

Dimensions of Export Trade Behaviour: Agriculture and Processed Food Exporters Perspective

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Abstract - Ready to eat food items are capturing new destinations but in the due course this sector stumble upon ups and downs during the recent past as reported by Agricultural and Processed food Export Development Authority (AEPDA) of India. Agricultural export from India has shrunk by more than 21 per cent since 2015. Down trending may be due to the factors that revolve on the internal and external environment of a business. Behaviour of a firm is highly dependent on the strategies and components of marketing factors. Hence, the study focused on identifying the components that determine the behaviour of export firms. Based on the previous reviews the intensity and the propensity to export, determines their likelihood to export. This paper incorporates the unexplored variables reflecting the ability to comply the regulations and standards which may influence the behaviour and in turn affects the trade. The data are collected from APEDA registered exporters of Tamilnadu relating to their perception on the present context. To trace the most significant factor that decides export trade behaviour, the factor analysis was adopted. The result reveals the combination of factors influence trade behaviour of the exporters with varying level of influence for decision to export, capacity to export, interest to export and compliability of regulations. Among the factors, their level of compliance of regulatory measures required for export shall be given particular consideration compared to other factors. Hence, it shows that the level of compliance of regulations and its ease develops interest to export.

Key words: Agriculture exporters, Business Environment, Compliance, Dimensions, Export decision, Export Trade Behaviour

I. INTRODUCTION

Developing Countries in the course of economic transition have engaged with outward-looking export oriented strategies, intended at making their manufacturing sector very competitive. Primary sector like agriculture, engaging in producing agriculture and processed food products has been pulling the attention of the foreign markets. Ready to eat food items are capturing new destinations but in the due course this sector stumble upon ups and downs during the recent past as reported by Agricultural and Processed food Export Development Authority (AEPDA) of India. Export trend is fluctuating and down trending which may be due to various factors that revolve on the internal and external environment of a business (Hamid Yeganeh, Masoome Saeid, 2011) The internal factors include the behaviour of the exporter on the various criteria under which they prefer to export. In this respect, the study focused at examining the components that determine the level and likelihood of exports by manufacturing and merchant firms. (Saul Estrin et. al. 2008) Behaviour of a firm is highly dependent on the strategies and components of marketing factors, such as export incentives, motives and the obstacles which

determine the trade (Safak Aksay & Erdener Kaynak, 1993)

Understanding the export behaviour of the firms will lead to a clear understanding on the factors that contribute to the performance of the firms. If a producer or manufacturer decides to export their proceeds, they have to know Why, What, Where and How to export. The above questions will draw a blue print to value their attitude towards their business especially on export trade. This research is attempting to bring out the Agriculture and Processed food exporters behaviour and to find out the most significant factor that decides their export trade. In order to sketch their pattern of trade, the researcher searches the past studies that expressed the elements of trade. The previous researches offered the variable that measures the behaviour or performance of any sector by including the variables that are based on classical theories. The variables determined will reflect the expected attitude whereas that may not be fully applicable for entire or recent changes in trade practices. The business requirements especially for consumables change from time to time may not be uniform throughout the year. According to new trade theories, countries need not specialise, however in order to make the advantage of

their differences they trade to enjoy the benefits of increasing returns from trade (Augustus S. Muluvi, 2011). Similarly, the traditional theories say that firms which give more productivity are likely to export distinct markets (Andrew B. Bernard et al, 2012) and larger the exporter, more will be the price of the products as they use more intensive technology for production (Verghoogen, 2008). Therefore, it implies that classical trade theories are gradually reframed by the modern trade practices in lieu of situational changes in trade. The cost, distance, trade barriers, product regulations and standards, foreign government schemes and support, encouragement of trade etc (F. Ravelomanana et al., 2014)

Export entry decision model of previous studies say that adoption of innovation process is an important element of foreign entry decisions. The small firms must pay more attention for individual characteristics which influence the export information ultimately reflect in the export trade behaviour (Stan D. Reid, 1981), hence, the decision to export is a predominant factor that influences the trade behaviour. The firms major challenge that influence their ability to engage in exports is impediments from policymakers i.e. government and firms. By minimising policy hindrance, the intensity to export will get improved irrespective of industry (Dobdinga Cletus Fonchamnyo, 2014). Moreover, the companies have to undertake promotion for knowing the market information about target market which in turn will enrich their trade behaviour rather than human capital or productivity (Alexander friedrich Eickelpasch and Alexander Vogel, 2009). The trade effect will be favourable when the positive effect on demand is greater than negative effect on supply. This supply determinant is the trade behaviour of a firm in terms of motives, interest, capacity and their legal compliance to accomplish the code of conduct. (World Trade Report, 2012).

The highly protected agriculture sector was liberalised by Uruguay Round, and hence the traditional protection measures were dismantled, but still the food risks are measured at global level and therefore the standard food norms are being formulated (Beghin et. al 2002). Moreover, the expectation of quality contented food products are demanded by consumers and the statutory bodies of every nation. Adding to that, exports of higher quality products are expensive but profitable for the firms that offer quality- adjusted prices. These firms can penetrate varied markets because it makes those firms more competitive (Daniele Curzi, Alessandro Olper, 2012) .Complying the standards to do cross border trade is

an emerging regulator among the food producers and exporters. Their level of compliance may influence the interest of producers towards the norms determined by the buyer. Undoubtedly this plays a vital role especially for consumables, once they satisfy the requisite standards, the product freely moves across nations. This is identified as a gap and the researcher attempts to frame the trade behaviour by identifying the essential variables applied for Agriculture and Processed exports and tries to express their trade pattern in particular.

II. DATA AND METHODOLOGY

To examine the trade behaviour of Agriculture and Processed food Exports the data are collected from APEDA registered exporters of Tamilnadu using well structured questionnaire. Out of 214 registered exporters, 162 responses are received and used for the analyses. The primary data collected are classified and analysed through SPSS software. The export trade behaviour related statements are structured based on the reviews and the dimensions are identified using Exploratory Factor Analysis, or Dimension Reduction test. Further, the behavioural factors and their firms' characteristics are tested in order to find out the difference using one - way ANOVA.

III. RESULTS AND DISCUSSIONS

A. Firms characteristics:

Agriculture and Processed food Exports of Tamilnadu possess an extensive background. This evaluates their export trade profile in terms of their experience, nature of business and size of business. The three characteristics of the exporters are chosen for testing namely export turnover, nature of export business and frequency of export. Majority 52.5 per cent of exporters come under below one crores turnover , their major business is manufacturing export in nature and 69 percent of the exporters are exporting regularly.

B. Factors determining the Trade Behaviour of Exports

To identify the attributes that decide the trade behaviour of exporters 35 statements are included for factor analysis based on previous reviews. Table 1 reveals Kaiser – Meyer – Olkin measure of sampling adequacy value of .808, which is above the Threshold level 0.06 (Kaiser, 1974). The Bartlett's test of sphericity significant value is 0.000 indicating that there exists a significant relationship among the variables. The KMO and Bartlett's test indicate that the present data is appropriate for factor analysis.

Table 1 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.808
Bartlett's Test of Sphericity	Approx. Chi-Square	1575.028
	Df	171
	Sig.	.000

Source: Computed data

For the purpose of extraction of factors, Principal Component Analysis is used and the factors which have Eigen value greater than unity are taken and the statements below one are removed and the reduced factors are rotated by Varimax rotation, which is a standard rotation method (Kaiser, 1958). The Total Variance Explained by the 19

statements has a cumulative loading of 64.4 per cent, shown in Table 2. Based on the rotated factor, the nineteen statements are grouped under four components and these four are drawn as new factors for further analysis.

Table 2 Factor Analysis – 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	5.377	28.29	28.29	5.37	28.29	28.29	3.725	19.60	19.60
2	3.735	19.65	47.95	3.73	19.65	47.95	3.097	16.30	35.90
3	1.891	9.95	57.90	1.89	9.95	57.90	3.024	15.91	51.82
4	1.244	6.54	64.45	1.24	6.54	64.45	2.400	12.63	64.45
5	.936	4.926	69.38						
6	.777	4.090	73.47						
7	.700	3.686	77.15						
8	.613	3.228	80.38						
9	.583	3.071	83.45						
10	.481	2.533	85.99						
11	.464	2.444	88.43						
12	.440	2.317	90.75						
13	.369	1.941	92.69						
14	.340	1.791	94.48						
15	.281	1.477	95.96						
16	.247	1.299	97.26						
17	.211	1.113	98.37						
18	.185	.975	99.34						
19	.124	.653	100.00						

Source: Computed data

The four factors consisting of 19 statements are extracted and shown in Table 3. The rotated component matrix with factor loadings of each statement explains the factors. Factor 1 is accounting for six variables explaining 28.29 per cent namely Market diversification increases the export involvement, foreign market share, more number of exporting, encourages developed countries trade, one market is not sustainable, low quality goods in buyer's country de motivates. These factors are loaded from .867 to .619. Therefore, these factors reflecting their interest towards trade and hence the components are named as Interest on export.

The component 2 includes the variables such as complex entry formalities and time lagging, adopting green regulations help to increase export, importing countries formalities are lengthy, legal requirement do not disturb trade and approval from certification bodies . These variables show factor loadings ranging from .816 to .606 explaining 19.65 per cent. Hence, these factors are grouped under the head legal compliance.

The third component constitutes four variables showing factor loading from .870 to .753. The variables such as Technical requirements are same, growth of business, offers good price, for tax benefits shows the decision factors. These variables comprise of 9.95 per cent of total

variance explained. The factors are named as Decision to export.

Factor 4 includes four variables such as Export capacity reduced by the rejection, more buyers in importing

country; Export is based on import regulations and fulfils the requirements of importing country. This component explains 6.54 per cent and the factor loading falls from .794 to .634. This factor is named as capacity to export.

Table 3 Factor analysis- Component Matrix for Extracted value

S.No	Statements	Components				Factor name
		1	2	3	4	
1	Market diversification increases the export interest	.867				Interest on Export
2	Foreign market share	.852				
3	More number of export	.839				
4	Encourages developed countries trade	.757				
5	One market is not sustainable	.743				
6	Low quality goods in buyer's country	.619				
7	Complex entry formalities are time lagging		.812			Legal compliance
8	Adopting green regulations increase export		.781			
9	Importing countries formalities are lengthy		.780			
10	Legal requirement do not disturb trade		.669			
11	Approval from certification bodies		.606			
12	Technical requirements are same			.870		Decision Motives to Export
13	Growth of business			.813		
14	Offers good price			.781		
15	For tax benefits			.753		
16	Export capacity reduced by rejections				.794	Capacity to Export
17	More buyer in importing country				.760	
18	Export based on import regulations				.754	
19	Requirements of importing country				.634	

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization

C. Mean score ranking:

The analysis further tries to show the most influencing factors among the four factors that are identified to determine the Trade Behaviour. The mean score ranking analysis reveals the results in Table 4. The legal

compliance is the most influencing factor that decides the trade behaviour of exporters with a mean score of 3.85 followed by their decision motives with 3.77. The feasibility to comply statutory requirements on exports is considered as major factors that invade the exporters to go distinct markets.

Table -4 Mean Score Ranking of Export Trade Behaviour

Export Trade Behaviour	Mean	Std. Deviation	Rank
Interest on Export	3.3025	1.03480	4
Legal compliance	3.8531	.53396	1
Decision Motives to Export	3.7793	.64171	2
Capacity to Export	3.7299	.62924	3

Source:computed

D. Behavioural dimensions and firms characteristics:

Behavioural dimensions that are extracted are taken for further ANOVA analysis. The purpose of this test is to understand that 'do the behavioural difference among the exporter differs when the characteristics of firms'. The selected characteristics are export turnover, kind of

business and frequency of export. The result reveals that there is no significant difference in the behaviour according to their export turnover and nature of business whereas in case of frequency of export the export decision motive behaviour alone differs according to their frequency of exports. Hence, the H₀ is rejected. The ANOVA Table-5 reveals the same.

Table-5 ANOVA – Difference in Export Trade Behaviour based on frequency of export

H_0 : There is no significant difference in Export trade behaviour based on frequency of export

Export Trade Behaviour		Sum of Squares	df	Mean Square	F	Sig.
Legal compliance	Between Groups	.637	3	.212	.741	.529
	Within Groups	45.267	158	.286		
	Total	45.903	161			
Capacity to Export	Between Groups	1.600	3	.533	1.356	.258
	Within Groups	62.147	158	.393		
	Total	63.747	161			
Interest on Export	Between Groups	3.200	3	1.067	.996	.396
	Within Groups	169.202	158	1.071		
	Total	172.401	161			
Decision Motives to Export	Between Groups	6.315	3	2.105	5.545	.001
	Within Groups	59.983	158	.380		
	Total	66.298	161			

Source: Primary & Computed Data

The post hoc analysis shown in Table 6 is performed by using Duncan method which explains the exporters who export once in month and their export motives are significantly different from other behavioural factors.

Hence, it can be concluded that the overall firms' characteristics and their behaviour do not have any statistical difference on their trade pattern except frequency of export.

Table-6 Post hoc output for Export Decision Motives

Frequency of export	N	Subset for alpha = 0.05	
		1	2
Occasionally	14	3.5714	
Regularly	112	3.6920	
Seasonally	11	3.9773	3.9773
Once in a month	25		4.2000

Source: Primary & Computed data

IV. CONCLUSION

Export entry strategy of a company is not a single plan; it involves an in depth individual product or market plan. The entry is affected by various decisions that revolve both internal and external boundaries to trade which differs from time to time. The present study concludes that the explored factors are reflecting the trade behaviour of Agriculture and processed food exporters under four major dimensions namely Interest on Export, Capacity to Export, Legal compliance and Decision Motives to Export. The result reveals the combination of factors influence trade behaviour of the exporters with varying level of influence for decision to export, capacity to export, interest to export and compliance of regulations. Among the factors, their compliability of regulatory measures required for export shall be given particular consideration compared to other factors. Hence, it shows that the level of compliance of regulations and its ease develops interest to export. Further ANOVA results says that, exporters who enter international market rarely (once in a month) differ in their

perception compared to other frequency in exports. These exporters shall concentrate on domestic market as their core business or those firms are an infant to international business. In nutshell, it is inferred that based on level of compliability of the regulations and standards the fair trade is ensured which helps the destination markets feasible for the exporters. The government shall also make required arrangements to make the buyers legal compliance viable and executable, as these scales are inevitable in the sustainable economy goals affirmed by the World Trade Organisation. The exporters are to be motivated by offering assistance to practice a sustainable trade.

REFERENCES

- [1] Hamid Yeganeh, Masoome Saeid, (2011), "A typology of the perceived External Barriers hindering export of Agricultural products in Iran", "Journal of Comparative International Management", Vol 14 No 1, pp 16-25.
- [2] Saul Estrin, Klaus E. Meyer, Mike Wright, Francesca Foliano (2008), "Export Propensity and Intensity of

- subsidiaries in emerging economies”, “International Business review”, Doi: 10.1016/j.ibusrev.2008.04.002
- [3] Safak Aksay& Erdener kaynak (1993) Environment, strategy, structure, and performance in the context of export activity: an empirical study of Taiwanese manufacturing firms, “*Journal of Business Research*” Vol 27 (1), 33-49
- [4] Augustus S. Muluvi, “Firm Level Determinants of Investment in the Kenyan Manufacturing Firm”, “*Current Research Journal of Economic Theory*”,Vol 3(3), pp 93-98, 2011.
- [5] Andrew B.Bernard, J. Bradford Jensen, Stephen J. Redding, Peter K. Schott, “The Empirics of Firm Heterogeneity and International Trade”, “*The Annual Review of Economics*”, Vol 4, pp 283–313,2009.
- [6] Verghoogen, “Trade, Quality Upgrading,and Wage Inequality in the MexicanManufacturing Sector, “*The Quarterly Journal of Economics*” Vol 123 (2), pp 489,2008.
- [7] Stan D. Reid, “The Decision-Maker and Export Entry and Expansion”, “*Journal ofInternational Business Studies*”, vol 12(2),pp 101-112, 1981.
- [8] Dobdinga Cletus Fonchamnyo, “Determinants of Export Propensity and Intensity of Manufacturing Firms in Cameroon: An Empirical Assessment”, “*Applied Economics and Finance*”, Vol. 1(2), pp 30-38, 2014.
- [9] Alexander Friedrich Eickelpasch and Alexander Vogel, “Determinants of Export Behaviour of German Business Services Companies”, “Working PaperSeries in Economics 123, University of Lüneburg, Institute of Economics, 2009.
- [10] United Nations Industrial Development Organisation (2015), Meeting standards winning markets, *Trade Standards Compliance Report 2015*, Austria.
- [11] Beghin et.al, "Global Agricultural Trade and the Doha Round: What Are the Implications for North and South?," Ames, Iowa: Iowa State University, Department of Economics, Staff General Research Papers 2002.
- [12] Daniele Curzi & Alessandro Olper, “Export behavior of Italian food firms:Does product quality matter?”, “*Food Policy*”. Vol 37(5), pp 493-503, 2012.
- [13] Kaiser, “An index of factorial simplicity”, “*Psychometrika*”, Vol 39, pp 31–36, 1974.
- [14] Kaiser "The varimax criterion for analytic rotation in factor analysis." *Psychometrika*”, Vol 23, pp187–200, 1958.
- [15] Fidelys Ravelomanana, Liang Yan, Christophe Mahazomanana, Leoncine Paul Miarisoa, (2014) “ModelingAfrica’s Demand for Iron and SteelImportation:An International MarketEstimation Method Perspective” “*American Journal of Industrial andBusiness Management*”, Vol.4 (12).