



## A STUDY ON ENHANCING OPERATIONAL EFFICIENCY AND SUSTAINABILITY IN OCEAN NETWORK EXPRESS

Mr. N. Srinivasan<sup>1</sup>, Dr. A. Shameem<sup>2</sup>,  
B.Harish Sooriya<sup>3</sup>

<sup>1&2</sup>Professor, <sup>3</sup>Second Year MBA Student

### ABSTRACT

In the liner shipping industry, operational efficiency and sustainability are paramount for maintaining competitiveness, reducing costs, and mitigating environmental impact. This abstract provides an overview of the strategies and initiatives employed by a liner shipping company to enhance operational efficiency while advancing sustainability practices. The first section focuses on operational efficiency, highlighting the company's efforts to optimize vessel operations, streamline port activities, and improve container management processes. Leveraging advanced technologies, data analytics, and process optimization techniques, the company has achieved significant improvements in vessel scheduling, route optimization,

and cargo handling efficiency. These initiatives have not only reduced operational costs but also enhanced service reliability and customer satisfaction. The second section explores the company's commitment to sustainability, emphasizing its initiatives to minimize environmental impact and promote sustainable practices across its operations. Through investments in eco-friendly vessel designs, emission reduction technologies, and alternative fuels, the company is pioneering efforts to mitigate greenhouse gas emissions and transition towards a more sustainable future. Additionally, the company actively engages with stakeholders, implements community outreach programs, and supports environmental conservation initiatives to foster positive social and environmental impacts.

This concludes with reflections on the synergies between operational efficiency and sustainability in the company's operations. By integrating sustainability



considerations into its operational  
practices, the company has not



only improved its environmental performance but also unlocked new opportunities for efficiency gains and cost savings. Looking ahead, the company remains committed to advancing operational excellence and sustainability leadership in the liner shipping industry, driving positive impacts for both business and society. In summary, this project provides insights into how a liner shipping company is navigating the complex landscape of operational efficiency and sustainability, showcasing its commitment to delivering value while minimizing environmental footprint and contributing to a more sustainable future.

**KEYWORDS:**

Operational efficiency and sustainability, shipping industry, mitigate greenhouse gas

**INTRODUCTION**

Introduction to Ocean Network Express (ONE) Ocean Network Express (ONE) is a significant player in the maritime industry, formed through the amalgamation of three renowned Japanese

shipping companies: Kawasaki Kisen Kaisha, Ltd. (K Line), Mitsui O.S.K. Lines, Ltd. (MOL), and Nippon Yusen Kabushiki Kaisha (NYK Line). The birth of ONE in 2017 marked a transformative moment in container shipping, creating a formidable entity with a global footprint and a commitment to innovation, efficiency, and customer service.

**Genesis and Establishment**

The genesis of ONE can be traced back to the challenges faced by the container shipping sector, including overcapacity, fluctuating freight rates, and shifting trade patterns. Recognizing the need for consolidation to address these issues, K Line, MOL, and NYK Line embarked on a journey to combine their container shipping operations into a single entity. This strategic move aimed to streamline operations, optimize resources, and enhance competitiveness in an increasingly demanding market environment.

The formation of ONE was a complex process that involved meticulous planning, extensive



negotiations, and regulatory approvals. In April 2017, Ocean Network Express Holdings, Ltd. was officially established as the parent company of ONE, with each of the three founding companies holding an equal stake. This equitable distribution of ownership underscored a spirit of collaboration and shared vision among the partners, laying a strong foundation for the new entity's future endeavours.

### **Operational Structure and Global Presence**

ONE operates a modern and diversified fleet of container vessels, ranging from feeder ships to ultra-large container vessels (ULCVs), equipped with state-of-the-art technologies to ensure safety, efficiency, and environmental sustainability. The company's fleet serves a comprehensive network of trade routes, spanning Asia, Europe, North America, Latin America, Africa, and Oceania, connecting major ports and facilitating the movement of goods across continents.

With a robust network of offices, terminals, and agents worldwide, ONE has established a formidable presence in key shipping markets, enabling it to serve customers with speed, reliability, and flexibility. The company's customer-centric approach, combined with a deep understanding of local market dynamics and regulatory requirements, has earned it a reputation for excellence and trustworthiness among shippers, consignees, and logistics partners alike.

### **Key Strengths and Competitive Advantages**

ONE's success in the global shipping arena can be attributed to several key strengths and competitive advantages:

1. **Operational Efficiency:** ONE leverages advanced technologies and best practices to optimize vessel utilization, minimize transit times, and enhance service reliability, thereby offering customers a competitive edge in their supply chain operations.



2. **Integrated Solutions:** ONE provides end-to-end logistics solutions, including door-to-door transportation, warehousing, customs clearance, and value-added services, enabling customers to streamline their supply chain processes and reduce costs.

3. **Innovation and Sustainability:** ONE is committed to driving innovation and sustainability across its operations, investing in eco-friendly initiatives, digitalization, and data analytics to enhance efficiency, reduce emissions, and mitigate environmental impact.

4. **Customer Focus:** ONE places a strong emphasis on understanding and anticipating customer needs, tailoring solutions to meet specific requirements, and delivering exceptional service and support at every stage of the shipping process.

5. **Strategic Partnerships:** ONE collaborates closely with customers, suppliers, and industry stakeholders to forge strategic

partnerships, explore new business opportunities, and drive mutual growth and success in a rapidly evolving marketplace.

### **PURPOSE AND OBJECTIVE**

The purpose and objectives of a project based on Ocean Network Express (ONE) could vary depending on the specific context and goals of the project. However, here are some general purposes and objectives that a project related to ONE might aim to achieve:

#### **Purpose:**

1. **Optimizing Operations:** Enhancing efficiency and effectiveness in ONE's operations, such as vessel scheduling, port management, and cargo handling, to improve overall performance and customer satisfaction.

**Digital Transformation:** Implementing digital solutions and technologies across various aspects of ONE's business processes to streamline operations, increase transparency, and enable data-driven decision-making.



3. Sustainability Initiatives:

Developing and implementing initiatives to reduce environmental impact, increase energy efficiency, and promote sustainability throughout ONE's operations and supply chain.

4. Customer Experience

Improvement: Enhancing the customer experience by providing innovative services, improving communication channels, and addressing customer pain points to strengthen relationships and loyalty.

5. Market Expansion:

Exploring opportunities for growth and expansion in new markets or trade lanes, developing strategic partnerships, and diversifying service offerings to capitalize on emerging trends and market demand.

**Objectives:**

1. Cost Reduction: Identify and implement cost-saving measures across various operational areas, such as fuel efficiency improvements, route optimization, and process automation, to

enhance profitability and competitiveness.

2. Performance Enhancement: Set measurable targets for key performance indicators (KPIs) such as on-time delivery, vessel utilization, and container turnaround time, and implement strategies to achieve or exceed these targets.

3. Innovation and Technology Adoption: Foster a culture of innovation within ONE by encouraging experimentation, piloting new technologies, and investing in research and development to stay ahead of industry trends and disruptors.

4. Environmental Stewardship: Define specific goals and initiatives to reduce greenhouse gas emissions, minimize waste generation, and promote sustainable practices throughout ONE's operations, in alignment with industry regulations and best practices.

5. Customer Satisfaction: Measure customer satisfaction levels through surveys, feedback



mechanisms, and performance metrics, and implement initiatives to address customer needs, improve service quality, and strengthen relationships.

6. Risk Management: Identify potential risks and vulnerabilities in ONE's operations, such as supply chain disruptions, cybersecurity threats, or regulatory changes, and develop contingency plans and mitigation strategies to minimize their impact.

7. Employee Development: Invest in training, skill development, and career advancement opportunities for ONE's employees to foster a culture of continuous learning, engagement, and talent retention.

**RESEARCH**

**METHODOLOGY**

**AREA OF STUDY:**

This study is conducted among customers and employees of Ocean Network Express Pvt Ltd; in Guindy, Chennai.

**SAMPLING:**

Sample size is set to 50 for this study, out of 50, 30 are customers and 20 are employees. Method of sampling carried out is random sampling. Data for the study will be collected from the employees & customers by using Questionnaire Method.

**DATA:**

Both primary data and secondary data will be used for the study. Data will be collected from employees & customers of Ocean Network Express India Pvt Ltd, Chennai for Primary data. Online Journals and website references will be used for Secondary data.

**TOOLS FOR INTERPRETATION:**

MS Excel will be used for descriptive analysis for calculating percentage

**DATA ANALYSIS AND INTERPRETATION**

**QUESTIONARE FOR EMPLOYEES:**

1.How often do you face difficulties from customers?



Opinions	Respondents
Always	5
Sometimes	3
Never	12

**Interpretation:**

As much as 60% of the sampled employees responded that they not faced any impolite behavior or difficulties from customers. This could perhaps due to the quality of services offered by the employees.

2.How often does external issues affects the business?

Opinions	Respondents
Sometimes	7
Mostly	12
Always	2
Never	9

**Interpretation:**

As much as 40% of the customers responded that business can be affected due to external factors. This could also be attributed various political and geographical factors/issues

3. Do you receive any damaged container's back from customers?

Opinions	Respondents
Sometimes	3
Mostly	1
Always	0
Never	26

**Interpretation:**

As much as 86% of our employees responded that they never receive damaged containers back from customers. This could also be attributed to the responsibilities and huge chargers.

4.On a scale of 1 to 5 how much you rate ONE contribution towards sustainability?

Opinions	Respondents
5	8
4	6
3	2
2	3
1	1

**Interpretation:**

As much as 40% of our employees responded that ONE contributing significantly towards sustainability. This could also be attributed to the responsibilities and huge chargers.

5.Does ONE supports paperless day to day activities?

Opinions	Respondents
Yes	18
No	2

**Interpretation:**

As much as 90% of our employees responded that ONE adopts paperless day to day activities. This could also





be attributed to the innovation and adaptability of various technologies in to the organization.

6.Do you think ONE sustainability initiatives have made any impacts?

Opinions	Respondents
Highly	12
Moderately	5
Least	3

**Interpretation:**

As much as 60% of our employees responded that ONE’s sustainability initiatives made significant impacts. This could also be attributed to the sustainability plans and initiatives taken by ONE.

7.Do you think ONE cares about employee well-being?

Opinions	Respondents
Yes	20
No	0

**Interpretation:**

All of our employees responded that ONE cares for Its employee well-being. This could also be attributed to the various policies taken by ONE management.

8. On a scale of 1 to 5 please rate operational efficiency of the company?

Rating	Respondents
5	16
4	4
3	0
2	0
1	0

**Interpretation:**

All 80% employees rated highly of ONE’s operational efficiency. This could also be attributed to the team work of all employees.

**QUESTIONARE FOR CUSTOMERS:**

1.How would you rate our efficiency of our vessel operations including scheduling, route optimization and turnaround times?

Opinions	Respondents
Highly	21
Moderately	5
Least	4

**Interpretation:**

As much as 87% of the sampled customers highly rated efficiency



of our vessel operations including scheduling, route optimization and turnaround times.

2. Does release of container booking takes long time?

Opinions	Respondents
Yes	20
Sometimes	5
No	5

**Interpretation:**

83% of the sampled customers responded that our bookings get released on time. This could be perhaps due to the productive and systematic workflow inside the organization.

3. Do you find any difficulties submitting documents through EDI?

Opinions	Respondents
Yes	5
Sometimes	7
No	18

**Interpretation:**

60% of the sampled customers reported that they faced no challenges in submitting documents through EDI. This could be due to the efficiency of EDI and timely maintenance

4. Do you think ONE's response time is better than that of competitors?

Opinions	Respondents
Rapid	4
Fast	18
Average	5
Slow	3

**Interpretation:**

As much as 60% of our employees responded that ONE's response time is faster than that of competitors. This could also be attributed to the customer relationship and timely communication of employees.

5. On a scale of 1 – 5 how much you rate ONE's employee's behavior towards customer?

Opinions	Respondents
5	12
4	8
3	5
2	3
1	2

**Interpretation:**

As much as 40% of our customers rated highly of our employee's behavior towards customers. This could also be attributed to the training and experience of ONE's employees.

6. Do you find difficulties in



getting documents released?

Opinions	Respondents
Yes	25
No	5

**Interpretation:**

As much as 83% of our customers responded that they are getting their documents released on time. This could also be attributed to the productivity and efficiency of employees

7. What’s your mode of preferred communication with ONE employee?

Opinions	Respondents
Telephone	9
Email	19
Face to face meeting	2

**Interpretation:**

As much as 83% of our customers responded that they prefer e-mail as the preferred mode of communication. This could also be attributed to faster respond times over e-mail.

**CONCLUSION**

In conclusion, the shipping industry is at a pivotal juncture, experiencing profound changes driven by a confluence of factors such as digitalization,

sustainability imperatives, e-commerce expansion, supply chain resilience, port automation, regulatory pressures, and evolving trade patterns. These emerging trends are reshaping the industry landscape, presenting both opportunities and challenges for stakeholders across the supply chain. As shipping companies navigate this dynamic environment, embracing innovation, adopting sustainable practices, enhancing operational efficiency, and prioritizing customer-centric strategies will be critical to maintaining competitiveness and driving long-term success. From digitalizing operations and investing in green technologies to optimizing supply chains and adapting to changing market demands, shipping companies must remain agile, proactive, and forward-thinking in their approach. Furthermore, collaboration and partnership with industry peers, technology providers, regulatory bodies, and other stakeholders will be essential to address common challenges, drive industry-wide



innovation, and foster sustainable growth. By working together to harness the transformative potential of emerging trends, the shipping industry can overcome obstacles, unlock new opportunities, and contribute to a more resilient, efficient, and sustainable global maritime ecosystem.

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