



CHALLENGES IN SUPPLY CHAIN

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Problem Statement



After COVID-2019, never have we seen so many difficulties in aviation supply chains before. The most obstacles we have been facing are aircraft component/engine maintenance and provision. Currently, shortage of serviceable components puts many Airlines in difficult situation with aircraft on ground, some components have lead time one year or even more

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Challenges in the supply chain

**Main
reasons**

Solutions

Discussion



Main reasons



1. Unpredictable demand for components:

- Sudden decrease in demand during COVID 19 Contrasts with Immediate increase of demand after COVID 19 --> It is too hard to find cost-effective ways to adjust and do investment in production and stock level
- Lack of real-time data and information sharing across the supply chain can hinder decision-making and lead to delays or disruptions.

2. Shortage of labor:

- Human resources go out of aviation industry because of lower salary and cut off during COVID 19
- Unlike other industries, the aviation industry is highly regulated with various safety and security standards. To produce a generation of smart workers shall take Airlines not only time but also so much money.



Main reasons

3. Interrupted Logistics: many blocked routes have forced transporters to find other longer ways. The case shall be worse to deliver engines or nose radome etc with overweight, oversize or dangerous goods. Congestion at productions causes MROs do not have on time materials to finish production or clear out soon storage for next component repair.

4. Hyper - inflation: Before COVID 9, annual escalation was around 3%-5%, but now it goes up to 20% or 30% or even double. All parties have headache to balance input and output so that their financial status is positive.

5. More powerful Monopoly in Aviation industry: nowadays, there are less OEM because of merger and acquisition. Consequently, competition in aviation components/engine decrease much more. This also causes significant spare shortage and higher price not only in short term but also in long term.



Solutions



1. Talent Development

Talent development: Human resources play the most important role in development of operation and business. Therefore finding ways to lure and keep good labor are always the highest priorities for VNA: benefits vs incomes, corporate culture/spirit, on-job training etc.

2. Smarter demand forecasting

Accurate demand forecasting is critical to prevent stockouts or overstocking

- An interfere for Airlines, Suppliers, MROs and Manufactures to share information
- Enhancing visibility through technologies like IoT, block chain, and data analytics can improve collaboration and enable proactive problem-solving.
- Make use of high and latest as much as possible such as AMOS, Skywise, AMH, Robotics program, and AI



Solutions

3. Collaboration and partnerships

- Strengthening collaboration among airlines, suppliers, and service providers can enhance communication and coordination throughout the supply chain. This can lead to TAT reduction, operator's survival in front of OEM's increasing monopoly and keep inflation at acceptable rate.
- Enhance initiatives of pooling services from components, tools to technical staff ...
- Share all experience & lessons in supply chain to minimize unexpected cost

4. Risk management

- Developing robust risk management strategies can help mitigate disruptions caused by unforeseen events such as natural disasters, political unrest, or pandemics
- Diversifying suppliers, establishing contingency plans, and regularly assessing and monitoring risks can improve supply chain resilience.



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