The Effects of Communication and Relationships in an Outsourcing Environment: The Airline Flight Departure Process

By Tómas Ingason MLOG 06

Introduction

Icelandair is a small network airline with a single hub in Keflavík, Iceland. From there it operates flights to Europe and North America, serving passengers traveling to and from Iceland, as well as passenger crossing the Atlantic. The hub is well positioned to serve this market (figure 1). Short connecting times in Keflavík, make Icelandair’s Trans-Atlantic service competitive with the shorter, more expensive non-stop Trans-Atlantic service found on the market. To minimize connecting times for Trans-Atlantic passengers, flights are scheduled to meet in groups (banks) at the hub. This creates operational inefficiencies in the air, because of low utilization of aircraft, and on the ground, because of alternating high and low utilization of hub airport assets and workforce, and contributes to overall network inefficiency. Furthermore, the network is interdependent because a delay in one flight may impact the whole following “bank” of flights. Because of the interdependency characteristic of airlines operating as networks, Icelandair, like other network airlines, must improve efficiency and quality in its airline departure process.

Figure 1 Icelandair's Network and stations involved in the research highlighted. Source: Icelandair.com
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The airline departure process encompasses preparation of the plane for departure and the enplaning of passengers, luggage and cargo. The departure process can be performed as a carefully choreographed dance or as a series of seemingly random acts. Communication and relationships are at the heart of coordinating the twelve job functions that are involved in the departure process and located inside the airport terminal: Gate Agents, Operations Agents, Ramp Agents and Ticketing Agents; inside the airplane consisting of Cabin Cleaners, Caterers, Flight Attendants and Pilots; and staff working on the ground consisting of Baggage Transfer Agents and Freight Agents, Fuelers and Mechanics (figure 2).

Figure 2 Primary job locations of functions involved in the flight-departure process
Studies of the departure process used by U.S. Airlines (Gittell, 2003; Gittell, 1995) show that focus on strong communication and relationships increases efficiency and quality in the departure process. The airlines that were studied performed all or most of the departure related job functions in-house. Other airlines, however, outsource all or part of their departure related job functions. Outsourcing complicates the departure process environment, introducing the need for cross-organizational coordination. *What effects, if any, does outsourcing have on relationships, communication and consequently the performance of the flight-departure process?* Below, I describe the findings of a study of Icelandair’s departure process to answer this question.

**Methodology**

Icelandair’s departure process was studied at four stations: the hub station in Keflavik, Iceland (KEF) and the spoke stations at London Heathrow (LHR), Copenhagen Castrup (CPH) and Boston Logan (BOS). Two indices, one representing efficiency and one representing quality were used to indicate performance at each of the four stations. The efficiency index was comprised of scheduled turn-around-time and staffing levels of the stations, and calculated by dividing each of them by the average of all the stations, averaging the resulting values. The quality index was comprised of the number of customer complaints, lost baggage and late departures at each station, and calculated in the same way as the efficiency index. Performance in the flight-departure process can be influenced by complexity of products (flight offerings) and services at each station. Complexity metrics were gathered and used qualitatively in analyses of station performance was represented by the number of flights per day, average flight length, average number of passengers per flight, average amount of cargo per flight and number of passengers connecting from other flights to Icelandair flights.
A survey was conducted among five of the twelve job functions at the four stations, based on Gittell (1995), to measure the level of communication and relationships between job functions (relational coordination) involved in the flight-departure process to see how it affects performance in the departure process. The level of communication and relationships is affected by the systems of coordination, such as cross-functional routines and protocols, information systems, boundary spanners, and cross-functional meetings; and systems of control, such as shared incentives, shared performance measures and supervision. Information on the use of these systems at each station was gathered through structured interviews with station managers.

**Effects of outsourcing on communication and relationships**

Outsourcing of parts or the whole flight-departure process is common among airlines. Service providers at airports achieve economies of scale and scope by servicing multiple airlines. By outsourcing their departure process to one or more service providers, airlines like Icelandair take advantage of these economies of scale and scope, but how does the decision and method of outsourcing impact relationships and coordination in the flight-departure process?

Observations of Icelandair’s stations show that the fewer the companies involved in the flight-departure process, the stronger the level of communication and relationships among the flight-departure job functions (relational coordination); and the higher the percentage of job functions outsourced to third-party providers, the lower the relational coordination (figure 3). These two inversely proportional relationships are what one would intuitively expect.
These results are intuitive because achieving high levels of communication and coordination across organizations is more difficult than within organizations. This suggests that when outsourcing a process like the flight-departure process, which requires high levels of coordination for successful completion, the service buyer benefits from keeping the number of suppliers to a minimum. Companies should also weigh the benefits of outsourcing against the detriments of weaker communication and relationships on performance.

Choice of outsourcing method should rely on the stations strategic importance and its “product” and service complexity. The decision of an airline to outsource operations at its hub station requires special attention to developing an integrated relationship between it and the outsourcing partner because of the hubs strategic and operational importance to the airline. Integration is developed through alignment of interests. Pacing stations, stations with a short turn-around-time can benefit from being managed using what is called a “co-sourcing” relationship, one where both the airline and the service provider supply staff and supervision. The focus is on relationships, coordination, efficiency, and quality improvements. The
stations with longer connecting times (nonpacing stations) should require the least amount of managerial focus from the airline, instead being cost focused and managed through detailed and actively monitored service-level agreements. What effects does achieving high levels of communication and relationships through choice of an appropriate outsourcing method have on performance?

**Effects of communication and relationships on performance**

High levels of coordination and communication show a positive effect on performance at the four Icelandair stations. Other studies (Gittell, 1995; Gittell, 2003) have shown similar results. Effects of the level of communication and relationships on quality performance in the departure process were apparent at the Icelandair stations where the level of communication and relationships positively related to their quality index. The effects of communication and relationships on efficiency were not as apparent. The three spoke stations showed indication of increased efficiency with improved communication and relationships, but the hub station in Keflavik did not perform as well on the efficiency index as expected given its high level of relationships and communication. The difference in the hubs “product” complexity may explain this under-performance.

The study indicates that high levels of communication and relationships can improve quality and efficiency at the same time. This effect explains why it is desirable to maintain high levels of communication and relationships in the flight departure process. Previously it has been noted that methods of outsourcing have an effect on communication and relationships, and communication and relationships affect performance of the flight departure process. The foundation for communication and relationships is found in the systems of control and coordination in place at each station.
Role of systems of control and coordination

Systems of control and coordination are necessary for the successful completion of any cross-functional process. They are the foundation that instruct, enforce and reward formal methods of coordination in the flight departure process. The systems in place at the four Icelandair stations were assessed qualitatively through interviews with Icelandair station managers and observations made at some of the stations. The primary differences between stations were observed in their systems of control. Only the stations in Keflavík and Boston had station management supervisory staff from Icelandair or related companies in place in the year 2005. Keflavík was the only station that actively monitored performance metrics of the departure process and used it for statistical analyses and improvement work. Furthermore, none of the stations used shared incentives and only the hub station in Keflavík had systems in place to periodically review performance measurements.

The general trend was that stations with more mature systems of control had the highest levels of communication and relationships. Implementing stronger control mechanisms would likely result in higher levels of communication and relationships at the stations which should, as we have seen, lead to improved performance.

Closing

Several emerging trends contribute to the importance of improved understanding of the effects of outsourcing on relationships and communication in the airline departure process. As airlines increasingly try to obtain economies of scale and achieve vertical integration through alliances outsourcing of departure related job functions is becoming frequent. Successful implementation of process changes and improvements hinge on understanding the dynamics of relationships and communication; they may act either as inhibitors or pave the way for successful implementation.
The lessons learned by observing communication and relationships in the flight departure process are applicable to any cross-organizational process of moderate to high complexity that involves several job functions and requires high levels of coordination.

**Bibliography**
