlation with each other.

6.2 Conclusion:

Increasing export is one of the major macroeconomic objectives for both develop and developing countries. Because increasing export earning is the key element to generate wealth for any countries and also it's improve the balance of payment for that country. However, the challenging purpose was "which factors impact to increase the export performance of RMG firms in Bangladesh?" In answering this question this study found the factors that have an impact on export performance based on empirical findings of Bangladesh Readymade Garments Industry. The results were mixed from the estimated main model 5.1.2 and the estimated model (5.1.3, 5.1.4, 5.1.5) using three different measures of export performance such as export sales volume, export sales growth and export profitability and from third details analysis. This study also provides the best model to improve export performance, where all the factors have significant relationship with export performance.

About mediation effect, this provided surprised results by rejecting maximum hypothesis (H4, H5, H6, H7, H8, & H9). In another word, between financial resources, technology managerial skill and export performance have no mediation effect.

6.3Limitation and Further Research:

A research study like this cannot go without any limitation. So, this study has also some limitations that I explained below suggestions.

- First, this study was conducted in the specific context of export performance of readymade garments firms in Bangladesh. Strictly, this present findings are limited for Bangladeshi garments industry to the operations of export activities.

- Second, though this study did not found most of the significant impact on export performance, therefore, I do suggest further investigation to use more sample size. With respect to export performance, I do suggest to take more or different measurements from subjective and objective characteristic of export performance for further studies.

- Third, this research only focus on financial resources, technology and managerial skill to determine the export performance, I do suggest to take more and different variables such as firm's size, age, lead-time, market oriented policy etc.

- Fourth, It has been found by factor analysis is that three measurements of items were uncorrelated with three independent factors. Therefore, I removed those items.

- Fifth, in this study, may be some of respondents provide wrong information.

- Finally, as we saw this study reject all mediation hypotheses, so, I do suggest taking different moderating variables to identify the mediation effect.

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Appendix1: survey-questionnaire

Size:

1. How many employees of your firm? _____

2. Following statements relates to performance measurement. Please rank to the extent on which is low or high. (1-low, 7- High).

statements	Low……million in dollar……High
Your annual export sales volume 2010	Less 1 1-3 3-5 5- 6 6 -7 7- 8 more than 9
2011	Less 1 1-3 3-5 5-6 6 -7 7- 8 more than 9
Your annual export sales growth (%) 2010	0-10% 10-20 20-30 30-40 40-50 50-60 60-70%
2011	0-10% 10-20 20-30 30-40 40-50 50-60 60-70%
Your annual export sales profitability (return on investment) (%) 2010	0-10% 10-20 20-30 30-40 40-50 50-60 60-70%
2011	0-10% 10-20 20-30 30-40 40-50 50-60 60-70%

Financial sources

3. Please evaluate how each of the factors below supports your efforts towards exportation. Your evaluation is being based on the ratings 2010 info given below.

Statements	weak ……strong
Financial resources ability	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Speed of acquiring and deploying financial resources	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Size of financial resources (debt + equity)	1☐ 2 ☐ 3☐ 4 ☐ 5☐ 6 ☐ 7 ☐
Ability to find additional financial resources when needed	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Ability to meet competitive prices to supplier	1 ☐ 2 ☐ 3 4 ☐ 5 ☐ 6 ☐ 7 ☐

Managerial skill

4. Please indicate the age of the firm's CEO/ Manager? _____

5. Please indicate the level of education of the firm's CEO/Manager from the following categories?
   A. High school
   B. Bachelor
   C. Graduate
   D. post graduate

6. How many years he/she has been working as a CEO/ Managerial post? _____

7. Number of Years of international experience? _____

Technology:

8. What is your age of machineries?
   a. Five years old machineries
   b. more than five years old machineries
   c. New CAD/CAM machineries

9. What is your Spreading and cutting of fabrics machine?
   A. High technology/ CAD_CAM
   B. Medium technology /semi- automated technology.
   C. And low technology/ manual technology.

10. What is your Sewing machine?
   A. High technology/ CAD_CAM
   B. Medium technology /semi- automated technology.
   C. And low technology/ manual technology.

11. What is your Embroidery machine?
   A. High technology/ CAD_CAM
   B. Medium technology /semi- automated technology.
   C. And low technology/ manual technology.

12. What is your Ironing machine?

   A. High technology/ CAD_CAM
   B. Medium technology /semi- automated technology.
   C. And low technology/ manual technology.

13 What is your Labeling machine?
   A. High technology/ CAD_CAM
   B. Medium technology /semi- automated technology.
   C. And low technology/ manual technology.

14. **what is your Design technology**-

   A. High technology/ CAD_CAM
   B. Medium technology /semi- automated technology.
   C. And low technology/ manual technology.

Appendix 2:

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,850	,859	3

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,919	,920	4

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,680	,080	3

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,868	,873	6

Sources: survey Data (2012),

Appendix 3:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,750[a]	,563	,546	,68972088

a. Predictors: (Constant), Managerial skill, Finance, Technology

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	48,387	3	16,129	33,905	,000[a]
	Residual	37,581	79	,476		
	Total	85,969	82			

a. Predictors: (Constant), Managerial skill, Finance, Technology

b. Dependent Variable: export performance

Sources: survey Data (2012),

Appendix 4:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,351	,142		30,595	,000
	Technology	,071	,142	,043	,504	,616
	Finance	1,016	,144	,611	7,077	,000
	Managerial skill	,061	,144	,036	,422	,674

R	R Square	Adjusted R square	Std. error of the estimate	F value	Sig (probability)
.613 (a)	.375	.353	1.333	16.811	.000***

[Note: a Predictors: (constant), p*** < 0.000]

Sources: survey Data (2012),

Appendix 5:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,598	,116		30,990	,000
	Technology	,108	,116	,070	,927	,357
	Finance	1,148	,119	,725	9,640	,000
	Managerial skill	,056	,120	,035	,469	,640

a. Dependent Variable: sales growth (%) 2010

Sources: survey Data (2012),

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	110,681	3	36,894	31,235	,000[a]
	Residual	99,217	84	1,181		
	Total	209,898	87			

a. Predictors: (Constant), Managerial skill, Technology, Finance

b. Dependent Variable: sales growth (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,726[a]	,527	,510	1,087

a. Predictors: (Constant), Managerial skill, Technology, Finance

Appendix 6:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,718[a]	,516	,498	,956

a. Predictors: (Constant), Managerial skill, Finance, Technology

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	81,682	3	27,227	29,795	,000[a]
	Residual	76,762	84	,914		
	Total	158,443	87			

a. Predictors: (Constant), Managerial skill, Finance, Technology

b. Dependent Variable: sales profitibility (%) 2010

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,226	,102		31,565	,000
	Technology	,160	,101	,120	1,583	,117
	Finance	,940	,105	,681	8,961	,000
	Managerial skill	,275	,107	,196	2,576	,012

a. Dependent Variable: sales profitibility (%) 2010

Sources: survey Data (2012),

Appendix 7:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,646[a]	,417	,411	1,265

a. Predictors: (Constant), financial resources ability

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,512	,365		4,144	,000
	financial resources ability	,650	,080	,646	8,117	,000

a. Dependent Variable: sales Volume 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,495[a]	,245	,237	1,441

a. Predictors: (Constant), speed of acquiring and deploying finance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,156	,416		5,181	,000
	speed of acquiring and deploying finance	,576	,105	,495	5,496	,000

a. Dependent Variable: sales Volume 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,472[a]	,223	,214	1,462

a. Predictors: (Constant), Size of financial resources (debt + equity)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,024	,465		4,354	,000
	Size of financial resources (debt + equity)	,529	,102	,472	5,163	,000

a. Dependent Variable: sales Volume 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,544[a]	,296	,288	1,398

a. Predictors: (Constant), Ability to find additional financial resources when needed

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,979	,398		4,970	,000
	Ability to find additional financial resources when needed	,682	,110	,544	6,216	,000

a. Dependent Variable: sales Volume 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,202[a]	,041	,030	1,624

a. Predictors: (Constant), age of CEOs/Manager

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,606	,866		3,007	,003
	age of CEOs/Manager	,036	,018	,202	1,986	,050

a. Dependent Variable: sales Volume 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,123[a]	,015	,005	1,646

a. Predictors: (Constant), education of CEOs/manager

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,687	,535		6,892	,000
	education of CEOs/manager	,261	,218	,123	1,197	,234

a. Dependent Variable: sales Volume 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,229[a]	,052	,042	1,634

a. Predictors: (Constant), experience CEOs/ Managerial

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,478	,408		8,519	,000
	experience CEOs/ Managerial	,044	,020	,229	2,227	,028

a. Dependent Variable: sales Volume 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,200[a]	,040	,030	1,632

a. Predictors: (Constant), Spreading and cutting of fabrics machine

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,662	,846		3,145	,002
	Spreading and cutting of fabrics machine	,637	,325	,200	1,960	,053

a. Dependent Variable: sales Volume 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,070[a]	,005	-,006	1,654

a. Predictors: (Constant), Sewing machine

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,672	,930		3,949	,000
	Sewing machine	,234	,343	,070	,681	,497

a. Dependent Variable: sales Volume 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,151[a]	,023	,012	1,612

a. Predictors: (Constant), Embroidery machine

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,539	,564		6,271	,000
	Embroidery machine	,372	,253	,151	1,467	,146

a. Dependent Variable: sales Volume 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,010[a]	,000	-,011	1,658

a. Predictors: (Constant), Ironing machine

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,353	,629		6,916	,000
	Ironing machine	-,029	,298	-,010	-,096	,924

a. Dependent Variable: sales Volume 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,094[a]	,009	-,002	1,651

a. Predictors: (Constant), Labeling machine

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,674	,700		5,247	,000
	Labeling machine	,246	,269	,094	,914	,363

a. Dependent Variable: sales Volume 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,100[a]	,010	-,001	1,650

a. Predictors: (Constant), Design technology

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,711	,624		5,944	,000
	Design technology	,255	,263	,100	,971	,334

a. Dependent Variable: sales Volume 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,702[a]	,492	,487	1,090

a. Predictors: (Constant), financial resources ability

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,707	,318		2,221	,029
	financial resources ability	,663	,070	,702	9,445	,000

a. Dependent Variable: sales growth (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,650[a]	,423	,417	1,157

a. Predictors: (Constant), speed of acquiring and deploying finance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,902	,339		2,657	,009
	speed of acquiring and deploying finance	,708	,086	,650	8,253	,000

a. Dependent Variable: sales growth (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,561[a]	,315	,308	1,260

a. Predictors: (Constant), Size of financial resources (debt + equity)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,012	,406		2,496	,014
	Size of financial resources (debt + equity)	,587	,090	,561	6,540	,000

a. Dependent Variable: sales growth (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,636[a]	,405	,399	1,180

a. Predictors: (Constant), Ability to find additional financial resources when needed

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,021	,340		3,005	,003
	Ability to find additional financial resources when needed	,749	,095	,636	7,914	,000

a. Dependent Variable: sales growth (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,243[a]	,059	,049	1,477

a. Predictors: (Constant), age of CEOs/Manager

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,619	,803		2,017	,047
	age of CEOs/Manager	,040	,017	,243	2,420	,017

a. Dependent Variable: sales growth (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,157[a]	,025	,014	1,504

a. Predictors: (Constant), education of CEOs/manager

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,800	,497		5,629	,000
	education of CEOs/manager	,311	,202	,157	1,535	,128

a. Dependent Variable: sales growth (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,226[a]	,051	,041	1,499

a. Predictors: (Constant), experience CEOs/ Managerial

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,750	,379		7,249	,000
	experience CEOs/ Managerial	,041	,019	,226	2,201	,030

a. Dependent Variable: sales growth (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,263[a]	,069	,059	1,469

a. Predictors: (Constant), Spreading and cutting of fabrics machine

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,578	,767		2,058	,042
	Spreading and cutting of fabrics machine	,766	,293	,263	2,614	,010

a. Dependent Variable: sales growth (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,133[a]	,018	,007	1,509

a. Predictors: (Constant), Sewing machine

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,438	,858		2,842	,006
	Sewing machine	,407	,316	,133	1,290	,200

a. Dependent Variable: sales growth (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,060[a]	,004	-,007	1,527

a. Predictors: (Constant), Embroidery machine

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,237	,535		6,054	,000
	Embroidery machine	,139	,240	,060	,578	,565

a. Dependent Variable: sales growth (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,189[a]	,036	,025	1,495

a. Predictors: (Constant), Ironing machine

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,513	,568		4,426	,000
	Ironing machine	,499	,269	,189	1,855	,067

a. Dependent Variable: sales growth (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,085[a]	,007	-,003	1,517

a. Predictors: (Constant), Labeling machine

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,011	,644		4,679	,000
	Labeling machine	,204	,247	,085	,825	,412

a. Dependent Variable: sales growth (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,161[a]	,026	,015	1,503

a. Predictors: (Constant), Design technology

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,667	,569		4,689	,000
	Design technology	,376	,240	,161	1,569	,120

a. Dependent Variable: sales growth (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,667[a]	,446	,440	,990

a. Predictors: (Constant), financial resources ability

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,853	,287		2,972	,004
	financial resources ability	,543	,063	,667	8,598	,000

a. Dependent Variable: sales profitability (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,647[a]	,419	,412	1,014

a. Predictors: (Constant), speed of acquiring and deploying finance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,909	,296		3,074	,003
	speed of acquiring and deploying finance	,606	,074	,647	8,141	,000

a. Dependent Variable: sales profitability (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,602[a]	,362	,355	1,062

a. Predictors: (Constant), Size of financial resources (debt + equity)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,848	,338		2,509	,014
	Size of financial resources (debt + equity)	,538	,074	,602	7,229	,000

a. Dependent Variable: sales profitability (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,616[a]	,379	,372	1,053

a. Predictors: (Constant), Ability to find additional financial resources when needed

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,990	,311		3,184	,002
	Ability to find additional financial resources when needed	,641	,086	,616	7,457	,000

a. Dependent Variable: sales profitability (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,402[a]	,161	,152	1,218

a. Predictors: (Constant), age of CEOs/Manager

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,439	,659		,666	,507
	age of CEOs/Manager	,058	,014	,402	4,206	,000

a. Dependent Variable: sales profitability (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,042[a]	,002	-,009	1,328

a. Predictors: (Constant), education of CEOs/manager

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,327	,440		7,562	,000
	education of CEOs/manager	-,072	,179	-,042	-,401	,689

a. Dependent Variable: sales profitability (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,399[a]	,159	,150	1,234

a. Predictors: (Constant), experience CEOs/ Managerial

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,993	,309		6,454	,000
	experience CEOs/ Managerial	,063	,015	,399	4,102	,000

a. Dependent Variable: sales profitability (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,244[a]	,060	,049	1,291

a. Predictors: (Constant), Spreading and cutting of fabrics machine

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,610	,664		2,426	,017
	Spreading and cutting of fabrics machine	,618	,257	,244	2,404	,018

a. Dependent Variable: sales profitability (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,168[a]	,028	,018	1,311

a. Predictors: (Constant), Sewing machine

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,999	,723		2,765	,007
	Sewing machine	,440	,269	,168	1,634	,106

a. Dependent Variable: sales profitability (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,079[a]	,006	-,005	1,327

a. Predictors: (Constant), Embroidery machine

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,832	,469		6,040	,000
	Embroidery machine	,161	,213	,079	,759	,450

a. Dependent Variable: sales profitability (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,134[a]	,018	,007	1,317

a. Predictors: (Constant), Ironing machine

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,547	,490		5,196	,000
	Ironing machine	,303	,233	,134	1,300	,197

a. Dependent Variable: sales profitability (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,134[a]	,018	,007	1,317

a. Predictors: (Constant), Labeling machine

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,460	,555		4,434	,000
	Labeling machine	,280	,215	,134	1,302	,196

a. Dependent Variable: sales profitibility (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,137[a]	,019	,008	1,317

a. Predictors: (Constant), Design technology

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,523	,500		5,045	,000
	Design technology	,280	,211	,137	1,323	,189

a. Dependent Variable: sales profitability (%) 2010

Appendix 8:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,737[a]	,543	,538	,69614294

a. Predictors: (Constant), Finance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,073	,077		,954	,343
	Finance	,779	,079	,737	9,818	,000

a. Dependent Variable: export performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,000[a]	,000	-,011	1,00547949

a. Predictors: (Constant), Finance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,984E-16	,104		,000	1,000
	Finance	,000	,105	,000	,000	1,000

a. Dependent Variable: Managerial skill

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,000[a]	,000	-,011	1,00547949

a. Predictors: (Constant), Finance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5,014E-17	,104		,000	1,000
	Finance	,000	,105	,000	,000	1,000

a. Dependent Variable: Technology

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,076[a]	,006	-,007	1,02724809

a. Predictors: (Constant), Technology

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,013	,113		,116	,908
	Technology	,076	,111	,076	,684	,496

a. Dependent Variable: export performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,088[a]	,008	-,005	1,02624075

a. Predictors: (Constant), Managerial skill

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,018	,113		,163	,871
	Managerial skill	,095	,119	,088	,793	,430

a. Dependent Variable: export performance

Appendix 9:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,610[a]	,372	,365	1,320

a. Predictors: (Constant), Finance

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	88,816	1	88,816	50,956	,000[a]
	Residual	149,899	86	1,743		
	Total	238,716	87			

a. Predictors: (Constant), Finance

b. Dependent Variable: seles Volume 2010

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,350	,141		30,881	,000
	Finance	1,015	,142	,610	7,138	,000

a. Dependent Variable: seles Volume 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,000[a]	,000	-,011	1,00547949

a. Predictors: (Constant), Finance

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,000	1	,000	,000	1,000[a]
	Residual	92,000	91	1,011		
	Total	92,000	92			

a. Predictors: (Constant), Finance

b. Dependent Variable: Managerial skill

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,984E-16	,104		,000	1,000
	Finance	,000	,105	,000	,000	1,000

a. Dependent Variable: Managerial skill

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,000[a]	,000	-,011	1,00547949

a. Predictors: (Constant), Finance

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,000	1	,000	,000	1,000[a]
	Residual	92,000	91	1,011		
	Total	92,000	92			

a. Predictors: (Constant), Finance

b. Dependent Variable: Technology

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5,014E-17	,104		,000	1,000
	Finance	,000	,105	,000	,000	1,000

a. Dependent Variable: Technology

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,047[a]	,002	-,009	1,664

a. Predictors: (Constant), Technology

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,522	1	,522	,189	,665[a]
	Residual	238,194	86	2,770		
	Total	238,716	87			

a. Predictors: (Constant), Technology

b. Dependent Variable: seles Volume 2010

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,306	,177		24,273	,000
	Technology	,077	,177	,047	,434	,665

a. Dependent Variable: seles Volume 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,018[a]	,000	-,011	1,666

a. Predictors: (Constant), Managerial skill

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,080	1	,080	,029	,865[a]
	Residual	238,636	86	2,775		
	Total	238,716	87			

a. Predictors: (Constant), Managerial skill

b. Dependent Variable: seles Volume 2010

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,307	,178		24,252	,000
	Managerial skill	,031	,180	,018	,170	,865

a. Dependent Variable: seles Volume 2010

Appendix 10:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,722[a]	,521	,516	1,081

a. Predictors: (Constant), Finance

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	109,456	1	109,456	93,718	,000[a]
	Residual	100,442	86	1,168		
	Total	209,898	87			

a. Predictors: (Constant), Finance

b. Dependent Variable: sales growth (%) 2010

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,598	,115		31,183	,000
	Finance	1,143	,118	,722	9,681	,000

a. Dependent Variable: sales growth (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,000[a]	,000	-,011	1,00547949

a. Predictors: (Constant), Finance

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,000	1	,000	,000	1,000[a]
	Residual	92,000	91	1,011		
	Total	92,000	92			

a. Predictors: (Constant), Finance

b. Dependent Variable: Managerial skill

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,984E-16	,104		,000	1,000
	Finance	,000	,105	,000	,000	1,000

a. Dependent Variable: Managerial skill

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,065[a]	,004	-,007	1,559

a. Predictors: (Constant), Technology

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,882	1	,882	,363	,549[a]
	Residual	209,016	86	2,430		
	Total	209,898	87			

a. Predictors: (Constant), Technology

b. Dependent Variable: sales growth (%) 2010

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,532	,166		21,253	,000
	Technology	,100	,166	,065	,602	,549

a. Dependent Variable: sales growth (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,018[a]	,000	-,011	1,562

a. Predictors: (Constant), Managerial skill

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,066	1	,066	,027	,869[a]
	Residual	209,831	86	2,440		
	Total	209,898	87			

a. Predictors: (Constant), Managerial skill

b. Dependent Variable: sales growth (%) 2011

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,533	,167		21,214	,000
	Managerial skill	-,028	,172	-,018	-,165	,869

a. Dependent Variable: sales growth (%) 2010

Appendix 11

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,682[a]	,464	,458	,993

a. Predictors: (Constant), Finance

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	73,589	1	73,589	74,583	,000[a]
	Residual	84,854	86	,987		
	Total	158,443	87			

a. Predictors: (Constant), Finance

b. Dependent Variable: sales profitability (%) 2010

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,206	,106		30,255	,000
	Finance	,941	,109	,682	8,636	,000

a. Dependent Variable: sales profitibility (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,000[a]	,000	-,011	1,00547949

a. Predictors: (Constant), Finance

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,000	1	,000	,000	1,000[a]
	Residual	92,000	91	1,011		
	Total	92,000	92			

a. Predictors: (Constant), Finance

b. Dependent Variable: Managerial skill

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,984E-16	,104		,000	1,000
	Finance	,000	,105	,000	,000	1,000

a. Dependent Variable: Managerial skill

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,100[a]	,010	-,002	1,351

a. Predictors: (Constant), Technology

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,576	1	1,576	,864	,355[a]
	Residual	156,867	86	1,824		
	Total	158,443	87			

a. Predictors: (Constant), Technology

b. Dependent Variable: sales profitability (%) 2010

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,175	,144		22,040	,000
	Technology	,132	,143	,100	,930	,355

a. Dependent Variable: sales profitability (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,202[a]	,041	,030	1,329

a. Predictors: (Constant), Managerial skill

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6,480	1	6,480	3,667	,059[a]
	Residual	151,963	86	1,767		
	Total	158,443	87			

a. Predictors: (Constant), Managerial skill

b. Dependent Variable: sales profitibility (%) 2010

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,185	,142		22,445	,000
	Managerial skill	,284	,149	,202	1,915	,059

a. Dependent Variable: sales profitibility (%) 2010

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,000[a]	,000	-,011	1,00547949

a. Predictors: (Constant), Managerial skill

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,000	1	,000	,000	1,000[a]
	Residual	92,000	91	1,011		
	Total	92,000	92			

a. Predictors: (Constant), Managerial skill

b. Dependent Variable: Finance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-8,357E-17	,104		,000	1,000
	Managerial skill	,000	,105	,000	,000	1,000

a. Dependent Variable: Finance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,000[a]	,000	-,011	1,00547949

a. Predictors: (Constant), Managerial skill

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,000	1	,000	,000	1,000[a]
	Residual	92,000	91	1,011		
	Total	92,000	92			

a. Predictors: (Constant), Managerial skill

b. Dependent Variable: Technology

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5,014E-17	,104		,000	1,000
	Managerial skill	,000	,105	,000	,000	1,000

a. Dependent Variable: Technology