

Trade Logistics: A Bibliographic Review

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ABSTRACT

International trade and its supporting factors become the backbone of a country's economic wellbeing which leads to tremendous research in the field of international trade. In this paper we study trade logistics with the objective to understand the past, present and future scenario for further research. Study used bibliographic bibliometric and network analysis of 329 documents on trade logistics. Bibliographic, co-citation and co-occurrence of reference journals, journals and conference proceedings considered. Study found focused on cost, perforce, competitiveness, sustainability and facilitation while ICT, Information, global connectivity, global infra projects and logistics policy as scope of future research. Study suggested research areas for future research.

Keywords: Trade Logistics; Review paper; Bibliographic; VOS viewer.

1.0 Introduction

Advancement in policies related international trade, tariff and non-tariff barriers have been significantly removed by the developed and developing countries increased importance of logistics and related factors considered as most important factor during the globalization (Osman T. Aydas, 2019; Yugang HE, 2021; Oualid Kherbash, 2015; Gunjan Malhotra, 2019). Such growing importance we can observe in the report published by World Bank, Connecting to Complete: Trade Logistics in the global economy, in the year 2018 (World Bank, 2018). International logistics has become one of the most essential new services in the 21st century. International logistics, as a bridge and hub of international trade development, breaks down national barriers and offers a solid foundation for international trade as economic globalization deepens. Valuable contribution for the academicians and research scholars with different scales, variable, factors, time and size concluded the importance of the trade logistics in the global trade (Carruthers, 2003; Devlin, 2005; Dong, 2017; Gani, 2017). Economic globalization entails a greater integration of global employment and financial markets. From an economic standpoint, two macro forces appear to be driving the globalization trend. The first is the recent reduction in barriers to the free flow of commodities, services, and capital. The second reason is technical change, particularly the rapid advancements in communication, information processing, and transportation technology in recent years (Muller, 2004). International logistics encompasses services such as international freight forwarding, relocation and storage, warehousing and storage, project shipping, office construction, and letters of credit. There are already groups that specialize on making international logistics more manageable for international businesses. A supply chain is a network of facilities and distribution choices that handles the functions of material procurement, transformation into middle and final products, and delivery of these finished products to customers (Westaway, 2012).

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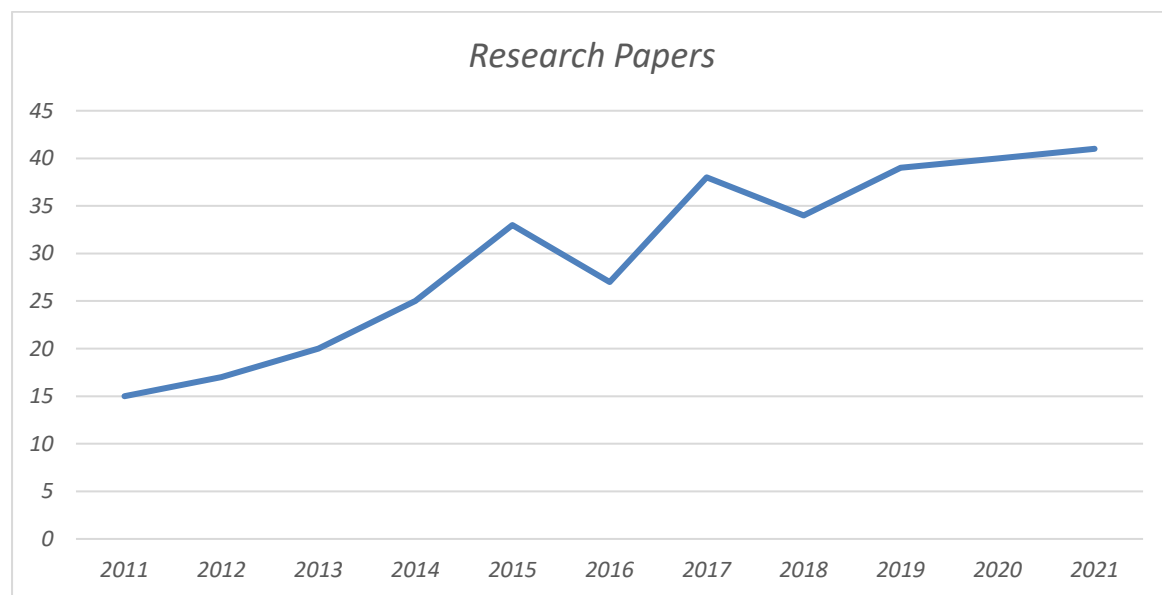
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The ultimate purpose of trade logistics is to effectively provide all trade goods and sales items in goods distribution centres in order to reduce storage costs and maximize profit for a business. An inventory management system that fulfils the customer's requirements, as well as the optimization of management and logistics procedures, enabling a trading organization to be successful in the end. The flow of goods must be thoroughly thought out and systematically managed ahead of time to ensure that particular items and trade goods are always available at the "point of sale" (POS). If a trading company understands the goal of trade logistics, it gains the significant advantage of not having to store trade goods and sales merchandise for an extended period of time, but rather handling and shipping them to customers or manufacturers more frequently through the appropriate service partners.

2.0 Descriptive Analysis

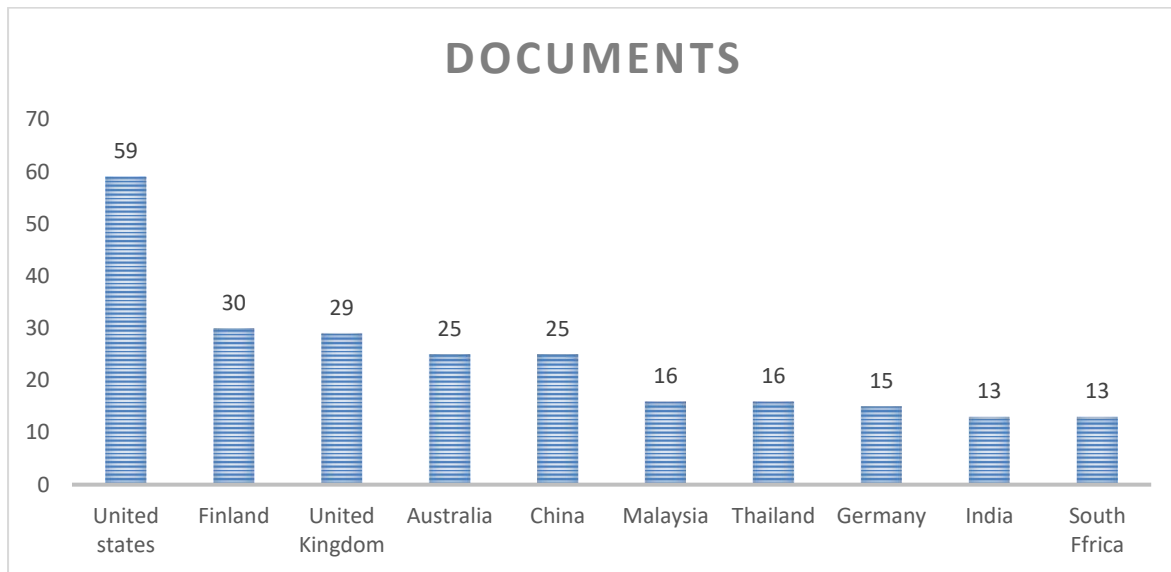
Study used the Scopus database for identifying the literature related to trade logistics. Initially we used Trade logistics as a key word and found more than 450 research papers. Study limited search focusing on the business, commerce, accounting and econometrics. Also, we limit our search with English language and exclude the book and book chapters as well and finally we reached the total number of 329 research articles associated with the word called Trade logistics in various domains like engineering, information technology, agriculture, trade, economics etc.

Figure 1: Year wise Publication, Source: Scopus Database



Source:

The publication in the field of trade logistics is increasing constantly. The research showed a hike in the number of publications during the years. Data was used for the years during the 2011 till 2021. The contribution by the research in the trade logistics area is significantly increasing as the importance of the trade logistics increased due to increment in the trade. Figure 2 showed that the United States of America published the maximum number of papers in trade logistics. Finland, UK, Australia and China are also contributing a good number of articles in the trade Logistics. Especially after the 2013 OBOR project, China started supporting trade logistics research and that leads to an increase in the research area. Especially around 1000 research articles are published only on OBOR project which is a global logistics project.

Figure 2: Country wise publication

Source: Scopus Database

Table 1 represents the country wise publication, citation and average publication by the country. The United States of America published the highest documents with the highest citation. Finland also stood a significant contribution in terms of publication and citation. Notable things in Table 1 are that the highest average citations per document are from UAE, Spain, Switzerland, Canada and Taiwan. UAE's average citations are 37, Spain's are 31, Switzerland's and Taiwan's are 24. These countries' contributions in the number of documents are low but the citations of the published documents are of extremely good quality.

Table 1 Country wise citation and average citation

Country	Documents	Citations	Avg. Citation per Document
United states	59	892	15.12
Finland	30	489	16.30
United Kingdom	29	423	14.59
Australia	25	417	16.68
India	13	256	19.69
Spain	8	249	31.13
Germany	15	219	14.60
Canada	9	202	22.44
Taiwan	7	155	22.14
United Arab Emirates	4	150	37.50
Switzerland	6	147	24.50
Brazil	10	146	14.60
Thailand	16	145	9.06
France	10	135	13.50
Sweden	9	110	12.22
China	25	109	4.36
South Korea	11	105	9.55
Malaysia	16	103	6.44

Source: Scopus Database, Authors calculations

Table 2, the list of the Authors with highest citation. Lauri Ojala had highest 252 citations when data was collected. Solakivi Tomi and Töyli j. hade same citation 217. Harri Lorentz had 178 citations. Majority of the researchers key focus would be on trade logistics, supply chain, Logistics cost, financial performance with respect to Logistics and SCM, customer drive SCM and green SCM.

Table 2 Top authors - Citation Wise

Author	Documents	Citations	Average Citation per Document
Ojala l.	10	252	25.2
Solakivi t.	7	217	31
Lorentz h.	12	178	15
Laari s.	3	159	53
Goh m.	4	128	32
Saranga h.	1	118	118
Sreedevi r.	1	118	118
Martí l.	3	115	38
Puertas r.	3	115	38
Awadallah b.	1	106	106
Malik a.	1	106	106

Source: Scopus Database, Authors calculations

Table 3, represented the authors with highest documents publication in the trade logistics related areas. The publications are covering the major issues of trade logistics, cost, SCM and green SCM concentrating on Logistics related to Trade only.

Table 3 Top Authors with Publications

Author	Documents Published	Citations	Average Citation
Lorentz h.	12	178	14.83
Ojala l.	10	252	25.2
Solakivi t.	7	217	31
Töyli j.	7	217	31
Hilmola o.	6	65	10.83
Wong w.p.	6	39	6.5
Goh m.	4	128	32
El baz j.	4	82	20.5
Laguir i.	4	54	13.5
Soh k.l.	4	24	6

Source: Scopus Database, Authors calculations

Table 4, the top journals publishing the trade logistics documents. World Customs Journals, Journal of cleaner production, international journal of logistics research and applications and Journals related to maritime logistics, shipping and logistics systems contribute the most with a good number of the citations as well.

Table 4 Top Journal's Publication and Citation

Journal	Documents	Citations	Avg. Citation
World customs journal	12	48	4
Journal of cleaner production	11	405	37
International journal of logistics research and applications	10	110	11
Asian journal of shipping and logistics	8	107	13

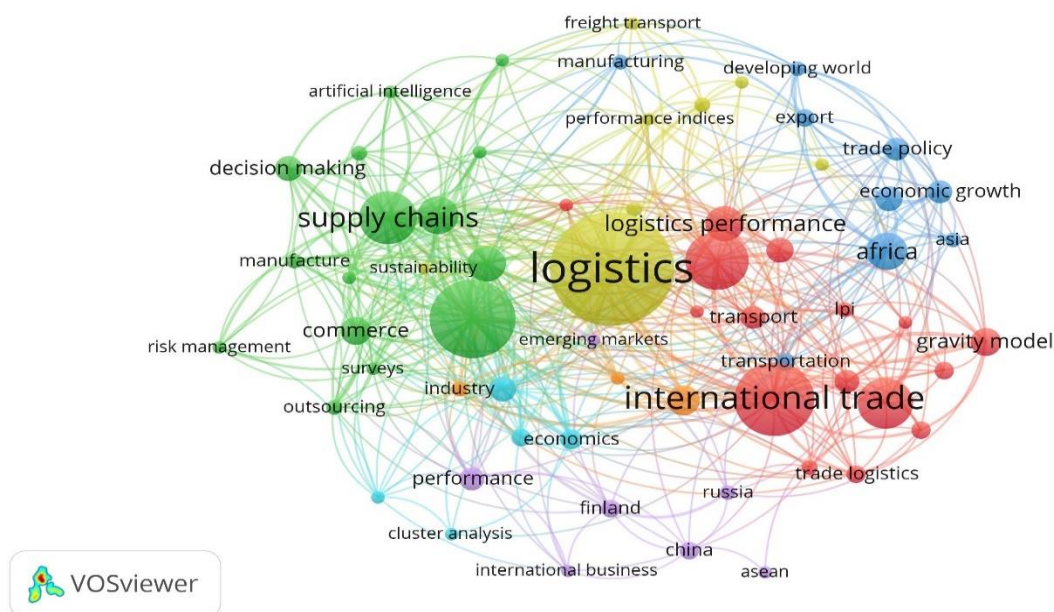
Maritime economics and logistics	7	71	10
Research in transportation business and management	7	91	13
International journal of logistics systems and management	6	31	5
International journal of production economics	6	255	43
International journal of shipping and transport logistics	6	29	5
International journal of supply chain management	6	9	2
International journal of logistics management	5	42	8
World economy	5	71	14
Journal of Asian finance, economics and business	4	4	1
Journal of transport and supply chain management	4	10	3
Production planning and control	4	136	34
Transportation research part e: logistics and transportation review	4	178	45

Source: Scopus Database, Authors calculations

3.0 Data Analysis and Discussion

The following section focused on the analysis of the clusters of Keyword, Journals, citations and trend analysis. This section will also understand the importance of the funding agencies and its impact on the research activity. Data analysis also used the same database with bibliographic analysis based on documents, citation, key words and funding agencies. The discussion started with understanding the keywords analysis.

Figure 1 Keywords Analysis

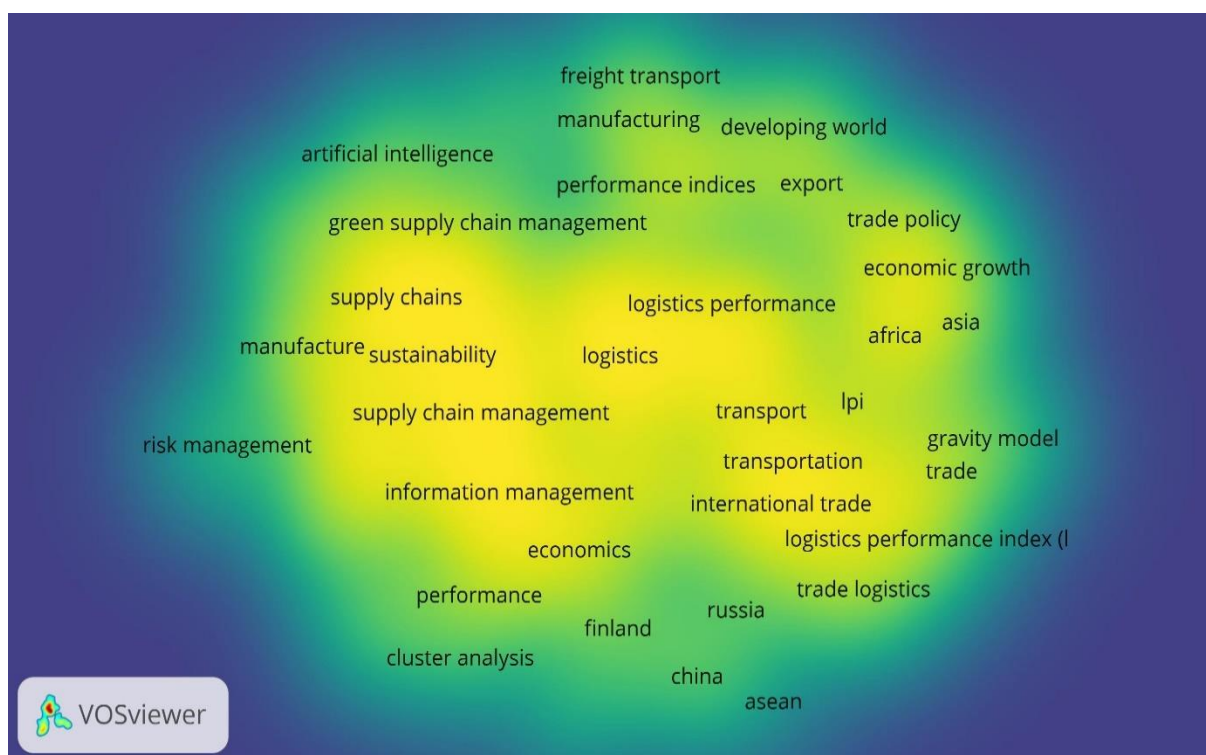


Source: Scopus Database

Total 63 items divided in the 7 clusters focusing on trade logistics directly or indirectly. The analysis of the keywords focused on the logistics, SCM, international trade, logistics performance, trade logistics, international business, export etc. The cluster 1 comprises Brazil, Competitive advantage, Competitiveness, Gravity model, Infrastructure, International logistics, international trade, Logistics performance, Logistics performance index, Logistics performance index (lpi), Lpi, Trade, Trade costs, Trade facilitation, Trade logistics, Transport. Cluster 2 comprised Artificial intelligence, Commerce, Competition, Costs, Decision making, Developing countries, green supply chain

management, Logistics service provider, Manufacturing, Outsourcing, Risk management, Supply chain management, Supply chains, Surveys, Sustainable development. Cluster 3 comprises Africa, Asia, Developing world, Economic development, Economic growth, Export, Manufacture, Trade policy, Transportation. Cluster 4 comprised Data envelopment analysis, Freight transport, Global logistics, Logistics, Malaysia, Performance, indices, South Africa, Sustainability. Cluster 5 comprises ASEAN, China, Emerging markets, Finland, International business, Performance, Russia. Cluster 6 comprises Cluster analysis, Economics, Information management, Innovation, Resource-based view. Cluster 7 comprises Industry, Research and Supply chain. The keywords analysis identified that the trade logistics related study is moving towards regional areas. Analysis witnessed that general theories and understanding phase is over now researchers are moving towards region specific studies and trying to develop specific theories and models for trade and logistics enhancement.

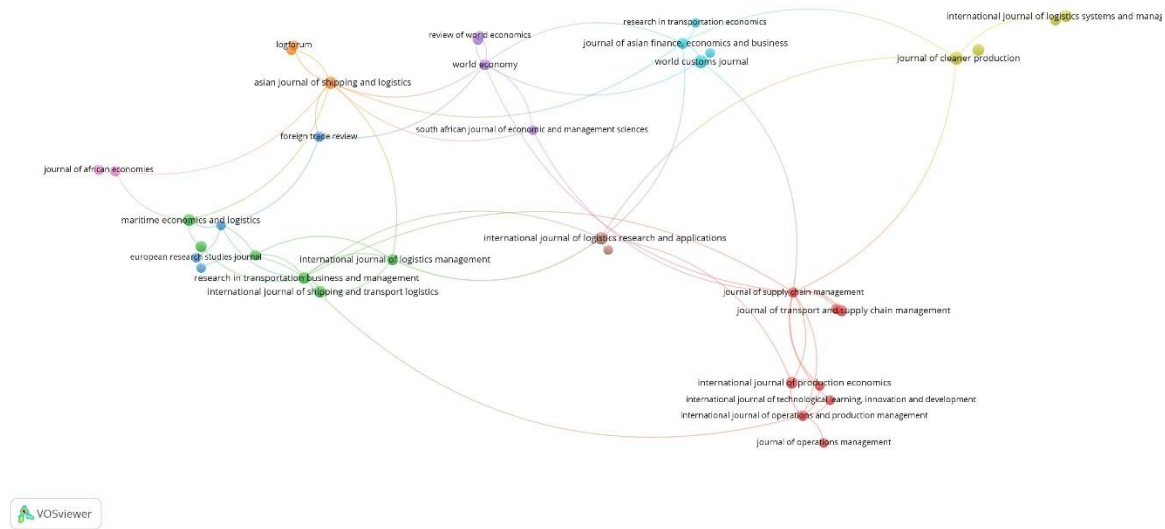
Figure 2 Keywords - Density Visualisation



Source: Scopus Database

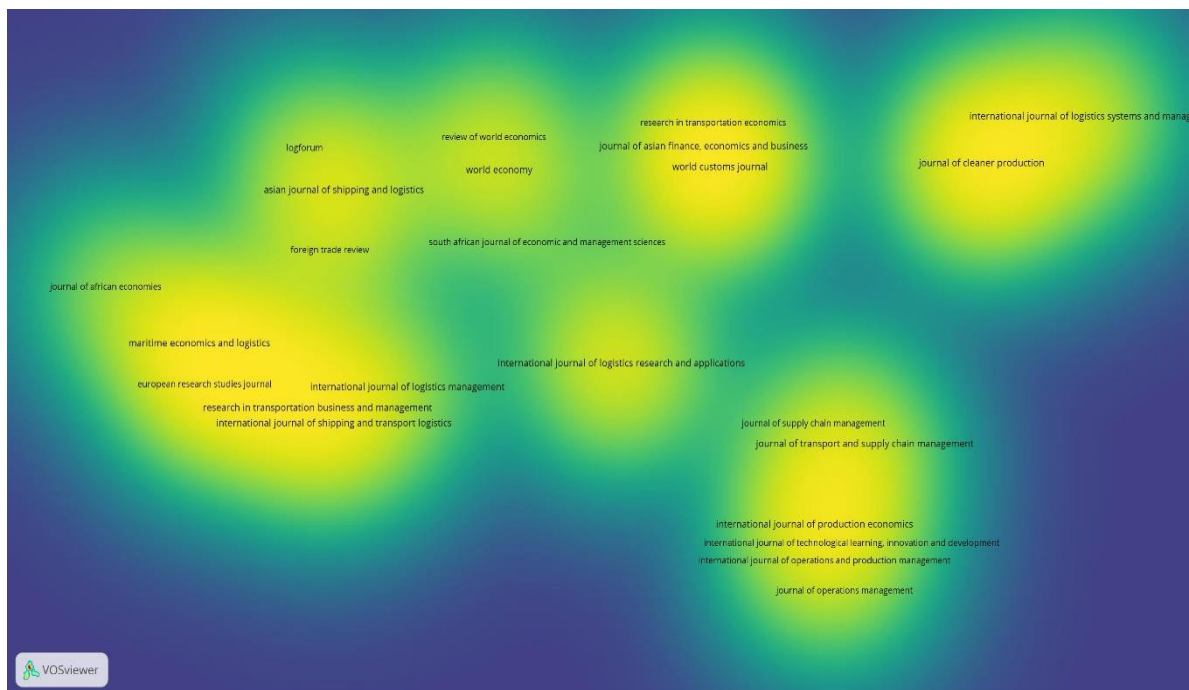
Journal Analysis

Figure 4, Journal analysis analysed 37 research journals divided in 9 different clusters. Analysis suggested that the International Journal of logistics research and application, World customs journals, Asian Journal of shipping and Logistics, Journal of transport and SCM, International journal of Logistics system considered as best journal for trade logistics related research articles. All the journals are contributing directly as trade logistics and indirectly as supply chain, green supply chain and maritime logistics. The journal analysis found that now the trends of research in the field of trade logistics are increasing. The researchers are trying to make their study limited to certain areas like trade cost, transportation, use of technology, logistics efficiency, competitiveness and trade which includes both export and import.

Figure 3 : Journal Analysis

Source: Scopus Database

Density analysis clearly suggests that the few journals are publishing trade logistics related research articles frequently. Such journals also come with special issues focusing on the emerging topics such as trade openness, Logistics cost, Global trade routes, Global logistics and SCM, Global competitiveness through logistics, Logistics and trade etc. Journals also started special issues focusing on Asia, Africa, Europe, and Eurasia etc with the objective of understanding and enhancing the logistical environment.

Figure 4 Journals - Density Analysis

Source: Scopus Database

Bibliographic analysis will focus on documents, sources, authors, organization and countries. Table 5, It is noteworthy that the researcher's 52% work is not cited by the research community. The reasons might be due to logistics dynamic nature which always comes with new areas and new discussion and the second thing is that it is limited to certain regions with limited objectives. Hence very low published material cited by the community. Even no major theories developed in recent years meaning researchers are following the previous theory changing variables in the studies and trade logistics is still in the age of exploratory.

Table 5: Documents wise Citation

Number of Citation of a document Citation	No of Documents
No citation	172
1 to 5	153
6 to 10	98
10 to 15	72
16 to 20	56
21 to 25	43
26 to 30	37
31 to 35	29
36 to 40	20
More the 40	19

Source: Scopus Database, Authors calculations

4.0 Conclusion

The literature found for trade logistics is in large quantities as expected as logistics is very popular and a key factor for business but the quality research in the field of logistics specifically with respect to trade is limited. The literature suggested future research in the field of Green Logistics, Information Technology and information in Logistics, Customer service, Infrastructure in terms of maritime logistic and global connectivity. The current literature focused on cost, perforce, competitiveness, sustainability and facilitation. The current literature most commonly mentions the ICT, Information, global connectivity, global infra projects and logistics policy as scope of future research.

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