Rethinking flight irregularity management

How an effective management of flight disruptions can become a value driver for passengers and airlines

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For the upcoming business trip to Barcelona or the long-awaited family holiday, a delayed or cancelled flight is one of the worst imaginable ways to start a journey. When it comes to air travel, whether for business or for pleasure, we value predictability, reliability, and ease of getting from A to B.

In recent years, flight disruptions have yet affected more passengers than ever before. While the number of delayed and cancelled flights in Germany decreased slightly in 2019 compared to the previous year – when almost 26% of all flights were delayed by more than 15 minutes – figures remain high in Europe as a whole. Given that passenger volume will continue to increase in the future, a sharp reversal of the trend seems unlikely. Until 2037, it is predicted that the average number of aircraft movements will increase by 2% annually, and that the number of passengers worldwide will almost double to some 8.2 billion passengers per year.[1]

Consequently, it is becoming increasingly evident that an effective management of irregularities is crucial for ensuring flight operations to run smoothly. The rapidly growing volume of air traffic has pushed airspace and airports in Europe to the limits of their capacity. In addition, security lapses, strikes, and a lack of staff have recently posed further challenges for the already overloaded infrastructure. The 24 measures to strengthen the reliability of air traffic which were adopted at the German Aviation Summit in autumn 2018, for instance, illustrate the complexity of the issue and the breadth of approaches needed to tackle it. Above all, however, the measures show that a systematic management of flight irregularities has become essential for airlines and their system partners.

At the same time, disruption management concepts can also be transferred to other industries. The aviation industry has gleaned many insights into dealing with customers, and much of this expertise is relevant for rail companies, tourism operators, and other mobility service providers as well.

Flight disruptions (irregular operations, or IROPS) are usually classified as being due to either external factors (e.g. weather, strikes) or airline-internal factors (e.g. technical problems, operational issues). In both cases, the disruption itself is usually an unforeseeable and infrequent event, occurring within 72 hours before scheduled departure. Only in few cases systematic predictions about upcoming irregularities can be made, such as in the case of creeping delays or mass irregularities (e.g. airport closures, groundings). Changes to the flight plan which are known more than three days before departure are usually considered as scheduled changes.

[1] Cf. Eurocontrol European Flight Forecast 2019; IATA 20-Year Air Passenger Forecast 2018.

How flight disruptions impact customer experience

For passengers, flight irregularities usually end up disrupting their travel itinerary and, above all, their customer experience. In this context, there are three aspects which passengers commonly perceive as particularly unpleasant.

1. **Communication**: Often delayed, unreliable, or even contradictory – passengers miss a transparent, proactive, and consistent communication from the airline via all relevant channels (SMS, email, mobile apps/messenger, social media, phone calls, etc.).
2. **Compensation**: Airlines often issue vouchers for meals or accommodation on request only, or in a non-systematic way – compensation is seen rather as a legal obligation instead of an opportunity to retain customers.
3. **Individual choice**: A seat on the next flight or provision of a rental car will not always be the right solution for every passenger – travellers appreciate being given alternatives and the freedom to make their own decisions (self-service).

Yet, the significance of customer-focused irregularity management extends beyond qualitative aspects. Quantitative analyses show that, much like the number of flight disruptions, the number of passenger complaints has increased in recent years. Claims for flight delays, cancellations, diversions, over-bookings, or downgrades (forced changes to a lower travel class) arising from air passenger rights under EU Regulation 261/2004 totalled more than more than €700 million in Germany in 2019, compared to over €1 billion in 2018.[2] For airlines, the impact goes well beyond direct compensation claims: processing a passenger complaint (claim handling) also ties up considerable resources and entails additional process costs. Proactive compensation or 'commercial gestures', which could help reduce the time and effort involved in processing claims, are so far only being used occasionally.

Hence, an effective management of irregularities is not only in the interest of passengers, but also in the interest of airlines and their shareholders. Operational disruptions cannot be avoided completely, and external events mostly cannot be predicted. But when they do occur, the negative impact of flight disruptions can be reduced – for the customer and for the airline.

Elements of a comprehensive irregularity management concept

To address IROPS management comprehensively, airlines must also consider other aspects besides the customer perspective. Based on project experience for various airlines, PwC has developed and implemented an integrated irregularity management framework that considers four main dimensions: customer focus, operational processes, IT system support, and performance measurement.

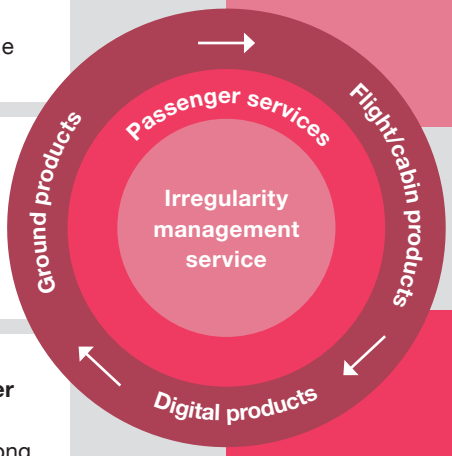
A. Customer focus – the passenger in the centre of attention

The definition of a value proposition for irregularity management serves as the basis for all services in the event of flight disruptions: Which service would I like to offer my customers if their flight is delayed or cancelled?

Proactive, transparent, and customer-focused passenger handling during disruptions is both a core product and a unique selling proposition at the same time – and often an underestimated opportunity to win the customer. Passengers expect a customary level of service if their flight does not go according to plan, but they appreciate an extra bonus in terms of personalised service – especially in the premium segment – and consider this as a value driver.

[2] Cf. EUclaim 2019/2020.

Fig. 1 Irregularity management service as part of the airline product landscape



Ground products
What are my products for the customer on the ground?
Definition of the product experience at the airport, in the lounge, etc.

Flight/cabin products
What are my products for the customer in the air?
Definition of the product experience in the aircraft (e.g. first class, business class, economy class)

Digital products
What digital products do I want to offer to passengers?
Definition of a digital product strategy along the customer journey

Irregularity management service
How do I want to treat my passengers in the event of flight disruptions?
Development of a value proposition and service offering for the management of flight disruptions

Passenger services
How do I transfer my products to flight operations?
Establishment of a responsible layer as a contact/service point for all passenger care issues

The process of defining this service begins with the development of a service vision for each customer segment, which in turn serves as the basis for defining the service characteristics. A careful and considered formulation of the value of the airline's service in the event of flight disruptions, and especially the form that the 'irregularity service' product should take, constitutes the core for all further steps in developing an irregularity management concept.

Customer communication
Definition of criteria for initial/further communication (e.g. delays of more than 30 minutes up to 3 hours before departure); communication channels; message content

Customer recovery
Rebooking; missed connection handling; meal vouchers; accommodation; compensation in line with EU regulations

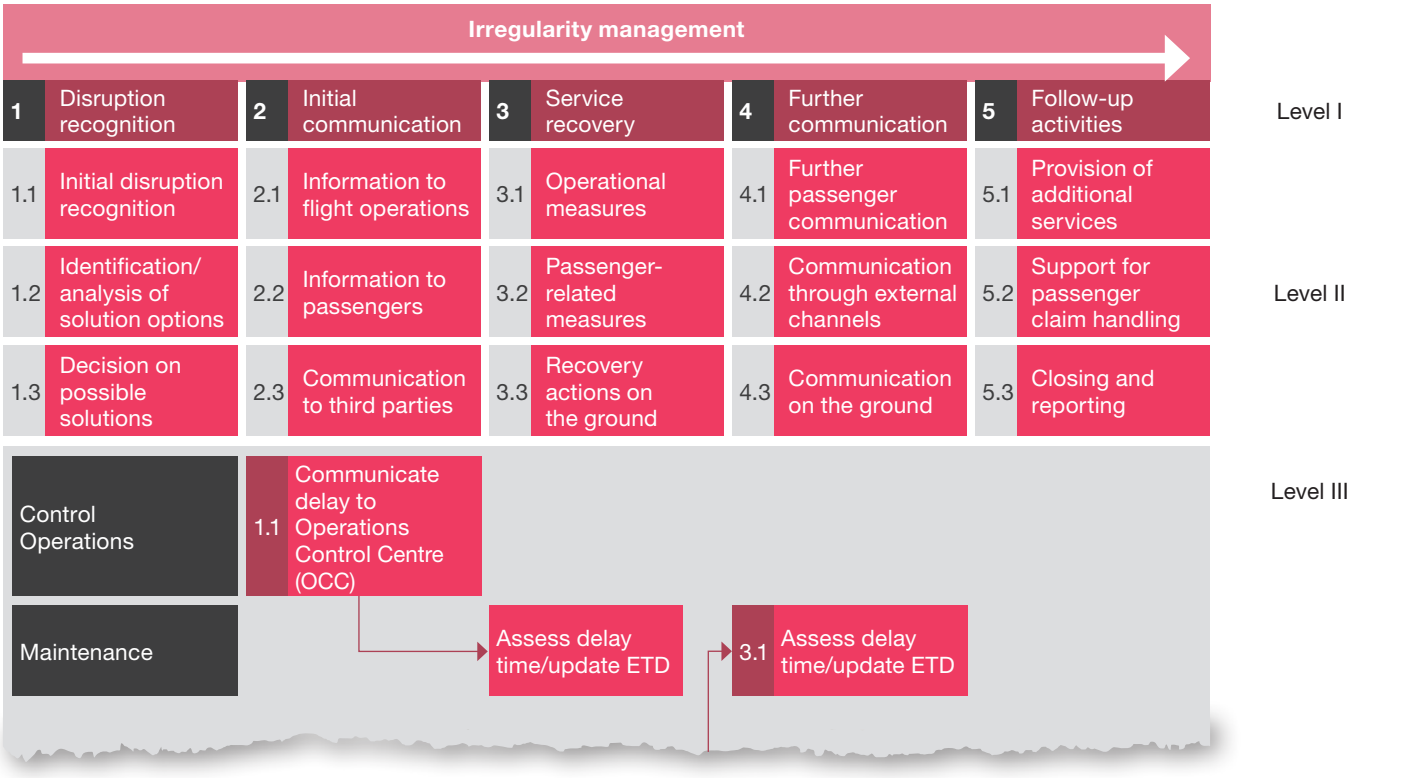
Customer support
Contact points at the airport (landside/airside, lounge, aircraft, etc); alternative transport (e.g. public transport, taxi, rental car)

B. Operational processes – the basis for quick and flexible operations

An effective management of flight disruptions requires operational processes that quickly restore the service level for passengers (e.g. rebooking, organising alternative transport, hotel accommodation). This becomes particularly relevant when multiple irregularities occur (mass disruptions), such as in the case of temporary runway closures. The challenge lies in finding the balance between the scope for flexible action and clearly defined instructions for the operatives. Incidents are rarely completely predictable, but well-considered scenario planning makes the entire process easier when they do arise.

This process is usually divided into five main steps. Clearly defining these steps and setting responsibilities reduces lead times, facilitates uniform decision-making, and minimises the effort required for internal coordination. A further requirement of the management process is that it must be able to map the implementation of the 'irregularity service' product. Consistent implementation enables the organisation to quickly process standard cases and to react flexibly in exceptional scenarios.

Fig. 2 Process for managing flight disruptions

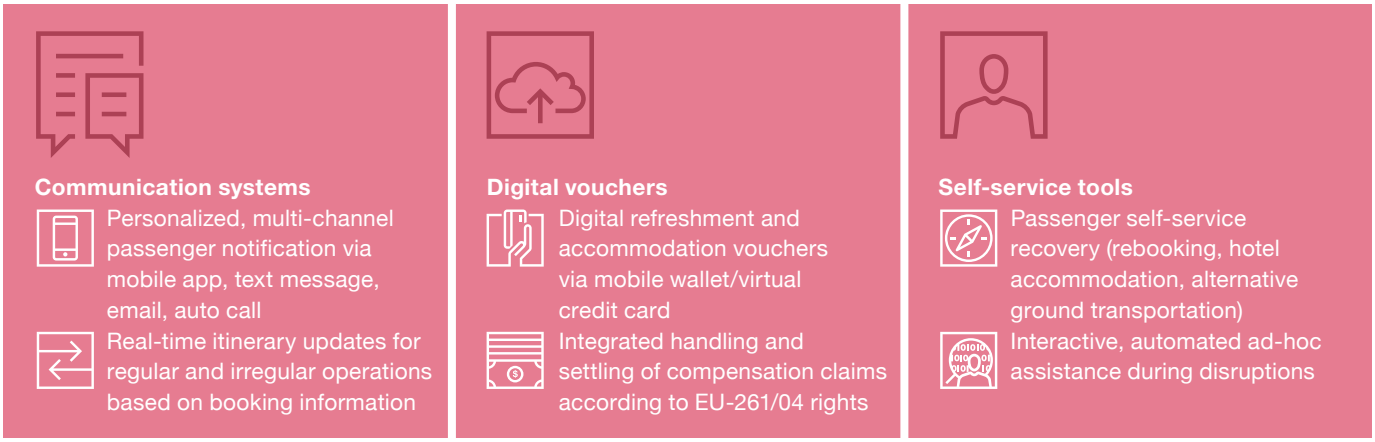


C. IT system support – new technologies for greater process automation

Modern technologies and IT systems enable an increasing number of new applications across the entire flight disruption management process, especially in terms of customer communication, the distribution of digital meal vouchers, self-service handling, and passenger accommodation. Core drivers for those use cases are the automation of the handling process and the ability of passengers to act independently.

In terms of IT system support, various providers have established themselves on the market, combining several use cases within an IROPS suite and thus reducing the number of systems required for airlines. Particularly important here is the interface between these software solutions and other airline core systems (especially passenger service system and flight planning system). Only when they work together – and flight as well as passenger data are seamlessly available (including Passenger Name Record) – those solutions can achieve their full potential.

Fig. 3 Use cases for IT support along the irregularity management process

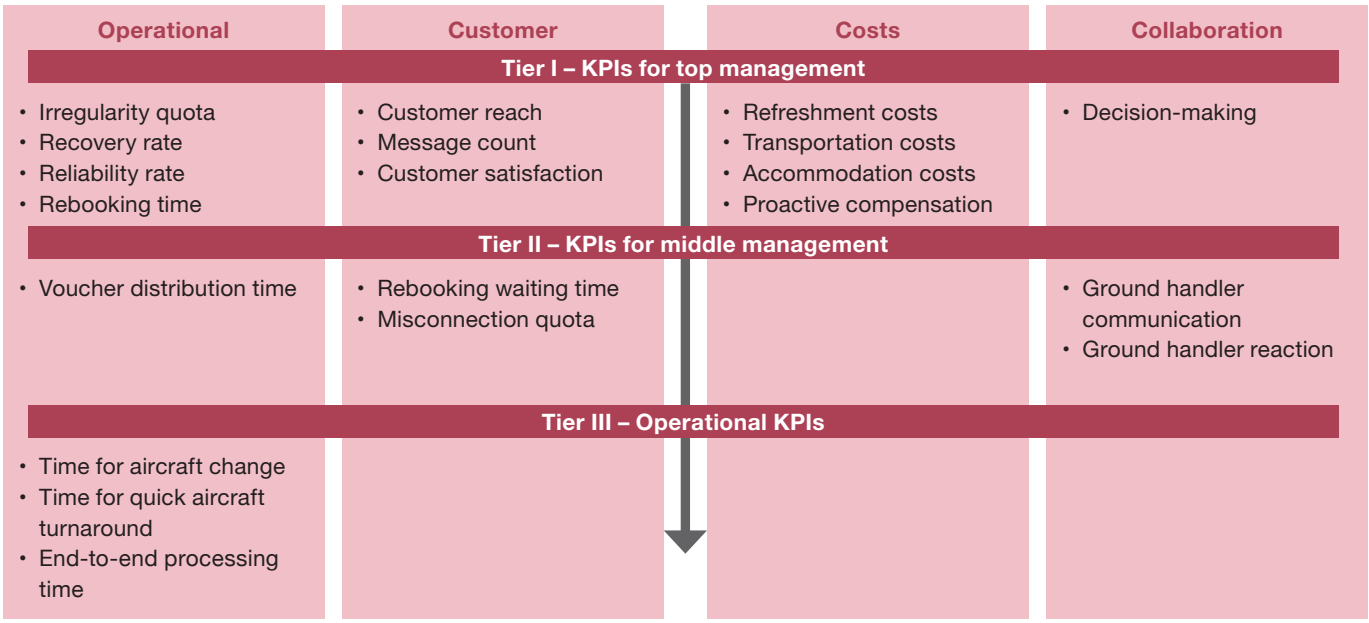


D. Performance indicators – steering irregularity management performance

The best kind of flight disruption is the one that never occurs in the first place. Key performance indicator (KPI) systems help prevent flight disruptions by assessing, monitoring, and improving irregularity management performance. In addition, the number of irregularities can be reduced through analysis-based predictions (e.g. late arrival of incoming aircraft) or preventive operational/commercial measures.

PwC distinguishes between four types of performance indicators: operational, customer-focused, financial, and internal collaboration.

Fig. 4 KPIs to assess irregularity management performance



The relevant KPIs are passed on to the responsible management level and incorporated into existing dashboards as part of the regular reporting process of the line organisation. Continuous transparency about the development of irregularity management performance is essential if airlines are to engage in a continuous improvement process (CIP) and thus ensure long-term compliance and improvement of service quality.

Significance for the aviation and travel industry
Acting as service providers for the end customer, airlines bear the brunt in the event of irregularities. Although most causes of disruptions are beyond control for airlines, passengers only appreciate this to a limited extent.

To manage flight disruptions in a system partnership – rather than just addressing them only from airline side – it is necessary to involve additional partners. In particular, airports, as operators of the infrastructure, and ground handlers play an important role. If, for example, there are long waiting times at airport security or issues with baggage transport, automated partner integration would ideally inform the airline and/or the passengers at that point in time. To this end, IT systems are already opening up new possibilities, such as AI-based monitoring of handling steps on the apron using video cameras. The timestamps created in this way make it possible to provide an objective review of the handling plan in real time and detect delays early on.

But there are also points of overlap with other industries and sectors which could make use of these methods. In terms of passenger communication and accommodation, **rail companies, cruise lines, long-distance bus operators, public transport operators, tour operators** (combining air/rail/boat travel and accommodation) and **integrated mobility service providers** also interface with customers, particularly in the field of smart cities/mobility. In the event of disruptions to regular operations, there are also parallels in the operational and customer processes. If, for example, trains are delayed, or a single segment disrupts a multimodal journey, a holistic irregularity management concept can open up new possibilities.

Critical success factors for implementation
In addition to the need for a holistic irregularity management concept, it is important to consider which factors are key for its successful implementation.

1. **Strategic priority and formalisation**
   Clarity about the airline's internal priorities is critical for the successful implementation of a flight disruption management concept: Do operational/commercial interests or the interests of the customer take priority? Establishing transparent objectives allows the parties involved to make justifiable decisions (e.g. change of aircraft: customer interests vs. financial considerations).
2. **Process definition/documentation**
   In addition to formalising strategic priorities, a detailed description of the process and documentation is critical for managing irregularities successfully – also with regard to the requirements of the Air Operator Certificate (AOC). Solid control processes often fail due to poorly detailed interfaces (feedback, claims handling, quality management, etc.). This also requires continuous revision and provision of documents in accordance with uniform documentation standards.
3. **Governance and steering logic**
   Dedicated organisational units (e.g. passenger care/services) make it possible to bundle responsibilities and streamline collaboration. Clear structures also reduce the effort required for coordination between departments and foster stable results. This includes the creation of escalation mechanisms, as well as the definition of reporting lines.
4. **IT system support**
   To increase the level of process automation, reduce processing costs, and give the organisation more freedom to provide personalised customer care, IT systems need to support the business process as much as possible. This also requires the formulation of robust rules/scenarios that enable the automated processing of special cases (e.g. customer communication based on operational flight plan data).
5. **Performance assessment and control**
   One of the greatest challenges in offering continuous and consistent customer service is maintaining process discipline and compliance with existing guidelines. Manual steps (e.g. manual initiation of customer communication) are particularly susceptible to mistakes. A formal and substantive review of process conformity is therefore critical step to ensure that goals are achieved.

Irregularity management is not necessarily a new subject for airlines. However, given the market's steady growth in recent years, it has become considerably more important for ensuring that flight operations run smoothly. At the same time, there is great heterogeneity across the market in terms of how airlines handle flight disruptions – and especially in how they deal with their customers. Today's passengers expect a robust standard of service and communication, but at the same time appreciate more personal care and are willing to pay for it.

For airlines, the management of flight disruptions has become a key success factor to stay competitive – from a financial and particularly a customer point of view. While low-cost carriers can offer their IROPS service at a lower cost base due to a lean product, efficient processes, and automation, premium carriers have the opportunity to differentiate themselves and to set new standards – not only with their ground and flight/cabin products but also with their approach to irregularity management.

About us

PwC supports you throughout your company's digital transformation. With the help of state-of-the art digital solutions you inspire, win, and retain your clients. At the same time, drawing on our 'strategy to execution' consulting expertise, we can provide you with holistic support for all challenges arising at your customer interface. We develop customer-centric transformation concepts, work together with business and IT to ensure a successful implementation, as well as secure the sustainable development of your organisation and qualification of your employees. Everything that we develop and implement for your company is thought through from the perspective of your customers. To do so, we leverage PwC's international network of transport and logistics experts with its 5,400 employees worldwide. In Germany, we have more than 400 employees providing auditing and consulting services to transport and logistics companies of all sizes.

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