THE EXPORT PERFORMANCE OF MYANMAR GARMENT INDUSTRY

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Abstract

This research intends to analyze firm, managerial and environmental factors affecting the garment industry and to explore the impact of these factors on the firm's export performance. The descriptive and exploratory research methods are used. The results show that firm size, firm technology, export marketing strategy, management commitment, management attitude and perceptions and international experience, insufficient electricity, port difficulties, bureaucratic requirements, financial assistance and technical assistance had substantial impact on the firm export performance. This study makes important theoretical contributions to export performance, suggesting that the resource-based view incorporating some environmental characteristics is a valid framework within which to study the export performance of garment industry in Myanmar. The garment manufacturers should attempt to expand firm size and adopt advanced manufacturing technology, apply better export marketing strategies under the proper management systems with the technical assistance from the Myanmar Garment Manufacturer Association and finance assistance from the government. With regard to the export barriers, the garment manufacturers should reassign the resources of the firm in order to overcome the barriers such as insufficient electricity and port difficulties.

Keywords: Export performance, firm, management, export assistance, export barrier

Introduction

Export is one of the driving forces for economic development in many emerging economies. Export provides a way to assist a nation to improve its balance of payment, trade deficit, employment rate and overall standard of living. Usually by producing manufactured goods for export, the industrial development follows certain recognizable phases from a primitive agricultural subsistence economy to a sophisticated one. Depending on the extent of its respective industrial development, a country may be classified as a "developing country" or "developed country". Industrialization is an indispensable element of a country's general socioeconomic growth and

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development. For developing countries, it is widely recognized that industrial development is imperative to reduce poverty and to attain sustainable economic growth. Although industrialization is of vital importance for economic growth, there is no consensus on how to develop industries and where to start.

A list of literature argues that developing countries should concentrate on promoting labour intensive industries and exports first due to their low capital stock and relatively abundant labour force. Therefore many developing countries are attempting to follow this path. However, the interesting observation is that not all developing countries are reaping the benefits of promoting labour intensive industries in terms of employment generation and sustaining economic growth (Khondoker and Kalirajan, 2009).

Generally, developed countries can produce new products in the market because of their supremacy in scientific innovation and research according to Vernon's product life cycle theory. Once the technology becomes standardized for the newly introduced product, the production base gradually shifts to other countries mainly to slice down the production and marketing costs. The garment industry is the typical industry that has been relocating from the developed to developing countries in the way that the product life cycle theory predicts. There are some countries that supports the Vernon's product life cycle theory. Historically, a number of the presently developed countries, for example, UK, USA and Japan started their industrialization process first through the development of garment industry. In the 1950s, the garment industry developed in Japan, and in the 1960s the country became the largest exporter of garment in the USA. In the 1970s, the garment industry gradually developed in the East Asian countries, and by the end of the decade, Hong Kong, Korea, Taiwan and Singapore, presently known as the newly industrialized countries (NICs), emerged as prominent global garment exporters.

Finally, since the 1980s, the industry has been gradually developing in other Asian and Latin American countries and presently some developing countries such as, China, India, Bangladesh and Vietnam have emerged as the major garment exporters. Therefore, historically the garment industry has been migrating from the high-income counties to low-income countries, while playing a critical role on the early stage of industrial development process in

the host economies. Observing its critical role on the industrial development process, the garment industry is referred as the typical starter industry (Gereffi, 1999). It is learned that rapid growth is generated in a limited number of economic activities such as textiles or garments or food products.

Since garment industry employs a huge number of labors, labor cost is prime factor for competitiveness. However, the lower labor cost alone could not be adequate to achieve the growth of the garment industry. A variety of factors also play an important role in their growth. Labor productivity is one of the important factors that depends on level of investment in training. Another factor is labor relation since every employer and potential investor in garment sector desires for loyalty and obedience worker while worrying about any kinds of demonstration, labor strike and riot that results from poor employee relation.

Kudo (2010) pointed the cost of logistics as playing an important role in international competitiveness of garment industry. Since competitiveness of garment industry rests upon speed of response to international fashion trend and the cost and time taken to transport from client countries to operating countries and from operating countries to international market, the lower logistics cost inevitably leads to higher competitive advantage. Lower logistics cost and time depends on the length of travel, the seaport and port facilities, the license requirement and efficiency of license processing and custom clearing at the port and finally the frequency and size of vessels enter into the port (Tewari, M., 2006).

In addition to above factors, the policy and strategy adopted by the government are prime interest for potential investor in garment sector. The investors are very much concerned with government measures to attract foreign investment and to encourage exports such as tax concession, grants and subsidies, loans and privileges given to special economic zones. Presence or absence of these factors largely determines the growth of garment industry. The investors in garment sector are also attracted by the special rights and preferences given to that country by major customer countries like United States of America (USA) and Japan that come through multilateral and bilateral agreements between the countries. The growth of garment sector is mainly dependent upon the country's ability to attract international investors

in garment sector who have already networks with global garment supply chain.

While a large number of studies are available on the role of exports on overall economic growth (e.g., Salvatore and Hatcher, 1991; Moschos, 1989), few studies directly examine the determinants of the success of exports, particularly the labor-intensive exports by the developing countries. Using information from four countries in Asia, Dollar, Hallward-Driemeier and Mengistae (2005) demonstrate that business environment and infrastructure critically affect the growth of the labor-intensive garment industry and garment exports by developing countries. A study that uses a more direct approach to examine the determinants of labor-intensive exports by the developing countries was done by Ninkovic (2009). She empirically demonstrates that besides labor and capital, home countries' transport infrastructure as well as transportation costs, critically determine the garment exports by the developing countries.

Myanmar is still one of the developing countries in the world and has a huge potential for the development in future in the light of country's strategic location, abundant natural resources, availability of educated labor force. Myanmar is a country suitable for labour-intensive industries, and it can attract more firms from the advanced ASEAN members and other countries where workers' wages have risen. One of the most obvious advantages of Myanmar is the availability of abundant, cheap and relatively well-educated labour. The working age population (15-59 years of age) increased from 23.47 million (57.55 percent of the total population) in 1990-91 to 36.94 million (61.79 percent of the total) in 2010-11 (CSO, 2011). It is reasonable to believe that there are a large number of unemployed and under-employed workers in the labour markets of Myanmar.

Although Myanmar's economy itself is highly dependent on the natural resources sector at present, to become an industrialized country in the near future, Myanmar must further develop and strengthen its garment and other labor-intensive industries (Kojima, E., 2011). In fact the garment industry in Myanmar is only manufacturing industry involved in global and regional production networks. Myanmar garment industry integrates with the international production and distribution network, through observations on its export markets and raw material imports. In 2013, the main export products of

Myanmar are natural resources having a 44.66% share as a top item and the textile and garment products (13.13 %) the second largest export item. Garments are the major and virtually the only industrial product among export commodities.

However, the garment industry in the period between 2011 and 2015 is not as much as expected due to a number of constraints. Shortage of infrastructure, mainly availability of regular power supply, rising logistics costs and labor relations stand at the top among these barriers. Myanmar needs to reduce the barriers that hinder the growth of the garment industry to grasp the arising opportunities in time and to take advantage for the growth. In a nutshell, the growth of Myanmar garment industry as a main engine for country's economic development during its transition period is dependent upon the country's ability to reduce these barriers.

Concerning environmental threats to Myanmar garment industry, there is an increased level of competition from low cost manufacturers around the world. The Myanmar garment industry is under tremendous pressure to increase productivity, to improve performance, to become better production quality, and to advance the management systems. In order to develop the garment industry, it is important for the government and industry to understand the antecedents and moderators of export performance of garment industry. Therefore, efforts are needed to explore the determinants of export performance of garment industry in Myanmar.

Method of the Study

This study is conducted based on the descriptive and exploratory research methods to arrive at findings and conclusion. Descriptive method is used to present the firm and managerial characteristics that are currently adopted in garment factories. The exploratory research method is used to explore the characteristics which explain the impact of firm, managerial and environmental characteristics on export performance of garment factories.

Sampling frame is obtained from the member list in Myanmar Garment Manufacture Association. Almost all garment factories operating in Myanmar have to be registered at the Association in order to obtain necessary certifications such as country of origin certificate and documents for export.

All the garment factories registered in MGMA are not export-oriented garment factories. In 2014, there were about 350 garment factories registered in the MGMA. To qualify for the study, it is better if the registered garment factories have more than five-year international experiences. There were about 150 registered garment factories which have at least seven-year international experience. Among these factories, 32 garment factories which represent 20 percent of them are chosen for the survey. As a sampling technique, the simple random sampling method is used.

The study is conducted based on both primary data and secondary data. The required data are obtained from the sample of garment factories by using the method of face-to-face interview with owners and general managers of garment factories that are currently operating. During the interviews, their perceived opportunities on Myanmar garment industry are explored. Not only structured questionnaires but also personal interview is used to collect both quantitative and qualitative primary data. Primary data are used to explore the factors affecting the export performance of garment factories in Myanmar. Secondary data used in this study are obtained from the Myanmar Garment Manufacturer Association and other various sources such as previous researches, websites, annual reports, newspapers, statistical data and bulletins. A questionnaire with organized with a formalized set of questions in order to obtain information from the respondents.

Findings and Discussions

According to the general profile of sample garment manufacturing firms, most firms are locally-owned firms representing fifty percent, followed by foreign-owned firms and joint venture firms. At present, according to the structure of the garment industry, most garment manufacturing firms in the industry are locally-owned firms. As the nature of the garment industry is low capital-intensive industry, the findings reveal that maximum capital investment of garment firms is between five hundreds to one thousand Kyats millions. It can be found that the maximum number of employees in the sample garment firms are in the range of between one thousand to two thousands employees because the nature of garment industry is labour intensive. Regarding the number of years of operation in export-oriented garment industry, most firms have between ten to twenty years of operation in

the industry. For the majority of garment firms, the maximum number of export destination is between five to ten export countries. The main export countries of garment manufacturing firms are Japan, Korea and Spain.

Effect of Firm Characteristics on Export Performance

In analysis of firm characteristics affecting the export performance of garment manufacturing firms, there are two main factors: firm characteristics and export performance. Firm characteristics such as firm size, firm age, firm export experience, firm technology, export marketing strategy, innovation and ownership structure are chosen as independent variables. Export performance measures such as export sales value and labour efficiency are chosen as the most common dependent variables. To examine the possible relationships between firm characteristics and export performance of garment manufacturing firms, the following multiple linear regression model is employed.

$$EP = \beta_0 + \beta_1 FS + \beta_2 FA + \beta_3 FEE + \beta_4 FT + \beta_5 EMS + \beta_6 I + \beta_7 OS + \varepsilon_i \qquad (1)$$

Where, EP = Export Performance, FS = Firm Size, FA = Firm Age

FEE = Firm Export Experience, FT = Firm Technology

EMT = Export Marketing Strategy, I = Innovation, O = Ownership Structure ε_i is random error term and ε_i follows normal distribution with mean zero and constant variance σ_ε^2.

In analyzing the firm characteristics affecting the export performance of garment manufacturing firms, the dependent variables, firm characteristics, and independent variables are measured by using regression analysis. The export sales value and labour efficiency measurement in 2013 are used as the dependent variables.

Table 1: Coefficient Table for Firm Characteristics and Export Sales

Firm Characteristics	Export Sales		Calculated 't' value	Significant 'P' value
	Regression coefficient (β)	Standardized Error		
(Constant)	-96762678.137***	21651269.507	-4.469	.000
Firm Size	8450.407***	2263.838	3.733	.001
Export Marketing; Strategy	20862151.978***	6442061.871	3.238	.003
Firm technology	9616171.715**	3667771.326	2.622	.014

Source: SPSS Output

Notes: ** indicates that 't' is significant at 5% level and
*** indicates that 't' is significant at 1% level.

When the results are calculated by using the multiple regression analysis, the best estimated multiple linear regression model is

EP = -96762678.137 + 8450.407 FS + 20862151.978 EMS + 9616171.715 FT

According to Table 1, at the 0.05 level of significant regression analysis, firm size, a dimension of firm characteristics, has a direct positive impact on export sales of garment firms at 1% significant level. Also, export marketing strategy, a dimension of the independent variable, has a significant positive effect on export sales value at 1% level. In addition, firm technology of the garment firms is also significant at 5% level and the sign of coefficient is positive. However, other dimensions of firm characteristics such as firm age, firm export experience, ownership structure and innovation are not significantly related to export sales as 'P' value is greater than 0.05.

Table 2:Coefficient Table for Firm Characteristics and Labour Efficiency

Firm Characteristics	Labour efficiency		Calculated 't' value	Significant 'P' value
	Regression coefficient (β)	Standardized Error		
(Constant)	-50229.895***	15750.889	-3.189	.003
Export Marketing Strategy	11106.691**	4455.778	2.493	.019
Firm technology	6771.023**	2744.599	2.467	.020

Source: SPSS Output

Notes: ** indicates that 't' is significant at 5% level and
*** indicates that 't' is significant at 1% level.

When the results are calculated by using the multiple regression analysis, the best estimated multiple linear regression model is

EP = -50229.895 + 11106.691 EMS + 6771.023 FT

As can be seen from Table 2, at the 0.05 level of significant regression analysis, export marketing strategy, a dimension of the independent variable, has a significant positive effect on labour efficiency of garment manufacturing firms. In addition, firm technology of the garment firms is also significant at 5% level and the sign of coefficient is positive. However, it is found that other dimensions of firm characteristics such as firm size, firm age, firm export experience, ownership structure and innovation are not significantly related to efficiency of garment manufacturing firms as 'P' value is greater than 0.05.

It is observed that the firm characteristics of garment manufacturing firms have an impact on performance of the garment industry. The firm characteristics specified are firm size, firm export marketing strategy and firm technology. Therefore, firm characteristics constitute as one of the determinants of the performance of the garment industry in Myanmar.

A positive association with firm size and export sales is noted with indication that larger firms are more capable of bearing the large investments and high risks associated with exporting to obtain more export sales. However, it is found that there is negative relationship between firm size and labour efficiency of garment firms. This statistical result means that the more the firms are smaller, the more they achieve the labour efficiency.

With regard to the impact of firm size on export performance, this finding agrees with that of Duenas-Caparas (2006) examined the determinants of export performance of the Philippine manufacturing sector. Their study indicated both a positive linear and negative non-linear relationship between firm size and export performance for the Philippine clothing sector, but the results were not statistically significant in the food processing and electronics sectors. Several empirical studies show relatively efficient firms in developing countries tend to be large. Larger firms are more efficient than smaller ones. Efficient firms grow and survive, while inefficient firms exit the industry. However, a positive correlation between efficiency and size might also arise if larger firms have more competent management.

With respect to association between export marketing strategy and the export performance of garment firms, it is observed that there is an association of export marketing strategy with export performance of garment firms in the industry. So the garment firms improve their export sales by using the export marketing strategies. The result of this relationship between export marketing strategies and export performance is consistent with previous export performance literatures. For analytical purposes, a total of four different marketing strategy variables are examined: product differentiation, promotion, distribution channels and price strategy. According to the analysis results, importance of marketing strategies for export performance perceive sufficiently by the exporters of garment manufacturing firms. Actually, the most promising predictor of performance other than the environmental conditions and managerial characteristics should be export marketing strategies and the use of these strategies. Because marketing strategies and management characteristics are controllable by firm whereas environmental conditions cannot be changed. Therefore, the export marketing strategy is an important factor for the export performance of the garment industry in Myanmar.

Concerning the firm technology, the statistical results show that there is a positive relationship between garment manufacturing technology and export performance. Implementation of advanced manufacturing technologies has been recognized as a main factor that enriches competitiveness in the garment manufacturing firms. Thus adopting advanced production methods, quality assurance process and quality management in the garment manufacturing firms increase higher export performance such as export sales volume and efficiency. Garment manufacturing firms that are more committed to technological activities achieve greater export performance. Thus, garment firms that are more strongly committed to technological activities also have a strong commitment to international markets. This result is consistent with the finding of previous studies and of particular relevance for companies that are not particularly technology-intensive, in which the role of exports can redress this initial disadvantage.

Owners and managers in garment manufacturing firms should be aware that manufacturing technology strategy must be implemented in their firms in order for them to obtain high export sales and efficiency over their

rivals. For garment manufacturing firms, experts or supervisors who could make up sample units for clients distribute techniques of each step to operators. If the processes are special and weird, clients usually provide necessary technology with their trainers. Garment operation processes are not very complicated and need no high-tech (except for computerized sewing machines) but expertise or repeated operation is very important and contributes to quality as well as efficiency in production.

Effect of Managerial Characteristics on Export Performance

In analysis of managerial characteristics affecting the export performance of garment manufacturing firms, there are two main factors: managerial characteristics and export performance. Managerial characteristics such as managerial attitude and perception, management commitment, international experience and formal education are chosen as independent variables. The most common used export performance measures such as export sales volume and labour efficiency are chosen as dependent variables. To examine the possible relationships between managerial characteristics and export performance of garment manufacturing firms, the following multiple linear regression model is employed.

$$\mathrm{EP} = \beta_0 + \beta_1 \mathrm{IE} + \beta_2 \mathrm{E} + \beta_3 \mathrm{MAP} + \beta_4 MC + \varepsilon_i \quad \text{(2)}$$

Where, EP = Export Performance, IE = International Experience, E = Education, MAP = Management Attitude and Perception, MC = Management Commitment

ε_i is random error term and ε_i follows normal distribution with mean zero and constant variance σ_ε^2.

Table 3: Coefficient Table for Managerial Characteristics and Export Sales

Managerial Characteristics	Export Sales		Calculated 't' value	Significant 'P' value
	Regression coefficient (β)	Standardized Error		
(Constant)	-57028357.624***	8572215.208	-6.653	.000
Managerial Attitude and Perception	8373731.356***	2202996.833	3.801	.001
Managerial Commitment	9309347.581***	3232782.212	2.880	.008
International Experience	3393543.653**	1655528.390	2.050	.050

Source: SPSS Output

Notes: ** indicates that 't' is significant at 5% level and
*** indicates that 't' is significant at 1% level.

When the results are calculated by using the multiple regression analysis, the best estimated multiple linear regression model is

EP = -57028357.624+ 8373731.356 MAP + 9309347.581 MC + 3393543.653 IE

According to Table 3, at the 0.05 level of significant regression analysis, managerial commitment has a direct positive impact on export sales of garment firms. Also, managerial attitude and perception upon export barriers, export advantages and export risk has a significant positive effect on export sales at 1% level. In addition, international experience of managers is also significant at 5% level and the sign of coefficient is positive.

However, it is found that formal education level of managers, a dimension of the independent variable, is not significantly related to export sales as 'P' value is greater than 0.05.

Table 4: Coefficient Table for Managerial Characteristics and Labour Efficiency

Managerial Characteristics	Labour Efficiency		Calculated 't' value	Significant 'P' value
	Regression coefficient (β)	Standardized Error		
(Constant)	-12816.842**	5253.314	-2.440	.021
Managerial Commitment	5705.632***	1350.064	4.226	.000
International Experience	-2749.428**	1014.558	-2.710	.011

Source: SPSS Output

Notes: ** indicates that 't' is significant at 5% level and
*** indicates that 't' is significant at 1% level.

When the results are calculated by using the multiple regression analysis, the best estimated multiple linear regression model is

EP = -12816.842 + 5705.632 MC - 2749.428 IE

As can be seen from Table 4, at the 0.05 level of significant regression analysis, managerial commitment has a direct positive impact on labour efficiency of garment firms. Also, international experience of manager is significant at 5% level and the sign of coefficient is also negative. However, it is found that other dimensions of managerial characteristics such as education level and management attitude and perception are not significantly related to labour efficiency of garment manufacturing firms as 'P' value is greater than 0.05.

With regard to the impact of the managerial characteristics on export performance, management attitude and perception, management commitment and international experience have been examined. It is observed that the managerial characteristics of garment manufacturing firms have an impact on the export performance of the garment industry. Therefore, managerial characteristics constitute as one of the determinants of the performance of the garment industry in Myanmar.

Regarding the managerial attitude and perception, the statistical results indicate that management attitudinal determinants affect the export sales value of the garment manufacturing firms. However, there is no relationship

between these management's perceived export advantages, barriers and risks and labour efficiency measurement. There is a positive relationship between manager's perceptions of the relative advantage of exporting and firm's export performance. It can be concluded that there exists good prospects for the export-oriented garment industry as managers in the industry possesses positive attitude towards export advantages, export barriers and export risks that is essential for effective businesses management. Managers in the Myanmar garment industry are found to have potentials for the future growth of export performance of the garment industry.

Moreover, management commitment greatly influences the export performance of garment industry. There is a positive relationship between management commitment and export performance in terms of export sales value and labour efficiency. These findings show that managers in garment manufacturing firms effectively engage in export control and planning, regular visits to the export market and quality assurance processes because commitment to export is considered as one of the most important determinants of export performance and explains the differences in export sales between companies. This findings agree with the majority of previous studies which have identified a positive relationship between management commitment and export performance.

It can be concluded that high management commitment follows successful export marketing strategies that help to enhance export performance of the garment industry. It confirms the theoretical justification of the export commitment telling that the firm which devotes the necessary resources and competences to the export activity will be successful on the international markets. This is directly linked to the personal commitment and motivation of the manager.

With respect to international experience of managers, it is found that experience positively affects the export sales of garment manufacturing firms. However, it is found that there is also a negative relationship between experience and labour efficiency of garment firms. These findings show that export sales value of garment manufacturing firms totally benefit managers with international experience competence although the efficiency cannot be achieved. A competent garment manufacturing firm, because of its international experience, knows the differences in environmental conditions

and is more likely to select the most attractive market for the venture and adapt the marketing strategy to accommodate the specific needs of the market. From the findings of this study, it is found that export sales value of garment manufacturing firms totally benefit managers with international experience competence. It can be noted that export experience of a manager had positive effects on the export sales value of the garment industry.

It is found that the relationship between mangers' experience and export performance in terms of export sales and labour efficiency measurement are both positive and negative. Managers with greater experience in the garment industry build a network around themselves, so it is easier for them to handle obstacles faced in the international markets. Experienced managers are less open to international development and business practice compared with younger managers who are dynamic and practice new approach in managing. This result is similar to Contractor et al.'s (2005) study which explains about export performance of international new ventures between Indian and Taiwanese software industry. It was found that due to little experience, younger managers use internet and formal or informal networks to reach out to foreign customers. By doing this, they have better export performance compared with experienced managers who ignored it. So, they could associate the negative effect between export performance and experience.

Effect of Environmental Characteristics on Export Performance

In analyzing the environmental characteristics affecting the export performance of garment manufacturing firms, environmental characteristics such as export assistance and export barriers are considered as independent variables. The chosen variables for export barriers are inflexible foreign exchange rate, lack of government assistance, restrictive rules and regulations, bureaucratic requirements, port difficulties, road difficulties, insufficient electricity. The chosen variables for export assistances are technology, finance (loan), subsidy, management training and tax exemption. The most common used export performance measures such as export sales volume and labour efficiency are used as dependent variables. To examine the possible relationships between these environmental characteristics and export

performance of garment manufacturing firms, the following multiple linear regression model are employed.

$$EP = \beta_0 + \beta_1 IER + \beta_2 LGA + \beta_3 RR + \beta_4 BR + \beta_5 IE + \beta_6 PD + \beta_7 RD + \beta_8 TA + \beta_9 F + \beta_{10} S + \beta_{11} MT + \beta_{12} TE + \varepsilon_i \quad (2)$$

Where, EP = Export Performance, IER = Inflexible Exchange Rate
LGA = Lack of Government Assistance
RR = Restricted Rules and Regulations
BR = Bureaucratic Requirements, IE = Insufficient Electricity
PD = Port Difficulties, RD = Road Difficulties
TA = Technology Assistance, F = Finance (loan)
S = Subsidy, MT = Management Training,
TE = Tax exemption

ε_i is random error term and ε_i follows normal distribution with mean zero and constant variance σ_ε^2.

Table 5: Effect of Environmental Characteristics on Export Sales

Export Assistance and Export Barriers	Export Sales		Calculated 't' value	Significant 'P' value
	Regression coefficient (β)	Standardized Error		
(Constant)	-15295536.739	7979856.261	-1.917	.066**
Finance	7274434.634	1035143.682	7.027	.000***
Insufficient electricity	-3491292.622	1197452.232	-2.916	.007***
Technology Assistance	4352613.191	1635469.289	2.661	.013**

Source: SPSS Output
Notes: ** indicates that 't' is significant at 5% level and
*** indicates that 't' is significant at 1% level.

When the results are calculated by using the multiple regression analysis, the best estimated multiple linear regression model is

EP = -15295536.739 + 7274434.634 F - 3491292.622 IE + 4352613.191 TA

As can be seen from Table 5, it is found that export assistance such as finance is significant at 1% level and the sign of coefficient is also positive. At the 0.05 level of significant regression analysis, insufficient electricity, as a dimension of environmental characteristics, has a direct negative impact on

export sales of garment firms. At the 0.05 level of significant regression analysis, technical assistance has a positive direct relationship with export sales value of garment firms.

However, it is found that other environmental characteristics such as bureaucratic requirement, inflexible foreign exchange rate, management training, restrictive rules and regulations, subsidy, lack of government assistance and port difficulties and road difficulties are not significantly related to export sales as 'P' value is greater than 0.05.

Table 6: Effect of Environmental Characteristics on Labour Efficiency

Environmental Characteristics	Labour Efficiency		Calculated 't' value	Significant 'P' value
	Regression coefficient (β)	Standardized Error		
(Constant)	15054.559**	6370.660	2.363	.025
Finance loan	3098.735***	801.141	3.868	.001
Port Difficulties	-2908.904**	1055.209	-2.757	.010
Insufficient electricity	-1950.909**	934.027	-2.089	.046

Source: SPSS Output
Notes: ** indicates that 't' is significant at 5% level and
*** indicates that 't' is significant at 1% level.

When the results are calculated by using the multiple regression analysis, the best estimated multiple linear regression model is

EP = 15054.559 + 3098.735 F - 2908.904 RR -1950.909 IE

According to statistical results, financial support (finance) is significant at 1% level and the sign is positive. Transportation difficulties in port is also significant at 5% percent level and the sign of coefficient is negative. Moreover, insufficient electricity is significant at 5% level.

However, it is found that other environmental characteristics such as finance (loan), road difficulties inflexible foreign exchange rate, technical assistance, management training, restrictive rules and regulations, subsidy, lack of government assistance and tax exemption are not significantly related to labour efficiency as 'P' value is greater than 0.05.

With regard to the impact of the environmental characteristics on export performance, finance assistance, technical assistance, insufficient electricity, port difficulties and bureaucratic requirements have been examined. It is observed that the environmental characteristics of garment manufacturing firms have an impact on the export performance of the garment industry. Therefore, environmental characteristics constitute as one of the determinants of the performance of the garment industry in Myanmar.

This study attempts to evaluate exporters' perceptions of the problems they face in exploiting their full competitive potential in the international market. The statistical results show that there is a negative relationship between insufficient electricity, a dimension of export barrier, and export performance. It can be concluded that the garment firms without sufficient electricity can increase export performance in terms of export sales and labour efficiency measurement. In Myanmar, a shortage of electricity is one of the most serious problems in the garment industry as well as other manufacturing sectors. Therefore, most manufacturers in the garment industry had to use their own and share generators to facilitate their operations.

With respect to port difficulties, the statistical results show that there is a negative association between port difficulties and export performance in terms of labour efficiency measurement. It can be concluded that the more the firms don't have port difficulties, the more they achieve the labour efficiency. In terms of transportation difficulties, the port was the biggest complaint for garment manufacturing firms. Port infrastructure that face the garment industry includes a wide range of areas, such as customs performance, physical infrastructure, inland transport, and efficiency in cargo handling. Their smooth functioning helps provide goods and services on time and at a lower cost. The perceptions of garment firms on these issues can identify important bottlenecks. This survey includes the suggestions of the garment manufacturing firms for improving the port infrastructure. The poor quality of infrastructure, whether poor roads or ports, or power supply, adds to the cost of doing business. Myanmar like other developing countries face these problems, but the degree may differ from country to country.

The confirmation of a negative relationship between the perception of barriers and the export performance of garment manufacturing firms empirically confirms the fact that garment firms increase their export sales

and the labour efficiency due to, among other factors, better knowledge of the behavior of markets in general and to the capacity to reassign their resources to exports. This is an important observation and contribution to the empirical studies mentioned previously. The perceived export barriers differ mainly for the garment firms in the industry.

With respect to bureaucratic requirement, there is a positive relationship between bureaucratic requirement and the export sales of garment firms. It can be concluded that the firms perceived more bureaucratic requirements can have high export sales. It is observed that firms in the industry comply with the bureaucratic requirements for exporting garments. Government regulations or industry standards for goods can impact trade in at least three ways: they can facilitate exchange by clearly defining product characteristics and improving compatibility and usability; they also advance domestic social goals like public health by establishing minimum standards or prescribing safety requirements; and finally, they can hide protectionist policies.

With respect to the association between finance assistance and export performance in terms of export sales and labour efficiency, it is observed that there is an association between finance assistance and export performance of garment manufacturing firms. The statistical results indicate that when the garment manufacturing firms have the finance assistance for their businesses, they can increase their export performance. Finance assistance for garment manufacturing is particularly important for better performance, as extra resources are required for foreign market entry and expansion. With these extra resources, garment firms create or develop existing international networks or hire human resources with international expertise. Furthermore, garment firms can use these resources to develop plans which build upon a much more sophisticated analysis of the foreign environment. This lead to fewer mistakes and improved export performance of the garment manufacturing firms.

With respect to the association between technical support of industry association and export performance of garment manufacturing firms, it is observed that there is a positive relationship between technical supports and export performance of garment manufacturing firms. As technical supports are associated with the labour efficiency of garment manufacturing firms, most of

these firms in the industry have access to adequate amounts of technical supports from the industry association. This support affects the labour efficiency of garment manufacturing firms to transform from cutting-making-packing manufacturing system to free-on-broad manufacturing system.

Suggestions based on findings

Garment exporters are the contributors to the development of the foreign trade of the nation, and these exports help in raising the standard of living of the people of the nation. Garment exporters can improve their export by using results of this study and considering the determinants affecting the export performance. The statistical analysis does not enable to answer all the issues listed in the literature review about export performance determinants of garment manufacturing firms. However some clear relationships have stood out from this study. The role played by these determinants affecting the export performance is clearly identified.

Garment manufacturers are better at making decisions and its policy is considered to be firm characteristics, managerial characteristics and environmental characteristics influencing on the export performance and decisions that will lead to increased exports. Firm characteristics such as firm technology and export marketing strategy, managerial characteristics such as management commitment, managerial attitude and perceptions and international experience are considered as the most important company's asset for success on the export performance. Export assistance programs such as finance and technical support and bureaucratic requirements lead to increased export performance. Insufficient electricity and port difficulties have negative relationship with export performance and its enforcement in decisions will increase exports performance of garment manufacturing firms.

It is important to implement a well-designed export marketing strategy that can indeed determine export success, since the overwhelming majority of the marketing strategy variables are significantly associated with overall export performance. Product quality, pricing strategy, distributional channel support, and promotional activities are found to influence positive performance in export markets. These findings can assist business managers in their endeavor to formulate sound export marketing strategies and achieve success in international markets. Because the design and implementation of a

coherent export marketing program is a dynamic task, managers should provide continuous monitoring, evaluation, and revision, according to the specific conditions prevailing in export markets at a particular point in time.

Garment manufacturers should also consider the degree of emphasis given to each marketing strategy parameter by depending on the firm's specific export marketing objectives. For example, if the objective is to improve sales performance indicators, special consideration should be given to the adaptation of marketing strategy, while higher profitability can be achieved by employing a market-led pricing strategy.

Garment manufacturers should be more committed to technological activities to achieve greater export performance. It is because the firms that are more strongly committed to technological activities also have a strong commitment to international markets. It is because the quality of final product determined various factors especially two factors that contribute maximum are raw material and machine (technology). As the firms' competitiveness depends on the ability to pay the cost of technology and access to technology, it is important for the garment manufacturers to purchase directly the machinery and equipment from suppliers who supply the technicians to train the staff or to send local technicians to install and maintain equipment with the training provided by the suppliers.

Garment manufacturers in the garment industry should invest in new machineries and productivity-enhancing technology. Individual factories may also increase their access to new machinery by creating joint-venture with foreign investors who will provide up-to-date technology and machinery or the capital to invest.

It is important for small firms to increase export performance in the markets are also necessary, by promoting cross-learning linkages between large firms and small firms, providing technological service support, providing the support of counseling and mentoring, knowledge and skills upgrading and promoting the knowledge on production, management, finance and marketing. However, after a certain threshold, firms which are too large may be obstructed by 'diseconomies of scale' in their production, and therefore programs should introduce to assist them to enhance the export activity. Similarly, cross-cultural training programs between small and large firms

should implement that might be useful. After a certain threshold, large firms might not be able to engage in export activity, since they are stuck with outdated physical capital and traditional management styles, but small firms are more proactive, flexible, and aggressive than older firms.

From a management perspective, it is important to understand that well-designed export commitment programs are effective only to the extent that the firm has a committed team that is favorably predisposed toward export planning and control, regular visits to the export market and quality assurance processes. As the management commitment is clearly crucial in business initiation, development and performance, the export-oriented garment firms should assess its role in influencing export performance. The firms should optimize and excel in all components of management commitment.

It is important to develop the management skills of managers and supervisors of garments firms, especially in the areas of financial management and production and operations management. Garment manufacturers should collaborate among firms, especially in availing of common service facilities. This could serve to reduce the capital investments made by individual firms.

It is important to bear in mind the constraints such as insufficient electricity and port difficulties placed on garment firms by the environment. Because insufficient electricity and port difficulties can threaten to increase the firm's export performance, manager should try to reduce their negative effects. It is important to reassign the resources of the firm in order to overcome the export barriers such as insufficient electricity and port difficulties. The proper reassigning of the resources can result in higher level of export performance.

Summary

The results of this research shows that the firm characteristics such as firm size, firm technology and export marketing strategy, managerial characteristics such as management attitude and perceptions, management commitment and international experience, and environmental characteristics such as finance, technical assistance and insufficient electricity are the factors affecting the export performance of garment manufacturing firms. From the regression results, the firm characteristics variables (i.e. firm age, firm export

experience, innovation and ownership structure are statistically non-significant with export performance of garment manufacturing firms. Also, the following managerial characteristics variable (i.e. education) is statistically non-significant with export performance. Finally, the following environmental characteristics variables (i.e. export barriers such as inflexible foreign exchange rate, lack of government assistance, restrictive rules and regulations, road difficulties and export assistance such as subsidy, management training, and tax exemption) are statistically non-significant. The literature is still characterized by the lack of consensus of the impact of these characteristics on export performance and the findings are sometimes conflicting (Zou & Stan, 1998). These divergences may be attributed to (1) differences in methodology, in terms of design, sampling, sample size, data collection, and response rates; (2) the country of the study, the information source, and moment in time when the data were collected; (3) differences in statistical analysis, in terms of method, reliability and validity issues, discussion and interpretation of the data.

Limitations and further research

Future researchers should consider the specific characteristics of the external environment, both the domestic environment and the export market environment and their influence on export performance. This can lead to greater precision in delineating and understanding the impact of different environmental forces on export performance.

This study determined the order of precedence of the factors that should be focused on firm, management and environment to improve export performance of the garment industry. However, a number of limitations to the generalization of these findings exist. The study is made by using data from garment manufacturing firms, thereby limiting the generalization of the findings to other manufacturing firms. Additionally, the larger sample size can increase the reliability of the findings. The operationalization of constructs can be improved by generating more indicators. For example, examining market segmentation, human resources management practices, enterprise resources, etc. could be potential antecedents of export performance. Furthermore, two measures for export performance that is objective are used

in this study. In the further studies, the measures apart from these or addition to these could be used.

This study focused on a single time period. Actually, export performance should be measured in a more dynamic way. This research was conducted in a single country context and not compared with other countries. The performance measures used in the study reflect the unique emphasis that Myanmar Garment Industry places on exporting. Therefore, in further studies, more efforts should be made to validate scales across countries. This study assumed a linear relationship between the export performance and its determinants. Indeed, the nonlinear relationship can be tried in future researches. In short, although the study provides theoretical and practical insights into the determinants of export performance measures, further researches are needed to replicate and extend the proposed model to reinforce the confidence in the generalization of the findings of the study.

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