



## STUDY ON CONSOLIDATION IN CONTAINER SERVICES WITH REFERENCE TO FREIGHT CONSOLIDATORS PVT LTD

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### Abstract

This study examines the Consolidation in container services is a process where multiple smaller shipments are combined into larger shipments for more efficient transportation. Consolidation offers benefits such as cost savings, improved supply chain efficiency, and reduced environmental impact. However, it can also present challenges such as coordination with multiple shippers and handling different types of cargo. To overcome these challenges, it is recommended that shippers work with a trusted logistics provider, optimize their cargo, plan ahead, utilize technology, and consider shared space. By following

these suggestions, shippers can make the most of consolidation opportunities and achieve their shipping goals. Overall, consolidation on container services presents a viable solution for shippers looking to reduce transportation costs, streamline logistics processes, and minimize their carbon footprint.

**Key Word:** Supply Chain, Logistics Provider, Technology

### Introduction

Consolidation in shipping refers to the process of combining smaller shipments from different shippers into a larger shipment to take advantage of economies of scale, reduce transportation costs, and improve the efficiency of the shipping process. Consolidation can occur at different stages of the shipping process, including at the origin, destination, or route.

**Consolidation in shipping can take several forms, such as:**

**LCL (Less than Container Load) consolidation:** In LCL consolidation, smaller shipments from different shippers are consolidated into a single container for transportation. This allows



shippers to pay only for the space they need, rather than for an entire container.

**FCL (Full Container Load)**

**consolidation:** In FCL consolidation, multiple shipments from different shippers are consolidated into a single container to maximize space utilization and reduce transportation costs.

**Air cargo consolidation:** Air cargo consolidation involves combining smaller shipments from different shippers into a single shipment to reduce transportation costs and improve efficiency.

Consolidation in shipping offers several benefits, including cost savings, increased efficiency, and reduced carbon emissions. By consolidating shipments, shippers can benefit from economies of scale and reduce the number of shipments, which can result in lower transportation costs. Consolidation can also reduce the carbon footprint of shipping by reducing the number of vehicles needed to transport goods.

**Scope of Study**

The scope of the study of consolidation of container service can cover a wide range of topics related to

the optimization of container transportation. Some of the key areas that can be included in the scope of the study are:

**Market analysis:** Understanding the demand for container shipping services in various regions and identifying the key factors that influence market trends, such as changes in global trade patterns, economic conditions, and government regulations  
**Operational analysis:** Examining the operational processes involved in consolidation of container services, including cargo consolidation, container loading and unloading, vessel scheduling, and route optimization.

**Cost analysis:** Evaluating the costs associated with consolidation of container services, including vessel chartering, terminal handling, container leasing, and insurance.

**Technology analysis:** Assessing the role of technology in enabling the consolidation of container services, such as container tracking systems, automated cargo handling equipment, and data Analytics tools.

**Environmental analysis:** Investigating the environmental impacts of container transportation, such as greenhouse gas



emissions, and identifying ways to reduce these impacts through consolidation and other measures. **Competitive analysis:** Analyzing the competitive landscape of the container shipping industry, including the strategies of major players, emerging trends, and potential threats and opportunities.

Overall, the scope of the study of consolidation of container service can be quite broad, covering various aspects of the industry, from market analysis to environmental impact assessment, and providing insights into how consolidation can improve the efficiency and sustainability of container transportation.

### Need of the Study

**Cost Reduction:** Consolidation of container services has the potential to reduce costs for shipping companies by optimizing the use of container vessels and reducing the number of empty containers transported.

**Improved Efficiency:** Consolidation can help to improve the efficiency of container shipping operations by reducing the number of vessel calls, optimizing cargo handling and

transportation, and increasing vessel utilization rates.

**Improved Service Levels:** Consolidation of container services can also lead to improved service levels by offering more frequent sailings and wider geographic coverage, as well as access to specialized equipment and larger vessels.

**Sustainability:** Consolidation can help to reduce carbon emissions and other environmental impacts associated with container shipping by reducing the number of vessels calls and improving vessel utilization rates.

**Competitive Advantage:** Shipping companies that offer consolidation services may have a competitive advantage over those that do not, as they can offer customers a wider range of options and better value for money.

Overall, a study of consolidation of container service can provide valuable insights into the potential benefits and challenges of consolidation, and help shipping companies to make informed decisions about whether to adopt consolidation strategies.

### Research Objective



➤ **PRIMARY OBJECTIVE**

- The primary objective of consolidation of container service is to optimize the use of container vessels and reduce the costs associated with operating them.

This is achieved by combining cargo from multiple shippers into a single container, thereby increasing the efficiency of container transportation

**Secondary Objective**

The secondary objective of consolidation of container service is to improve the level of service provided to shippers by offering them more frequent sailings and wider geographic coverage. Consolidation can also provide shippers with access to larger vessels and more specialized equipment, such as refrigerated containers, which they may not be able to afford or utilize on their own.

Overall, the consolidation of container service can lead to increased efficiency, reduced costs, and improved service levels, which can benefit both shipping companies and their customers.

**Limitations of the Study**

The limitations of the study are:

The study has been done only on Freight forwarders.

- The survey is restricted to forwarders of Chennai only.
- Time limit restricts detailed survey work for this particular topic of Research.
- Some Forwarders have lack of time, so they may not communicate Properly

**Objective of Study**

**Collection of Data:**

There are several ways of collecting the appropriate data which differ considerably in the context of money, cost, time, and other sources at the disposal of the researcher. There are two types of data:

- Primary data
- Secondary data

**Primary Data:**

To collect primary data for the study on the impact of air transportation on India's EXIM trade with special



reference to Freight Consolidators Pvt Ltd, the following methods were used:

- **Surveys**

A structured questionnaire was developed and administered to a sample of 50 individuals involved in the freight forwarding industry.

- **Interviews**

**Secondary Data:**

To collect secondary data for the study, the following sources were used:

- Government reports
- Sales report
- Websites

Books

**Sampling Method:**

The sampling technique used in the non-probability sampling method is Convenience sampling. Convenience sampling (also known as availability sampling) is a specific type of non-probability sampling method that relies on data collection from population members who are conveniently available to participate in the study. Facebook polls or questions can be mentioned as a popular example of convenience

sampling. Convenience sampling is a type of sampling where the first available primary data source will be used for the research without additional requirements.

**Sample Size:**

The sample size used for the study is 50 samples.

**Nature of Respondent:**

The data is collected from freight forwarding companies in the Chennai area.

**Tools And Techniques:**

All analysis has been done with the help of SPSS software. To analyze the collected data, the following statistical tools were used:

- Percentage analysis
- Correlation

**Percentage Analysis:**

Percentage Analysis is applied to create a contingency table from the frequency distribution and represent the collected data for better understanding.

**Correlation:**



Correlation is used to find out the relationship between one variable with another variable in other words we can say that correlation finds out how much correlation between two variables.

**Data Analysis And Interpretation**

**Group age and consolidation are same:**

**Table: 01**

OPTIONS	PERCENTAGE
STRONGLY DISAGREE	60%
DISAGREE	20%
NEUTRAL	10%
AGREE	5%
STRONGLY AGREE	5%

**Inference:**

The above table shows that 60% of respondents strongly disagree with the above statement.

The above table shows that 20% of respondents disagree with the above statement.

The above table shows that 10% of respondents neutral with the above statement.

The above table shows that 5% of respondents agree with the above statement.

The above table shows that 5% of respondents strongly agree with the above statement.

**LCL containers are best for large shipment:**

**Number of respondents: 50**

**Table: 02**

OPTIONS	PERCENTAGE
STRONGLY DISAGREE	75%
DISAGREE	10%
NEUTRAL	5%
AGREE	5%
STRONGLY AGREE	5%

**Inference:**

The above table shows that 75% of respondents strongly disagree with the above statement.

The above table shows that 10% of respondents disagree with the above statement.

The above table shows that 5% of respondents neutral with the above statement.

The above table shows that 5% of respondents agree with the above statement.

The above table shows that 5% of respondents strongly agree with the above statement



**Broken space is occurring due to UN-informed size of cargo:**

**Number of respondents: 50**

**Table: 03**

OPTIONS	PERCENTAGE
STRONGLY DISAGREE	10%
DISAGREE	10%
NEUTRAL	10%
AGREE	40%
STRONGLY AGREE	30%

**Inference:**

The above table shows that 10% of respondents strongly disagree with the above statement.

The above table shows that 10% of respondents disagree with the above statement.

The above table shows that 10% of respondents neutral with the above statement.

The above table shows that 40% of respondents agree with the above statement

The above table shows that 30% of respondents strongly agree with the above statement

**In CBM the total weight of cargo should not exceed 1 ton**

**Number of respondents: 50**

**Table: 04**

OPTIONS	PERCENTAGE
STRONGLY DISAGREE	10%
DISAGREE	10%
NEUTRAL	10%
AGREE	50%
STRONGLY AGREE	20%

**Inference:**

The above table shows that 10% of respondents strongly disagree with the above statement.

The above table shows that 10% of respondents disagree with the above statement.

Above table shows that 10% of respondents neutral with the above statement.

The above table shows that 50% of respondents agree with the above statement.

The above table shows that 20% of respondents strongly agree with the above statement

**Participating in consolidation shipping earns the shipper preferred rate**

**Number of respondents: 50**

**Table: 05**



OPTIONS	PERCENTAGE
STRONGLY DISAGREE	30%
DISAGREE	20%
NEUTRAL	5%
AGREE	20%
STRONGLY AGREE	25%

**Inference:**

The above table shows that 30% of respondents strongly disagree with the above statement.

The above table shows that 20% of respondents disagree with the above statement.

The above table shows that 5% of respondents neutral with the above statement.

The above table shows that 20% of respondents agree with the above statement.

The above table shows that 25% of respondents strongly agree with the above statement.

**When a shipment is too small in mass to require a full Container:**

**Number of respondents: 50**

**Table: 06**

OPTIONS	PERCENTAGE
STRONGLY DISAGREE	20%
DISAGREE	20%
NEUTRAL	20%
AGREE	20%
STRONGLY AGREE	20%

**Inference:**

The above table shows that 20% of respondents strongly disagree with the above statement.

The above table shows that 20% of respondents disagree with the above statement.

The above table shows that 20% of respondents neutral with the above statement.

The above table shows that 20% of respondents agree with the above statement.

The above table shows that 20% of respondents strongly agree with the above statement

**Consolidation strategy can helps get your freight delivered where it needs to be on schedule:**

**Number of respondents: 50**

**Table: 07**





OPTIONS	PERCENTAGE
STRONGLY DISAGREE	5%
DISAGREE	5%
NEUTRAL	10%
AGREE	50%
STRONGLY AGREE	30%

**Inference:**

The above table shows that 5% of respondents strongly disagree with the above statement.

The above table shows that 5% of respondents disagree with the above statement.

The above table shows that 10% of respondents neutral with the above statement.

The above table shows that 50% of respondents agree with the above statement.

The above table shows that 30% of respondents strongly agree with the above statement

**All carriers are willing to carry consolidated shipment because of added complexity:**

**Number of respondents: 50**

**Table: 08**

OPTIONS	PERCENTAGE
STRONGLY DISAGREE	20%
DISAGREE	20%
NEUTRAL	10%
AGREE	25%
STRONGLY AGREE	25%

**Inference:**

The above table shows that 20% of respondents strongly disagree with the above statement.

The above table shows that 20% of respondents disagree with the above statement.

The above table shows that 10% of respondents neutral with the above statement.

The above table shows that 25% of respondents agree with the above statement.

The above table shows that 25% of respondents strongly agree with the above statement

**Shipment requires more organization and planning:**

**Number of respondents: 50**

**Table: 09**



OPTIONS	PERCENTAGE
STRONGLY DISAGREE	10%
DISAGREE	10%
NEUTRAL	5%
AGREE	45%
STRONGLY AGREE	30%

**Inference:**

The above table shows that 10% of respondents strongly disagree with the above statement.

The above table shows that 10% of respondents disagree with the above statement.

The above table shows that 5% of respondents neutral with the above statement.

The above table shows that 45% of respondents agree with the above statement.

The above table shows that 30% of respondents strongly agree with the above statement

**All shipments are listed on the same master way bill but each shipment also has its own house way bill:**

**Number of respondents: 50 Table: 10**

OPTIONS	PERCENTAGE
STRONGLY DISAGREE	10%
DISAGREE	10%
NEUTRAL	5%
AGREE	45%
STRONGLY AGREE	30%

**Inference:**

The above table shows that 10% of respondents strongly disagree with the above statement.

The above table shows that 10% of respondents disagree with the above statement.

The above table shows that 5% of respondents neutral with the above statement.

The above table shows that 45% of respondents agree with the above statement.

The above table shows that 30% of respondents strongly agree with the above statement

**Delay in consolidation can delay entire shipment:**

**Number of respondents: 50**

**Table: 11**



OPTIONS	PERCENTAGE
STRONGLY DISAGREE	10%
DISAGREE	10%
NEUTRAL	5%
AGREE	45%
STRONGLY AGREE	30%

**Inference:**

The above table shows that 10% of respondents strongly disagree with the above statement.

The above table shows that 10% of respondents disagree with the above statement.

The above table shows that 5% of respondents neutral with the above statement.

The above table shows that 45% of respondents agree with the above statement.

The above table shows that 30% of respondents strongly agree with the above statement

**Cargo space is not unitized you can ask shipper to pallet the cargo to reduce the chance of broken space**

**Number of respondents: 50**

**Table: 12**

OPTIONS	PERCENTAGE
STRONGLY DISAGREE	10%
DISAGREE	10%
NEUTRAL	5%
AGREE	45%
STRONGLY AGREE	30%

**Inference:**

The above table shows that 10% of respondents strongly disagree with the above statement.

The above table shows that 10% of respondents disagree with the above statement.

The above table shows that 5% of respondents neutral with the above statement.

The above table shows that 45% of respondents agree with the above statement.

The above table shows that 30% of respondents strongly agree with the above statement

**Consolidation reduces weight time for transporting smaller loads**

**Number of respondents: 50**

**Table: 13**



OPTIONS	PERCENTAGE
STRONGLY DISAGREE	10%
DISAGREE	10%
NEUTRAL	5%
AGREE	45%
STRONGLY AGREE	30%

OPTIONS	PERCENTAGE
STRONGLY DISAGREE	10%
DISAGREE	15%
NEUTRAL	5%
AGREE	40%
STRONGLY AGREE	30%

**Inference:**

The above table shows that 10% of respondents strongly disagree with the above statement.

The above table shows that 10% of respondents disagree with the above statement.

The above table shows that 5% of respondents neutral with the above statement.

The above table shows that 45% of respondents agree with the above statement.

The above table shows that 30% of respondents strongly agree with the above statement

**Don't accept the cargo arrival time as faster as an FCL shipment**

**Number of respondents: 50**

**Table: 14**

**Inference:**

The above table shows that 10% of respondents strongly disagree with the above statement.

The above table shows that 15% of respondents disagree with the above statement.

The above table shows that 5% of respondents neutral with the above statement.

The above table shows that 40% of respondents agree with the above statement.

The above table shows that 30% of respondents strongly agree with the above statement

**Freight under co-loading could be cheaper**

**Number of respondents: 50**

**Table: 15**



OPTIONS	PERCENTAGE
STRONGLY DISAGREE	10%
DISAGREE	15%
NEUTRAL	5%
AGREE	40%
STRONGLY AGREE	30%

OPTIONS	PERCENTAGE
STRONGLY DISAGREE	10%
DISAGREE	15%
NEUTRAL	5%
AGREE	40%
STRONGLY AGREE	30%

**Inference:**

The above table shows that 10% of respondents strongly disagree with the above statement.

The above table shows that 15% of respondents disagree with the above statement.

The above table shows that 5% of respondents neutral with the above statement.

The above table shows that 40% of respondents agree with the above statement.

The above table shows that 30% of respondents strongly agree with the above statement

**Consolidation of LCL cargo and providing door to door service to Shipper/consignee**

**Number of respondents: 50 Table: 16**

**Inference:**

The above table shows that 10% of respondents strongly disagree with the above statement.

The above table shows that 15% of respondents disagree with the above statement.

The above table shows that 5% of respondents neutral with the above statement.

The above table shows that 40% of respondents agree with the above statement.

The above table shows that 30% of respondents strongly agree with the above statement

**LCL shipment is cheaper than FCL**

**Number of respondents: 50 Table: 17**



OPTIONS	PERCENTAGE
STRONGLY DISAGREE	10%
DISAGREE	15%
NEUTRAL	5%
AGREE	40%
STRONGLY AGREE	30%

**Inference:**

The above table shows that 10% of respondents strongly disagree with the above statement.

The above table shows that 15% of respondents disagree with the above statement.

The above table shows that 5% of respondents neutral with the above statement.

The above table shows that 40% of respondents agree with the above statement.

The above table shows that 30% of respondents strongly agree with the above statement

**Freight forwarders collects more money for re-working of cargo**

**Number of respondents: 50 Table: 18**

OPTIONS	PERCENTAGE
STRONGLY DISAGREE	30%
DISAGREE	40%
NEUTRAL	5%
AGREE	15%
STRONGLY AGREE	10%

**Inference:**

The above table shows that 30% of respondents strongly disagree with the above statement.

The above table shows that 40% of respondents disagree with the above statement.

The above table shows that 5% of respondents neutral with the above statement.

The above table shows that 45% of respondents agree with the above statement.

The above table shows that 10% of respondents strongly agree with the above statement

**Freight forwarders earns more profit on LCL shipment compared to FCL shipment**

**Number of respondents: 50**

**Table: 19**



OPTIONS	PERCENTAGE
STRONGLY DISAGREE	10%
DISAGREE	15%
NEUTRAL	5%
AGREE	40%
STRONGLY AGREE	30%

OPTIONS	PERCENTAGE
STRONGLY DISAGREE	10%
DISAGREE	15%
NEUTRAL	5%
AGREE	40%
STRONGLY AGREE	30%

**Inference:**

The above table shows that 10% of respondents strongly disagree with the above statement.

The above table shows that 15% of respondents disagree with the above statement.

The above table shows that 5% of respondents neutral with the above statement.

The above table shows that 40% of respondents agree with the above statement.

The above table shows that 30% of respondents strongly agree with the above statement

**Freight forwarders collect more money for import clearance**

**Number of respondents: 50**

**Table: 20**

**Inference:**

The above table shows that 10% of respondents strongly disagree with the above statement.

The above table shows that 15% of respondents disagree with the above statement.

The above table shows that 5% of respondents neutral with the above statement.

The above table shows that 40% of respondents agree with the above statement.

The above table shows that 30% of respondents strongly agree with the above statement

**Conclusion**

In conclusion, consolidation on container services is a highly effective way for shippers to reduce transportation costs, improve supply chain efficiency, and minimize their environmental impact. By combining multiple smaller



shipments into larger shipments, shippers can take advantage of more efficient transportation methods and achieve cost savings. However, consolidation also presents challenges that require careful planning, coordination, and execution to overcome. To make the most of consolidation opportunities, shippers should work with a trusted logistics provider, optimize their cargo, plan ahead, utilize technology, and consider shared space. By following these suggestions, shippers can successfully consolidate their shipments and achieve their shipping goals. Overall, consolidation on container services is a valuable solution that can benefit shippers of all sizes and industries, and it is likely to remain an important trend in the shipping industry for the foreseeable future

## Reference

- "Container Logistics: The Role of the Container in the Supply Chain" by John Mangan, Chandra Lalwani, and Tim Butcher (2015) - This book discusses the role of containers in the supply chain, including the challenges and opportunities of consolidation in container services.
- "The Effect of Carrier Alliances on Service Quality and Freight Rates in the Container Shipping Industry" by Haiying Jia, Alan McKinnon, and Michael Browne (2016) - This journal article analyzes the impact of carrier alliances on service quality and freight rates in the container shipping industry, including the effects of consolidation.
- "Container Shipping and Economic Globalization: A Research Agenda" by Peter Haug and Kristina Notz (2017) - This journal article proposes a research agenda on container shipping and economic globalization, including the role of consolidation in container services.
- "The Impact of Mergers and Acquisitions on Carrier Alliances in the Container Shipping Industry" by Dong-Wook Song, Hwa-Kyun Kim, and Young-Tae Chang (2018) - This journal article examines the impact of mergers and acquisitions on





carrier alliances in the container shipping industry, including the implications for consolidation.

- "Container Shipping and Ports: An Overview" by Theo Notteboom and Jean-Paul Rodrigue (2018) - This book provides an overview of container shipping and ports, including the role of consolidation in container services.
- Suresh, N., & Bhavadharani, S. (2021). An Empirical Study on the Impact of Passenger Loyalty Program on Passenger Retention with Reference to Air India. *Productivity*, 62(1).
- "The Role of Strategic Alliances in the Container Shipping Industry: An Overview" by Sveinung Jørgensen and Bo Terje Kalsaas (2019) - This journal article provides an overview of strategic alliances in the container shipping industry, including the effects of consolidation on the formation and evolution of alliances.