Growing the African aviation industry increasingly relies on technology

By Brett Preston

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With the pandemic grounding aircraft globally, the aviation industry and all parties in its extended supply chain suffered a devastating blow.

Brett Preston, account executive, Technodyn International | image supplied

While freight forwarders and cargo carriers still enjoyed some profit, the rest of the aviation value chain was all but decimated. The figures were dire, and according to McKinsey & Company, airlines haemorrhaged $168bn in economic losses in 2020 alone.

But regardless of the pandemic, the aviation industry is harsh, and McKinsey & Company further explained that despite the pandemic, it wasn't a particularly lucrative industry to start.

In fact, between 2012 and 2019, airlines were averaging a loss of $17bn in economic profit annually. The reasons are as diverse as fluctuating fuel costs, economic downturns, the negotiating power of airports and passengers, environmental factors like weather, maintenance costs, and in many cases ageing technology infrastructure.

Closer to home, the picture for Africa was just as bleak, and Aviation Beyond Borders reported in 2021 that there were 44.6 million African jobs usually supported by the industry at risk. On a positive note, while the rest of the aviation world is still playing catch up, Africa has recovered to 93% of the level before the Covid-19 pandemic, and the International Air Transport Association (IATA) believes that a return to profit will be evidenced at the final stages of 2023 or the early stages of 2024.

Creating agility

A key factor plaguing the industry has always been agility. Being able to respond quickly to events, both in and outside its control, is vital. But this requires planning, and part of this is a well-maintained fleet. For airlines to operate to the best of their ability, aviation maintenance organisations must maximise the revenue potential of their assets through standard, lean and predictable maintenance.

What we are specifically referring to here is the maintenance, repair and overhaul (MRO) function, which requires an intelligent network of information and processes that work together to ensure all scheduled and unscheduled maintenance is quickly and efficiently fulfilled in a way that minimises disruptions to flight operations, drives better dispatch reliability, and maintains cross-fleet airworthiness. And all of this must meet critical business and regulatory compliance.

While we can assume that paper-based maintenance schedules are a thing of the past, there are other issues plaguing the industry: siloed information, data trapped in legacy systems, and staff shortages.

Today more than ever, the aviation value chain needs digital solutions that support controlled workflow, automated maintenance and materials planning, point-of-maintenance access to real-time aircraft information and paperless execution and compliance.

With careful planning and execution, aviation authorities and players can lean on their systems to help fill the human gaps. This includes delivering effective and real-time maintenance operations, integrated materials management, optimised line and heavy maintenance, advanced maintenance planning, and the most critical - centralised governance.

A connected workforce

One area successful aviation companies have got right is the presence of a connected workforce. This applies to those businesses that understand the value of data and ensure that the relevant data is in the hands of the appropriate people in real-time.

When a party can support direct communications with line technicians and provide real-time status views of the latest work assignments and status, they will simplify (and do away with) ad hoc decision-making and troubleshooting. And this ultimately supports a faster time to resolution by raising or closing faults and the ultimate release of an aircraft by mechanics right from beside the aircraft.

With digital tools supported by a single centralised platform in the back end, companies deliver the tools needed for teams to perform collaborative deferral management, allowing for fast, effective and recorded decision-making and eliminating paper-based tasks that can lead to double entries and even transcription errors.

The connected workforce also extends right through the organisation. From the pilot to the technician, ground to office crews, maintenance to service, and planning to take-off.

Take to the skies

To achieve this optimal state, the right MRO IT solution is crucial—one that can handle complex multidimensional maintenance processes, is monitored and changed to improve operational efficiency and ensures things get done as planned.

Technology is an enabler for the aviation industry, allowing your airline to take advantage of the global aviation recovery, without these, you are planning for an AOG airline.

ABOUT THE AUTHOR

Brett Preston, account executive, Technodyn International.