Collaborative Decision Making at Schiphol Airport
Challenges of Decision Making in a Multi-actor Environment

Introduction
Sharing operational information between actors at an airport is called Collaborative Decision Making (CDM) and is currently carried out at Schiphol Airport. The CDM program is the first large project ever undertaken at Schiphol Airport that involves but also affects many actors. Decision making between the Schiphol Group (AAS), Air Traffic Control the Netherlands (LVNL), home-carrier KLM (Royal Dutch Airlines), the Schiphol Airline Operators Committee (SAOC), Ground Services (GS), and the European Network Manager Eurocontrol turns out to be very difficult.

Problem definition
The CDM program is very complex because of: mutual dependent relationships, complex IT systems, complex operational processes at Schiphol, different interests, lack of understanding in processes, assumptions, holdup problem etc. In the CDM program decisions are made on different executive layers as the Steering Board (SB), Implementation Board (IB) and project team (PT). Equal representatives of AAS, LVNL, KLM and GS take place in one of the decision-making layers. Decision making within the program is absolutely not without flaws.

Research
My research focused on ‘How can challenges be successfully dealt with that occur during decision making in a multi-actor environment based on the CDM program?’ The approach was divided in three phases:
1. In the first phase of this research the complexity of the CDM program is structured. This is done with interviews, weekly meetings, and literature study.
2. The second phase was to gain the stakeholders viewpoint. This is done by an extensive stakeholder analysis and closer look on the processes at Schiphol. Second, Q-methodology is used to verify the complexity and to gain perspectives of the CDM program.
3. In the third phase three managerial implications were provided to improve decision making.

Results
1. The challenges that summarize the complexity of the program are 1) Getting everyone to work in the same direction, 2) Dealing with mutual dependent relationships, 3) Developing a flexible and transparent process, 4) Collaborate between decision-making layers, 5) Evaluate costs and benefits, 6) Dealing with technological uncertainty and 7) Communicate.
2. Runway configuration and handling of more than 100 aircrafts an hour in peak moments make Schiphol Airport a complex airport. The stakeholder analysis showed that start-up controllers are key player that do not take place at the decision table. Q-methodology resulted in three perspectives that describe the 28 interviewees.
3. The steering board should make a vision and management needs to be committed. Each project should have someone with final responsibility. Managers need to communicate better and no assumptions should be made.

Conclusions
The hardest challenges within multi-actor environments deal with functioning of the top layers of the organization. A burning platform needs to be created and processes of all actors should be mapped. Equal responsibility does not improve decision making. Q-methodology can be used as a useful method to verify own observations based on the stakeholders. This does not only create consensus but also the most important topics can be indicated.

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