SHIPPING COMPANY

Shipping Company Problems and Solutions

Abhinav Pratap Singh, Vishal Chavan

Amity University Mumbai, Maharashtra, India

Published November 2026

Abstract

Shipping companies are important to international trade because they move products, raw materials and equipment between countries. However, they face real business problems such as fuel price changes, port congestion, unpredictable schedules, paperwork, changing regulations, environmental requirements, cyber risks and cargo damage. These issues can raise costs and delay deliveries. This research explains key challenges and practical solutions that shipping companies can use. It follows a descriptive approach based on secondary information and illustrative real-life business situations. The study suggests that data-based planning, transparent communication, cooperation with ports, staff training, stronger digital security and cleaner technologies can help improve reliability and performance.

Keywords: Shipping; international trade; logistics; port congestion; costs; supply chain; solutions

1 Introduction

International trade allows businesses to sell and buy goods across national borders. Ships carry large quantities of cargo and connect factories, suppliers, ports and customers. Shipping is therefore an important part of supply chains. A shipping company must coordinate vessels, crew, cargo, documents, port services, fuel, safety and customer communication.

Shipping operations are affected by events that companies may not fully control. Weather, port congestion, geopolitical disruptions, rising costs and regulatory changes can interrupt routes and schedules. Businesses must find ways to reduce these risks while providing reliable services.

2 Research objectives

- To identify major challenges faced by shipping companies in international trade.
- To understand how these challenges affect costs, delivery schedules and customers.
- To examine practical solutions used or recommended in the shipping and logistics industry.
- To suggest improvements through planning, technology and sustainable practices.

3 Research questions

- What are the major operational and financial challenges in international shipping?
- How do shipping delays and cost changes affect customers and businesses?
- What practical steps can shipping companies take to manage these challenges?

4 Research methodology

This report uses a descriptive research approach and secondary information. It draws on publicly available information and general industry knowledge from sources such as the International Maritime Organization (IMO), UN Trade and Development (UNCTAD), World Bank, and shipping company publications. The real-life situations below are illustrative scenarios based on common industry problems; they are not presented as verified incidents at a named company. A future study could add interviews, questionnaires or company data.

5 Major problems and practical solutions

5.1 Problem 1: Rising fuel prices

Fuel is a major operating expense for ships. When fuel prices rise, a company's voyage costs increase. If the company cannot adjust its rates quickly, its profit may decrease.

5.1.1 Practical solutions

- Use voyage-planning software to select routes and speeds that balance time, fuel use and safety.
- Maintain engines and hulls to support efficient operation.
- Monitor fuel consumption by voyage and investigate unusual increases.
- Discuss transparent fuel-related charges with customers where contracts allow.

5.1.2 Illustrative situation

A shipping line plans a long voyage but fuel prices rise before the ship departs. The company reviews its speed plan, checks weather and route options with its operations team, and monitors fuel consumption. It avoids unsafe shortcuts and communicates any contractual cost changes clearly.

5.2 Problem 2: Port congestion and waiting time

Busy ports may have more vessels waiting than they can handle. Ships can spend time waiting for a berth, cargo handling or clearance. This delays deliveries and may increase costs.

5.2.1 Practical solutions

- Track port conditions and vessel schedules using reliable information systems.
- Coordinate arrival times with terminals and port authorities when possible.
- Keep contingency plans for schedule disruptions and use alternate ports only after assessing costs, safety and feasibility.
- Inform customers early when delays affect delivery dates.

5.2.2 Illustrative situation

A container ship reaches a busy port during a peak period but cannot berth immediately. The company updates its estimated arrival time, works with the terminal and cargo agents, adjusts downstream delivery planning and informs importers about the delay.

5.3 Problem 3: Customs documentation and regulatory complexity

International shipments require accurate documents such as invoices, packing lists, bills of lading and customs declarations. Missing or incorrect information may lead to inspections, penalties or delays.

5.3.1 Practical solutions

- Use digital document systems and standard checklists.
- Verify product descriptions, values, origin and other required details before submitting documents.
- Train staff on relevant customs rules and trade requirements.
- Work with qualified customs brokers and seek clarification when rules are uncertain.

5.3.2 Illustrative situation

An exporter discovers that the shipment description on a document does not match the invoice. A document-checking process flags the inconsistency before the cargo is shipped. Staff correct the details and coordinate with the broker to reduce the risk of a clearance delay.

5.4 Problem 4: Unpredictable routes and international disruptions

Weather events, security concerns, conflicts, strikes and other disruptions can affect sea routes. Route changes may increase journey time, cost and uncertainty.

5.4.1 Practical solutions

- Create risk plans for major routes and key ports.
- Monitor official advisories and information from relevant authorities.
- Assess alternate routes with qualified operations staff, considering safety, costs, time and applicable rules.
- Avoid depending on a single route or supplier where practical.

5.4.2 Illustrative situation

A route is disrupted by an event that makes normal transit uncertain. The company checks official advisories, assesses safe and permitted alternatives, informs customers about expected changes and revises cargo connections and schedules.

5.5 Problem 5: Environmental impact and emissions

Ships use fuel and produce emissions. Shipping companies face pressure to reduce environmental impact and comply with applicable environmental rules. New technologies and fuels may require investment and careful planning.

5.5.1 Practical solutions

- Measure fuel use and emissions and set realistic improvement goals.
- Improve energy efficiency through maintenance and operational planning.
- Evaluate lower-emission fuels and technologies based on safety, availability, cost and regulatory requirements.
- Train crew and employees in environmental procedures and waste handling.

5.5.2 Illustrative situation

A company wants to lower emissions across its fleet. It begins by measuring fuel use, identifying efficiency opportunities and evaluating new technologies on selected vessels before deciding whether a wider investment is justified.

5.6 Problem 6: Cybersecurity threats

Shipping operations increasingly use digital systems for bookings, tracking, documentation and communication. Cyber incidents can disrupt operations, expose information or create financial losses.

5.6.1 *Practical solutions*

- Use strong authentication and restrict access to sensitive systems.
- Keep software updated and maintain tested backups.
- Train employees to recognise suspicious emails and messages.
- Prepare a response plan and regularly test recovery procedures.

5.6.2 *Illustrative situation*

An employee receives a suspicious message requesting a password reset. The employee reports it rather than clicking the link. The IT team checks the message, reminds staff about security procedures and reviews access controls.

5.7 Problem 7: Customer communication and shipment visibility

Customers may become dissatisfied when they cannot see where their cargo is or receive timely updates about delays. Poor communication can reduce trust and lead to complaints.

5.7.1 *Practical solutions*

- Provide shipment tracking and milestone updates.
- Set clear expectations about delivery windows and possible disruptions.
- Create a simple complaint and escalation process.
- Review customer feedback and use it to improve service.

5.7.2 *Illustrative situation*

An importer cannot see an updated delivery estimate. The shipping company provides a tracking update, explains the delay and gives the next expected milestone. Customer service follows up when the status changes.

5.8 Problem 8: Container availability and equipment imbalance

Containers may be unavailable in the places where exporters need them, or empty containers may be located far from demand. This can make cargo planning more difficult.

5.8.1 *Practical solutions*

- Forecast container demand by location and season.
- Coordinate container repositioning with ports, depots and partners.
- Improve inventory visibility for containers and other equipment.
- Use flexible booking and planning processes when possible.

5.8.2 *Illustrative situation*

An exporter needs containers during a busy season but local availability is limited. The shipping line reviews its equipment forecast, coordinates with depots and adjusts allocation according to operational priorities and customer commitments.

6 Effects of these challenges on business

- **Higher operating costs:** fuel, waiting time, equipment, maintenance and insurance costs may increase.
- **Delivery delays:** shipments may arrive later than planned, affecting production and retail stock.
- **Customer dissatisfaction:** lack of visibility and missed delivery windows can weaken trust.
- **Lower profitability:** unexpected expenses and service disruptions may reduce margins.
- **Planning difficulties:** uncertainty can affect vessel schedules, cargo connections and inventory decisions.
- **Compliance risk:** errors or failure to meet applicable rules may lead to delays, penalties or other consequences.

7 Case example: a shipping company's response to a delay

Consider a fictional shipping company called OceanLink Cargo. It carries containers between Asia and Europe. During a peak period, congestion at a destination port causes its vessel schedule to change. Fuel costs are also higher than expected, and some customers need their goods urgently.

7.1 Challenges faced

- The vessel has to wait for port services.
- Some deliveries and connecting transport are delayed.
- Customers are concerned about their cargo.
- The company must control additional operating costs.

7.1.1 Actions taken

- The operations team monitors the situation and updates arrival estimates.
- Customer service sends timely messages to affected customers.
- The company coordinates with port and inland transport partners.
- Managers review costs and schedule recovery options without compromising safety.
- After the disruption, the company reviews the incident and improves its contingency plan.

This fictional example demonstrates how clear communication, coordination, planning and review can help a shipping company respond to disruptions. It does not claim to describe a real company's specific incident.

8 Findings

- Shipping challenges are interconnected; one delay can affect schedules, costs and customer service.
- Fuel and port-related costs are important factors in operational planning.
- Accurate documentation and staff knowledge can help reduce avoidable clearance problems.
- Technology can improve visibility, planning and coordination, but systems need security and training.
- Environmental improvement requires measurement, investment and realistic implementation.
- Customer communication is an important part of service reliability during disruptions.

9 Suggestions and recommendations

- Use data analytics to forecast demand, port delays, fuel consumption and container availability.
- Develop clear contingency plans for disruptions and regularly review them.
- Improve document accuracy through digital workflows and checks.
- Provide employees with training in customer service, compliance and digital security.
- Measure environmental performance and explore feasible efficiency improvements.
- Strengthen coordination with ports, terminals, freight forwarders, customs brokers and inland transport partners.
- Use customer feedback and performance indicators to identify areas for improvement.

10 Conclusion

Shipping companies are essential to international trade, but their operations are affected by economic, operational, environmental, technological and regulatory challenges. Rising fuel costs, port congestion, documentation errors, route disruptions, cybersecurity risks and container availability can affect delivery reliability and business performance. These problems cannot always be prevented, but their effects can be managed through careful planning, reliable data, communication, staff training, coordination and responsible investment. Shipping companies that continuously review their processes and adapt to changing conditions can improve service and build stronger relationships with customers and business partners.

11 Limitations of the study

- The report mainly uses secondary information rather than direct interviews or company data.
- The illustrative case example is fictional and is used to explain practical responses.
- Shipping conditions and regulations can change, so company-specific decisions require updated information.

References

[1] International Maritime Organization (IMO). *Official website and resources on maritime safety, environmental regulation and shipping*. https://www.imo.org/

[2] Maersk. *Public information on shipping, logistics and sustainability*. https://www.maersk.com/

[3] MSC (Mediterranean Shipping Company). *Public information on shipping and logistics*. https://www.msc.com/

[4] UN Trade and Development (UNCTAD). *Review of Maritime Transport and maritime transport-related resources*. https://unctad.org/

[5] World Bank. *Logistics, trade and transport-related research and resources*. https://www.worldbank.org/