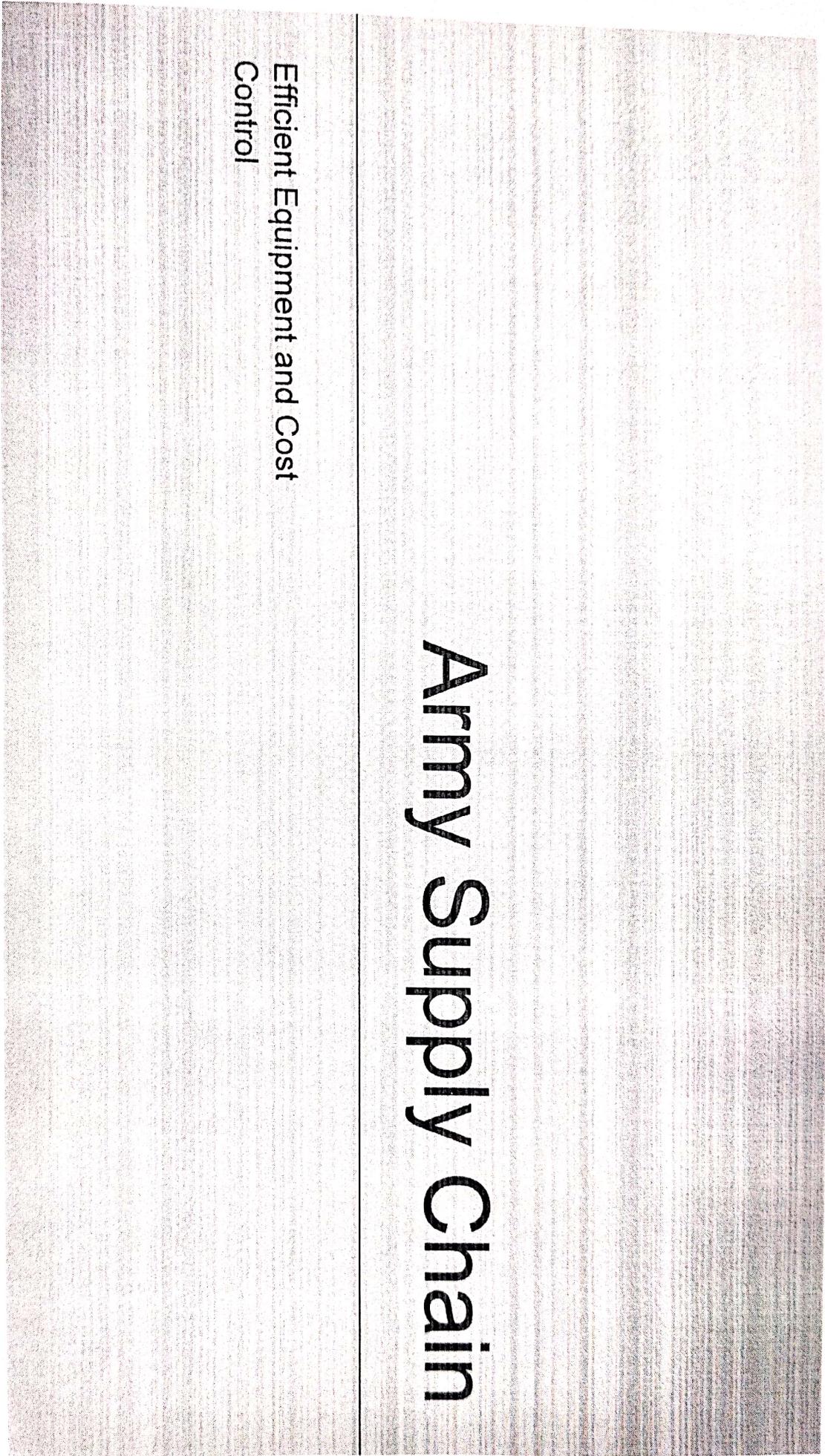


Use case

Army Supply Chain

Efficient Equipment and Cost Control



Introduction

Managing the supply chain for over a million soldiers and 200,000 civilians requires robust tracking of diverse equipment. Maintenance and operational costs account for up to **80% of lifecycle expenses**, making precise cost analysis and data flexibility essential for effective resource support and decision-making.



Army Supply Chain Management

01

Equipment Inventory and Tracking

Tracking multiple equipment types, from helicopters to radios, is critical. Accurate inventory ensures mission readiness and supports maintenance scheduling. Leveraging advanced data sources like graph databases enables richer, multi-dimensional analysis to improve equipment lifecycle management.

Logistics and Deployment Planning

Optimizing the deployment of forces and equipment involves complex logistics coordination. Cost forecasting based on location, climate, and operational parameters helps answer vital "what-if" scenarios, ensuring informed decisions on resource allocation and mission support.



Multi-dimensional Cost Comparison

The solution provides **comprehensive cost comparisons** across multiple dimensions such as operational conditions, geographic location, and equipment type. This enables defense planners to analyze trends and costs efficiently, supporting strategic decisions related to deployment and maintenance budgets with high accuracy and granularity.

02

Maintenance Cost Management

Lifecycle Cost Analysis

Lifecycle cost analysis focuses on evaluating total expenses from acquisition through disposal. Maintenance, operation, and support costs constitute **up to 80% of the total lifecycle cost**, making systematic tracking and analysis essential for optimizing resource allocation and reducing unexpected expenditures throughout equipment lifespan.



Predictive Maintenance and Forecasting

Predictive maintenance leverages historical data and real-time inputs to forecast failures and replacement needs. By anticipating equipment issues, the defense ministry can reduce downtime, allocate resources proactively, and manage maintenance budgets more effectively, enhancing readiness and operational efficiency.

Data Management and "What-If" Scenario Modeling

Advanced data management enables flexible analysis of maintenance costs under varying conditions. The system answers critical “what-if” questions regarding cost implications of deploying forces to new zones, allowing multi-dimensional scenario planning that improves financial predictability and operational decision-making.

Conclusions

Effective supply chain and maintenance cost management are vital for defense operations. Integrating flexible data analysis, predictive maintenance, and multi-dimensional cost comparisons supports strategic planning and optimizes resource use. This ensures sustained equipment readiness while controlling lifecycle expenses in complex and unpredictable operational environments.



Thank you