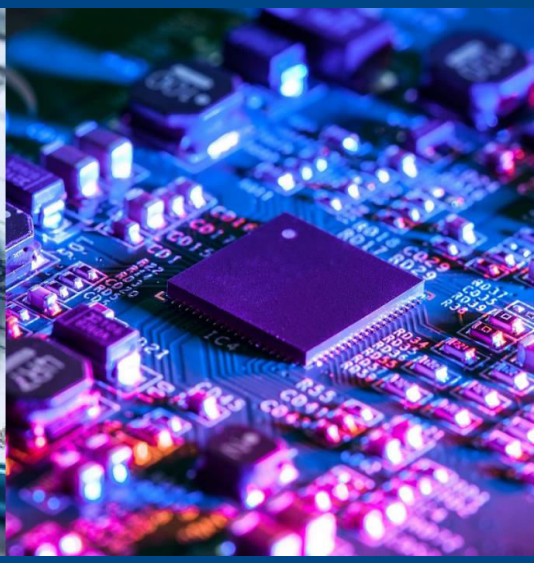
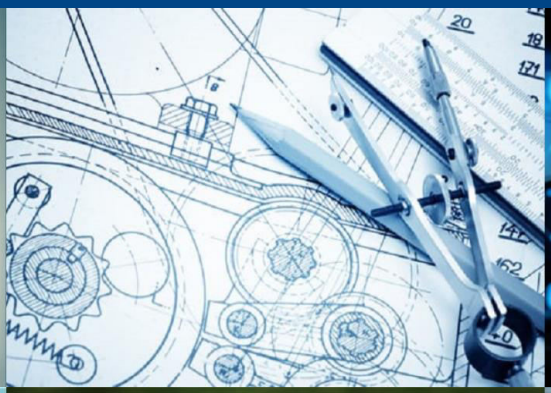
ISSN: 2582-7219

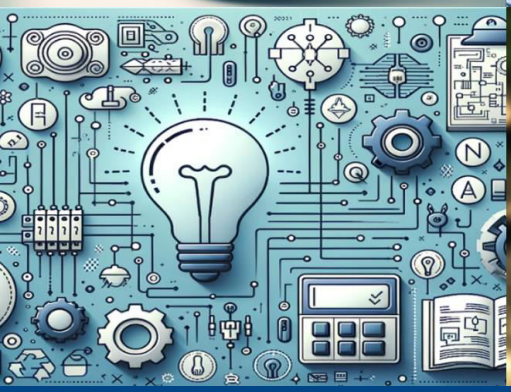




International Journal of Multidisciplinary Research in Science, Engineering and Technology

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)





Impact Factor: 9.864

Volume 9, Issue 10, October 2026

© 2026 IJMRSET | Volume 9, Issue 10, October 2026| DOI:10.15680/IJMRSET.2026.0910030

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 9.864| ESTD Year: 2018|

International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

A Study on Operational Efficiency in Freight Forwarding at Sea Hawk Lines Pvt. Ltd., Chennai

Sumaiyah Fathima J[1], Afra Sharjana M J[2]

II MBA, Department of Management Studies, Mohamed Sathak Engineering College, Kilakarai, Tamil Nadu, India[1]

Assistant Professor, Department of Management Studies, Mohamed Sathak Engineering College, Kilakarai, Tamil Nadu, India[2]

ABSTRACT: This study looks into the operational efficiency of goods forwarding at Sea Hawk Lines Pvt. Ltd. in Chennai, focusing on cargo management, administrative processes, and inter-departmental collaboration. A structured questionnaire was used to collect primary data from 115 staff members, which was then analysed using percentages, Chi-square tests, and correlation analysis. The findings show that established standardised procedures and effective communication and documentation are in place; however, challenges such as shipment delays, documentation inaccuracies, coordination issues, and infrastructural constraints persist. The implementation of automated documentation systems, improved coordination platforms, continuous training, and the adoption of contemporary logistics technologies are all recommended improvements to increase operational efficiency and improve customer satisfaction.

KEYWORDS: Freight Forwarding, Operational Efficiency, Cargo Management, Administrative Processes, Logistics Collaboration, Customs Clearance.

I. INTRODUCTION

The goods forwarding industry facilitates worldwide trade by successfully organising transportation, paperwork, and customs clearance. This study looks at the operational efficiency of Sea Hawk Lines Pvt. Ltd. in Chennai, reviewing present procedures, evaluating cargo handling and paperwork efficiency, and identifying hurdles to performance in the face of rising consumer demands and technological advancements.

II. STATEMENT OF THE PROBLEM

Sea Hawk Lines Pvt. Ltd., a logistics service based in Chennai, offers goods forwarding, NVOCC operations, customs broking, and multimodal transportation. Despite its strong market position, the corporation must operate efficiently in a highly competitive environment. Problems in cargo consolidation, paperwork, and customs clearance can cause delays, increased costs, and a reduction in service quality, emphasising the need for a comprehensive review of operational difficulties.

III. OBJECTIVES OF THE STUDY

1. To examine the goods forwarding operations of Sea Hawk Lines Pvt. Ltd., Chennai.
2. To assess the efficiency of paperwork and freight handling procedures.
3. To assess the degree of departmental coordination.
4. To raise client happiness and service quality.

IV. SCOPE OF THE STUDY

The goods forwarding operations of Sea Hawk Lines Pvt. Ltd., Chennai, are the subject of this research. These operations include cargo handling, delivery, customs clearance, booking, and paperwork for both import and export activities. It examines how operational, documentation, and customer service components work together, as well as how technology, labour, and digital tracking affect efficiency and transparency.

© 2026 IJMRSET | Volume 9, Issue 10, October 2026| DOI:10.15680/IJMRSET.2026.0910030

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 9.864| ESTD Year: 2018|

International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

V. LIMITATIONS OF THE STUDY

1. The research was conducted over a brief time span, making it difficult to adequately analyse long-term operational implications.
2. The sample of 115 respondents may not be completely representative of the organization's whole workforce.
3. Because this study only looked at Sea Hawk Lines Pvt. Ltd. in Chennai, the findings may not be generalisable to other logistics businesses.

VI. REVIEW OF LITERATURE

- According to Mustika Sari, Reni Dian Octaviani, and Nursery Alfaridi Nasution's 2025 paper, "Improving Freight Forwarding Efficiency Through Digital Innovation, Regulation, and Infrastructure as Mediation," which was published in the Dinasti International Journal of Economics, Finance & Accounting (Vol. 6, Issue 3), digital transformation, infrastructure development, and regulatory support greatly increase the operational efficiency of freight forwarding companies.
- According to T. Vasumathi and K. Mythili Raja's 2025 study, "A Study on Operational Strategies for Enhancing Efficiency in Freight Forwarding: A Focus on Customs Clearance Process," which was published in the International Journal of Modern Developments in Engineering and Science, adopting automation tools and streamlining customs documentation improves service efficiency and decreases delays.
- According to Aravind Krishnan R, Koushik R, Sathiya Narayanan SR, and Pravin A's 2026 paper "Evaluating the Effectiveness of Freight Forwarding Operations," which was published in the Asian Journal of Management and Commerce (Vol. 7, Issue 1), digital freight systems and performance monitoring tools improve customer satisfaction and operational productivity.
- According to Ms. K S Maanashvee and Dr. D Anitha Kumar's 2025–2026 paper, "Operational Aspects of Freight Forwarding," which was published in the International Advanced Research Journal in Science, Engineering, and Technology, standardised procedures and technology integration are essential to operational excellence.

COMPANY BRIEF PROFILE

Founded in 2002, Sea Hawk Lines Pvt. Ltd. is a logistics and freight forwarding company located in Chennai. Its areas of expertise include air freight, ocean freight forwarding, NVOCC operations, customs clearing, warehousing and distribution, and transportation. The firm has established a reputation for dependability, operational quality, and customer satisfaction in the South Indian logistics sector by shipping to more than 40 worldwide destinations through a network of international agents and partners.

VII. RESEARCH METHODOLOGY

Research is a methodical approach to problem-solving through the objective pursuit of information. The operational effectiveness of goods forwarding at Sea Hawk Lines Pvt. Ltd., Chennai, is evaluated in this study using a methodical methodology.

RESEARCH DESIGN

The research design used in this study is descriptive. It helps with comprehension of paperwork, customs clearance, transportation, and coordination by outlining current goods forwarding practices in import and export operations.

DATA COLLECTION

The study uses both primary and secondary data. Primary data were gathered through personal interviews with employees, conversations with operational staff, and firsthand observation of goods forwarding activities. Secondary data sources included firm records, reports, government papers, websites, journals, and previous research on goods forwarding and international trade.

RESEARCH INSTRUMENT

A systematic questionnaire comprising open-ended and closed-ended questions was the primary tool for obtaining data on the operational efficiency of goods forwarding activities.

© 2026 IJMRSET | Volume 9, Issue 10, October 2026| DOI:10.15680/IJMRSET.2026.0910030

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 9.864| ESTD Year: 2018|

International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

SAMPLE DESIGN:

The population (N) consisted of 150 employees, and 115 respondents (n) were selected using Simple Random Sampling, providing them an equal chance of being chosen.

RESEARCH PERIOD

The research lasted four months, from January to April 2026.

TOOLS USED FOR DATA ANALYSIS

The data collected were analyzed using these statistical tools:

1. Simple Percentage Analysis
2. Chi-Square Test
3. Correlation Coefficient

Percentage Analysis

Percentage analysis was used to classify and summarize demographic data and general response trends, helping identify the proportion of respondents under different categories.

$$Percentage = \frac{\text{No. of Respondents in a Category}}{\text{Total No. of Respondents}} \times 100$$

Chi-Square Test

The Chi-Square Test was applied to examine the association between categorical variables. It is a non-parametric statistical test that determines whether there is a significant relationship between two attributes observed in the data.

$$\chi^2 = \frac{\sum (Oi - Ei)^2}{Ei}$$

Correlation Coefficient

Correlation analysis was used to assess the strength and direction of the relationship between two continuous variables, helping understand the linear association between years of experience and perception of automation tools.

$$r = \frac{N \sum XY - \sum X \sum Y}{\sqrt{[N\sum X^2 - (\sum X)^2]\,[N\sum Y^2 - (\sum Y)^2]}}$$

VIII. DATA ANALYSIS AND INTERPRETATION

Data analysis is the systematic organization and examination of data to answer research issues. The data were tabulated and analysed using percentage analysis, chi-square test, and correlation, and the results are shown below along with interpretations.

Table: 1 Job Role of the Respondents

Particular	No. of Respondents	%
Operations	41	35.7
Documentation	32	27.8
Warehouse	17	14.8
Management	15	13.0
Others	10	8.7
Total	**115**	**100**

Source: Primary Data

© 2026 IJMRSET | Volume 9, Issue 10, October 2026| DOI:10.15680/IJMRSET.2026.0910030

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 9.864| ESTD Year: 2018|

International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

Interpretation: Operations workers make up the largest occupational category (35.7%).

Table: 2 Years of Experience

Particular	No. of Respondents	%
Less than 1 year	8	7.0
1–3 years	27	23.5
3–5 years	31	27.0
Above 5 years	49	42.6
Total	**115**	**100**

Source: Primary Data

Interpretation: More than five years of experience is held by a sizable majority of responders (42.6%).

Table: 3 Coordination Between Departments

Particular	No. of Respondents	%
Strongly Agree	35	30.4
Agree	41	35.7
Neutral	25	21.7
Disagree	10	8.7
Strongly Disagree	4	3.5
Total	**115**	**100**

Source: Primary Data

Interpretation: 66.1% of respondents agree that inter-departmental collaboration is successful

Table: 4 Automation Tools Improve Documentation Efficiency

Particular	No. of Respondents	%
Strongly Agree	31	27.0
Agree	46	40.0
Neutral	25	21.7
Disagree	6	5.2
Strongly Disagree	7	6.1
Total	**115**	**100**

Source: Primary Data

Interpretation: 67.0% of respondents believe that automation technologies improve documentation efficiency.

IX. CHI SQUARE TEST

A chi-square test is a statistical test that compares observed and predicted findings and determines if two category variables have a significant connection. In this investigation, the Chi-Square test is used to investigate the association between Job Role and Department Coordination.

© 2026 IJMRSET | Volume 9, Issue 10, October 2026| DOI:10.15680/IJMRSET.2026.0910030

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 9.864| ESTD Year: 2018|

International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

Relationship Between Job Role and Department Coordination

Null Hypothesis: H0:

There is no significant relationship between Job Role and Department Coordination.

Alternative Hypothesis: H1:

There is a significant relationship between Job Role and Department Coordination.

Table: 5 Job Role × Department Coordination Cross-tabulation (Observed Frequency)

Job Role	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Operations	13	17	9	2	0	41
Documentation	11	10	6	4	1	32
Warehouse	6	6	3	2	0	17
Management	4	4	3	2	2	15
Others	1	4	4	0	1	10
Total	**35**	**41**	**25**	**10**	**4**	**115**

Source: Primary Data

Table: 6 Chi-Square Test Results

Test	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.617	16	0.553
Likelihood Ratio	15.521	16	0.487
Linear-by-Linear Association	3.987	1	0.046
N of Valid Cases	115	-	-

Degrees of freedom = (No. of Rows − 1)(No. of Columns − 1) = (5−1) × (5−1) = 16

Interpretation: The Pearson Chi-Square value is 14.617 for 16 degrees of freedom and a p-value of 0.553. Because p > 0.05, the result is statistically insignificant.

Result: H_0 is acceptable. There is no substantial relationship between job role and department coordination.

X. CORRELATION COEFFICIENT

Correlation analysis is a statistical approach that determines the degree and direction of a link between two variables. In this investigation, correlation is utilised to investigate the link between years of experience and perception of automation tools that improve documentation efficiency.

Table: 7 Years of Experience × Automation Tools Cross-tabulation

Years of Experience	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Less than 1 year	4	3	1	0	0	8
1–3 years	5	8	10	3	1	27
3–5 years	11	12	4	2	2	31
Above 5 years	11	23	10	1	4	49
Total	**31**	**46**	**25**	**6**	**7**	**115**

Source: Primary Data

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 9.864| ESTD Year: 2018|

International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

Table: 8 Correlation Results

Measure	Value	Approx. Sig.
Pearson's R	0.030	0.753
Spearman Correlation	0.003	0.972
N of Valid Cases	115	-

Interpretation:
The Pearson correlation coefficient (r = 0.030) indicates a slight positive link between years of experience and perception of automation technologies. The link is not statistically significant, since p = 0.753 > 0.05.

Result:
H_0 is approved, whereas H_1 is refused. There is no substantial link between years of experience and employee perceptions of automation tools.

XI. FINDINGS

- The majority of the personnel is made up of operations workers (35.7%) and documentation officers (27.8%).
- Approximately 42.6 percent of responders have more than 5 years of experience.
- 66.1% believe interdepartmental collaboration is successful, notwithstanding minor shortcomings.
- 67.0% agree that automation techniques improve documentation efficiency.
- The chi-square test found no significant relationship between job function and department coordination (p = 0.553).
- Correlation analysis shows no significant correlation between years of experience and perception of automation technologies (r = 0.030, p = 0.753).

XII. SUGGESTIONS

1. To facilitate real-time information flow and reduce delays and redundant work, hold frequent interdepartmental meetings and make use of common digital platforms and centralised communication.
2. To minimise documentation mistakes and satisfy legal requirements, use automated documentation, standardised templates, double verification, and digital validation technologies.
3. To increase efficiency, accuracy, and speed, invest in cutting-edge technology like workflow automation, electronic data interchange (EDI), and transportation management systems (TMS).
4. Conduct continual training to improve staff members' understanding of customs laws, paperwork processes, and logistical operations, supported by skill development workshops.
5. Enhance operational planning and scheduling by using predictive analytics to anticipate and minimise shipping delays, effective route planning, and appropriate resource allocation.
6. To overcome capacity constraints and enhance service performance, modernise the infrastructure for warehousing and freight handling.
7. Boost customs clearance via specialised knowledge, pre-clearing paperwork, and improved connections with port officials.
8. Encourage broader departmental compliance by praising and rewarding staff members who rigorously adhere to SOPs.

XIII. CONCLUSION

According to the research on Sea Hawk Lines Pvt. Ltd.'s operational efficiency in goods forwarding, the company is well-established, with a skilled personnel, regular operating procedures, and efficient communication systems. The majority of workers have a favourable opinion of operational procedures such paperwork, freight handling, and technology utilisation. However, obstacles including shipping delays, inaccurate documentation, a lack of coordination, infrastructural constraints, and customs problems continue to impede overall effectiveness. Even if the business has implemented certain digital tools and automation, there is still more space to further process optimisation and technology integration. The company may increase operational efficiency, reduce delays and expenses, and bolster its

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 9.864| ESTD Year: 2018|

International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

competitive position in goods forwarding by strengthening coordination, investing in technology, boosting training, and modernising infrastructure.

REFERENCES

1. Bowersox, D. J., Closs, D. J., & Cooper, M. B. (2013). Supply Chain Logistics Management. McGraw-Hill Education.
2. Christopher, M. (2016). Logistics and Supply Chain Management. Pearson Education.
3. David, P. A. (2017). International Logistics: The Management of International Trade Operations. Cengage Learning.
4. Gunasekaran, A., Patel, C., & McGaughey, R. E. (2004). A Framework for Supply Chain Performance Measurement. International Journal of Production Economics, 87(3), 333–347.
5. Mentzer, J. T., DeWitt, W., Keebler, J. S., et al. (2001). Defining Supply Chain Management. Journal of Business Logistics, 22(2), 1–25.
6. Lai, K. H., Ngai, E. W. T., & Cheng, T. C. E. (2004). A Study of Supply Chain Performance in Transport Logistics: An Empirical Investigation. International Journal of Production Economics, 87(3), 321–331.
7. Mustika Sari, Octaviani, R.D., & Nasution, N.A. (2025). Boosting Freight Forwarding Efficiency via Digital Innovation, Regulation, and Infrastructure as Mediation. Dinasti International Journal of Economics, Finance & Accounting, 6(3).
8. Vasumathi, T., & Mythili Raja, K. (2025). Operational Strategies for Greater Freight Forwarding Efficiency: Emphasis on the Customs Clearance Process. International Journal of Modern Developments in Engineering and Science.
9. Aravind Krishnan, R., Koushik, R., Sathiya Narayanan, S.R., & Pravin, A. (2026). Assessing the Effectiveness of Freight Forwarding Operations. Asian Journal of Management and Commerce, 7(1).



INTERNATIONAL STANDARD SERIAL NUMBER INDIA

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH

IN SCIENCE, ENGINEERING AND TECHNOLOGY

| Mobile No: +91-6381907438 | Whatsapp: +91-6381907438 | ijmrset@gmail.com |

www.ijmrset.com