

A CONCEPTUAL MODEL OF THE MANAGEMENT OF CREATIVITY AND INNOVATION IN AIRPORTS

Erwin Losekoot
AUT, New Zealand

J Nevan Wright
AUT, New Zealand

ABSTRACT

This paper takes the top ten airports identified in the SKYTRAX 2011 airport awards and investigates to what extent their success might be due to creative and innovative management actions. The literature review considers factors such as historical development, geographical location, ownership structure and role of the airport. It uses publicly available qualitative and quantitative data to identify factors that may have contributed to their success and presents a conceptual model. This research demonstrates there is evidence for each of the factors proposed in the model. However in this exploratory study there was little uniformity in terms of the relative success in the awards. The paper recommends that further empirical research is carried out to test the strength and direction of relationships between factors.

KEYWORDS: Airport, Transport, Creativity, Innovation, Customer experience, Organisational learning

INTRODUCTION

This paper considers the literature on creativity and innovation in organisations, and applies a number of the key themes to the airport environment in order to see if management lessons can be learned from this. If creativity is the creation of novel ideas or ways of doing things, and innovation is the successful implementation of these ideas, then airports should be the ideal focus for a study of these in action. Airports appear to many travellers to be in a perpetual process of development and change to meet the ever-changing requirements of airlines (the Airbus A380 can disembark up to 853 passengers compared to the Boeing 747's 400 passengers) and airport stakeholders (many airports now earn as much from commercial activities as from airline landing fees). The development of the budget airline sector has provided additional opportunities for management to develop creative solutions. After a brief overview of the SKYTRAX awards (www.airlinequality.com, 2012), the paper identifies the top ten airports before going on to see if these exemplar organisations exhibit the characteristics identified in the literature.

SKYTRAX AWARDS

This UK-based research and consultancy organisation produce a range of travel/seat/airport hotel/airport lounge/airport reviews as well as market research and benchmarking reports. The World Airport survey has been run since 1999 and in 2011 included 370 airports. The results are based on 11m traveller interviews in 160 countries and covered 39 service and facilities criteria (Han, Ham, Yang & Baeck, 2012; Saco & Goncalves, 2008; Lam, Tam, Wong & Wirasinghe, 2003). Table 1 shows the top ten airports in the 2012 report.

Table 1: World's best airports (www.worldairportawards.com, 2012).

Rank	Airport and location
1	Hong Kong International Airport, HKSAR, PRC
2	Changi Airport, Singapore
3	Incheon International Airport, South Korea
4	Munich Airport, Germany
5	Beijing Capital International Airport, PRC
6	Amsterdam Schiphol Airport, Netherlands
7	Zurich Airport, Switzerland
8	Auckland International Airport, New Zealand
9	Kuala Lumpur International Airport, Malaysia
10	Copenhagen Airport, Denmark

ORGANISATIONAL CREATIVITY AND INNOVATION

Creativity and innovation is essential for survival in a competitive business environment, yet there are many reasons why organisations do not innovate (Argyris, 1977; 1991; 1994; Medina, Lavado & Cabrera, 2005). Medina et al., (2005) warn, however, that customisation required by the client is considerably more disruptive than internal innovation. Both Andriopoulos and Lowe (2000) and Stierand and Lynch (2008) stress the importance of employees' intellectual curiosity together with 'technology-push' and 'need-pull' drivers. Basadur and Gelade (2006) use the term 'knowledge management' to describe the combination of efficiency, adaptability and flexibility required of innovative and creative organisations. They particularly emphasise the importance of cross-departmental collaborations which focus on the end-user of the service. Chang (2010) sounds a sobering note by saying that staff may need up to ten years' experience in the organisation to be able to create such new cross-departmental initiatives, although Dung (1995) and Moehrle and Wenzke (2006) suggest structured approaches such as the Russian TRIZ system approaches can help. Within the area of this paper Gordon (2008), Gottdiener (2001) and Schaafsma, Amkreutz and Güller (2008) all discuss the historically innovative approaches of the airline and airport industry, despite incidents such as the 2001 USA terrorist attacks which arguable conspire against a culture of innovation and creativity.

THE CONCEPTUAL MODEL

This paper proposes that there are a number of aspects of airport management which are likely to affect the level and speed of innovation in airports. There is no claim that the top ten airports as voted for in the SKYTRAX awards all score highly on all of these factors. However it would seem reasonable to expect to find some evidence of all of these in the sample. The factors affecting creativity and innovation in airports are shown in the spiderchart in Figure 1.

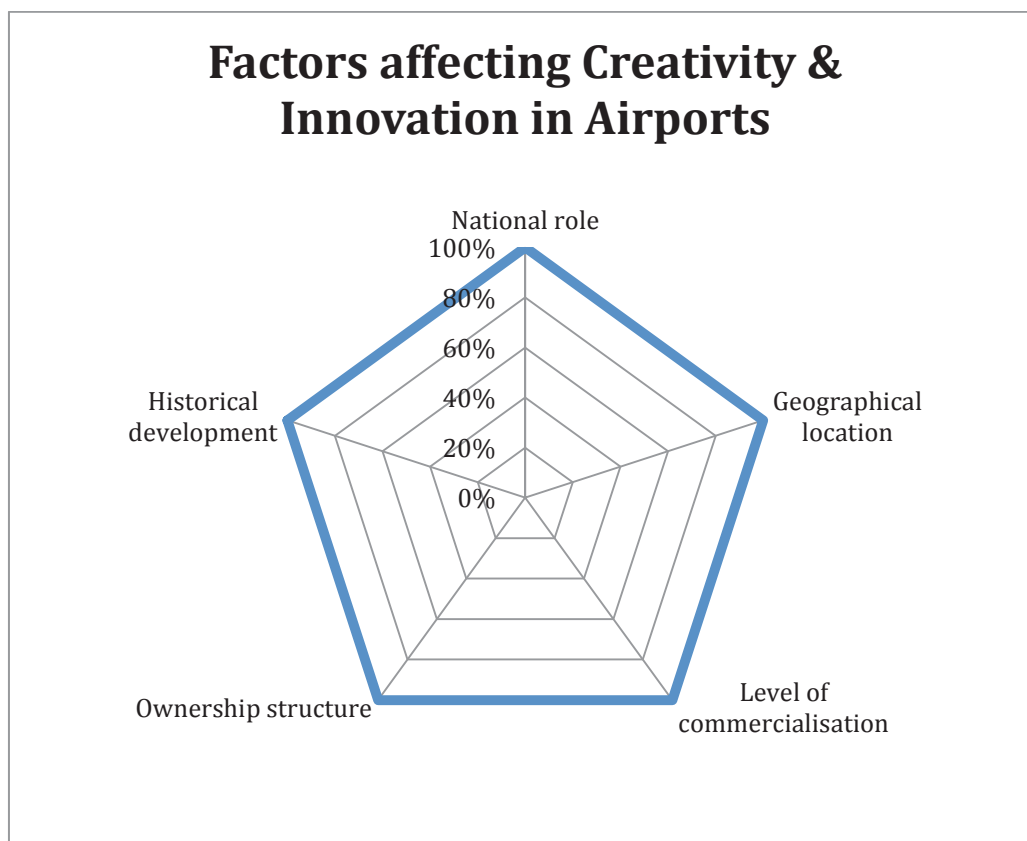


Figure 1: A conceptual model of airport creativity.

These factors are briefly defined and explained in Table 2. It lists the five factors, gives a brief explanation as to why they are considered important, and then identifies relevant features found in the SKYTRAX Top Ten.

Table 2: Creativity and innovation: Definitions and examples

Key factor	Explanation	Findings from SKYTRAX Top Ten
National role	Size; promotional responsibilities for the country; countries with multiple airports tend to focus on different aspects (e.g. full-service or budget); hub or origin-destination airports	Beijing, Hong Kong, Amsterdam, Singapore and Kuala Lumpur have 34-74m passengers per year. Zurich, Auckland, Copenhagen & Munich are much smaller but have a very strong cultural identity which raises their profile.
Geographical location	Older airports are surrounded by built-up areas restricting activity and development or innovation.	Copenhagen is 12 minutes from the city centre perhaps explaining its ranking despite its small size. Amsterdam and Zurich are noted for their good transport networks.
Level of commercialisation	Increased competition leads to more choice for airlines therefore reducing landing fees. This forces airports to develop other revenue streams such as retail, car parking and business space (Amabile,	Changi has 40 000sq metres of commercial space; Incheon has a museum, ice-skating, casino & golf course; Amsterdam has extensive landside commercial developments. The commercial to aeronautical

	1998; Aviel, 1996).	revenue ratio ranged from 38% (Zurich) to 70% (Singapore & Hong Kong) and 82% (Auckland).
Ownership structure	Perception is often that privately-owned airports will be more focused on developing innovative solutions than state-owned facilities.	Only Auckland (13%) and Copenhagen (39%) airports had a minority government shareholding. The others had a majority or even total government ownership.
Historical development	Legacy or iconic buildings and historical organisational structures and control are sometimes seen as part of national heritage. This can restrict developments or at least make any innovations considerably more expensive (McNeill, 2005).	Hong Kong is built on a man-made island; a number of the top ten are new-build airports (Hong Kong & Kuala Lumpur in 1998; Incheon in 2001; Beijing in 2008)

(Source: www.worldairportawards.com; Airport Annual Reports; Kraftl & Adey, 2008)

CONCLUSIONS AND IMPLICATIONS

The assumption underlying this paper was that there would be certain clear commonalities between all of the top ten SKYTRAX award winners. It was deduced from the literature on airport quality that these airports would be more innovative and creative based on historical advantages, location and national importance. It was expected that airports with a greater share of private ownership would be in a better position to take advantage of new commercial opportunities.

Unfortunately for this researcher, there does not appear to be a clear presence of the top ten across all these criteria. This is perhaps because the research for this paper relied on published secondary sources which were largely qualitative. A more detailed study gathering quantitative data which could then be statistically interrogated for positive correlations may yield a clearer picture of the association between variables. Alternatively researchers could use a more qualitative approach and conduct research into why travellers voted for these particular airports – what was it about the experience at these airports that they liked so much? Do smaller airports with fewer facilities make up for this by having a more welcoming culture and values? Is a uniform ‘non-place’ (Augé, 1995) airport which works like every other easier to negotiate than a smaller but original and authentic one?

These are all issues that can be developed from this exploratory study.

REFERENCES

- Amabile, T.M. (1998). How to kill creativity. *Harvard Business Review*, Sept-Oct, 77-87.
- Andriopoulos, C. and Lowe, A. (2000). Enhancing organisational creativity: The process of perpetual challenging. *Management Decision*, 38(10), 734-742.
- Argyris, C. (1977). Double loop learning in organizations. *Harvard Business Review*, Sept-Oct, 115-125.
- Argyris, C. (1991). Teaching smart people how to learn. *Harvard Business Review*, 4(2), 4-15.
- Argyris, C. (1994). Good communication that blocks learning. *Harvard Business Review*, July-Aug, 77-85.

- Augé, M. (1995). *Non-places: Introduction to an anthropology of supermodernity*. London, UK: Verso.
- Aviel, D. (1996). Innovation and Ignorance. *Creativity and Innovation Management*, 5(2), 107-115.
- Basadur, M. and Gelade, G. A. (2006) The role of knowledge management in the innovation process. *Creativity and Innovation Management*, 15(1), 45-62, doi: 10.1111/j.1467-8691.2006.00368.x.
- Chang, C.M. (2010). *Service systems management and engineering: creating strategic differentiation and operational excellence*. Hoboken, NJ: John Wiley.
- Cousins, J., O’Gorman, K. and Stierand, M. (2010). Molecular gastronomy: Cuisine innovation or modern day alchemy? *International Journal of Contemporary Hospitality Management*, 22(3), 399-415, doi: 10.1108/09596111011035972.
- Dung, P. (1995). TRIZ: Inventive creativity based on the laws of systems development. *Creativity and Innovation Management*, 4(1), 19-30.
- Gordon, A. (2008). *Naked airport: A cultural history of the world’s most revolutionary structure*. Chicago, ILL: University of Chicago Press.
- Gottdiener, M. (2001). *Life in the air: Surviving the new culture of air travel*. Oxford, England: Rowman & Littlefield.
- Han, S., Ham, S., Yang, I. and Baek, S. (2012). Passengers’ perception of airline lounges: Importance of attributes that determine usage and service quality measurement. *Tourism Management* (in press), doi: 10.1016/j.tourman.2011.11.023.
- Kraftl, P. and Adey, P. (2008). Architecture/affect/inhabitation: Geographies of being in buildings. *Annals of the Association of American Geographers*, 98(1), 213-231, doi:10.1080/00045600701734687.
- Lam, W.H.K., Tam, M., Wong, S.C. and Wirasinghe, S.C. (2003). Wayfinding in the passenger terminal of Hong Kong International Airport. *Journal of Air Transport Management*, 9(2), 73-81.
- Medina, C. C., Lavado, A. C. and Cabrera, R. V. (2005). Characteristics of innovative companies: A case study of companies in different sectors. *Creativity and Innovation Management*, 14(3), 272-287.
- McNeill, D. (2005). In search of the global architect: The case of Norman Foster (and Partners). *International Journal of Urban and Regional Planning*, 29(3), 501-515.
- Moehrle, M. G., and Wenzke, S. (2006). Exploring problems with function analysis: Experimental insights for team management. *Creativity and Innovation Management*, 15(2), 195-206, doi: 10.1111/j.1467-8691.2006.00382.x.
- Saco, R. M., & Goncalves, A. P. (2008). Service design: An appraisal. *Design Management Review, Winter*, 10-19.
- Schaafsma, M., Amkreutz, J. and Güller, M. (2008) *Airport and city*. Amsterdam, The Netherlands: Schiphol Real Estate.

Stierand, M. and Lynch, P. (2008). The art of creating culinary innovations. *Tourism and Hospitality Research*, 8(4), 337-350, doi: 10.1057/thr.2008.28.