

FACTORS INFLUENCING THE PERFORMANCE OF EXPORT ORIENTED UNITS IN KARNATAKA

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Abstract:

Export promotion has been one of the prime aspects of any country's economic development. When the export promotion is done properly, it is possible for any developing country to export more than it imports. It is not just implementing new export promotional policies and concepts. It is also vital to assess time and time how well the export promotional measures taken are working. When export promotion is discussed, SEZs and EOUs are the integral part of it in India. With this reference, the present study is an attempt to analyse the factors which influence the performance of the EOUs located in Karnataka by taking the opinions of the EOUs' owners in Karnataka with the help of a questionnaire.

Keywords: Export oriented Units, Special Economic Zones, performance, Foreign Direct Investment.

Introduction:

Export is considered to be one of the key aspects of a country's economic development. Every country in the world will always look forward to encash any available opportunities in the foreign markets. Therefore, all the countries are rigorously approaching to augment their exports. The results of this approach are in the forms of many export promotional activities, schemes benefiting the exporters to encourage the exporters as well as to the new entrepreneurs to concentrate more on exports through the benefits of these export promotional schemes. In India, SEZs and EOUs are among those export promotional schemes from the government which are often considered important in this aspect. According to export promotion council of India, Karnataka state has been one of the most important states in India having a long tradition of overseas trade.

According to the data from CSEZ, Export Oriented Units in Karnataka have been performing better in terms of total exports made from the EOUs of Karnataka as well as the total employment generation from the EOUs of Karnataka. Therefore, it would be useful to focus on the factors influencing the performance of EOUs in Karnataka.

Literature Review:

C Vijay (2009) explains how important the SEZs are in economic development, in particular employment generation and pushing country's balance of payments to positive. The study further identifies that Special Economic Zones not only the instruments of export promotion but also to find buyers at international markets and earning more foreign exchanges.

Ghosh (2006) tries to ascertain the relationship between the growth of small and unorganised and labour oriented, informal manufacturing units with the changes in the structure of destinations of the country's export basket.

Anil Tandel (2012) finds that the 'available incentives' are the major factor which is influencing the special economic zones' units to do better and attracting more investors along with the good prospects of exports.

Lonarkar (2014) studies the export performance of SEZs by using structural stability model. The results shown in the study reveals that zones are in actual dominated by very few sectors and labour oriented sectors are not performing well. Furthermore, the study reveals that there is a huge difference in the performance of export between zones. So the author suggests for a cautious implementation to the policy to expect the multisector development as well as for equal development of export performance within the zones.

M V Shruti (2014) in their PhD thesis investigate that the incentives and concessions that SEZs get have a positive impact on the performance of the SEZs. The study further reveals that SEZs in Karnataka are doing really well in terms of exports. However nearly 84% of the total exports of overall SEZs are coming from just one sector that is IT/ITEs SEZs and this is affecting the SEZs' trade partners' choices. The study also finds that manufacturing sectors' SEZs are having a slow growth in terms of exports as well as other parameters.

Mathiraj and Devi (2015) study the export performance of India's SEZs. It is been revealed in the study that Special Economic Zones are performing better and playing an important role in promoting export of the country. Export performance of SEZs is better when compare to India's overall export performance and they find that SEZs in India have performed better even when there was global recession during 2009-10: SEZs' export growth rate was

121.40% during 2009-10 when compared to India's total export growth rate which was 0.57%.

Ajeet Kumar and Prof. Sanjiv Kumar (2017) study the present status of Special Economic Zones and their performance. They explain that SEZs have shown an inclining trend in the performance with the exports, employment generation and in investment but failed to attain the expected growth rate. They found in the study that SEZs have recorded a CAGR of 33% in the growth rate of export when analysing the growth rate from 2000-01 to 2016-17. They found that the growth rate of SEZs' export has been stable when compare to India's overall export growth rate even though during the global economic crisis. They further explain that SEZs are concentrated only in few sectors like IT, Electronics, Pharmaceuticals and Chemicals; and these are located in few states in particular.

Research Methodology

This study has employed a mixed research design, consisting of exploratory and causal research design analysing the impact of the variables 'Employment generation' and 'Investment' on the performance indicating variable that is Export Performance pertaining to EOUs of Karnataka. Further, the Research approach was deductive and the Research strategy was quantitative in the present study.

Table 1: Blue Print of Research Methodology

Type of Research	Applied; Exploratory and Causal
Research Approach	Deductive and Inferential
Research Strategy	Quantitative
Research Method	Survey
Data Collection Method	Primary and Secondary Data
Tests employed for Data Analysis	Descriptive Test – Mean & SD Reliability & validity Test Factor Analysis One sample t test All the tests have been performed at 5% level of significance.

Research design

The research design employed to this empirical study was a combination of exploratory and causal research. Exploratory research is investigation into a problem or

situation which provides insights to the researcher. The causal analysis was performed on the specified dependent and independent variables to determine the significant influence.

Sources of Data

This research work is of empirical nature and it is based on primary and secondary data. In order to make comprehensive analysis of research problem and analytical questions described above, the researcher has obtained the data from genuine secondary data sources and primary data with the help of a structured questionnaire.

Primary Data

The primary data in the preliminary stage was collected from discussions, oral communication, observations and interviews. Questionnaire was administered to collect the required data from EOU owners.

Secondary Data

Substantial amount of data needed for the study was obtained from authentic secondary data sources. The published annual reports of select sectors, annual survey of industries, CSEZ data source, Centre for Industrial and Economic Research (CIER) Data Book, statistical hand books of various industries, Reserve Bank of India database, World Bank database, websites, search engines, various journals, periodical, magazines and textbooks on econometrics, statistics, business research methodology were accessed for data collection.

Sampling

Sampling Unit: The Export Oriented Units operating in Karnataka state.

Sampling Method: purposive sampling method was adopted for the study,

Sample Size: Primary data is collected from 33 units and secondary data collected related to important eight sectors operating in Karnataka state EOUs

Techniques and Tools of Data Analysis

Descriptive statistics are used to describe the basic features of the data in a study. They provide simple summaries about the sample and the measures. Descriptive statistics aim to summarize a sample, rather than use the data to learn about the population that the sample of data is thought to represent. The data collected from respondents is analysed with the help of

SPSS version 23 and MS-Excel. The hypotheses are tested using Reliability test, Validity test, Factor Analysis, One Sample T-test.

Data Analysis

There are various factors which influence the entrepreneurs of Export Oriented Units right from the idea generation stage to start an EOU till the operating stage extending to expansion of their business. When it comes to the performance of EOUs; there are plenty of factors which positively influence the EOUs. Many research results identify several factors which influence the performance of the EOUs as well the vast majority of the studies on the SEZs. ‘Units in Cochin SEZ were satisfied with the quality of the facilities of the infrastructure and the quality of governance and the labours were also happy with the wages and the various facilities available for them’ (Nidheesh-2013). ‘New SEZ policy over old EPZ policy has brought a good positive change in the development of the SEZs’ (Malini L Tantri-2010). There are many advantages of SEZs on the economic development’ (Agarwal-2010). EPZ policy has not had a greater impact on the performance of the zones compare to other countries and the zones are performing better only in the traditional sectors (Agarwal-2004).

The study identifies numerous such factors and tries to categorise them into Government Policies, International Marketing, Labour Influence, Investment, Supply Chain Management, Business Goal and Domestic Effect for the ease of surveying and analysing.

To analyse the significant factors which influence performance of EOUs; statements were identified and respondents were asked to indicate their agreements on a five point Likert’s scale. The statements are measured using 5 point Likert scale with responses ranging from “Strongly Agree”=5, “Agree” = 4, “Neutral” = 3, “Disagree” = 2 and “Strongly Disagree” = 1. The statements are listed below.

Table 2: Factors influencing the performance and growth of their units with Mean and SD calculations

Q. No.	Particular	Mean	SD	95% CI	
				Lower	Upper
1	Tax exemption and Export subsidy	4.52	.508	4.34	4.70
2	Locational freedom to set up EOU anywhere	4.91	.292	4.81	5.01
3	Facility of DTA	3.97	.394	3.83	4.11

4	Facility of Deemed export	4.61	.496	4.43	4.78
5	Well structure Govt. policies	4.24	.751	3.98	4.51
6	Higher profit margin compare to other exporting businesses	2.82	1.185	2.40	3.24
7	Easy accessibility to foreign markets	3.45	1.092	3.07	3.84
8	Easy shipping process	3.73	.911	3.40	4.05
9	Potential foreign buyers	3.76	.830	3.46	4.05
10	Potential foreign suppliers	3.67	.890	3.35	3.98
11	Low labour cost	2.82	1.334	2.35	3.29
12	Availability of skilled labours	3.03	1.045	2.66	3.40
13	Productivity of labours	2.91	1.128	2.51	3.31
14	Availability of qualified employees	3.73	.801	3.44	4.01
15	Experience of managerial staff	3.79	.740	3.53	4.05
16	100% FDI facility	4.00	.707	3.75	4.25
17	Financial support from EXIM Bank	4.15	.442	3.99	4.31
18	Financial support from other Govt. banks and institutions.	3.42	.969	3.08	3.77
19	Financial support from private banks and institution	3.30	1.015	2.94	3.66
20	Less investment risk compare to other business	2.64	1.245	2.19	3.08
21	Well-developed ports for easy export and import	4.00	.612	3.78	4.22
22	Well-connected domestic transportation facility and supply chain facility	3.73	.944	3.39	4.06
23	Good infrastructure facility for example: Roads, Warehousing etc.	3.97	.684	3.73	4.21
24	Low cost of domestic materials	3.00	1.345	2.50	3.50
25	Lesser domestic competition	2.77	1.232	2.38	3.26

(Source: Data gathered through Primary Investigation, compilation using SPSS V23)

The above table highlights the respondent's agreement towards the factors influencing the performance and growth of their units. The overall mean value is greater than three for majority of the factors and hence it is inferred that respondents tend to agree positively. The

highest mean value was recorded for the factor, “Locational freedom to set up EOU anywhere’ mean 4.91) with standard deviation (0.29) indicating consistency in the opinion of the respondents. This is followed by; ‘Facility of Deemed export’ (mean 4.61) with standard deviation (0.496). The respondents have agreed less for the factor ‘Less investment risk compare to other business’ with a mean score of 2.64 and highest inconsistency is for the factor ‘Low cost of domestic materials’ with a standard deviation of 1.35.

Table 3: Reliability and Validity Analysis

The factors influencing the performance and growth of your unit	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Tax exemption and Export subsidy	.316	.850
Locational freedom to set up EOU anywhere	.359	.850
Facility of DTA	.327	.851
Facility of Deemed export	.308	.853
Well structure Govt. policies	.554	.836
Higher profit margin compare to other exporting businesses	.360	.843
Easy accessibility to foreign markets	.687	.828
Easy shipping process	.539	.835
Potential foreign buyers	.724	.830
Potential foreign suppliers	.667	.831
Low labour cost	.525	.835
Availability of skilled labours	.381	.841
Productivity of labours	.515	.836
Availability of qualified employees	.315	.843
Experience of managerial staff	.325	.846
100% FDI facility	.329	.855
Financial support from EXIM Bank	.505	.857
Financial support from other Govt. banks and institutions.	.679	.830
Financial support from private banks and institution	.692	.829
Less investment risk compare to other business	.330	.844
Well-developed ports for easy export and import	.472	.840

Well-connected domestic transportation facility and supply chain facility	.688	.829
Good infrastructure facility for example: Roads, Warehousing etc.	.372	.842
Low cost of domestic materials	.579	.832
Lesser domestic competition	.422	.840
Combined Cronbach's Alpha value	0.846	

(Source: Data gathered through Primary Investigation, compilation using SPSS V23)

Significant factors which influence the performance of EOU's have been analyzed with the help of twenty five statements and respondents were requested to provide their agreement or disagreement on the listed factors. In order to assess the reliability and validity of the respondents; scale variance, Item-Total Correlation and Cronbach's Alpha values were analyzed and it was observed that overall Cronbach's Alpha was recorded at 0.846 which is statistically excellent. Further, scale item elimination procedure was carried out so as to achieve greater level of consistency but the results revealed that if statements are removed overall reliability is not going to improve. Therefore the researcher decided to use all the statements for hypothesis testing purpose in the following section

Factor Analysis

Factor analysis attempts to identify underlying variables, or factors, that explain the pattern of correlations within a set of observed variables. Factor analysis is often used in data reduction to identify a small number of factors or variables that explain most of the variance observed in a much larger number of manifest variables. Factor analysis can also be used to generate hypotheses regarding causal mechanisms or to screen variables for subsequent analysis

Table 4: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.870
Bartlett's Test of Sphericity	Chi-Square	292.152
	Sig.	0.001

(Source: Data gathered through Primary Investigation, compilation using SPSS V23)

KMO Test is a measure of how suited your data is for Factor Analysis. The test measures sampling adequacy for each variable in the model and for the complete model. Bartlett's test for homogeneity of variances is used to test that variances are equal for all samples. It checks that the assumption of equal variances is true before running certain statistical tests. KMO value reference for standard interpretation is recorded at 0.870 which is said to be marvellous for further data analysis. Thus; it is inferred that; select factors are significant in influencing performance of EOU's.

Table 5: Total Variance Explained

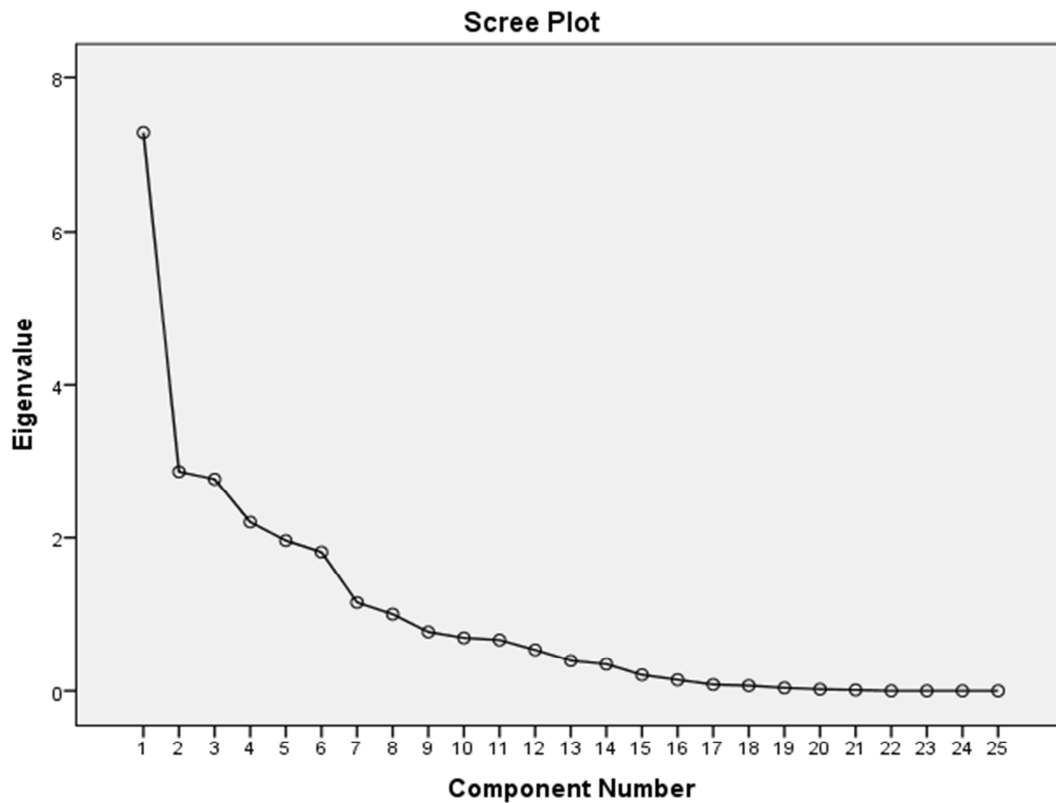
Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.296	29.184	29.184	4.290	17.162	17.162
2	2.862	11.449	40.632	3.218	12.872	30.034
3	2.765	11.059	51.692	3.086	12.346	42.380
4	2.202	8.810	60.502	2.890	11.560	53.939
5	1.962	7.848	68.350	2.301	9.203	63.142
6	1.811	7.246	75.596	2.182	8.728	71.871
7	1.150	4.601	80.196	2.081	8.326	80.196
8	.998	3.994	84.190			
9	.767	3.067	87.257			
10	.689	2.758	90.015			
11	.662	2.647	92.661			
12	.533	2.133	94.794			
13	.390	1.560	96.354			
14	.344	1.377	97.731			
15	.206	.823	98.554			
16	.143	.570	99.124			
17	.081	.326	99.450			
18	.067	.269	99.719			
19	.038	.154	99.873			
20	.021	.083	99.956			
21	.011	.044	100.000			

22	4.698E-16	1.879E-15	100.000			
23	4.867E-17	1.947E-16	100.000			
24	-5.697E-17	-2.279E-16	100.000			
25	-3.217E-16	-1.287E-15	100.000			
Extraction Method: Principal Component Analysis.						

(Source: Data gathered through Primary Investigation, compilation using SPSS V23)

With reference to initial eigenvalues it is realized that factors that met our cut-off criterion (extraction method). In the above table, there were seven factors with eigenvalues greater than 1. The “% of variance” column explains how much of the total variability (in all of the variables together) can be accounted for by each of these summary components. Component or Factor 1 accounts for 29.18% of the variability in all 25 statements, and so on. The seven factors indicate cumulative % of 80.19% which is greater than 2/3rd of the overall variance explained which is assumed to be a satisfactory standard.

Fig 1: Scree Plot showing the significance of seven factors with Eigen values



The scree plot shows significance of seven factors with Eigen value greater than 1 as seen in the above graph

Table 6: Factors Analysis

Statements	Factors						
	1	2	3	4	5	6	7
Tax exemption and Export subsidy	0.863						
Locational freedom to set up EOU anywhere	0.831						
Facility of DTA	0.827						
facility of Deemed export	0.691						
Well-structured Govt. Polices	0.637						
Easy accessibility to foreign Markets		0.861					
Easy shipping process		0.729					
Potential foreign buyers		0.673					
Potential Foreign suppliers		0.592					
Low labour cost			0.748				
Availability of skilled labours			0.721				
Productivity of labours			0.683				
Availability of qualified Employees			0.633				
Experience of Managerial Staff			0.587				
100% FDI Facility				0.841			
Financial Support from EXIM Bank				0.791			
Financial support from other Govt. banks and institutions				0.693			
Financial Support from private banks and institution				0.584			
Well-Developed ports for easy export and import					0.752		
Well -Connected domestic transportation facility and supply chain facility					0.675		
Good Infrastructure facility for example: Roads, Warehousing etc.					0.611		
Higher profit margin compare to other exporting business						0.603	
Less Investment risk compare to other business						0.575	
Low cost of domestic raw materials							0.571
Lesser domestic competition							0.537
Factor Name	Govt. policy	IM	Labour	Investment	SCM	Business Goal	Domestic

(Source: Data gathered through Primary Investigation, compilation using SPSS V23)

Finally, the rotated component matrix shows the factor loadings for each attribute and highlights the factor that each attribute loaded most strongly on respective component as observed in the above table with values greater than 0.50 which was set standard.

Testing of Hypothesis

To witness whether the select factors influence the performance of the EOUs, the following hypothesis is tested.

H₀: ‘Select significant factors do not influence the performance of EOUs’

H_a: ‘Select significant factors influence the performance of EOUs’

Table 7: Descriptive Statistical Analysis and One-Sample Statistics

List of Factors	Mean	SD	95% Confidence Interval	
			Lower	Upper
Govt. policy	4.44	.22	4.36	4.52
International Marketing	3.65	.75	3.38	3.91
Labour influence	3.25	.70	3.00	3.50
Investment	3.71	.45	3.55	3.88
Supply Chain Management	3.89	.62	3.67	4.12
Business Goal	2.72	.92	2.39	3.05
Domestic effect	2.90	1.09	2.52	3.29
Combined Factor	3.51	0.47	3.34	3.68

(Source: Data gathered through Primary Investigation, compilation using SPSS V23)

The aggregate standard deviation being less than 0.50, it indicates that there is consistency in the respondent’s agreement towards the select factors as the aggregate mean value for ‘Govt. Policies’ is 4.44; for ‘Supply Chain Management’ is 3.89, for ‘Investment’ is 3.71 and combined factor mean value is 3.51 which falls on the positive agreement side of the scale and also falls within the upper and lower confidence interval.

Table 8: One-Sample Test

List of Factors	Test Value = 3					
	t-value	df	p-value	Mean Diff.	95% Confidence Interval of the Difference	
					Lower	Upper
Govt. policy	36.289	32	0.001	1.44848	1.3672	1.5298

International Marketing	4.957	32	0.001	.65152	.3838	.9192
Labor influence	2.082	32	0.045	.25455	.0055	.5036
Investment	9.022	32	0.001	.71970	.5572	.8822
Supply Chain Management	8.246	32	0.001	.89899	.6769	1.1211
Business Goal	-1.689	32	0.101	-.27273	-.6017	.0563
Domestic effect	-0.478	32	0.636	-.09091	-.4785	.2966
Combined Factor	6.235	32	0.001	.51566	.3472	.6841

(Source: Data gathered through Primary Investigation, compilation using SPSS V23)

For testing the above hypothesis, one sample t test has been used with assumed mean value of 3. The total score in the five-points scale in the Likert Scale is 15 and the average is 3. The calculated mean value ranges from 2.72 to 4.44 which is greater than the assumed mean 3 and the observed p-value is 0.001 for combined factor which is less than the assumed level of significance of 0.05. Further, the calculated t-test value is 6.235, which is greater than the standard t-test table value 1.96 with degree of freedom of 32. Therefore, the result indicates that the null hypothesis that ‘**Select significant factors do not influence the performance of EOUs**’ is rejected and the alternative hypothesis that ‘**Select significant factors influence the performance of EOUs**’ is accepted.

Findings

The factors influence the performance of the EOUs in Karnataka as analyzed through the questionnaire with 25 statements stating the 25 different factors grouped under different categories reveal that there is no difference of opinion among the 33 respondents’ responses. Respondents’ opinions towards each of the statements were almost similar and majority of the statements received identically same opinions. ‘Factor Analysis’ with the ‘rotated component matrix’ shows that the factor loadings for each attribute and highlights the factor that each attribute loaded most strongly on respective component as observed in the above table with values greater than 0.50 which was set standard.

‘One sample t test’ has been used with assumed mean value of 3. The total score in the five point scale in the ‘Likert Scale’ is 15 and the average is 3. The calculated mean value ranges from 2.72 to 4.44 which is greater than the assumed mean 3 and the observed ‘p-value’ is 0.001 for ‘combined factor’ which is less than the assumed level of significance of 0.05.

Further, the calculated 't-test value' is 6.235, which is greater than the standard t-test table value 1.96 with degree of freedom of 32. Therefore the result indicates that the null hypothesis that 'Select significant factors do not influence the performance of EOUs' is rejected and the alternative hypothesis that 'Select significant factors influence the performance of EOUs' is accepted. In the overall analysis, the select factors do influence the performance and growth of the EOUs in Karnataka with all the 'Govt. and policy related factors' being the strong influencing factors along with few of the 'Investment and Financial aids related factors' such as 100% FDI and EXIM bank supports and the SCM related factors such as 'well connected ports and domestic transportation facilities and also the factors related to Labours such as 'availability of qualified employees' and 'experience of managerial staffs' being the major influencing factors which influence the performance of the EOUs positively and impact on the development of the EOUs in Karnataka.

Conclusion

'Govt. and policy related factors' such as 'Locational freedom to set up EOUs anywhere', 'Tax exemption and export subsidies', 'facility of deemed export' and facility of DTA' are indeed the influencing factors which are motivating the owners of EOUs and other business owners to get attracted and convert their business units into EOUs. Apart from these, other factors such as '100% FDI facility' and 'EXIM' bank supports are also playing major roles in retaining the existing EOUs owners to stay in the EOUs and perform better. There are many other factors such as 'well connected ports and domestic transportation facilities and also the factors related to Labours such as 'availability of qualified employees' and 'experience of managerial staffs' also being the major influencing factors which influence the performance of the EOUs positively and impacting on the development of the EOUs in Karnataka. Therefore, the study strongly feels that the factors are to be kept continuing with other additional benefits adding to them to promote more exports from the EOUs.

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