



Streamlining Airline Financial Processes

Opportunities for CFOs to boost top and bottom lines

F R O S T  S U L L I V A N

A Frost & Sullivan White Paper

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FOREWORD

Excellent financial management is vital to the success of any business. However, it is not always easy to achieve.

As a CFO myself, I am well acquainted with the everyday issues that my peers in companies around the world face: the need for accurate information that strategic decision-making demands and the ever-greater speeds at which this data is required; the need for the timely availability of funds to support business activity; and regulatory compliance, to name just a few.

When it comes to specific industries, additional and unique challenges exist. In the airline industry, revenue leakage, for example, remains a perennial problem. It is an issue aggravated by the complexity of airline revenue streams – from direct sales, revenues generated from alliance and interlining partnerships, as well as revenues generated through indirect distribution channels. Tax reporting and regulatory compliance across multiple markets pose another challenge, especially when set against the backdrop of manual processes and financial information silos.

To address these challenges, airline CFOs need to effectively manage historical as well as real-time data, and even predictive analytics. Anticipating revenues accurately is critical to make informed business decisions.

This white paper from Frost & Sullivan outlines the challenges facing airline CFOs and highlights how automation, integration, accuracy of information, and speed of processing are the key to a best-in-class approach to financial management. The report also identifies best-practice insights from other industries such as retail and banking that, if adopted, could have a significant impact on an airline's bottom line.

At Amadeus, our heritage of powering mission-critical IT systems for airlines positions us well to understand the complexity of airline operational and financial processes. We are committed to working with our airline partners to transform the industry's approach to financial management.

I hope that you find the report of interest. We would welcome your feedback.

Regards,

Ana de Pro
Chief Financial Officer
Amadeus

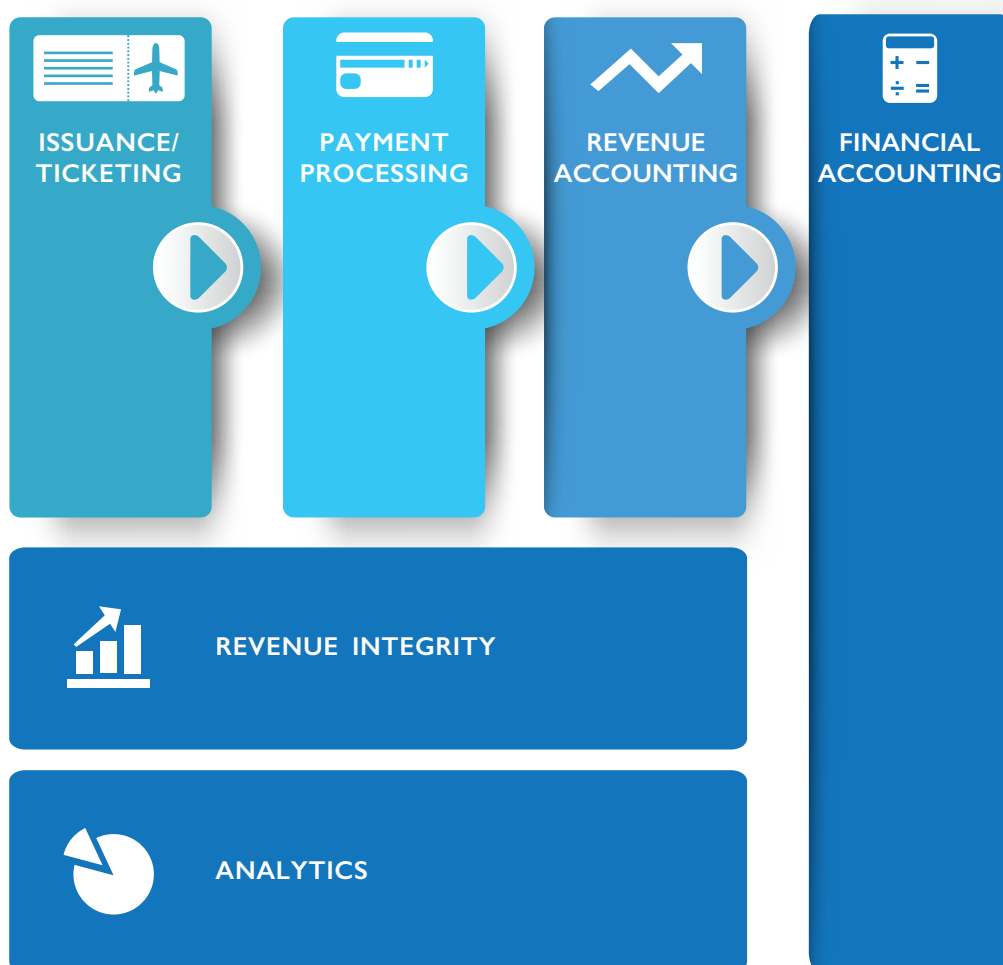


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FINANCIAL PROCESSES MATTER

There has never been a more inspiring time to be an airline financial executive, and the importance of decisions made by airline CFOs has never been bigger. Many of the CFOs' decisions and concerns are cyclical (e.g., fuel hedging, aircraft leases, forex management and treasury), requiring undivided attention at regular intervals. Other concerns—such as financial processes, which we will focus on in this paper—can be addressed positively and definitely through strategic initiatives.

There are opportunities to streamline financial processes all the way from the point a sale is performed (via any channel) to the point the corresponding revenue shows up in the revenue accounting system and is transmitted to the financial system. Moreover, Revenue Integrity and Analytics are building blocks of financial processes because they safeguard the airline's revenue and provide the necessary visibility to decision makers.



A very departmental approach to decision making stifles innovation in all industries. Most customer-centric industries that have introduced cross-functional teams (e.g., experience teams, mobile teams, e-commerce teams, innovation teams and customer insights teams) have seen growth and reduced time to market. They are generally better at managing business cost and risk. The finance functions are no exception and need to take an important role in the process, making sure that all initiatives are designed with optimal financial processes at their heart.

This paper explores three basic notions:

- Financial processes have never received enough attention in airlines, but financial executives are about to change that through powerful initiatives that can improve the bottom line;
- Lean and relevant financial processes are an enabler for the development of the airline product, including the customer experience; and
- Integration of financial processes will optimise the top line because it allows airlines to exploit analytics, which will contribute to better management of information and better decision making.

THE HOLISTIC VIEW OF AIRLINE FINANCIAL PROCESSES: A STRATEGIC PRIORITY

In a high-volume, low-margin environment, it is obvious that financial processes are strategically important if they can be tightened to produce even infinitesimal margin increases. Moreover, the ability of an airline to holistically manage financial processes will determine the strategic choices available to it, both commercially and operationally. This is because differences in price and product are narrowing, requiring airlines to focus jealously on loyalty and the customer experience, but archaic financial processes often hamper loyalty initiatives.

Because an airline's margin is the result of myriad processes applied to countless transactions, effective margin management requires a holistic view of all financial processes. To maintain this holistic view, Frost & Sullivan recommends that CFOs first consider the hierarchy of Transaction Accounting, Reporting and Analytics factors within each financial process. As a second step, CFOs should optimise Transaction Accounting, Reporting and Analytics horizontally, across financial processes.

Optimal financial processes are not a guarantee of financial health and do not preclude bad financial decision making. However, optimal financial processes will provide the best possible visibility, accuracy and decision support tools, making it much easier to preserve financial health.

CRITICAL PROCESS CONCERNS FOR CFOS

The majority of airlines suffer from sub-optimal financial processes, and their CFOs know this very well. Many cumbersome legacy processes go way back to the pre-Internet age (not least the archaic process of separating booking and ticketing at the beginning and reconciling them at the end). Because CFOs tend to be C-level airline executives mostly hired from outside the industry, they have an opportunity to question established practices and drive agility.

There has been a tendency for commercial objectives to trump financial process objectives and for CFOs to focus a lot of resources on taking cost out of the system and identify wastage. CFOs have been the driving force behind transformational initiatives. Many offshoring and nearshoring initiatives have been driven by CFOs, typically focused on back-office functions that are not visible to the traveller. With oil prices down and most operational restructuring already done, now CFOs have a window of opportunity to pursue initiatives that will make a material difference to travellers and improve their experience.

Financial processes must be lean, and they must be tight. Whereas airlines have done an admirable job of streamlining sales and marketing and running extremely lean flight operations, financial processes are not lean. Revenue accounting is a clear example of this: existing systems using offline accounting files or incompatible file types sometimes take a day to prepare, a day to submit, and another day to process the revenue. The central problems are revenue leakage and downright fraud, mostly credit card fraud, which is an increasing problem.

Fast-moving consumer goods retailers and fuel suppliers are good examples of other high-volume, low-margin industries that have derived benefits from integrating financial processes and capabilities, including intelligent use of real-time data for informed decision making. Walmart, the biggest retailer in the world, has achieved consistent revenue growth year on year despite fierce competition, and it has defended its margin (5.6% in its 2014/15 fiscal year) by focusing on processes that accelerate e-commerce and digital/physical integration, and create tight control of the return on assets.

Revenue Leakage

Revenue leakage can represent the difference between making a loss and posting a small profit. ARIG believes that leakage can cost airlines as much as 3% of revenue.



An average figure would be 3% revenue improvement with good Revenue Integrity. Obviously, there is a big variation between good and bad users.

—Paul Rose,

Chairman and Founder of Airline Revenue Integrity Group (ARIG)



If ARIG is right, Frost & Sullivan estimates that one of the largest airline groups in Europe, which posted a small consolidated loss of €189 million in 2014, would instead have generated a positive net margin of 1.6%. Likewise, the largest airline group in South America would have turned its small loss of \$110 million in 2014 into profits of \$311 million, also equal to a net margin of 1.6%. There are many airlines for which this would be true.

Rising taxes represent an escalating revenue leakage problem. The variety of document types and revenue streams is not transparent, and without industry standardisation, airlines struggle to accurately assess tax applicable to interlineable coupons, invariably resulting in incorrect billing of taxes in interline relationships.

Taxes aside, CFOs are eager to ensure that correct fares, fees, and charges are billed to interline partners and that correct billings are received from plating carriers. Even within alliances, revenue leakage from partner airlines can be significant. IATA believes its own interline settlement improvements can save the industry \$500 million annually, but this is dependent on airlines embracing tools and standards.

Agents issuing tickets that do not respect the fare rules (e.g., ticketing time limits, breaking sectors, circumventing fuel surcharges) are a third source of revenue leakage. This is when the real coupon value in revenue accounting does not align with revenue management expectations.

Offline channels are under massive competitive pressure from online channels, and competition between online travel agents (OTAs) has also heated up. Airlines must manage the creditworthiness of agents in order to minimise revenue leakage from defaulting agents. To maximise safety of the sale, there may need to be credit limits applied to agents at risk, and if those agents want to sell beyond the limit, they should demonstrate financial security.

Revenue integrity is best ensured pre-flight and CFOs are keen to push that principle because leakage is much more difficult to deal with post-flight, badly affecting collection rates. CFOs need revenue accounting to interface better with the revenue integrity teams, but even with the best will in the world, airlines will never collect 100% of what is owed, post-flight. Currently, agency debit memos (ADMs) are used to recover revenue, but they only catch a fraction of the revenue that the airline would legitimately be entitled to.

Airline account managers may be reluctant to pursue ADMs issued to large travel agents for fear of negatively affecting the relationship. It almost becomes a system of unauthorised discounting. If Revenue Integrity captures and shares the characteristics of agencies that typically under collect, Revenue Accounting will be able to focus its efforts. Some revenue accounting experts encourage airlines to keep top-100 worst travel agent lists and to occasionally withdraw the privilege to issue its tickets. Such measures will be universally unpopular with account executives, but without accurate, timely information, it is difficult to design a measured approach to revenue leakage.

Frost & Sullivan believes there is a lot of scope for improving revenue accounting and shoring up revenue leakage. Many airlines may not even realise how bad the problem is, because their suboptimal processes do not capture the leakage in the first place.

Fraud

External perpetrators commit credit card fraud, identity fraud and frequent flyer fraud. The proliferation of payment methods increases the scope for fraud as do online channels—especially third-party online channels—and the high proportion of card-not-present transactions or transactions that are not processed in real time add to the opportunity for fraudsters.

Compared to other industries, airlines have a narrow window of opportunity to identify and eliminate fraud. Post-flight, fraud invariably causes revenue loss.

Internal perpetrators can facilitate fraud, and the fraud potential of third-party travel and passenger handling agents is a factor. Using incorrect booking classes, billing in a lower class than anticipated, and misuse of cross-border selling and fare rules all result in unnecessary losses to airlines.

Auditing and Compliance

There are many finance compliance issues affecting airlines, from the need to exchange financial and revenue management data accurately across all touch points to tax over- or underpayment. The fines levied by regulators (e.g., for making mistakes in the accounting of taxes) are high.

Most CFOs spend too much (essentially unproductive) time when the auditors are in, attempting to justify different elements of the accounting, which is still a manual process in many places. Listed airlines must have an exact position on forward sales, and if the CFO provides an inaccurate position, shareholder value may be affected.

Real-time Management Information

Real-time information, business intelligence, and the quality and speed of decision-making go hand in hand.

Accuracy and granularity of the basic accounting data are important elements to control as are accounting delays. It is usually the third or fourth workday after the end of a month before an airline can close its books, because it has been late to reconcile information from departure control and other sources outside revenue accounting. The 30-year-old process of supplying offline files containing relevant information for revenue accounting is as fast as possible for how it had been conceived. Still, by modern standards, that is very slow.

This is why real-time management information is a moving target. Just five years ago, CFOs would have been delighted to see revenue or profit numbers three days after the end of a financial month. Now, CFOs really are in a position to demand systems that can deliver results as soon as the flight door closes. The technology

exists. Moreover, the trend is to accurately predict revenue in a future state and to predict the revenue impact of operational decisions.

Financial processes that are not tight may not accurately maintain the many flows of financial data from indirect and direct channels through to the account books. If distribution costs are not accurately accounted for, and there is no complete visibility of other revenue and cost drivers and how they affect profitability, insufficient management information is available to support decision-making. Real-time insight into revenue as it is being earned creates alignment of back-end systems with front-end systems, improving decision making.

Airline CFOs are concerned about their ability to control (and impose) the change management process that is necessary to achieve optimisation and integration of processes in the short term and to benefit fully from technology investment in the long term.

Reporting Ancillary Revenue

Clearly, ancillary revenues are paramount to airline profitability, but from the specific perspective of financial reporting, they represent a major issue, particularly when the ancillary services are prepaid. On-board ancillary revenues (paid separately on board) do not go through Revenue Accounting, but anything prepaid and/or bundled does involve Revenue Accounting. This increases the reporting complexity, but it should also be seen as an opportunity to gather data on traveller behaviour.

Revenues received post-sale—even from flight-related services like baggage and seat upgrades—are difficult to tie back to the actual passenger revenue from the airfare. If services are shared between two airlines on a particular O&D, that also has an impact. Electronic Miscellaneous Documents (EMDs) were introduced in response, but many airline systems are lagging behind, depriving themselves of a good view into the breakdown of sales, and lacking the ability to analyse and optimise ancillary revenue.

Cost and Complexity of Payment Acceptance

Airline financial executives are concerned about the speed, cost, compliance, convenience, and security of payment methods. According to IATA, airlines are just as concerned about their payment acceptance costs as they are about their GDS costs, and IATA has found that airlines are increasingly focusing on the impact on cost, payment leakage and fraud prevention of different payment methods.

Increased popularity of prepaid services add a level of complexity to the financial processes because revenue accounting must now get involved in activities that would have gone through the financial system directly had they been post-paid.

THE VALUE OF PROCESS INTEGRATION

In Frost & Sullivan's opinion, the greatest value of integration is between the processes of Revenue Accounting, Revenue Management, and Revenue Integrity.

Integration with Revenue Accounting processes allows Revenue Management to work with real values, giving it better information on expected revenue and allowing it to optimise booking classes on specific flights. Revenue Integrity is able to compare the PNR with the actual coupon, catching issued tickets that do not match the price quoted and may not match the itinerary, pre-flight. Financial control processes integrated with Revenue Accounting provide a much better view of forward bookings and bookings versus budget. The CFO is better able to manage cash flow, whereas Revenue Accounting itself benefits from streamlining, minimisation of exceptions, removal of manual processes, better workflows, and better use of human resources.

With scale, airlines lose agility to respond to customer demands and market situations, but integrating processes (and associated systems) increases the speed of response to anomalies and challenges.

IT systems required for each functional area have typically been developed uniquely for the challenges of that area. Disparate, unique IT systems do not necessarily talk to each other, and the information hand-off is neither regular nor consistent.

Insurance is a good example of a highly regulated industry where CFOs have realised significant value from process integration. Tryg, the second largest insurer in Scandinavia, has recently optimised its IT legacy into an enterprise data warehouse, eliminating manual efforts in data management, risk, financial, and regulatory reporting. It has introduced state-of-the-art analytics and information management. Not only has Tryg improved risk assessment, reinsurance contract management, payments and ongoing financial performance, it has also come up with new pricing models, developed new insurance services and products, and entered new market segments.

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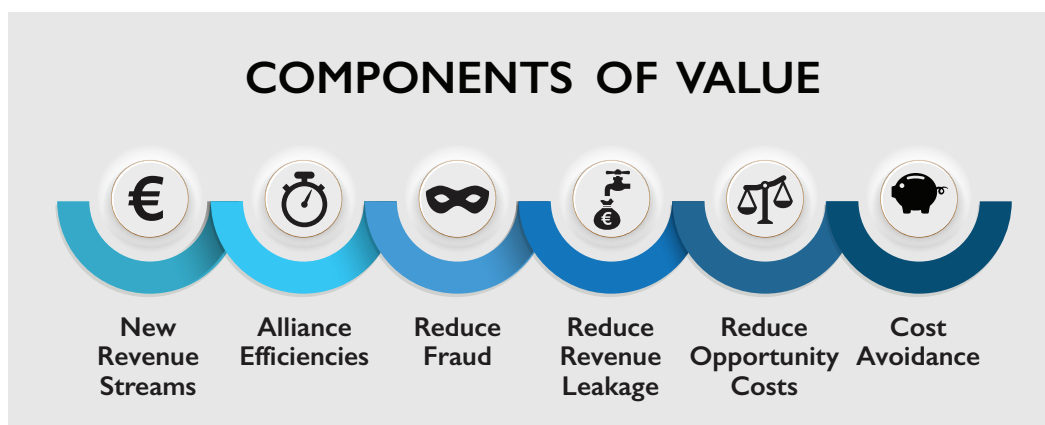
In order to sustain our leadership in our industry and set newer benchmarks,
we are optimising while at the same time future-proofing our business to
further improve our world-class customer service.

—Tor Magne Lønnum,
CFO, Tryg Insurance

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Quantifying the Value

The exhibit below outlines quantifiable value components that airlines will realise by better integrating financial processes.



Revenue Accounting systems that do not interface with Revenue Management and Revenue Integrity systems are a source of quantifiable revenue loss because rules violations are not caught. Integration enables the real-time comparison of the PNR with the coupons, ensuring that issued tickets match the quoted fares and relative itineraries.

Numerous top-brand airlines have already made headways into integration. Frost & Sullivan has seen a quote from a Northern European airline CIO who has achieved cost savings, data accuracy, efficient invoice management, and faster period closures by integrating its finance and accounting processes. Another Northern European airline has found that airlines that can automatically audit interline documents and settle with interline partners will generate additional revenues of approximately \$2 per passenger. For a medium-size airline with 750,000 interlining passengers, this could boost revenues by up to \$1.5 million.

Facilitating Third-party Relationships

Airlines have simplified sales channels, eliminating bricks-and-mortar points of sale, and indirect channel sales have also declined, as airlines drive sales towards proprietary online channels. Most LCCs realise more than 90% of sales in direct channels. At full-service airlines, direct channels may only account for 25% of revenue, but this share is rising.

This simplification of sales channels has been offset by growth in the other third-party relationships that airlines must manage, with payments going in both directions. Referral channels (e.g., comparison and cashback websites) require airlines to make per-transaction payments. Cobranding (e.g., airline-branded credit cards) and airline-operated loyalty programmes generate commission payments to airlines that are transaction-based.

Airline “ownership” of the customer relationship means that they can apply merchandising techniques to exploit upselling opportunities that go well beyond travel-related ancillary services. When airlines act as channels for third-party product and service providers, they must manage the receipt of commission payments that are sometimes fixed amounts per transaction or a share of the transaction value. Without adequate (and agile) processes, the administrative burden would be phenomenal, holding back the creativity that would otherwise have developed the relationships and the relative additional revenue streams.

Revenue and tax reconciliation is a common source of interline relationship breakdown. By streamlining the operation of the financial process and increasing the integration of its parts, interline partnerships and alliance processes improve to better exploit synergies.

Agents under time constraints can make a lot of ticketing errors that become revenue accounting exceptions. In the absence of industry-wide standardisation, friction between airlines and agents can be removed by integrated, intelligent exception processing workflows, requiring as little human input as possible. Airlines should defend their brand equity, showing their full offerings before, during and after the flight, and through indirect channels. Greater transparency can increase trust between airlines and their best agents, and that would allow airlines to develop the travel agent channel and avoid commoditisation through this channel.

CURRENT IT SOLUTION TRENDS

The main trend in airline IT solutions is a shift in emphasis from managing back-end processes to addressing top-line revenue, and this means integrating IT processes. The industry is moving from best of breed to best in class, providing solutions to entire business problems rather than individual activities.

Airline legacy IT is complex with many proprietary, mission-critical business applications that preclude integration and the exploitation of cloud-based delivery models. Best practice from retail banking, another industry characterised by complex IT legacy, is to pursue pre-integration and standardisation of all systems. Customisation is eliminated whenever possible.

Revenue accounting solutions have evolved from homebuilt through Web-based applications developed and hosted by the main IT providers in the travel industry. State-of-the-art revenue accounting is a method of communicating sales and passenger coupons directly to revenue accounting rather than using the dreaded

offline files. That gives the airline virtually real-time sales and utilisation data, as transactions occur. System intelligence can ensure the distribution of the correct fares and taxes, and airline executives will have revenue visibility as soon as a flight is closed.

The traditional approach to business intelligence (normalised databases, very passive, very historical) will give way to a real-time approach, injecting business intelligence into the transaction itself and integrating machine learning.

Another trend is the streamlining of hybrid, multi-format records environments to enable single data transmission. Handoff between existing, separate IT systems is a major source of business inefficiency. The industry is looking to introduce a standard (XML-based) format through which relevant data elements can be extracted automatically and dealt with by the respective applications.

IATA is consolidating and expanding the SIS (Simplified Interline Settlement) gateway, where hundreds of suppliers connect to hundreds of airlines, using one standard and one data stream, reducing exceptions and manual rework. Presumably, offline files will be eliminated and settlements will be more frequent, perhaps achieving daily instead of weekly settlements.

NEW IMPERATIVES AND FUTURE INDUSTRY TRENDS

Predictive Analytics

Airline data is trapped in silos, and gathering all data in one data warehouse that provides a complete financial overview is very complex. Only a couple of airlines have managed it due to the number of applications in use. Something as conceptually simple as knowing the exact revenue numbers for a specific flight is a luxury that many airlines go without because they cannot analyse the data. Moreover, silos prevent airlines from compiling a comprehensive picture of traveller behaviour, and disparate financial processes are a further obstacle



Unifying information streams and introducing transparency across channels is an opportunity for CFOs and CIOs working together to boost profitability and customer loyalty. Maintaining legacy IT and writing integrations with data analytics applications is a huge challenge for CFOs and CIOs, and the bigger the airline passenger volume, the more difficult this will be. CIOs will want to reduce complexity and reduce the number of systems dealing with payments and accounting.

Although the main data analytics benefits are normally associated with the top line, predictive analysis may also allow airlines to know the cost implications of operational and marketing decisions without relying on assumptions of the underlying demand distribution or the correlations of the booking process. By building machine-learning capabilities into the predictive analysis applications, airlines can ensure the routine decisions that optimise cost/revenue will be made without the need for human interpretation of data.

How Airlines will Benefit from Predictive Analytics

- Predictive analytics can improve the credit card reconciliation process that can reduce loss to unreconciled ticket sales, better forecast time to remittances, and model possible fraud.
- Airlines can use predictive analytics to become a truly customer-centric business. Learning from metasearch websites such as Kayak, airlines could offer price prediction for customers. This helps build trust with the customer, but will also help optimize revenue generation.
- Loyalty scheme retention rates can be improved by looking at key indicators of churn, like a reduction in usage, and use this data to target these high-risk customers.
- Automating operational decision making that optimises cost/revenue.

Evolving Methods of Payment

Airlines have been slow to adapt to new payment methods, due to incompatible payment and revenue accounting systems. Adopting the great diversity of new services offered by payment providers (including loyalty points, loyalty cards and eWallets) will be a competitive imperative.

UATP has agreed to a partnership with Bitnet that allows more than 260 international airlines to accept Bitcoin payments.

amazonpayments

bitcoin

Apple Pay

DWOLLA

venmo

Android Pay

The Bitcoin could be much more to airline revenue accounting than just an asset that can be exchanged. The technology behind Bitcoin—the Blockchain—is likely to have a far reaching impact on accounting everywhere. It is essentially a single, extremely secure, transparent global ledger. The network, rather than a third party, validates a transaction. This means that friction (and cost) can be reduced across the network.

THE LAST WORD

We have seen that the streamlining and integration of financial processes can make a significant positive contribution to both the top and bottom lines. At the same time, the expense of maintaining outdated legacy IT has been a major concern for years. This provides an opportunity for CFOs and CIOs working together to overhaul systems and processes. They are the only executives with a sufficient overview of the entire airline environment to make the right choices.

In Frost & Sullivan's opinion, given the complexity of airline organisations, it is impossible to introduce and maintain lean and tight processes without a dedicated IT solution that ensures a holistic perspective. System integrators may be instrumental in achieving the necessary changes to airline IT environments, but airlines should not be tempted to implement bespoke solutions to common problems. Instead, they should follow the lead of banks and retailers, and focus on existing pre-integrated solutions.

CFOs should be questioning archaic practices whenever they can, and they should seek to implement best practices from outside the airline industry. With the profound impact that technology will have on accounting, the strategic importance of the CFO role will be greatly enhanced, and financial processes will finally receive enough attention in airlines.

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