Sectoral Level Analysis of India's Bilateral Trade over 2001-2015

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by

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Abstract

The paper explores the sectoral level analysis of India's IIT with rest of world (ROW), to try to identify the key determinants of IIT in the selected sectors for the Indian economy in the 21st century. It also examines the patterns and determinants of India's intra-industry trade (IIT) in 7 major sectors during 2001-2015 in a panel data framework. The empirical results indicate that Vertical Intra-Industry Trade (VIIT) significantly explains India's IIT pattern in Base Metals, Chemical, Machinery & Electrical Equipment, Textiles & Garments and Iron & Steel sectors. The analysis further shows that VIIT-type trade pattern is observed with lower income group countries whereas HIIT-type trade emerged with higher income group countries in case of Leather & Footwear and Vehicles and Transport Equipment sectors. The results also concludes that trade facilitation may significantly enhance IIT level with respect to India's high income partners among all the sectors except Textiles & Garments and Iron & Steel segment; while it may also enhance IIT level with respect of lower income partners in Vehicles and Transport Equipment segment. Interestingly, the preferential trade dummy is found to be significant in limited sectors, implying less influence of the RTA partnerships on trade balance.

Keywords: Trade Policy, Intra-Industry Trade, LPI, Empirical Studies of Trade
JEL Classification: F13, F14

1. Introduction

The specific term 'intra-industry trade' (IIT) was first used by Balassa (1966) for describing simultaneous export and import of products of same industry between trade partners. The first empirical work on this line of research was undertaken by Grubel (1967), which explored the nature and pattern of IIT in European Common Market. The literature on measurement of IIT was further enriched with the subsequent works of Grubel and Lloyd (1971, 1975).

A large literature has analysed the industry and country characteristics that determine the extent of IIT. However, these studies have mostly been cross-section with little evidence on dynamic changes, although the more descriptive literature has identified important trends in intra-industry trade over recent decades. This paper explores the sectoral level analysis of India's IIT with rest of world (ROW), to try to identify the key determinants of IIT in the selected sectors for the Indian economy in the 21st century.

The paper is structured as follows. The next section provides a literature review on sector level analysis of IIT. The third section addresses the methodology and data of the paper. Section IV provides the empirical results using panel data framework. Section V concludes the paper.

We have used TRADE MAP – Trade statistics for international business development in the study for the period 2001-2015 to compute major sectors of India in its trade basket, trade pattern of these sectors and its impact on IIT. We will show in Section IV that there are significant differences in all the sectors in terms of determining trade pattern of India.

2. Literature Review

Acquino (1978, 1997) proposed the following two-step methodology. In the first step, estimated values export and import of country *j* for industry *i* are calculated as:

$$X_{ij}^{e} = X_{ij} * \frac{\sum_i (X_{ij} + M_{ij})}{2\sum_i X_{ij}} \; ; \quad M_{ij}^{e} = M_{ij} * \frac{\sum_i (X_{ij} + M_{ij})}{2\sum_i M_{ij}}$$

In the second step, the Acquino index for country *j* for industry *i* with a partner country is calculated as:

$$A_j = \frac{\sum_i (X_{ij} + M_{ij}) - \sum_i \left| X_{ij}^{e} - M_{ij}^{e} \right|}{\sum_i (X_{ij} + M_{ij})} \times 100$$

For sector level analysis Acquino Index is preferred. Algerie (2005) disentangles IIT into HIIT and VIIT using Acquino index and the Grubel-Lloyd index. The Acquino index highlights the degree of inter-industry specialization by sector and the products in which Russia is specialised are natural gas, wood rough squared, oil, nickel, fertilizer, iron, synthetic rubber, refined copper, primary aluminium, organic and inorganic chemicals.

Bano (2014) examines bilateral trade relations between New Zealand and China and the analysis of IIT, after incorporating Acquino index, suggests that small countries can overcome their limited domestic markets by adopting an industrial strategy that in turn enable them to specialize in narrower type products.

3. Methodology and Data

The present study determines the sectoral level IIT for India with rest of world (ROW) over 2001-15 through Acquino indices in 7 major manufacturing sectors, namely Base Metals, Chemicals, Machinery and Electrical Equipment, Textiles and Garments, Leather and Footwear, Iron and Steel, Vehicles and Transport Equipment and then compares the outcome. India's major sectors (i.e., export and import) are selected on the basis of their share in the country's trade basket. A total of 7 sectors are selected for the analysis. Then, India's bilateral IIT indices for the different sectors are computed over 2001-15. Finally, the following panel data model is estimated to explore the determinants of India's sectoral IITs over 2011-15:

$$LIIT_{it} = \alpha_0 + \beta_1 LDPCGDP_{it} + \beta_2 LD\left(\frac{K}{L}\right)_{it} + \beta_3 LWDIST_{it} + \beta_4 L(LPI_i LPI_j) + \beta_5 BORDER + \beta_6 LANGUAGE + \beta_7 FTA + \beta_8 INCOME + \varepsilon_0 \quad \ldots\ldots\ldots (1)$$

where,

α	represents the *constant* term
βs	are *coefficients*
L	represents logarithmic transformation of the variables
IIT_{it}	represents GLC between India and country *i* for year *t*
$DPCGDP_{it}$	represents difference of Per Capita GDP between India and country *i* for year *t*
$D(K/L)_{it}$	represents difference of Capital-Labour ratio between India and country *i* for year *t*
$WDIST_{it}$	represents weighted distance between India and country *i* for year *t*
$DIST_{it}$	represents geographical distance between the capital of India and the capital of country *i* for year *t*
LPI_iLPI_j	represents an interaction term of the Logistics Performance Index (LPI) of India and country *i* for year *t*
BORDER	represents a dummy variable which takes a value of 1 if India share a common border with country *i* and 0 otherwise
LANGUAGE	represents a dummy variable which takes a value of 1 if India and the partner country share a common language (English) with country *i* and 0 otherwise
FTA	represents a dummy variable which takes a value of 1 if India shares an RTA with country *i* and 0 otherwise
INCOME	represents Per Capita Gross National Income (GNI) (atlas method, current US$) of country *i* for year *t*, where
LIC	represents the low income country (*PCGNI*: US$1,005 or less) dummy, which has a value of 1 for the corresponding countries and 0 otherwise.
LMIC	represents the lower-middle income country (*PCGNI*: US$1,006 - 3,975) dummy, which has a value of 1 for the corresponding countries and 0 otherwise

UMIC	represents the upper-middle income country (*PCGNI*: US$3,976-12,275) dummy, which has a value of 1 for the corresponding countries and 0 otherwise
HIC	represents the high income country (*PCGNI*: US$12,276 or more) dummy, which has a value of 1 for the corresponding countries and 0 otherwise
ε_{it}	represents the error term

The regression model uses logarithmic transformation of the variables, so that the estimated coefficients can be interpreted as relevant elasticities. India's bilateral *IIT*, calculated through GLC method, is considered as the dependent variable for the analysis.

The Difference in Per Capita GDP (*DPCGDP*) has been considered as a key independent variable in the analysis. According to Linder (1961), the countries with comparable per capita incomes tend to have similar demand patterns for differentiated goods. Hence, rising difference in per capita income would imply a greater disparity in the demand structure, which would be reflected in higher levels of VIIT and vice versa (Bojnec and Ferto, 2016). Difference in Capital-labour Ratio (*DKL*) of India with select trading partners has also been incorporated in the model. As vertically differentiated products differ in terms of factor intensities and unit production costs, higher DKL implies higher VIIT (Andersen, 2003).

The literature notes that IIT is negatively correlated with geographical distance, as transportation and insurance costs increase with distance (Türkcan, 2011). The traditional gravity models generally consider geographical distance between the capitals of two countries or the distance between the major trade centres. However, one problem with this approach is that the distance remains constant throughout the period of empirical analysis. To tackle this concern, in line with existing literature (Türkcan and Ates, 2010), the present analysis considers *WDIST* between trading partners as an independent variable:

$$\mathrm{WDIST}_{it} = \frac{DIST_i * GDP_{it}}{\sum_{i=1}^{25} \mathrm{GDP}_{it}}$$

where, $DIST_i$ represents the direct distance in km. between the India's capital and the respective trading partners' capital. GDP_{it} represents the GDP of partner *i* in year *t*.

The interaction effect of LPI serves as the proxy for Trade Facilitation scenario prevailing in both countries and is expected to positively influence bilateral IIT.

Finally, a few dummy variables are included in the analysis in line with the gravity literature. First, a geographic proximity (Border) dummy is included which takes the value of 1 if India shares border with a trading partner and 0 otherwise. A common border is expected to increase the intensity of IIT. Second, an ease of trade (Language) dummy is included which takes the value of 1 if English is the common language and 0 otherwise. A commonality of language is expected to promote commercial exchange in general and IIT in particular. Third, a trade preference (FTA) dummy is included which takes the value of 1 if India is engaged with a trading partner through an RTA and 0 otherwise. An FTA is expected to increase the intensity of IIT, as tariff preference and trade facilitation measures incorporated therein enhances the ease of bilateral trade (Kumar and Ahmed, 2015), including sourcing of raw materials, parts and components etc. Finally, a development (Income) dummy is included in the analysis to understand which type of IIT dominates

India's trade with partners lying within various income groups. The dummy takes a value of 1 for LICs and LMICs, while is it 0 for UMICs and HICs. It is expected that India may exhibit HIIT with the former group, while getting engaged in VIIT with the latter.

The evolving share of major sectors in India's trade basket is reported in Annex 1. For observing the temporal perspective, their average shares in India's export and import baskets are compared during 2001-2005, 2006-2010 and 2011-2015 respectively. It is observed that in the export basket, the share of these sectors have gradually declined over the study period from 53.86 percent to 46.72 percent. Also, on the import front, their share has gradually declined from 49.67 percent to 43.95 percent over the same period. Major imports such as Mineral Fuels (Product Code: 27) are subject to sanctions, therefore, not included in the study.

4. Results

Several conclusions emerge from the empirical results. Table 1 focuses on regression results on determinants of IIT for Base Metals sector. First, the coefficient of DPCGDP is negative and insignificant in several models, indicating that the impact is not significant for increase in IIT. Second, the coefficient of D(K/L) also is positive and significant in several models, indicating that with growing difference in technology level, bilateral IIT increases, but in less than proportionate manner. The results for DPCGDP and D(K/L), taken together, indicate presence of VIIT in India's trade pattern with the select partners. Third, both WDIST and DIST variables are found to be positive and significant, indicating higher proportion of trade of base metals with USA and Germany while lower trade with Bangladesh and Sri Lanka due to varying geographical distance. Fourth, the LPI interaction term is positive but not significant for all model specifications. Fifth, the coefficient of border dummy is positive and significant; indicating that sharing a land border may promote IIT, as movement of parts and components is facilitated. Sixth, the coefficient of the language dummy is negative and significant, signifying that India's IIT may be relatively higher with non-English speaking nations. The result can be attributed to India's rising IIT with several EU countries (Germany, France) etc. in recent period. Finally, the FTA dummy is not found to be significant. The result can be explained by the fact that India is enjoying higher IIT index with a number of developed countries, which are presently not among India's FTA partners (e.g., Belgium, Germany, UK, USA).

The robustness check results for the base metals segments are summarized in Table 2. First, the regression model in equation (1) has been estimated by dividing the 25 sample countries in two income-oriented groups, with LICs and LMICs in one group and UMICs and HICs on the other. The results are reported in models 7 and 8 respectively. A couple of interesting observations emerge from the analysis. First, for both groups, the coefficient of the DPCGDP variable is positive but not significant. Second, D(K/L) is however found positive and significant for the first group and is not significant for the second group, further underlining the presence of VIIT-type trade. Third, the WDIST variable is negative and significant for low-income countries, while it is positive and significant for the higher-income group. The result can be explained by the presence of higher proportion of trade for countries such as Germany and USA; which are geographically situated at varying distance. Fourth, interestingly the trade facilitation variable is found to be non-significant for the low-income countries but positive and significant for the high-income countries. The result implies that improvement in trade facilitation scenario in both the partners would significantly enhance India's IIT level for higher-income countries. On the other hand India's bilateral IIT involving low-income countries, characterized by limited differentiation in manufacturing export basket, may not change, even in the presence of improved trade facilitation. Fifth, the border dummy is not significant for both group of countries, which deviates from the baseline results. Sixth, the language dummy is negative and significant for higher income group of countries, in line with the pooled regression models. Finally, the FTA dummy is not significant for both the groups in line with the earlier results.

The stability analysis is also conducted by estimating model 9, where first difference for all the continuous variables has been considered. The regression results show that difference in LIIT is directly related to difference in LPI interaction term and significant. Interestingly, the WDIST variable is found to be positive and significant, given the fact that India's IIT is displaying an increasing trend with high growing economies. Model 10 uses LIIT as the dependent variable and it is observed that countries having historically high level of IIT are expected to continue along the trend line. The WDIST variable is found to be negative in line with expectation. The difference in capital-labour ratio is negative and significant owing to the fact that with large year-on-year difference in the same, IIT may come down with simultaneous rise in inter-industry type trade.

Table 3 focuses on regression results on determinants of IIT for Chemical sector. First, the coefficient of DPCGDP and D(K/L) is positive but not significant in several models. The results for DPCGDP and D(K/L), taken together, showed the mixed results of India's trade pattern with the select partners. Second, WDIST is found to be positive and significant, indicating higher proportion of trade of chemicals and allied products with USA, Belgium, Australia and Germany while lower trade with Bangladesh and Sri Lanka due to varying geographical distance. Third, the LPI interaction term is positive and significant for all model specifications, indicating that one percent improvement in trade facilitation both in India and the partner country leads to a more than proportionate increase in India's IIT level with that partner. This can be attributed to the improving trade facilitation scenario. Fourth, the coefficient of border dummy is positive but not significant. Fifth, the coefficient of the language dummy is negative and significant, signifying that India's IIT may be relatively higher with non-English speaking nations. Finally, the FTA dummy is not found to be significant.

The robustness check results for the chemical and allied products segments are summarized in Table 4. First, DPCGDP is positive and significant for lower income group while D(K/L) is positive and significant for higher income group. Taken together, it implies the presence of VIIT-type trade. Second, the WDIST variable is positive and significant for the higher-income group. Third, the trade facilitation variable is found to be positive and significant for the high-income countries. The result implies that improvement in trade facilitation scenario in both the partners would significantly enhance India's IIT level for higher-income countries. Fourth, the border dummy is significant for higher income group of countries, in line with theoretical predictions. Fifth, the language dummy is negative and significant for both the latter group of countries, in line with the pooled regression models. Finally, the FTA dummy is not significant for both the groups in line with the earlier results.

The stability analysis is also conducted by estimating model 9, where first difference for all the continuous variables has been considered. No variables are significant but the sign of coefficient are in line with theoretical predictions except difference in capital to labor ratio. Model 10 uses LIIT as the dependent variable and it is observed that countries having historically high level of IIT are expected to continue along the trend line. The WDIST variable is found to be negative in line with expectation.

Table 5 focuses on regression results on determinants of IIT for Machinery and Electrical Equipment sector. First, the coefficient of DPCGDP is positive and significant in several models, indicating that with growing difference in income level, the IIT rises, but in less than proportionate manner. Second, the coefficient of D(K/L) also is positive and significant in model 5 and model 6, indicating that with growing difference in technology level, bilateral IIT increases. The results for DPCGDP and D(K/L), taken together, indicate presence of VIIT in India's trade pattern with the select partners. Third, WDIST is found to be positive and significant. Fourth, the LPI interaction term is positive and significant for all model specifications. Fifth, the coefficient of border dummy is positive and significant in several models. Sixth, the coefficient of the language dummy is positive and significant in model 6. Finally, the FTA dummy is also positive and found to be significant.

The robustness check results for the machinery and electrical equipment segment are summarized in Table 6. First, DPCGDP and D(K/L) is positive and significant for lower income group whereas the same is positive but not significant for higher income group. Taken together, it implies the presence of VIIT-type trade among India and its trade partners. Second, the WDIST variable is positive and significant for the higher-income group. As far as low income group countries are concerned, WDIST is negative and significant, in line with hypothesis. Third, the trade facilitation variable is found to be positive and significant for the high-income countries. The result implies that improvement in trade facilitation scenario in both the partners would significantly enhance India's IIT level for higher-income countries. Fourth, the border and the language dummy are not significant for both the groups. Moreover, the two dummies are redundant as IIT in machinery and electrical equipment are high for almost all the trading partners. Finally, the FTA dummy is positive and significant for higher income, in line with pooled regression results.

The stability analysis is also conducted by estimating model 9, where first difference for all the continuous variables has been considered. Model 10 uses LIIT as the dependent variable and it is observed that countries having historically high level of IIT are expected to continue along the trend line. The WDIST variable is found to be negative in line with expectation.

Table 7 focuses on regression results on determinants of IIT for Textiles and Garment sector. First, the coefficient of D(K/L) is positive and significant in several models, indicating that with growing difference in technology level, bilateral IIT increases. The results therefore, indicate presence of VIIT in India's trade pattern with the select partners. Second, WDIST is found to be negative and significant, in line with theoretical predictions. Third, the LPI interaction term is not significant in the analysis for this particular segment. Fourth, the coefficient of border dummy is positive and significant in model 6, indicating that sharing a land border may promote IIT, as movement of parts and components is facilitated. Fifth, the coefficient of the language dummy is negative and significant in model 3, signifying that India's IIT may be relatively higher with non-English speaking nations. Finally, the FTA dummy is also positive and found to be significant, for instance in case of Indonesia, Sri Lanka and Vietnam; India is enjoying higher IIT index as these countries are FTA trade partners of India.

The robustness check results for textiles and garment articles are summarized in Table 8. First, DPCGDP is positive and significant for higher income group while D(K/L) is positive and significant for lower income group. Taken together, it implies the presence of VIIT-type trade. Second, the WDIST variable is negative and significant for the both the groups. Third, the LPI interaction term is not significant in the analysis for this particular segment. Finally, the border dummy is negative and significant for low income groups; the result can be explained by the fact that India has experienced low IIT with Bangladesh (bordering nation).

The stability analysis is also conducted by estimating model 9, where first difference for all the continuous variables has been considered. Model 10 uses LIIT as the dependent variable and it is observed that countries having historically high level of IIT are expected to continue along the trend line. The difference in capital-labour ratio is negative and significant owing to the fact that with large year-on-year difference in the same, IIT may come down with simultaneous rise in inter-industry type trade. The WDIST variable is found to be negative in line with expectation.

Table 9 focuses on regression results on determinants of IIT for Leather and Footwear sector. First, the coefficient of DPCGDP and D(K/L) is positive but not significant in several models. The results for DPCGDP and D(K/L), taken together, showed the mixed results of India's trade pattern with the select partners.. Second, WDIST and LDIST are found to be negative and significant in several models, in line with theoretical predictions. Third, the LPI interaction term is not significant in the analysis for this particular segment. Fourth, the coefficient of border dummy is positive and significant in all model specifications, indicating that sharing a land border may promote IIT, as movement of parts and components is facilitated. Fifth, the coefficient of the language dummy is negative and significant in several models, signifying that India's IIT may be relatively higher with non-English speaking nations. Finally, the FTA dummy is not found to be significant. The result can be explained by the fact that India is enjoying higher IIT index with a number of developed countries, which are presently not among India's FTA partners (e.g., Belgium, Germany, UK, USA). .

The robustness check results for leather and footwear articles are summarized in Table 10. First, DPCGDP is negative and significant for higher income group while D(K/L) is positive and significant for lower income group. Second, the WDIST variable is not significant for the both the groups. Third, interestingly the trade facilitation variable is found to be non-significant for the low-income countries but positive and significant for the high-income countries. The result implies that improvement in trade facilitation scenario in both the partners would significantly enhance India's IIT level for higher-income countries. Fourth, the border dummy is positive and significant for low income group. Fifth, the language dummy is negative and significant for higher income group countries. Finally, the FTA dummy is negative and significant for low income group whereas positive and significant for the high income group. The result can be explained due to the fact that India is enjoying higher IIT in leather and footwear segment with Singapore (higher income group FTA partner) whereas experiencing low IIT with Vietnam (lower income group FTA partner).

The stability analysis is also conducted by estimating model 9, where first difference for all the continuous variables has been considered. The regression results show that difference in LIIT is directly related to difference in PCGDP and significant. Model 10 uses LIIT as the dependent variable and it is observed that countries having historically high level of IIT are expected to continue along the trend line. The WDIST variable is found to be negative in line with expectation.

Table 11 focuses on regression results on determinants of IIT for Iron and Steel sector. First, the coefficient of D(K/L) is positive and significant in several models, indicating that with growing difference in technology level, bilateral IIT increases. Second, WDIST is found to be positive and significant in several models. Third, the LPI interaction term is not significant in the analysis for this particular segment. Fourth, the coefficient of border dummy and FTA dummy is not significant. Finally, the coefficient of the language dummy is negative and significant in several models.

The robustness check results for iron and steel segment are summarized in Table 12. First, the coefficient of DPCGDP and D(K/L) is positive and significant for lower income group, indicating VIIT type trade pattern. Second, the WDIST variable is negative and significant for low income groups while positive and significant for high income groups. Third, the LPI interaction term is not significant in the analysis for this particular segment. Fourth, the border dummy is negative and significant for low income group. Fifth, the language dummy is negative and significant for higher income group countries. Finally, the FTA dummy is positive and significant for lower income group. The result can be explained due to the fact that India is enjoying higher IIT in iron and steel sector with Bangladesh, Sri Lanka and Indonesia (lower income group FTA partner).

The stability analysis is also conducted by estimating model 9, where first difference for all the continuous variables has been considered. The regression results show that difference in LIIT is directly related to difference in PCGDP and significant. Model 10 uses LIIT as the dependent variable and it is observed that countries having historically high level of IIT are expected to continue along the trend line. The difference in capital-labour ratio is negative and significant owing to the fact that with large year-on-year difference in the same, IIT may come down with simultaneous rise in inter-industry type trade.

Table 13 focuses on regression results on determinants of IIT for Vehicles and Transport Equipment sector. First, the coefficient of D(K/L) is negative and significant in several models, indicating that with growing difference in technology level, bilateral IIT decreases. This highlights the presence of HIIT type trade of India with select trade partners in the particular sector. Second, WDIST and LDIST are found to be positive and significant in several models. Third, the LPI interaction term is positive and significant for all model specifications, indicating that one percent improvement in trade facilitation both in India and the partner country leads to a more than proportionate increase in India's IIT level with that partner. Fourth, the coefficient of border dummy is negative and significant in several models. Fifth, the coefficient of the language dummy is negative and significant in several models. Finally, the FTA dummy is positive and significant in model 5.

The robustness check results for vehicles and transport equipment segment are summarized in Table 14. First, the coefficient of D(K/L) is positive and significant for lower income group, indicating VIIT type trade pattern; whereas the same is negative and significant with higher income group indicating HIIT type trade in this particular sector. Second, the WDIST variable is positive and significant for higher income groups. Third, interestingly the trade facilitation variable is found to be positive and significant for the both the groups. Fourth, the border and language dummy are negative and significant for higher income group. Finally, the FTA dummy is positive and significant for higher income group. The result can be explained due to the fact that India is enjoying higher IIT in vehicle and transport segment with Singapore, Japan and South Korea (higher income group FTA partner).

The stability analysis is also conducted by estimating model 9, where first difference for all the continuous variables has been considered. Model 10 uses LIIT as the dependent variable and it is observed that countries having historically high level of IIT are expected to continue along the trend line. The results indicate that estimated models are robust and signs and level of significance of the coefficients are stable

5. Conclusion

In this paper, we have analysed the patterns and determinants of India's intra-industry trade (IIT) in 7 major sectors during 2001-2015 using a panel data framework. The result suggests that Vertical Intra-Industry Trade (VIIT) significantly explains India's IIT pattern in Base Metals, Chemical, Machinery & Electrical Equipment, Textiles & Garments and Iron & Steel sectors. The results further indicates that VIIT-type trade pattern is observed with lower income group countries whereas HIIT-type trade emerged with higher income group countries in case of Leather & Footwear and Vehicles and Transport Equipment sectors. The results also concludes that trade facilitation may significantly enhance IIT level with respect to India's high income partners among all the sectors except Textiles & Garments and Iron & Steel segment; while it may also enhance IIT level with respect of lower income partners in Vehicles and Transport Equipment segment. Interestingly, the preferential trade dummy is found to be significant in Machinery & Electrical Equipment, Leather & Footwear and Vehicles & Transport Equipment sectors in relation to higher income group; while it is significant only in Iron & Steel sector as far as lower income group are concerned. Therefore, limited influence of the RTA partnerships on trade balance is observed in general and at sectoral level in particular.

The paper provides the glimpse of important sectors of the Indian economy in manufacturing segment. Manufacturing and Industrial segment have already contributed less than their potential in the past decades. The main focus of the research underlines the fact that a push to prominent manufacturing product groups will boost India's IIT with the rest of world (ROW). Government initiatives (for instance Make in India, Skill India, *etc*.) aim to empower the Indian society and contribute towards enhancing the GDP of the country. The requisite actions must be fast-tracked to improve the scenario across the development spectrum globally.

Annex 1: Average Shares of India's Major Sectors in the Trade Basket

No.	HS Code	Sector	Export Share (%)			Import Share (%)		
			2001-05	2006-10	2011-15	2001-05	2006-10	2011-15
1	28	Chemical	0.64	0.73	0.69	0.70	0.78	0.74
2	29		2.60	2.44	2.37	2.73	2.56	2.52
3	41	L & F	0.31	0.20	0.18	0.28	0.16	0.13
4	42		0.37	0.33	0.40	0.02	0.03	0.06
5	50	Textiles & Garments	0.03	0.02	0.02	0.31	0.14	0.06
6	51		0.16	0.09	0.08	0.25	0.11	0.09
7	52		0.54	0.37	0.36	0.50	0.19	0.15
8	53		0.04	0.03	0.02	0.08	0.05	0.06
9	54		0.42	0.29	0.27	0.41	0.20	0.17
10	55		0.32	0.23	0.23	0.17	0.10	0.13
11	56		0.15	0.13	0.13	0.06	0.04	0.04
12	57		0.12	0.10	0.09	0.02	0.02	0.02
13	58		0.12	0.09	0.07	0.06	0.04	0.04
14	59		0.18	0.14	0.14	0.25	0.18	0.17
15	60		0.22	0.17	0.18	0.06	0.06	0.09
16	61		1.29	1.21	1.24	0.01	0.02	0.04
17	62		1.55	1.21	1.17	0.03	0.03	0.05
18	63		0.32	0.31	0.33	0.10	0.07	0.09
19	64	L & F*	0.70	0.62	0.70	0.05	0.06	0.09
20	72	Iron & Steel	2.37	2.80	2.25	2.44	2.85	2.30
21	73		1.55	1.80	1.68	1.53	1.80	1.70
22	74	Base Metals	0.64	1.01	0.89	0.62	0.98	0.93
23	75		0.17	0.22	0.16	0.18	0.24	0.17
24	76		1.02	1.04	0.92	1.00	1.00	0.90
25	78		0.03	0.04	0.04	0.03	0.04	0.04
26	79		0.08	0.11	0.08	0.08	0.11	0.08
27	80		0.03	0.04	0.04	0.03	0.04	0.04
28	81		0.11	0.12	0.10	0.11	0.12	0.10
29	82		0.39	0.34	0.35	0.39	0.34	0.34
30	83		0.37	0.35	0.34	0.38	0.35	0.34
31	84	M & EE**	14.00	12.47	11.36	13.71	12.28	11.56
32	85		13.79	12.92	12.48	14.03	13.48	13.44
33	87	V & TE***	9.21	7.76	7.35	9.05	7.61	7.28
	Total		**53.86**	**49.75**	**46.72**	**49.67**	**46.08**	**43.95**

Source: Authors' computation from ITC (undated)

** L & F refers to Leather and Footwear*

*** M & EE refers to Machinery and Electrical Equipment*

**** V & TE refers to Vehicles and Transport Equipment*

Table 1: Regression Results on Determinants of LIIT for Base Metals Sector

Independent Variables	Dependent Variable: LIIT					
	Model (1)	**Model (2)**	**Model (3)**	**Model (4)**	**Model(5)**	**Model(6)**
Constant	-0.769	-0.955	-1.095*	-2.104***	-1.128*	-0.143
	(0.688)	(0.676)	(0.669)	(0.864)	(0.654)	(0.193)
LDPCGDP	-0.024	-0.023	-0.007	0.033	-0.022	-0.002
	(0.076)	(0.072)	(0.072)	(0.070)	(0.072)	(0.069)
LD(K/L)	0.317***	0.406***	0.342***	0.361***	0.375***	0.448***
	(0.111)	(0.114)	(0.116)	(0.118)	(0.114)	(0.108)
$L(LPIi*LPI_j)$	1.067	1.027	1.217	1.219	1.201	
	(0.817)	(0.799)	(0.793)	(0.820)	(0.777)	
LWDIST	0.113***	0.116***	0.147***		0.156***	0.161***
	(0.029)	(0.029)	(0.032)		(0.030)	(0.032)
LDIST				0.305**		
				(0.138)		
Border		0.442***	0.395**	0.476***	0.340**	0.339**
		(0.183)	(0.183)	(0.188)	(0.178)	(0.177)
Language			-0.106**	-0.131***	-0.091**	-0.077*
			(0.047)	(0.050)	(0.045)	(0.047)
FTA					0.099	0.103
					(0.063)	(0.065)
N	350	350	350	350	350	350
F-Statistics	73.31	82	90.67	68.22	105.27	95.10

Note: Figure in the parenthesis shows the autocorrelation and heteroscedasticity-corrected standard errors of the estimated coefficient.
***, **, and * implies estimated coefficient is significant at 0.01, 0.05, and 0.10 level, respectively.

Table 2: Regression Results on Determinants of LIIT for Base Metals Sector

Independent Variables	Dependent Variable: LIIT		Independent Variables	Dependent Variable: DLIIT	Independent Variables	Dependent Variable: LIIT
	Model(7): LICs and LMICs	Model (8): UMICs and HICs		Model (9)		Model (10)
Constant	-0.399	-2.486***	Constant	0.007	Constant	0.700***
	(2.061)	(0.852)		(0.006)		(0.041)
LDPCGDP	0.180	0.176	DLDPCGDP	-0.077	LIIT(t-1)	0.433***
	(0.131)	(0.158)		(0.103)		(0.035)
LD(K/L)	0.849***	-0.018	DLD(K/L)	0.080	DLDPCGDP	-0.177
	(0.344)	(0.227)		(0.245)		(0.151)
L(LPIi*LPI_j)	0.344	2.550***	DL(LPIi*LPI_j)	1.875*	DLD(K/L)	-0.799*
	(2.231)	(0.948)		(1.081)		(0.470)
LWDIST	-0.655**	0.155***	DLWDIST	0.579**	DL(LPIi*LPI_j)	0.128
	(0.346)	(0.037)		(0.277)		(1.788)
LDIST					DLWDIST	-0.792
						(0.550)
Border	-0.187	-0.262				
	(0.474)	(0.262)				
Language	0.206	-0.144***				
	(0.391)	(0.049)				
FTA	-0.084	0.091				
	(0.193)	(0.073)				
N	70	280		350		350
F-Statistics	58.94	56.95		8.54		175.59

Note: Figure in the parenthesis shows the autocorrelation and heteroscedasticity-corrected standard errors of the estimated coefficient.
***, **, and * implies estimated coefficient is significant at 0.01, 0.05, and 0.10 level, respectively.

Table 3: Regression Results on Determinants of LIIT for Chemical sector

Independent Variables	Dependent Variable: LIIT					
	Model (1)	**Model (2)**	**Model (3)**	**Model (4)**	**Model(5)**	**Model(6)**
Constant	-1.158***	-1.108***	-0.924**	-1.322**	-0.865*	0.602***
	(0.408)	(0.422)	(0.477)	(0.576)	(0.490)	(0.195)
LDPCGDP	0.030	0.010	0.047	0.081	0.055	0.111
	(0.066)	(0.068)	(0.074)	(0.069)	(0.076)	(0.073)
LD(K/L)	0.029	0.102	0.104	0.077	0.091	0.152
	(0.090)	(0.112)	(0.120)	(0.117)	(0.122)	(0.122)
$L(LPIi*LPI_j)$	2.259***	2.138***	1.803***	2.015***	1.758***	
	(0.471)	(0.487)	(0.536)	(0.522)	(0.545)	
LWDIST	0.048**	0.044**	0.058**		0.054*	0.067**
	(0.023)	(0.023)	(0.029)		(0.030)	(0.029)
LDIST				0.059		
				(0.102)		
Border		0.068	0.115	0.119	0.116	0.092
		(0.149)	(0.167)	(0.171)	(0.167)	(0.182)
Language			-0.086**	-0.088**	-0.088**	-0.104***
			(0.039)	(0.040)	(0.039)	(0.038)
FTA					-0.018	-0.036
					(0.036)	(0.035)
N	350	350	350	350	350	350
F-Statistics	71.87	68.42	55.24	58.31	54.78	44.50

Note: Figure in the parenthesis shows the autocorrelation and heteroscedasticity-corrected standard errors of the estimated coefficient.
∗∗∗, ∗∗, and ∗ implies estimated coefficient is significant at 0.01, 0.05, and 0.10 level, respectively.

Table 4: Regression Results on Determinants of LIIT for Chemical sector

Independent Variables	Dependent Variable: LIIT		Independent Variables	Dependent Variable: DLIIT	Independent Variables	Dependent Variable: LIIT
	Model(7): LICs and LMICs	Model (8): UMICs and HICs		Model (9)		Model (10)
Constant	5.735**	-0.968**	Constant	-0.003	Constant	1.031***
	(2.687)	(0.430)		(0.004)		(0.043)
LDPCGDP	0.370***	-0.042	DLDPCGDP	0.192	LIIT(t-1)	0.300***
	(0.148)	(0.086)		(0.126)		(0.030)
LD(K/L)	0.471	0.179*	DLD(K/L)	-0.351	DLDPCGDP	0.147
	(0.490)	(0.111)		(0.219)		(0.134)
$L(LPIi*LPI_j)$	-5.654**	2.064***	$DL(LPIi*LPI_j)$	0.640	DLD(K/L)	-0.675
	(2.865)	(0.487)		(0.714)		(0.626)
LWDIST	-0.519	0.049**	DLWDIST	-0.308	$DL(LPIi*LPI_j)$	-0.554
	(0.436)	(0.025)		(0.214)		(1.299)
LDIST					DLWDIST	-0.935**
						(0.460)
Border	-1.736***	0.280***				
	(0.545)	(0.116)				
Language	-0.604	-0.067**				
	(0.557)	(0.032)				
FTA	-0.033	-0.012				
	(0.153)	(0.031)				
N	70	280		350		350
F-Statistics	39.34	58.97		6.19		102.45

Note: Figure in the parenthesis shows the autocorrelation and heteroscedasticity-corrected standard errors of the estimated coefficient.
∗∗∗, ∗∗, and ∗ implies estimated coefficient is significant at 0.01, 0.05, and 0.10 level, respectively.

Table 5: Regression Results on Determinants of LIIT for Machinery and Electrical Equipment sector

Independent Variables	Dependent Variable: LIIT					
	Model (1)	**Model (2)**	**Model (3)**	**Model (4)**	**Model(5)**	**Model(6)**
Constant	0.262	0.085	0.093	-0.462	0.061	0.571***
	(0.256)	(0.235)	(0.237)	(0.324)	(0.224)	(0.089)
LDPCGDP	0.123***	0.090**	0.088**	0.156***	0.062	0.082**
	(0.045)	(0.043)	(0.045)	(0.045)	(0.044)	(0.039)
LD(K/L)	-0.042	0.090	0.092	0.025	0.133**	0.164***
	(0.053)	(0.058)	(0.060)	(0.062)	(0.061)	(0.060)
L(LPIi*LPI$_j$)	0.730***	0.704***	0.698***	0.874***	0.707***	
	(0.311)	(0.281)	(0.282)	(0.287)	(0.269)	
LWDIST	0.060***	0.074***	0.073***		0.085***	0.115***
	(0.013)	(0.014)	(0.014)		(0.014)	(0.016)
LDIST				0.111**		
				(0.051)		
Border		0.209***	0.210***	0.228***	0.182***	0.207***
		(0.056)	(0.057)	(0.064)	(0.057)	(0.053)
Language			0.002	-0.018	0.015	0.042**
			(0.018)	(0.018)	(0.018)	(0.019)
FTA					0.066***	0.077***
					(0.022)	(0.022)
N	350	350	350	350	350	350
F-Statistics	126.38	169.06	169.92	141.29	179.73	188.62

Note: Figure in the parenthesis shows the autocorrelation and heteroscedasticity-corrected standard errors of the estimated coefficient.
∗∗∗, ∗∗, and ∗ implies estimated coefficient is significant at 0.01, 0.05, and 0.10 level, respectively.

Table 6: Regression Results on Determinants of LIIT for Machinery and Electrical Equipment sector

Independent Variables	Dependent Variable: LIIT		Independent Variables	Dependent Variable: DLIIT	Independent Variables	Dependent Variable: LIIT
	Model(7): LICs and LMICs	Model (8): UMICs and HICs		Model (9)		Model (10)
Constant	0.629	0.140	Constant	0.004	Constant	1.426***
	(0.812)	(0.314)		(0.003)		(0.024)
LDPCGDP	0.120*	0.089	DLDPCGDP	0.025	LIIT(t-1)	0.076***
	(0.067)	(0.064)		(0.105)		(0.016)
LD(K/L)	0.412**	0.028	DLD(K/L)	-0.115	DLDPCGDP	-0.017
	(0.195)	(0.080)		(0.205)		(0.124)
L(LPIi*LPI_j)	-0.142	0.754**	DL(LPIi*LPI_j)	0.495	DLD(K/L)	-0.362
	(0.846)	(0.371)		(0.540)		(0.417)
LWDIST	-0.180*	0.084***	DLWDIST	0.212	DL(LPIi*LPI_j)	-1.014
	(0.112)	(0.019)		(0.171)		(0.703)
LDIST					DLWDIST	-0.462
						(0.303)
Border	-0.081	0.071				
	(0.136)	(0.076)				
Language	0.039	0.027				
	(0.220)	(0.022)				
FTA	0.058	0.068*				
	(0.072)	(0.026)				
N	70	280		350		350
F-Statistics	62.39	73.22		5.30		27.67

Note: Figure in the parenthesis shows the autocorrelation and heteroscedasticity-corrected standard errors of the estimated coefficient.
***, **, and * implies estimated coefficient is significant at 0.01, 0.05, and 0.10 level, respectively.

Table 7: Regression Results on Determinants of LIIT for Textile and Garments Articles

Independent Variables	Dependent Variable: LIIT					
	Model (1)	**Model (2)**	**Model (3)**	**Model (4)**	**Model(5)**	**Model(6)**
Constant	0.428	0.736	0.819	2.457***	0.716	0.485***
	(0.672)	(0.680)	(0.716)	(0.823)	(0.676)	(0.195)
LDPCGDP	0.051	0.057	0.030	0.007	-0.026	-0.042
	(0.088)	(0.098)	(0.097)	(0.091)	(0.096)	(0.094)
LD(K/L)	0.059	0.187	0.252*	0.226	0.311**	0.369***
	(0.115)	(0.150)	(0.147)	(0.145)	(0.142)	(0.147)
L(LPIi*LPI_j)	0.433	-0.168	-0.259	-0.292	-0.125	
	(0.790)	(0.776)	(0.812)	(0.799)	(0.779)	
LWDIST	-0.116***	-0.115***	-0.107*		-0.091***	-0.079**
	(0.035)	(0.036)	(0.042)		(0.038)	(0.039)
LDIST				-0.461***		
				(0.133)		
Border		0.197	0.198	-0.010	0.144	0.268**
		(0.138)	(0.140)	(0.157)	(0.126)	(0.134)
Language			-0.097*	-0.078	-0.068	-0.078
			(0.060)	(0.059)	(0.052)	(0.054)
FTA					0.094**	0.091*
					(0.047)	(0.051)
N	350	350	350	350	350	350
F-Statistics	16.98	19.14	16.79	21.55	24.76	63.20

Note: Figure in the parenthesis shows the autocorrelation and heteroscedasticity-corrected standard errors of the estimated coefficient.
∗∗∗, ∗∗, and ∗ implies estimated coefficient is significant at 0.01, 0.05, and 0.10 level, respectively.

Table 8: Regression Results on Determinants of LIIT for Textile and Garments Articles

Independent Variables	Dependent Variable: LIIT		Independent Variables	Dependent Variable: DLIIT	Independent Variables	Dependent Variable: LIIT
	Model(7): LICs and LMICs	Model (8): UMICs and HICs		Model (9)		Model (10)
Constant	1.043	-0.130	Constant	0.018***	Constant	0.517***
	(1.784)	(0.957)		(0.006)		(0.028)
LDPCGDP	0.091	0.358**	DLDPCGDP	-0.089	LIIT(t-1)	0.511***
	(0.125)	(0.160)		(0.123)		(0.030)
LD(K/L)	1.817***	-0.200	DLD(K/L)	-0.258	DLDPCGDP	-0.174
	(0.415)	(0.194)		(0.340)		(0.156)
L(LPIi*LPI_j)	-1.185	0.262	DL(LPIi*LPI_j)	0.736	DLD(K/L)	-0.956*
	(1.866)	(1.100)		(0.695)		(0.552)
LWDIST	-1.508***	-0.127***	DLWDIST	0.452	DL(LPIi*LPI_j)	1.552
	(0.278)	(0.041)		(0.260)		(1.555)
LDIST					DLWDIST	-0.024
						(0.439)
Border	-1.279***	0.026				
	(0.316)	(0.149)				
Language	0.447	-0.010				
	(0.535)	(0.050)				
FTA	0.167	0.054				
	(0.122)	(0.053)				
N	70	280		350		350
F-Statistics	49.83	22.68		4.61		292.60

Note: Figure in the parenthesis shows the autocorrelation and heteroscedasticity-corrected standard errors of the estimated coefficient.
***, **, and * implies estimated coefficient is significant at 0.01, 0.05, and 0.10 level, respectively.

Table 9: Regression Results on Determinants of LIIT for Leather and Footwear Articles

Independent Variables	Dependent Variable: LIIT					
	Model (1)	**Model (2)**	**Model (3)**	**Model (4)**	**Model(5)**	**Model(6)**
Constant	0.628	0.353	0.185	1.396*	-0.003	0.651***
	(0.648)	(0.656)	(0.666)	(0.812)	(0.648)	(0.235)
LDPCGDP	0.068	0.037	0.089	0.057	0.047	0.076
	(0.102)	(0.100)	(0.100)	(0.096)	(0.101)	(0.089)
LD(K/L)	-0.021	0.202	0.172	0.189	0.234	0.227
	(0.120)	(0.162)	(0.158)	(0.155)	(0.159)	(0.150)
$L(LPIi*LPI_j)$	0.629	0.462	0.599	0.362	0.771	
	(0.762)	(0.731)	(0.742)	(0.729)	(0.725)	
LWDIST	-0.091**	-0.065*	-0.094***		-0.080**	-0.055
	(0.037)	(0.037)	(0.037)		(0.036)	(0.043)
LDIST				-0.295**		
				(0.133)		
Border		0.311**	0.262*	0.163	0.241*	0.241*
		(0.156)	(0.154)	(0.167)	(0.148)	(0.141)
Language			-0.199***	-0.189***	-0.190***	-0.196***
			(0.053)	(0.051)	(0.050)	(0.057)
FTA					0.083	0.054
					(0.058)	(0.065)
N	350	350	350	350	350	350
F-Statistics	8.28	11.70	26.48	27.37	31.55	63.20

Note: Figure in the parenthesis shows the autocorrelation and heteroscedasticity-corrected standard errors of the estimated coefficient.
∗∗∗, ∗∗, and ∗ implies estimated coefficient is significant at 0.01, 0.05, and 0.10 level, respectively.

Table 10: Regression Results on Determinants of LIIT for Leather and Footwear Articles

Independent Variables	Dependent Variable: LIIT		Independent Variables	Dependent Variable: DLIIT	Independent Variables	Dependent Variable: LIIT
	Model(7): LICs and LMICs	Model (8): UMICs and HICs		Model (9)		Model (10)
Constant	0.506	-0.667	Constant	-0.005	Constant	0.971***
	(1.476)	(0.804)		(0.007)		(0.038)
LDPCGDP	-0.016	-0.337**	DLDPCGDP	0.278**	LIIT(t-1)	0.260***
	(0.123)	(0.163)		(0.148)		(0.030)
LD(K/L)	0.730**	0.294	DLD(K/L)	-0.119	DLDPCGDP	-0.028
	(0.385)	(0.190)		(0.336)		(0.189)
L(LPIi*LPI_j)	-0.691	2.719***	DL(LPIi*LPI_j)	1.122	DLD(K/L)	-0.257
	(1.542)	(0.922)		(0.981)		(0.638)
LWDIST	0.204	-0.027	DLWDIST	-0.350	DL(LPIi*LPI_j)	1.362
	(0.236)	(0.040)		(0.306)		(1.558)
LDIST					DLWDIST	-0.634
						(0.526)
Border	0.920***	-0.109				
	(0.258)	(0.148)				
Language	-0.494	-0.143***				
	(0.506)	(0.048)				
FTA	-0.302*	0.151***				
	(0.157)	(0.054)				
N	70	280		350		350
F-Statistics	54.08	31.01		5.03		74.37

Note: Figure in the parenthesis shows the autocorrelation and heteroscedasticity-corrected standard errors of the estimated coefficient.
***, **, and * implies estimated coefficient is significant at 0.01, 0.05, and 0.10 level, respectively.

Table 11: Regression Results on Determinants of LIIT for Iron and Steel Sector

Independent Variables	Dependent Variable: LIIT					
	Model (1)	**Model (2)**	**Model (3)**	**Model (4)**	**Model(5)**	**Model(6)**
Constant	0.223	0.037	-0.167	-1.030	-0.227	0.277
	(0.496)	(0.510)	(0.473)	(0.697)	(0.483)	(0.185)
LDPCGDP	0.075	0.056	0.086	0.121	0.068	0.103
	(0.086)	(0.087)	(0.086)	(0.086)	(0.088)	(0.083)
LD(K/L)	0.167	0.235*	0.170	0.172	0.201*	0.203*
	(0.110)	(0.124)	(0.118)	(0.126)	(0.123)	(0.126)
$L(LPIi*LPI_j)$	0.273	0.358	0.585	0.847	0.636	
	(0.607)	(0.604)	(0.562)	(0.608)	(0.570)	
LWDIST	0.068**	0.074***	0.080***		0.084***	0.090***
	(0.029)	(0.029)	(0.028)		(0.029)	(0.030)
LDIST				0.168		
				(0.110)		
Border		0.170	0.131	0.219	0.114	0.110
		(0.136)	(0.125)	(0.154)	(0.128)	(0.132)
Language			-0.097***	-0.108***	-0.092***	-0.087***
			(0.034)	(0.039)	(0.034)	(0.035)
FTA					0.045	0.036
					(0.051)	(0.052)
N	350	350	350	350	350	350
F-Statistics	48.28	50.82	71.51	58.55	69.59	63.43

Note: Figure in the parenthesis shows the autocorrelation and heteroscedasticity-corrected standard errors of the estimated coefficient.
∗∗∗, ∗∗, and ∗ implies estimated coefficient is significant at 0.01, 0.05, and 0.10 level, respectively.

Table 12: Regression Results on Determinants of LIIT for Iron and Steel Sector

Independent Variables	Dependent Variable: LIIT		Independent Variables	Dependent Variable: DLIIT	Independent Variables	Dependent Variable: LIIT
	Model(7): LICs and LMICs	Model (8): UMICs and HICs		Model (9)		Model (10)
Constant	1.435	-0.207	Constant	-0.006	Constant	1.031***
	(1.621)	(0.598)		(0.007)		(0.041)
LDPCGDP	0.386***	0.022	DLDPCGDP	0.299**	LIIT(t-1)	0.203***
	(0.116)	(0.125)		(0.146)		(0.033)
LD(K/L)	1.684***	0.177	DLD(K/L)	0.493	DLDPCGDP	0.029
	(0.316)	(0.161)		(0.384)		(0.191)
L(LPIi*LPI_j)	-2.143	0.812	DL(LPIi*LPI_j)	-0.142	DLD(K/L)	-1.212**
	(1.732)	(0.705)		(1.038)		(0.614)
LWDIST	-1.453***	0.102***	DLWDIST	0.060	DL(LPIi*LPI_j)	0.028
	(0.268)	(0.034)		(0.315)		(1.264)
LDIST					DLWDIST	0.002
						(0.536)
Border	-1.898***	0.075				
	(0.362)	(0.177)				
Language	0.616*	-0.070*				
	(0.349)	(0.038)				
FTA	0.222*	0.018				
	(0.127)	(0.055)				
N	70	280		350		350
F-Statistics	146.67	34.90		9.00		41.58

Note: Figure in the parenthesis shows the autocorrelation and heteroscedasticity-corrected standard errors of the estimated coefficient.
***, **, and * implies estimated coefficient is significant at 0.01, 0.05, and 0.10 level, respectively.

Table 13: Regression Results on Determinants of LIIT for Vehicles and Transport Equipment

Independent Variables	Dependent Variable: LIIT					
	Model (1)	Model (2)	Model (3)	Model (4)	Model(5)	Model(6)
Constant	-1.119**	-0.973*	-0.767**	-2.747***	-0.997*	1.057***
	(0.548)	(0.563)	(0.555)	(0.787)	(0.565)	(0.213)
LDPCGDP	-0.045	-0.013	0.034	0.075	-0.000	0.127
	(0.092)	(0.094)	(0.092)	(0.096)	(0.095)	(0.095)
LD(K/L)	-0.042	-0.185	-0.213*	-0.215*	-0.183	-0.135
	(0.086)	(0.122)	(0.120)	(0.120)	(0.121)	(0.139)
L(LPIi*LPI_j)	2.611***	2.636***	2.366***	3.151***	2.635***	
	(0.654)	(0.668)	(0.660)	(0.701)	(0.674)	
LWDIST	1.726***	0.184***	0.166***		0.173***	0.217***
	(0.040)	(0.042)	(0.038)		(0.038)	(0.047)
LDIST				0.371***		
				(0.129)		
Border		-0.179*	-0.201**	0.002	-0.228**	-0.151
		(0.106)	(0.105)	(0.112)	(0.105)	(0.121)
Language			-0.152***	-0.140***	-0.141***	-0.140***
			(0.044)	(0.048)	(0.044)	(0.056)
FTA					0.052*	0.026
					(0.029)	(0.036)
N	350	350	350	350	350	350
F-Statistics	75.25	78.72	91.68	58.94	100.71	63.06

Note: Figure in the parenthesis shows the autocorrelation and heteroscedasticity-corrected standard errors of the estimated coefficient.
∗∗∗, ∗∗, and ∗ implies estimated coefficient is significant at 0.01, 0.05, and 0.10 level, respectively.

Table 14: Regression Results on Determinants of LIIT for Vehicles and Transport Equipment

Independent Variables	Dependent Variable: LIIT		Independent Variables	Dependent Variable: DLIIT	Independent Variables	Dependent Variable: LIIT
	Model(7): LICs and LMICs	Model (8): UMICs and HICs		Model (9)		Model (10)
Constant	-3.852*	-0.150	Constant	0.000	Constant	1.329***
	(2.375)	(0.663)		(0.007)		(0.051)
LDPCGDP	-0.059	-0.052	DLDPCGDP	-0.019	LIIT(t-1)	0.207***
	(0.152)	(0.131)		(0.188)		(0.032)
LD(K/L)	0.679*	-0.257*	DLD(K/L)	0.104	DLDPCGDP	-0.245
	(0.402)	(0.137)		(0.272)		(0.207)
L(LPIi*LPI_j)	4.607*	2.267***	DL(LPIi*LPI_j)	-0.023	DLD(K/L)	-0.090
	(2.537)	(0.798)		(1.113)		(0.637)
LWDIST	0.007	0.160***	DLWDIST	0.105	DL(LPIi*LPI_j)	0.716
	(0.300)	(0.043)		(0.303)		(1.855)
LDIST					DLWDIST	-0.623
						(0.630)
Border	0.134	-0.413***				
	(0.374)	(0.102)				
Language	0.052	-0.128***				
	(0.430)	(0.047)				
FTA	-0.126	0.053*				
	(0.158)	(0.032)				
N	70	280		350		350
F-Statistics	56.75	53.33		0.41		45.38

Note: Figure in the parenthesis shows the autocorrelation and heteroscedasticity-corrected standard errors of the estimated coefficient.
***, **, and * implies estimated coefficient is significant at 0.01, 0.05, and 0.10 level, respectively.

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