

Corporate Resource Management: an Integrative Approach to an Effective Aviation Organization

The world's major airlines are currently facing major challenges. To address these issues, a re-assessment of traditional training philosophy, which tended to emphasize areas of specialization within an airline organization, is required. It is argued that the basic principles of Crew Resource Management must be expanded to Corporate Resource Management to include all key sectors of airline flight operations in order to achieve a more efficient and productive working relationship that is based on "shared goals, shared knowledge, and mutual respect".

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The world's major airlines have undergone considerable adversity and major changes since the tragic events of September 11, 2001. The continuing effects of declining number of air travelers, the war in Iraq, the negative effects of increased jet fuel prices, demands by airline employees, and the Severe Acute Respiratory Syndrome (SARS) outbreak in 2003 have all impacted severely on airlines and associated travel industries.

The severity of the continuing adverse effects on the airline industry can be observed from recent Air Transport World reports. AMR Corporation, the parent of American Airlines, reported a loss of \$1.04 billion in the quarter that ended on March 31, 2003. The Chairman and CEO of American Airlines was forced to resign on April 24, 2003 when it was disclosed that he had left in place "special pension and retention bonus plans for him and several members of his senior management team even as he was leading efforts to secure \$1.6 billion in concessions from union members". (Air Transport World 2003a).

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Aviation problems were not limited to American Airlines, the world's largest carrier. United Airlines, the world's second largest carrier, filed a 1113a motion in US Bankruptcy Court on March 17, 2003, which meant the rejection of collective bargaining agreements with its unions (Air Transport World 2003b). Other airlines such as Continental Airlines, Delta Air Lines, Northwest Airlines, US Airways, Qantas, Japan

Airlines, and Air Canada have all announced major job reductions. The major challenges faced by these airlines were not all precipitated by unforeseen global events. Much of the blame can also be attributed to the lack of understanding of corporate organizational culture and behavior, which eventually resulted in poor management.

In view of the systemic or inter-related nature of aviation issues, it is essential to expand the traditional training philosophy and its successful application known as Crew Resource Management (CRM) to Corporate Resource Management (CRM) in order to achieve a highly effective working relationship among various key sectors of airline operation. In addition to the flight crew sector,

other sectors to be included under Corporate Resource Management are gate agents, ticketing agents, operations agents, ramp agents, baggage transfer crews, mechanics, fuelers, aircraft cleaners, cargo agents, catering personnel, dispatch, all the way up to senior management. The inclusion and integration of human resources that extend beyond the immediate flight crewmembers to the corporate organizational level provide many advantages. Although the term corporate resource management is not commonly used at present, the basic principles of excellent teamwork are exemplified by several highly successful airlines in the U.S. such as Southwest Airlines, JetBlue Airways, and by WestJet in Canada.

Corporate Resource Management
The main objective of Corporate Resource Management is to share resources, individual knowledge, and skills through better communication across an organization. A simple example will illustrate the importance of sharing information and keeping everyone inside the flight operations envelope. A major Canadian carrier that operates between Tel Aviv and

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San Francisco (SFO) has a scheduled fuel stop in Toronto. At the same time, passengers bound for SFO must pre-clear United States Customs and Immigration in Toronto. Westbound flights across the Atlantic often encounter headwinds and as a result, flights are delayed en route. If the various ground crew members handling the delayed arrival are not informed, connecting baggage may not make it back on the SFO aircraft. The outbound gate controller and the cockpit crew are only interested in on-time departure so they will not be blamed for the delayed departure. Whenever baggage do not arrive in SFO at the same time as passengers, it costs the airline extra money to deliver the delayed baggage by taxi. This brief, but real life example, does illustrate the need for corporate resource training for airline personnel in departments or sectors other than the traditional CRM flight crews.

In contrast to the above example, an early aircraft arrival may also create passenger discomfort. Flights out of Asia for North America that fly across the North Pacific often benefit from the jet-streams and consequently reach their west coast destinations considerably ahead of their estimated time of arrival. In many such instances, the ramp crews are simply not prepared or even available to meet the aircraft and tired passengers are left fuming on the aircraft. There have been cases reported of clipped wings or of other damage when ramp crews were not available to guide the aircraft to the gate properly. Therefore, from an accident prevention perspective, better coordination and communication between ground crew, aircrew, and flight operations personnel will undoubtedly reduce accidents and incidents as noted above.

Another interesting example that can be provided to illustrate the need to extend crew resource management to corporate resource management is the Concorde crash of July 25, 2000. Although it was widely reported that a tire burst had caused the fatal accident, subsequent investigation has revealed that a single tire burst alone should not have caused this horrific tragedy. A chain of errors on

the ground as well as in the air resulted in a sequence of events that could have been avoided. In the words of John Hutchinson, a British Airways captain with 15 years of Concorde experience, the fire that occurred as a result of a tire burst which punctured a fuel tank was not the sole cause of the crash, but a "lethal combination of operational error and 'gross negligence' by the maintenance department of Air France." (Rose, 2000:14)

The "lethal combination" of intervening factors could have been trapped before they became catastrophic. Unknown to the captain of the ill-fated flight, it was 6 tons overweight due to excess baggage that belonged to a connecting tour group, plus the fact that the Concorde had 1.2 tons of fuel that was not consumed during the taxi out to its takeoff position on the runway.

It is noted by Rose (2002:14) that the last minute transfer of connecting baggage was most likely placed in the rear hold which then shifted the aircraft's center of gravity backward. To make matters even worse, the wind direction had changed while the aircraft was taxiing to its takeoff position, now becoming an 8 knot tailwind. This information should have been taken into account by the captain and the regulated takeoff weight recalculated. Apparently, the basic lesson to take off into the wind was neglected which meant that the Concorde required more runway before becoming airborne.

Photographs taken of the tire marks left on the runway indicated that the aircraft was skidding sideways. Investigations revealed that a maintenance crew error had been made and a "spacer" that keeps the wheels properly aligned was inadvertently not replaced during its most recent servicing. Apparently this error was made four days prior to the fatal accident. The same aircraft had made two previous return trips to New York and this most likely contributed to the wear and tear that compounded the misalignment.

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A combination of all of the above factors meant that the aircraft was taking up valuable runway space. During the takeoff run, the captain of the Concorde was confronted by two conditions: 1) the misalignment of the wheels was forcing the aircraft to the left and nearly off the runway, and 2) a Boeing 747 that was carrying President Jacques Chirac and his wife returning from the G-7 summit in Japan had just landed and was waiting to cross the Concorde's runway. The captain had no choice but to attempt his takeoff although he was still 11 knots below the minimum recommended airspeed.

Although the preceding examples illustrated the importance of corporate resource management with reference to the flight operations side of management, the basic principles can also be applied to senior management levels. As noted earlier in our introduction, Southwest Airlines has continued to succeed while other major airlines are either bankrupt or approaching bankruptcy. For the quarter ending March 31, 2003, Southwest Airlines reported a net profit of \$24 million, which was a 14.3 percent increase in profit from the previous year (Air Transport World 2003c). So what are the key factors that contribute to the success of Southwest Airlines?

According to Hoffer Gittell (2003:12), there are several success factors that contribute to Southwest Airlines' remarkable performance. First, Hoffer Gittell notes what she calls "organizational competency" which is defined as "its ability to build and sustain relationships characterized by shared goals, shared knowledge, and mutual respect". This contrasts considerably with the corporate culture at American Airlines as illustrated by the action of Donald Carty, the Chairman and CEO of American Airlines who lost the credibility and trust of his employees through sheer stupidity. While Carty was pleading with his employees to provide wage concessions to prevent American Airlines from bankruptcy, he made certain that his own and several

executive team members' special pension and retention bonus arrangements were not only enhanced but also well protected. This information was not disclosed to the negotiating union executives prior to the ratification of the union agreements. This gross breach of trust resulted in Carty's resignation on April 24, 2003 (Air Transport World 2003d).

A second contributing factor noted by Hoffer Gittell (2003:12) for Southwest Airline's continuing success is the leadership role provided by the CEO which has shaped its overall corporate culture. Southwest's corporate culture focuses on relationships noted earlier, namely those that are based on shared goals, shared knowledge, and mutual respect. Without this focus on relationships, effective teamwork among diverse employee functions cannot be achieved. Strong working relationships are developed at Southwest Airlines because each employee appreciates the contribution made by other functional group members, thus decreasing the strong functional boundaries that are manifested at other airlines. Mutual respect results in good teamwork, which in turn contributes to good functional coordination that is necessary for on-time arrivals and departures.

The ability of Southwest Airlines to achieve a high degree of functional coordination stems from excellent leadership at senior levels of management, however, there is another very important aspect that contributes to the airline's success and profitability. This third factor is its organizational culture. Organizational culture is defined by Westrum and Adamski (1999:81) as "an ensemble of patterns of thought, feeling, and behavior that guide the action of the organizational members." Although individuals may act alone, it is their interaction with others in the organization that organizational cultural patterns develop based on a common set of beliefs, values, and norms. Trice and Beyer (1993:5) note this as the collective characteristic of culture

and they assert that "Belonging to a culture involves believing what others believe and doing as they do - at least part of the time." Other important characteristics of culture noted by Trice and Beyer are "the emotional, historical, symbolic, dynamic, and inherently fuzzy" aspects. Hoffer Gittell (2003:14) has noted what is unique about Southwest's culture is that "it has evolved over time from a culture that was idiosyncratic to a particular time and place to a culture that is highly inclusive and diverse. However, what has remained constant over time and what lies at the root of Southwest's culture is the focus on relationships."

Conclusion

It was argued that a proven training philosophy and its successful application known as Crew Resource Management must be expanded to Corporate Resource Management. It was shown that this will achieve a more efficient and productive working relationship among various

key sectors of an airline operation. It was also noted that for an efficient and highly productive airline, special attention must be

paid to the management of human resources so that it did not threaten the well being of employees especially when confronted with a crisis. It was also noted that the inclusion and integration of human resources beyond the flight crews to include the senior corporate organizational levels provided many advantages as well as employee loyalty to the organization. The key factors that enabled Southwest Airlines to sustain its remarkable success and profitability were strong relationships based on "shared goals, shared knowledge, and mutual respect." For this to be achieved effectively, strong leadership and communication skills served as the necessary integrating force to maintain a strong corporate culture.

The importance of the core values of corporate culture must be understood at the outset in order to enhance and maintain the various relationships within the organization. Relationships based on shared goals, shared knowledge, and shared mutual

respect will develop a better sense of appreciation of the various roles played by all members of the organization regardless of the specific tasks assigned to different members of an organization.

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