

A Study on Identifying Major Export Barriers of Indian Manufacturing firms of National Capital Region

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Abstract

It's been more than 20 years that liberalization took place in India, still India is living with a tag of trade deficit, Indian exports are still lagging behind imports. Identifying and addressing export barriers can significantly improve export growth. Research has not been taken up extensively in this area but it is highly required as it could provide more rapid pace to the path of internationalization. This paper discusses about the various export barriers perceived by the Indian manufacturing firms of National capital region. Using a sample of 200 exporters of selected industries can provide us with insight on actual challenges perceived by the firms. The paper uses the factor analysis approach to condense the factors which constitute as export barriers. The study key findings categorize the export barriers under six major heads.

Key words: Export barriers, Export growth, exporters, internationalization

Introduction

International Trade has always been a vital for the Indian Economy. Exports are driver of gross domestic product and thus economic growth. Siliverstovs and Herzer (2006) suggest a positive causal relationship between exports and economic growth. Exports create huge employment opportunities which are highly required as India is a labor intensive country. Exports are also a low risk and low investment entry strategy as compared with the other options. Exports leads to better growth and profit as compared to the domestic opportunities. Exports also make a process more productive, efficient and makes the product more innovative due to the high quality standards and competitive nature if foreign market. (RBI, 2016) Indian exports have increased from US \$ 1.3 billion in 1950-51 to US \$ 312.61 billion during 2013-14 to US\$ 310.3 billion in 2014-15 and US \$ 261.13 billion registering a negative growth of 15.85 per cent in Dollar terms. Pillania (2008) divided the trade into three main phases i.e. 1950-1970, 1971-1991 and post 1991. During the first phase just after independence, export growth was very slow. In 1960 it was 3.6% in dollar terms. Imports were rising while the exports were stagnant. To cope up with the situation, import substitution was advocated by the government. There was no initiative to boost exports leading to export pessimism. During the second phase the export performance increased slightly. In the late 1960s government initiated steps to boost exports like establishing IIFT. The export growth rate was 15.8 percent in 1970s before slowing down to 8 percent in 1980s due to second oil price hike, India's exports decelerated sharply. During the third phase, post liberalization 1991, both exports and imports rose significantly with foreign trade was 17.1% of GDP by 2000. Though imports were going higher than exports. Various export promotion programmes were launched in the foreign trade policy to boost exports. Pillania(2012) Indian industries are majorly dynamic and growing faster. Indian industries

are more global in terms of industry specialization. Industry specialization leads to dominance in world share of exports. Manufacturing sector need to be looked upon to make it dynamic. India is a highly labor intensive and unorganized market to there is a huge scope of potential. The framework consisting of policymakers, government officials, industry associations, and company executives to assess their export competitiveness and focus on protecting or promoting certain industries by directing scarce resources to sectors where they may count the most. There is therefore an urgent need to boost India's exports so that the trade deficit is narrowed down and current account deficit stays within the projected cap. The selected exporters pertain to Gems and Jewellery, Apparels and Clothing and Agriculture and allied products. Following sectors have been selected as they constitute the substantial contribution of Indian exports. This study might guide us in understanding the insights of export barriers to the selected industries and might give a generalized view. Aim of this paper is manifold. First, to identify which factors are major barriers for Indian exporters and ranking the export barriers by the level of their impact. Aim of this paper is elaborated as follows. First, there is a brief literature review about the Indian exports and then the various factors that can be constituted as barriers to exports are added. The paper ends with conclusion and research scope for Indian policy makers, firm's management and future researches. Numerous studies have been stated that identify various export issues from exporters perception. Major factors that pose barriers to export from earlier studies have been discussed in this paper. Also new factors have been added, which were deemed to be valuable enough from researcher's point of view to examine with respect to Indian exporters.

Literature Review

Czinkota & Ronkainen (2001) has cited that exporting is an attraction as it leads to improving the technological standards of the products and services, diversification of the exports, increases the quality standards, leads to the growth of the firm, utilizing the operational capacity of the firm to its maximum, increasing production efficiency, creating wealth for shareholders and the employees of the firm. Tiwari & Herstatt (2012) concluded that India has emerged as a destination for frugal innovations and increasingly becoming a part of "Open Global Networks". Factors that are essential in determining the lead market potential of a country are cost advantage, demand advantage, Technological innovation, export advantage and market structure advantage. Tokol & Harcar (2007) carried a study on Turkey SME concluded that highly competitive foreign markets and procedural barriers represent as dominant factors in affecting export performance of the firm. Analysis of exporting problems can provide valuable information for framing of suitable export marketing strategies and assistance programmes. Leonidou(2000) classified the export barriers in to external and internal barriers. Further the internal barriers were categorized into functional, informational and marketing whereas external problems into procedural, governmental, task and environmental. Siringoringo, Prihandoko, Tintri & Kowanda (2009) found most of the SME entrepreneurs refrain themselves from indulging into export business as they perceive understanding exporting procedures to be difficult task that Export barriers can be classified into external and internal barriers. "The result of the survey shows that the factors which influence SME's export performances in Indonesia are competition, long duration of export document process, product quality, export barrier from country destinations, low capability in high production, delay in transportation, communication barrier, government agencies that presume become barrier, lack of international market knowledge, barrier of entering international market, export administrative procedures, inefficient production cost, unofficial fee in export documents processing, incapable to supply product in time, lack of knowledge in transaction method, limitation of destination country, time limitation in cargo, and delay of shipping". The cause of some of the problems is lack of human knowledge and problems related to government organizations and institutions. One of the most important solutions to the

export barriers is providing knowledge to exporters by way of training and development. Sirpal(2011) stated that there could be many exporting firm issues like exchange rate risk, financing problem in exports with banks, difficulty in amendments in Letter of credit, difficulty in checking the credit worthiness of the buyers in foreign country, default on payments, difficulty or failure in receiving he payment due to government interaction of that country, fear that the buyer may reject the presentation or acceptance of documents. etc. Leonidou(2000) has shown that firms that have entered into exports newly face more export barriers than the firms who are into the business for a long time. Katsikeas and Morgan (1994) Smaller firms in terms of number of employees and sales turnover faces more barriers than the larger firms as they are confronted with limited resources, more trade restrictions and operational hassles. Love, Roper, Zhou (2015) conducted a survey on UK SMEs concluded that the firms age and prior managerial experience has a strong impact on the internationalization of the firm. Kneller & Pisu (2011) carried a study on firm exporting behavior and firm characteristics, such as size and productivity depicted that higher the export experience of firms, lower are the barriers to export. These results suggested that the firms which have more international experience face less export barriers as the firms are able to learn from their past experience of export as to how to overcome new export barriers and thus incur less costs. Sahni (2014) Gems and Jewellery sector comprise of diamonds, gold and silver jewellery etc. which is one of the top contributor in exports. The gems and jewellery makes significant contribution to country's overall export earnings and remains in forefront of foreign exchange earners. India has always been an important market for gems and jewelry and its significance has grown considerably over time. Indian exports performed particularly well in 2009 and India became a leading exporter of gems and jewelry, with a market share exceeding 23 percent. Mukherjee (2012) Ready-made Garments (RMG) Cotton industry contributes around 6 percent towards India's exports and this industry is highly labour intensive; India is an important source of the world cotton market but there has been a decline over time, the selected industries are also a combination of traditional as well as contemporary exports of India. Even though India's manufacturing exports have surged since 2001 and grown at a steady rate of over 25 percent between 2002 and 2008, the manufacturing sector is still lagging .One of the major factors influencing growth of gems and jewellery sector is its unorganized nature. All the sectors chosen are highly labour intensive and unorganized. The study might help us in analyzing the true picture and provide us with concluding results on the export barriers of the Indian manufacturing firms.

Objective of the Study

"To identify and analyze the major export challenges in influencing exports of Indian Manufacturing firms"

Research Methodology

This study is derived as a part of my PhD work. Data collected using survey method using a questionnaire among the companies in National Capital Region that are involved in export trade. This objective is achieved with the help of exploratory factor analysis applied on the 30 statements related to the various export challenges included in the questionnaire in the year 2015-16. The respondents of the research study are the 200 exporters that were asked to respond to the statements mentioned in the self-designed questionnaire used in the study. The EFA method is supposed to find out the correlation structure among the all possible pair of statements and forms the latent factors on the basis of correlation analysis. The factors are extracted from the variables that define the major export barriers affecting the export process. The sample respondents are chief executive officer or export manager. Responses on various problems faced by exporters are

increasing level and measured using Likert scale rating from 1 to 5. SPSS analysis is used for the data analysis.

Analysis

In order to identify the major export challenges faced by Indian manufacturing firms, thirty different statements related to possible export challenges are included in the questionnaire. In order to analyse and explore the latent variables indicating the export challenges, exploratory factor analysis (EFA) statistical method is applied on the collected responses. The EFA helps in identifying the correlation structure among the different aspects of export challenges considered for the study. The EFA statistical method estimate the correlation matrix between all the pairs of statements considered in the study and try to reduce the variables/statements into few significant latent variables. These latent variables are known as factors. These latent factors individually represent a group of statements having significant correlation between them. EFA requires the fulfilment of few assumptions such as the availability of sampling adequacy and presence of significant correlations between the few different pair of statements considered for the study. The Kaiser-Meyer-Olkin Measure (KMO) as well as Bartlett’s test of Sphericity is applied on the collected data in the study in order to test the presence of required sampling adequacy and the correlation structure between different pair of variables. The statistical result of KMO measures of sampling adequacy and Bartlett test of Sphericity is shown below in Table 1

Table 1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.863
Bartlett's Test of Sphericity	Approx. Chi-Square	4485.743
	Df	406
	Significance Value	.000

The statistical result of KMO test indicates that the KMO statistic is found to be 0.863 which indicates the presence of required sampling adequacy in the responses collected in the study from the selected exporters. The KMO value of 0.863 also represents the presence of adequate variations in the responses against the statements which is a necessary condition to apply EFA. Hence the results of the KMO confirmed that sample adequacy is present in the responses. The Bartlett’s test of Sphericity in factor analysis indicates the existence of significant correlation between the few different pair of statements selected for factor analysis. The null hypothesis of the Bartlett test assumes that the correlation matrix indicating the coefficient of correlation between all pair of variables is an identity matrix. The results of Bartlett test indicate that significance value (p value) of Chi-square statistic is found to be less than 5 percent level of significance. Thus, with ninety five percent confidence level it can be concluded from the results that the correlation matrix representing the coefficient of Pearson correlation is not an identity matrix. Hence it can be concluded that there exist significant correlations between different pair of statements which is required in order to apply EFA. The initial communality (before extraction) is always assumed to be 1 or 100 percent. However, after the factor extraction the communality will depend upon the amount of variance available for the analysis of the selected statements. Individually 100 percent variance is available for analyzing the statements/variables however after factors are extracted some variance is lost in the process. Hence it is required to analyze the remaining variance available for the analysis. The result of the estimated communalities indicates that the initial communalities of each variable are 1. However, the extracted communalities are less than 1 for all the statements. The result also indicates that the extracted communalities of all the variables is found to be greater than 0.6 except in case of second last variables. The extracted communalities indicate the goodness of fit of the factor analysis. Higher the value of extracted

communalities of variables better it is. Hence, all the variables can be included in the factor analysis. The factor analysis applies the process of principle component analysis in order to identify and estimate the Eigen value of principle components. After calculating the Eigen values of the components they are arranged in descending order with respect to calculated Eigen values. For the analysis the principle component having Eigen value more than 1 is selected for the study. The results of factor analysis after applying principle component analyses is shown in table 2.

Table 2: Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.617	22.816	22.816	6.617	22.816	22.816	6.269	21.616	21.616
2	4.475	15.433	38.249	4.475	15.433	38.249	4.341	14.970	36.587
3	3.812	13.145	51.394	3.812	13.145	51.394	3.813	13.149	49.736
4	3.503	12.081	63.474	3.503	12.081	63.474	3.700	12.758	62.494
5	2.213	7.633	71.107	2.213	7.633	71.107	2.415	8.328	70.822
6	1.129	3.893	75.000	1.129	3.893	75.000	1.212	4.178	75.000
7	.916	3.159	78.159						
8	.811	2.798	80.957						
9	.536	1.847	82.804						
10	.496	1.710	84.514						
11	.451	1.557	86.071						
12	.392	1.353	87.424						
13	.376	1.296	88.720						
14	.335	1.156	89.876						
15	.313	1.078	90.954						
16	.290	1.000	91.954						
17	.279	.961	92.915						
18	.243	.837	93.752						
19	.240	.826	94.578						
20	.219	.755	95.333						
21	.214	.739	96.072						
22	.196	.677	96.749						
23	.175	.602	97.351						
24	.164	.564	97.914						
25	.145	.499	98.413						
26	.136	.469	98.883						
27	.122	.421	99.304						
28	.112	.386	99.690						
29	.090	.310	100.000						

Extraction Method: Principal Component Analysis.

In order to analyse the goodness of fit of the factor analysis, the residual communalities are estimated. Residuals are computed between observed and reproduced correlations. The residuals are known as Reproduced communalities. In the study it is found that there are 50 (12 percent) non redundant

residuals with absolute vales greater than 0.05. The results indicate that the results of factor analysis seem to be a good statistical fit. Hence the factor analysis is beneficial in the study. The rotated component matrix of all the considered statements are shown below in 1table 3. The results of the rotated component matrix indicate that the 30 statements considered for the study can be reduced to 5 principle components having Eigen values more than 1. These 5 factors explain approx. 75 percent of the variance of the included statements. Assuming that the explained variance is sufficient, the extracted factors will be used for further analysis.In order to modify the extracted components representing the 30 statements/variables considered for the study, orthogonal rotation (Varimax) is applied. The rotated component matrix (RCM) represents the factor loading of each variable to the extracted factors. The factor loadings can be defined as the correlation between the factors and the variables. It is assumed that every variable considered for the study must have significant factor loading to only one factor and insignificant factor loadings to all other extracted factors. The result of the rotated component matrix is shown below in table 3

Table 3: Rotated Component Matrix

	Component					
	1	2	3	4	5	6
Difficulty to meet the customer expectations	.929	.008	.076	-.059	.029	.037
Product adaption is a major task.	.926	-.038	.045	-.112	.023	.066
There is a Lack of commitment among the employees.	.914	.024	.042	-.085	-.006	.084
International brand recognition is a barrier to exports	.896	.020	.041	-.089	.038	.050
Proactive approach in Pricing and promotion policies is a difficult task.	.895	.040	.048	-.016	-.004	-.093
Following technical regulations, standards, procedures is a difficult task	.893	.002	.046	-.053	.018	.067
Documentation is a big problem	.862	.014	.048	-.042	.044	-.039
Product diversification is a difficult task for the company	.714	.038	.070	.173	-.004	-.134
There is a fear of goods and documents getting rejected.	.013	.875	-.002	.068	.119	-.095
Risk of selling products overseas is very high	.001	.870	.047	-.091	.075	.039
Risk of default is high on the part of buyers	-.007	.857	.012	.019	-.019	.040
There is risk of high competition from the foreign players.	.012	.856	.004	-.043	.058	.122
Finding a reliable foreign distributor is a major task	.064	.825	-.004	-.014	.026	.020
It is difficult to check the creditworthiness of the buyers	.008	.794	.019	-.019	.039	-.152
There are very less export promotion and assistance programmes catering to company's requirements	.061	-.027	.886	-.113	-.062	.051

Delay in receipt of export incentives from government leads to significant impact on export business	.063	-.010	.868	.023	.024	-.007
Lack of government assistance in conducting exports is a challenge.	.036	.055	.864	-.013	.017	-.027
Company officials face the problem of dealing with Government bureaucracy.	.064	.071	.858	-.086	.233	.012
High import duty on imported products affect export business	.113	-.013	.856	-.021	.093	.021
Technology up gradation/adoption is a major barrier.	-.032	-.037	-.030	.921	.062	-.032
Research and Development cost is too high to upgrade the product.	-.033	.006	-.005	.902	.019	-.073
Company products are less competitive due to lack of product innovation	-.028	-.033	-.041	.901	-.015	-.165
Meeting importer's product quality standards is difficult.	-.032	-.029	-.064	.741	-.007	.315
There are not enough Research and Development facilities available in India	-.126	.017	-.083	.718	-.055	.265
There is difficulty in obtaining finance from banks for exports	.081	.060	.066	.046	.890	.018
lack of capacity to cater to export orders is often a problem	.013	.074	.116	-.029	.866	.085
Company faces a problem of lack of capital for expansion	-.008	.117	.051	-.007	.849	.104
Currency exchange rate fluctuation affects the export business significantly	-.011	.013	.014	-.017	.047	.841
Language and culture is a major barrier in exporting	.050	-.034	.037	.237	.212	.425
Extraction Method: Principal Component Analysis.						
Rotation Method: Varimax with Kaiser Normalization.						
a. Rotation converged in 5 iterations.						

The result of rotated component matrix (RCM) indicates that the thirty statements can be reduced to 4 extracted components. It is also found that all the variables have significant factor loadings to only one factor and insignificant factor loadings to other extracted factors. It is also observed from the results that the significant factor loadings for each factor is found to be greater than 0.7. Hence it can be concluded from the results that structure of the extracted factors from the variables satisfies the assumptions of convergent as well as discriminant validity. Analyzing the variables having significant factor loadings to different factors, These factors can be named as:

List of factors:

Factors	Name of the Factors
1	Marketing and International Procedural Barriers
2	International Risk Exposure
3	Lack of Government Support
4	Technology related Barrier
5	Financial Issues
6	Macro environment barriers

Conclusion

Though Indian Exports have progressed fairly since independence still there is a lot of potential in foreign trade especially exports. It has potential of growing at a substantially higher rate. Identification and addressing of problems faced by the exporters can resolve the issue significantly. This study attempted to identify the major export barriers influencing the export process of Indian manufacturing firms which are categorized as Marketing and International Procedural Barriers, International Risk Exposure, Lack of government support, Technology related barriers, financial issues and Macro environment barriers. Service exports have grown at a very fast rate recently but manufacturing exports are lagging. There are limitations to the study as well. First of all, the study is limited to only three sectors of Indian manufacturing sector i.e Gems and Jewellery, Apparels and clothing and Agriculture and allied products. Not all the sectors are studied moreover not all the problems that affect export performance are studied. Size of the respondents and the fact that they represent the whole population could be a limitation. Future research can include the comparison of export barriers of developed country vs. developing country. The findings can suggest us that if developing countries are following the same path as developed countries. The analysis of export barriers can provide policy makers an insight on as how to design or revamp the policies suiting to the exporters requirements, It can help exporters in identifying their issues so that they can take effective measures to curb the barriers and can lead to increased export performance thereby contributing to the economic growth for the country.

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