A Deep Dive into Defects

BEHIND THE RECALL

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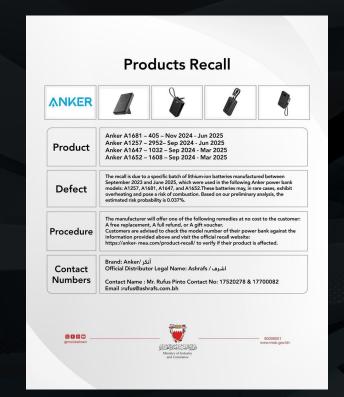
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01 Introduction

Product Recall Notice - Bahrain



What is a Recall?

Product recalls happen when a manufacturer identifies a safety defect and must fix, replace, or refund the affected part or vehicle, reporting the completion afterward.



The Problem Statement

So far in 2025, over 3.5 million vehicles and items of equipment have been recalled in the USA for 197 separate safety issues.



02 Objectives

Objectives

Understand the Recalls and Identify Key Challenges

- Product categories
- Component categories
- Defect types
- Risks

Identify the Manufacturers and scope

- Trends over time
- Volume
- Recall proportion
- Completion rates

Targeted Audience

Manufacturers

Consumers

Authorities













03 Data Overview

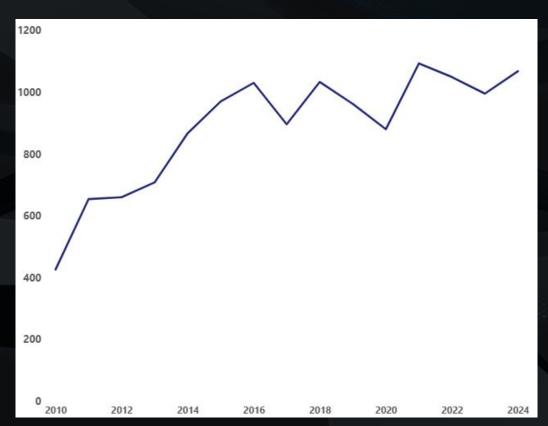
Data Overview

Recalls Manufacturers Country
13,306 1,423 USA

Reported Years Potentially Affected Recall Types
2010 - 2024 AVG 47,264 4

04 The Dive

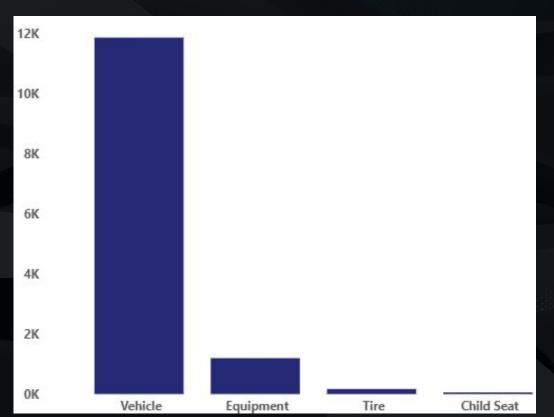
Increase in Recalls



The Drop & Spike

- 2017 drop is due to post massive airbag campaign
- In 2020, the lowest number of recalls recorded in 2018 to 2025 due to COVID and lack of monitoring
- The increase was due to inflation post COVID

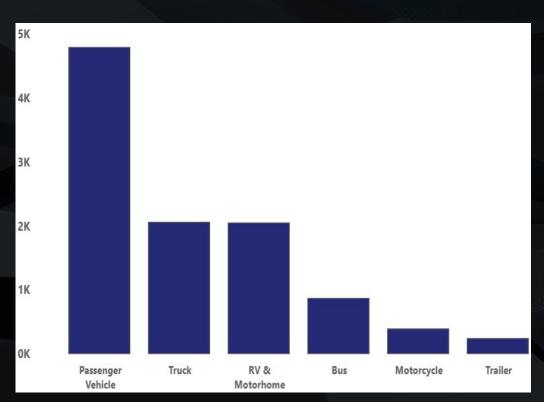
Vehicles - Majority of Recalls



Recall proportion

- 89% Vehicles
- 9% Equipments

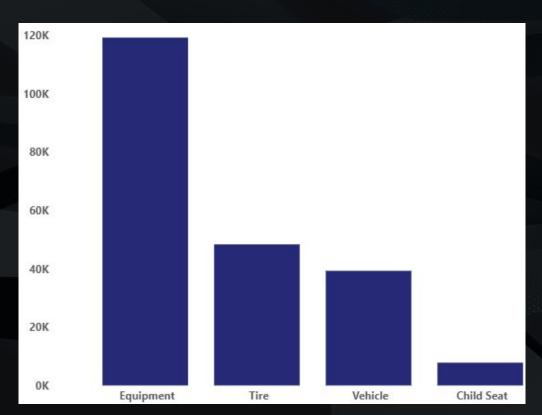
Type of Vehicles



Highest Recalls

36% affected passenger vehicles

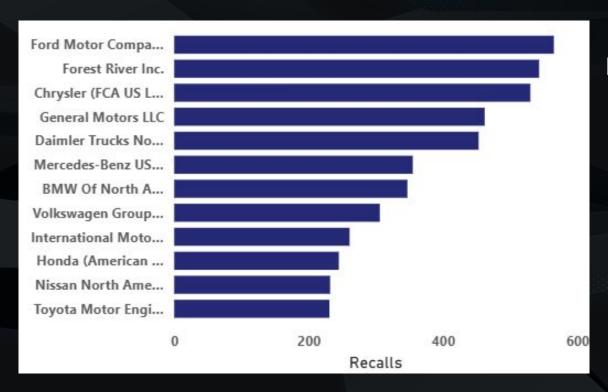
Equipments - Highly Affected (AVG)



Potentially Affected

- 56% Equipments
- 21% Tires
- 18% Vehicles
- 5% Child Seat

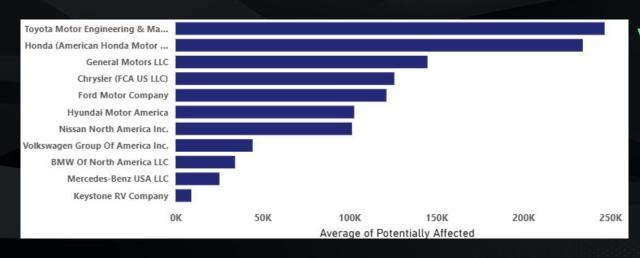
Top Affected Manufacturer



Impact on Ford

- Ford, Forest River & Chrysler had each a campaign of at least 500 recalls in the past 14 years.
- Today, Ford is still holding the most recalls

Average of Potentially Affected



Volume Sales Cons

- Though the high volume, they are proactive in issuing recalls
- GM's culture of cost-cutting over safety

The Components

Serious Recalls

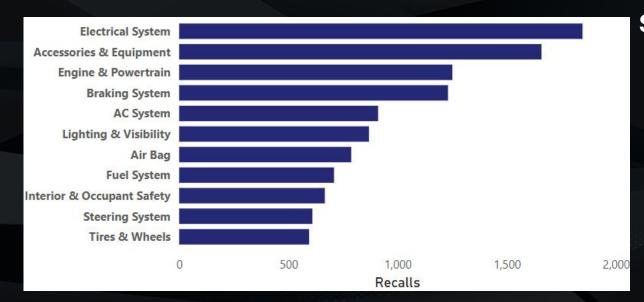


2839 Recalls

- Has fire risk
- Park outside advisory
- Do not drive advisory



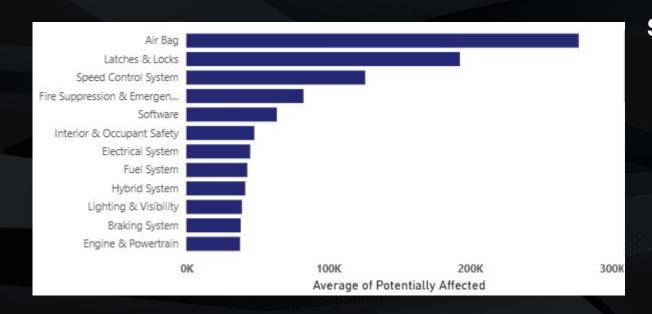
System Failures



Safety Risk

 Rapid technological advancements and complex mechatronic systems also introduce new vulnerabilities, while insufficient testing can fail

Components Group

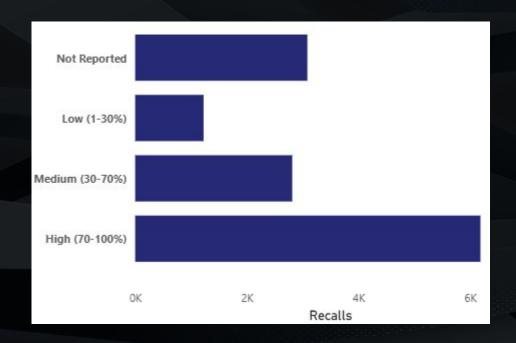


Safety Risk

- An ongoing issue.
 Millions of vehicles with Takata airbags have been recalled
- Complex global supply chains
- Increasing technological complexity

Recall Completion

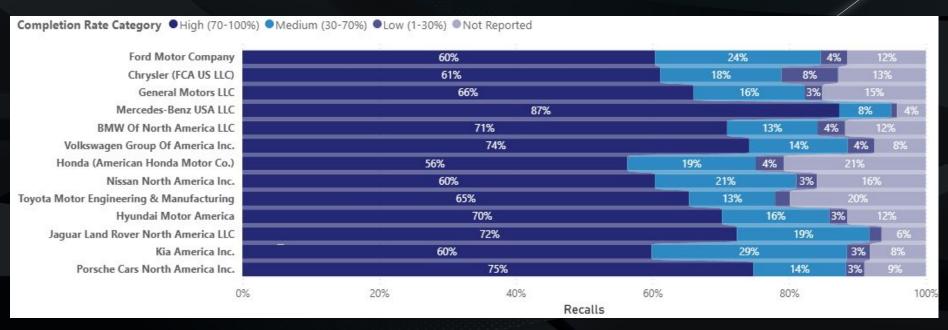
Completion Rates of Recalls



70% AVG Completion Rate

 NHTSA is responsible for monitoring the manufacturer's corrective action to ensure successful completion of the recall campaign

Completion Rates of Manufacturers



Conclusion

Conclusion

Recall increase

Components

complex systems with

Improper Final Quality Control (FQC) magnifies these risks. Cost cutting due to inflation affecting product quality.

High component defects due to

Passenger cars

The vast majority of recalls, 89%, involved vehicles indicating vehicle related issues dominate recalls.

Safety

Highlighting the severity of the issues with Airbags, safety remains a concern. Fire, crash & injury are expected due to high product failure.

Volume

Potential number of affected products plays a crucial role in impacting both revenue and reputation which affects financials and public trust.

Completion

To ensure safety of the consumer and public, strict compliance are set yet slightly below average.

mechatronic, and poor parts quality.

06 Recommendation

Recommendations

Recall increase

Components

Strengthen quality control to catch potential defects early. Enhance testing formalities for electrical and mechatronic systems, including simulations.

Passenger cars

Improve vehicle component testing and oversight, as they represent the majority of recalls.

Safety

Strengthen supplier audits to reduce the number of affected units.

Foster a safety first corporate culture that prioritizes long term brand integrity over short term cost savings.

Volume

Potential number of affected products plays a crucial role in impacting both revenue and reputation which affects financials and public trust.

Completion

Build recall communication strategies to improve delivery of urgent safety risks notices using digital channels

Limitations

Model & Model year

The model, model year or serial number is not clearly stated for all recalls.

Completion

Some completion rates are blank and some are 0% - this was considered as "not reported".



Thanks!



Do you have a questions?

