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EFFECTIVENESS OF EXIM BANK'S PRE-SHIPMENT EXPORT CREDIT TO INDIAN PROJECT EXPORTERS: AN ANALYSIS

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ABSTRACT

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The Export-Import Bank of India (EXIM Bank), established by the Government of India, serves as the principal institution for financing international trade and project exports. Over the years, it has become a crucial instrument in promoting India's global presence through credit, guarantees, and risk-mitigation support. This paper examines the effectiveness of pre-shipment export credit provided to Indian project exporters, with a focus on its role in easing working capital constraints, enhancing liquidity, and strengthening competitiveness in overseas markets. The study also highlights how pre-shipment finance contributes to timely project execution and reinforces the export capabilities of Indian enterprises.

KEY WORDS

- ***Export-Import Bank of India (EXIM Bank):*** *The principal financial institution of the Government of India that provides credit, guarantees, and support for international trade and project exports.*
- ***Pre-shipment credit:*** *A short-term working capital facility extended to exporters to finance raw materials, processing, manufacturing, and shipment preparation before goods are dispatched.*
- ***Project exports:*** *Overseas contracts undertaken by Indian companies, including civil construction, turnkey projects, supplies, consultancy, and composite contracts that generate foreign exchange earnings.*
- ***Working capital:*** *The short-term financial resources required by exporters to cover operational needs, such as procurement, labor, and logistics, before receiving export payments.*
- ***Liquidity:*** *The availability of immediate funds to meet short-term obligations, crucial for ensuring timely execution of export projects without delays.*
- ***Competitiveness:*** *The ability of Indian project exporters to win and successfully execute international contracts by offering cost-effective, timely, and reliable services.*
- ***International trade finance:*** *Financial instruments and credit mechanisms that facilitate cross-border trade, reduce risks, and enhance the capacity of exporters to participate in global markets.*

INTRODUCTION

Project exports constitute one of the most significant components of India's external trade, contributing substantially to the inflow of foreign currency and enhancing the country's balance of payments. Broadly, project exports can be classified into five categories: **civil construction contracts** - involving the execution of overseas infrastructure works such as roads, bridges, dams, and housing projects; **turnkey projects** - where Indian companies design, build, and deliver fully operational facilities abroad; **supplies contracts** - focused on exporting equipment, machinery, and goods required for foreign projects; **consultancy and services contracts** - covering technical know-how, project management, design, and advisory services; and **composite contracts** - which combine elements of construction, supplies, and services to provide integrated, end-to-end project solutions. Together, these categories reflect India's growing engineering, technical, and managerial capabilities on the global stage, while simultaneously generating valuable foreign exchange earnings for the economy. FIGURE 1:

In this context, analyzing the effectiveness of pre-shipment credit is not only vital from an academic standpoint, contributing to the existing body of literature on export finance and project management, but also highly relevant for policymakers and financial institutions, as it offers insights into how India can strengthen its export financing ecosystem and enhance the global competitiveness of its project exporters.

REVIEW OF LITERATURE

The following important literature are reviewed to ascertain research gap.

Academic study summarizing forms of export finance**,** pre- and post-shipment; INR vs. foreign currency and bank practices in India. (Patel (2021) – "A Study on the Availment of Export Finance")

Peer-reviewed empirical study linking cash conversion cycle (CCC) and export intensity/performance. (Mansilla-Fernández et al. (2022) – "Working capital management, financial constraints and export performance.")

A policy/market study that tracks shifts in ECA support during COVID-19 and recommends strategies for Indian firms - sectoral capability building; diversification to LAC, EAP, Central Asia. (Exim Bank of India (2022) – "Project Exports from India: Tapping Potential amid Changing Global Dynamics.")

Research paper (ECGC) comparing export-credit patterns and macro linkages, with India-specific figures for 2016–2021. (ECGC (2024) – "A Comparative Analysis of Export Credit")

Government-commissioned landscape study mapping India's end-to-end trade-finance gaps and instruments (insurance, ECGC/NEIA, bank credit, fintech) (DGFT (2025) – "Study on Trade Finance Ecosystem in India.")

Emphasis on access to timely working capital as a determinant of export capability and resilience—directly resonating with pre-shipment credit's objective. (EPRA Journals (2025) – "The Role of Export Financing in India.")

DATA ANALYSIS AND INTERPRETATION

Pre-Shipment Credit, also known as packing credit, is a short-term working capital facility extended to exporters by commercial banks and financial institutions to meet their immediate requirements prior to the actual shipment of goods or execution of services. It is granted against a confirmed export order, letter of credit, or contract, and enables exporters to finance the purchase of raw materials, processing, manufacturing, packaging, and transportation of goods to the port of shipment. In the context of project exports, pre-shipment credit assumes even greater importance as these projects often involve complex mobilization of resources, procurement of machinery, deployment of manpower, and compliance with international timelines. By bridging the financing gap between contract award and shipment, this credit not only ensures smooth project execution but also enhances the competitiveness of exporters in global bidding processes. Furthermore, it serves as a crucial risk-mitigation tool, as timely availability of funds reduces the chances of cost overruns and delays, thereby contributing to the reliability and reputation of Indian project exporters in international markets.

In respect of Pre-Shipment financial assistance program of EXIM BANK OF INDIA towards selected Indian project exporters, 12 variables were identified to analyze the effectiveness of Pre-shipment financial assistance in accelerating project exports of selected Indian project export companies.

Table 1: Reliability Statistics on Pre-shipment export credit

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.964	**0.964**	**12**

1. Cronbach's alpha reliability coefficient normally ranges between 0 and 1. The closer Cronbach's alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale.
2. Rules of thumb:

Alpha >0.9 – Excellent
Alpha >0.8 – Good
Alpha>0.7 – Acceptable
Alpha<0.7 – Unacceptable

3.12 items were used for reliability test, the final reliability scale was considered acceptable α=0.96

4. It should also be noted that while a high value for Cronbach's alpha indicates good internal consistency of the items in the scale. The value of reliability test (Table 1) on pre-shipment export credit showed 0.96 which is not only acceptable but also excellent of internal items consistency

Table 2: Item Statistics

Item Statistics			
Item	**Mean**	**Std. Deviation**	**N**
Q1	4.2000	.69585	20
Q2	4.2000	.61559	20
Q3	4.1500	.67082	20
Q4	4.1500	.74516	20
Q5	4.2000	.83351	20
Q6	4.1000	.78807	20
Q7	4.3000	.65695	20
Q8	4.2000	.76777	20
Q9	4.0500	.68633	20
Q10	4.1000	.78807	20
Q11	4.1500	.74516	20
Q12	4.2500	.78640	20

Table 2 presents item-wise values of mean and standard deviation. It evident that item-wise mean values were all above 4.0 with low standard deviation indicating the respondents were mostly preferred to agree and strongly agree to each of the questions (hence choose 4 and 5 on the Liker scale).

Table 3: Inter-item Correlation Matrix

Inter-Item Correlation Matrix												
Item	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**	**Q9**	**Q10**	**Q11**	**Q12**
Q1	1.000	.885	.947	.853	.835	.633	.668	.611	.419	.729	.853	.577
Q2	.885	1.000	.816	.734	.739	.608	.625	.468	.349	.608	.734	.544
Q3	.947	.816	1.000	.795	.791	.567	.609	.552	.440	.667	.795	.524
Q4	.853	.734	.795	1.000	.881	.690	.656	.681	.602	.780	.810	.651
Q5	.835	.739	.791	.881	1.000	.849	.750	.839	.626	.849	.881	.803
Q6	.633	.608	.567	.690	.849	1.000	.549	.748	.574	.661	.690	.807
Q7	.668	.625	.609	.656	.750	.549	1.000	.814	.665	.752	.763	.662
Q8	.611	**.468**	.552	.681	.839	.748	.814	1.000	.679	.748	.681	.785
Q9	**.419**	**.349**	**.440**	.602	.626	.574	.665	.679	1.000	.574	.499	.463
Q10	.729	.608	.667	.780	.849	.661	.752	.748	.574	1.000	.869	.722
Q11	.853	.734	.795	.810	.881	.690	.763	.681	**.499**	.869	1.000	.741
Q12	**.577**	.544	.524	.651	.803	.807	.662	.785	**.463**	.722	.741	1.000

Table 3 showed inter-item correlation among 12 items. The lower diagonal correlation matrix suggests that, items such as (q2 and q9); (q1 and q9); (q2 and q8); (q9 and q11) and (q9 and q12) were associated with low correlation values. The rest of the items were above 0.5. The thumb rule is correlation should be more than 0.4 for accepting internal consistency.

Table 4: Item-Total Statistics

Item-Total Statistics					
Item	**Scale Mean if Item Deleted**	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Squared Multiple Correlation**	**Cronbach's Alpha if Item Deleted**
Q1	45.8500	47.187	.854	.975	.960
Q2	45.8500	48.976	.753	.901	.963
Q3	45.9000	47.989	.796	.932	.962
Q4	45.9000	46.411	.874	.881	.960
Q5	45.8500	44.450	.962	.960	.957
Q6	45.9500	46.682	.793	.870	.962
Q7	45.7500	48.092	.803	.894	.962
Q8	45.8500	46.661	.819	.935	.961
Q9	46.0000	49.368	.622	.747	.966
Q10	45.9500	46.050	.857	.821	.960
Q11	45.9000	46.200	.897	.930	.959
Q12	45.8000	46.800	.783	.842	.962

1. Scale Mean and Variance if Item Deleted—Excluding the individual item listed, all other scale items are summed for all individuals and the mean and variance is given. In Table 4, the mean and variance of the summated scores were 45.85, and 47.187 respectively for item q1, likewise, the mean and variance for the last item q12 were 45.8 and 46.8. Since the values of scale mean and scale variance were consistent across the items, confirming the included items were internally consistent to each other.
2. Corrected Item-Total Correlation—This is the correlation of the item designated with the summated score for all other items. In Table 4, the correlation between item 1 and the summated score is 0.854. A rule-of-thumb is that these values should be at least 0.40. Since item-total correlated values were higher the 0.6, showing each item had internally consistent with other items.
3. Squared Multiple Correlation—This is the predicted Multiple Correlation Coefficient squared obtained by regressing the identified individual item on all the remaining items. The predicted Squared Multiple Regression Correlation is 0.975 by regressing item q1 on rest of the items.
4. Alpha—The Cronbach's alpha coefficient of internal consistency. This is the most frequently used Cronbach's alpha coefficient. Individual items Cronbach's alpha coefficient was higher than 0.95, suggesting items were internally consistent.

Table 5: Scale Statistics

Scale Statistics			
Mean	**Variance**	**Std. Deviation**	**N of Items**
50.0500	55.839	7.47258	12

Table 5 provides descriptive statistics for the total scale score, including mean, variance, standard deviation and number of cases for the construct.

Table 6: KMO and Bartlett's Test for Pre-shipment export credit

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		**0.787**
Bartlett's Test of Sphericity	Approx. Chi-Square	**258.499****
	df	66
	Sig.	0.000

** at 1 % level

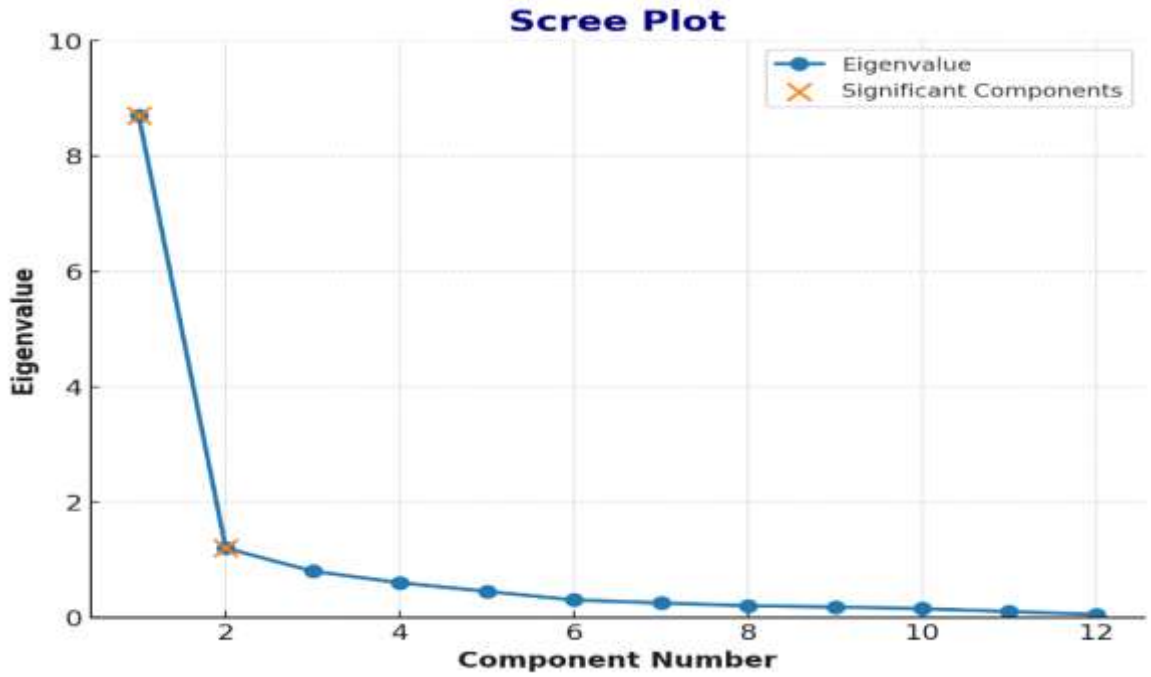
The results for KMO and Barletts's test for Pre Shipment Export Credit are presented in the table 6 . The KMO of sampling adequacy is 0.787, which is greater than 0.5 indicating that the factors used were suitable for analysis. The Barlett's test showed that the factors were statistically significant. It means they had significant correlations among the variables (factors). Therefore, the results of both the tests met the requirements (KMO >0.5 and Barlett's test significant) to proceed further analysis.

Table 7: VARIMAX - Rotated Component Factors (Pre-shipment export credit)

S.No	**Item**	**Rotated Component Factors**		**Communalities**
		Factor1	**Factor2**	
1	Purchase of raw materials	.339	**.923**	**.966**
2	Processing of project export work	.246	**.888**	**.849**
3	Manufacturing the requirements for project exports	.293	**.897**	**.890**
4	Period of advance allowed	.548	**.725**	**.826**
5	Disbursement of packing credit	**.716**	.653	**.940**
6	Liquidation of packing credit	**.732**	.427	**.719**
7	Interest on pre shipment credit	**.730**	.447	**.732**
8	Creditworthiness of the exporter	**.891**	.297	**.881**
9	Working capital availability	**.796**	.140	**.654**
10	Exchange rate fluctuations	**.689**	.558	**.787**
11	Repayment terms	.567	**.735**	**.862**
12	Supply chain efficiency	**.771**	.377	**.736**
	Eigen Values	**4.962**	**4.881**	**9.843**
	Percentage of Trace	**41.348**	**40.671**	**82.020**

Note: Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization

Figure 2: Pre-shipment export credit



A detailed examination of the factor loadings reveals that the fifth factor (0.714), sixth factor (0.732), seventh factor (0.730), eighth factor (0.894), ninth factor (0.794), tenth factor (0.849) and twelfth factor (0.771) are loaded on the first component, identifying them as primary contributing factors. The first principal component explains 41.349 percent of the total variance. The second principal component accounts for an additional 40.671 percent, together representing a substantial proportion of overall variance of 82.020 percent. From this analysis, it can be inferred that disbursement of packing credit, liquidation of packing credit, interest on pre-shipment credit, credit-worthiness of exporter, working capital availability, exchange rate fluctuations, and supply chain efficiency were perceived as the most significant factors influencing the pre-shipment credit facility offered by EXIM Bank of India, as viewed by the sample respondents.

CONCLUSION

The empirical findings provide clear evidence of a strong and positive association between **pre-shipment credit extended by EXIM Bank** and the performance of project exporters. The measurement quality across constructs is robust, with reliability indicators at a very high level (Cronbach's alpha in the range of 0.95–0.97), sampling adequacy consistently acceptable to strong (KMO values ≥0.60, often around 0.78), and Bartlett's tests uniformly significant at the 1% threshold, confirming that the scales are internally coherent and the latent factors statistically valid. Within this rigorous framework, firm-level growth analyses reveal that project-export performance responds significantly to the timely availability of pre-shipment credit, with several companies recording statistically significant and economically meaningful compound growth rates.

The factor-analytic results clarify which features of assistance drives outcomes. For pre-shipment credit, the most influential loadings cluster around the speed and adequacy of packing-credit disbursement and liquidation, the cost of credit (interest), exporter creditworthiness, and exposure to exchange-rate and supply-chain frictions. This pattern underscores that export readiness is highly sensitive to how quickly and predictably working capital moves through the system and to the extent to which FX and logistics risks are cushioned at source.

In conclusion, the analysis demonstrates that project exporters attach the highest importance to the **speed and adequacy of pre-shipment credit disbursement**, the **efficiency of liquidation procedures**, the **cost of credit**, and the **management of exchange-rate and supply-chain risks**. These priorities underscore the need for EXIM Bank to adopt more responsive mechanisms, such as **formal service-level agreements to ensure timely disbursement**, the **integration of pre-approved hedging instruments with pre-shipment loans**, and the **incorporation of supply-chain finance solutions into its product suite**. By aligning its offerings more closely with the operational realities of exporters, EXIM Bank can not only strengthen the effectiveness of pre-shipment credit but also reinforce India's overall project-export competitiveness in global markets.

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