

**MSCM-511/OPM-531 Spring 2025**

**STRATEGIC SUPPLY CHAIN FUNDAMENTALS/ GLOBAL SUPPLY CHAIN  
Project Report**

**Toyota**



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## 1.0 Company Overview & Key Functional Issues {30 Points Total}

### 1.1 Company Overview

Please give a brief overview of the company, including at a minimum: type of business, organizational objectives, customer groups, products, and suppliers if this information is available. This can be in bulleted format but **in full, well-written sentences**. **Please do not just rewrite the information from the sources and places here. Use your own words.**

Company Overview
<p>Founded in 1937 by Kiichiro Toyoda in Japan, Toyota Motor Corporation stands as a global leader in automotive manufacturing, renowned for producing reliable and innovative vehicles that cater to a diverse customer base, including individual consumers, businesses, and government entities. With a strong presence in key markets such as the United States, Saudi Arabia, and Japan, Toyota is committed to enhancing customer satisfaction through high-quality products, cost efficiency, and sustainable practices while maintaining its position as a market leader. Its product portfolio encompasses passenger cars like the Corolla and Camry, hybrid vehicles, electric vehicles, and commercial vehicles, all designed for durability and superior performance. To support its operations, Toyota relies on an extensive supplier network, including over 600 local suppliers in North America, ensuring a steady flow of high-quality components that bolster its operational efficiency and market dominance.</p>

## 1.2 Synopsis of Key Functional Issues

Please highlight the major issues that you see from our 5 different functional leadership perspectives:

- Marketing / Sales
- Supply Chain Operations (Includes Purchasing / Production / Warehousing / Distribution)
- Finance
- Legal / Product Life Cycle Management (Includes R&D and Sustainability Issues)
- Human Resources

This can be in bulleted format but in full, well-written sentences

Stakeholder	Synopsis of Key Issues
Marketing / Sales	Toyota faces intense competition in major markets like the United States and Saudi Arabia, necessitating innovative marketing strategies to maintain its status as a leading brand. The shift to digital and omni-channel services requires significant investment in data-driven marketing to engage customers effectively.
Supply Chain Operations	Despite the efficiency of Toyota's Just-In-Time (JIT) system, it remains vulnerable to disruptions such as natural disasters or semiconductor shortages, which can halt production. Coordinating a complex global supplier network also poses logistical challenges.
Finance	High initial costs for adopting advanced technologies, such as IoT sensors, and sustainable initiatives, like EV battery recycling, place financial pressure on the company. Balancing cost efficiency with innovation investments remains a critical challenge.
Legal / Product Life Cycle Management	Toyota must comply with stringent global environmental regulations regarding emissions and recycling. Developing sustainable solutions, such as closed-loop EV battery systems, demands substantial R&D investment and regulatory alignment.
Human Resources	Maintaining a skilled workforce to support continuous improvement (Kaizen) and implement new technologies is essential. Skill shortages or high turnover in certain regions could undermine Toyota's lean production culture.

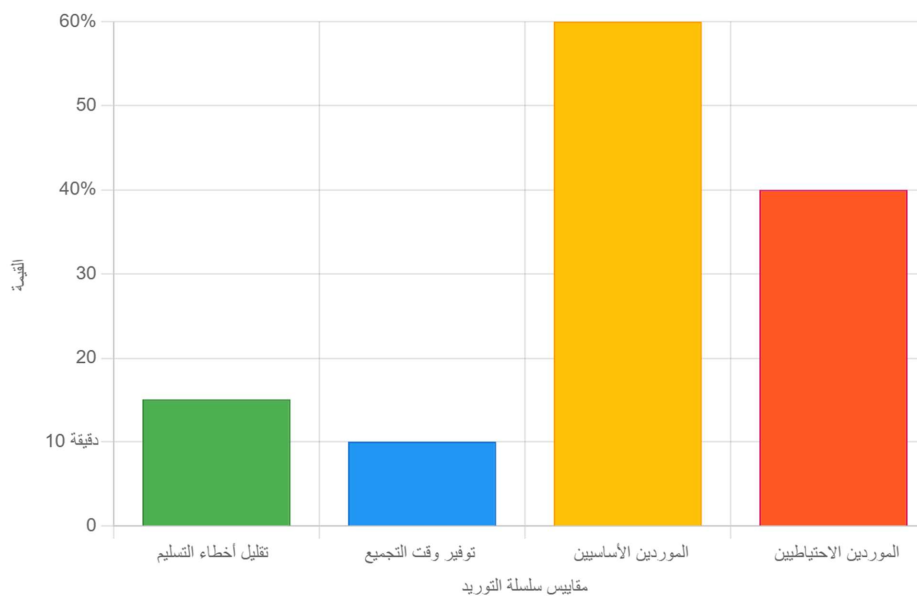
### 1.3 Key Facts / Data

Please identify key data or other specific facts that you will use to develop a situation analysis and clarify the nature of the problems facing management. Attach any figures, graphs or spreadsheets in the Appendix.

#### Key Facts / Data

Following the 2011 Japan tsunami, Toyota mapped 500,000 parts to proactively identify disruption risks, establishing a globally recognized risk management system. A Toyota dealer generated an additional \$2.4 million in revenue by leveraging data-driven marketing strategies targeting online and offline customers. During the global semiconductor shortage, Toyota sustained production by rapidly switching to alternative suppliers and designs, unlike its competitors. The implementation of IoT sensors in U.S. plants reduced delivery errors by 15% within one year. A Kaizen event streamlined Corolla assembly, cutting 10 minutes per car and saving millions annually. Toyota's dual-sourcing strategy (60% from primary suppliers, 40% from backups), developed post-2011 earthquake, ensures production continuity during disruptions.

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## 1.4 Key Decisions

Please identify the major decisions that management must make (Response time- Product variety- Customer experience- Time to market- Order visibility- Returnability- Inventories- Transportation- Facilities- Information)

This can be in bulleted format but in full, well-written sentences. The decisions should be clearly evident to the reader and analyses in Section 2.0 should be easily tracked to the appropriate decision.

Key Decisions
Toyota’s management faces several critical decisions to enhance its supply chain effectiveness and maintain its competitive edge. The company must determine whether to expand investments in IoT and real-time tracking technologies to improve supply chain visibility and reduce delivery errors, building on the success of a U.S. pilot that achieved a 15% error reduction. Additionally, leadership needs to establish the optimal balance between local and global sourcing to ensure responsiveness while minimizing costs, particularly in high-demand markets like the United States and Saudi Arabia. Toyota should also assess whether to scale up its closed-loop EV battery recycling system to meet stringent sustainability regulations and customer expectations, aligning with its commitment to a circular economy. Furthermore, the organization must decide how to allocate resources to sustain the efficiency of its Just-In-Time (JIT) system while strengthening resilience against disruptions, such as semiconductor shortages, through strategies like dual-sourcing. Finally, Toyota needs to evaluate the potential for increased investment in digital marketing tools to enhance customer experience and solidify market leadership in competitive regions, leveraging successes like the \$2.4 million revenue boost from data-driven marketing.

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## 2.0 Analysis and Recommendations {50 Points Total}

Please present your analysis and summarize your recommendations to the company's leadership regarding the supply chain strategy.

This Section should be in full paragraphs, clearly written, and acceptable for submission to corporate leadership. A decision/recommendation should include a reference to the data used to make the decision and detailed reasons "why" the decision was made over other options. A decision/recommendation should not stand alone without backup analysis.

Analysis / Recommendations
<p>Toyota's supply chain, underpinned by the Toyota Production System (TPS), exemplifies operational excellence through Just-In-Time (JIT) and Kanban principles, minimizing waste and ensuring high-quality output.</p> <p>The company's strategic fit—synchronizing its goals of quality, affordability, and responsiveness with lean supply chain operations—has solidified its global leadership.</p> <p>And there is some recommendation as well like</p> <p><b>- Expand IoT and Real-Time Tracking Technologies</b></p> <p>To further optimize its supply chain, Toyota should scale IoT sensor implementation across its global facilities. The U.S. pilot's success, which reduced delivery errors by 15%, supports this strategy</p> <p><b>- Strengthen Dual-Sourcing Strategy</b></p> <p>To mitigate disruption risks, Toyota should further diversify its supplier base, building on its dual-sourcing strategy (60% primary, 40% backup) developed post-2011 earthquake (<b>Slide 9</b>).</p>

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### 3.0 Risk Analysis {20 Points Total}

Please identify any potential risks (competitors, finance, etc...) associated with your recommendation. Include an assessment of the probability of occurrence (high, medium, low) and severity of impact (high, medium, low). For any major Risks (Medium – High Probability and/or Medium – High Severity), present a clear mitigation strategy/actions to minimize potential negative impact to the business.

Potential Risk & Mitigation Actions for High Risks	Probability	Severity
Strengthen dual-sourcing strategy by increasing backup supplier share for critical components and maintain a mapped inventory of 500,000 parts to identify risks early.	Medium	High
Conduct cost-benefit analyses and seek partnerships or government subsidies to offset initial expenses, ensuring long-term savings from efficiency and compliance.	Medium	High
Enhance data-driven marketing (e.g., leverage the \$2.4 million success of one dealer) and invest in omni-channel services to improve customer experience and loyalty.	High	Medium
Expand closed-loop EV battery recycling and collaborate with suppliers to meet environmental standards, avoiding fines and reputational damage.	Medium	Medium

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## 4.0 Supporting Documents / Analysis Worksheets/References

Please attach any supporting documents or spreadsheets here.

- **References**

Toyota Supply Chain Management Presentation (PPT - Supply Chain Management.pptx).

: [..\Desktop\PPT - Supply Chain Management.pptx](#)

Toyota Annual Reports for supplier network and financial data .

[2024 annual financial report E.pdf](#)

Industry reports on automotive supply chain resilience :

[What Really Makes Toyota's Production System Resilient](#)

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