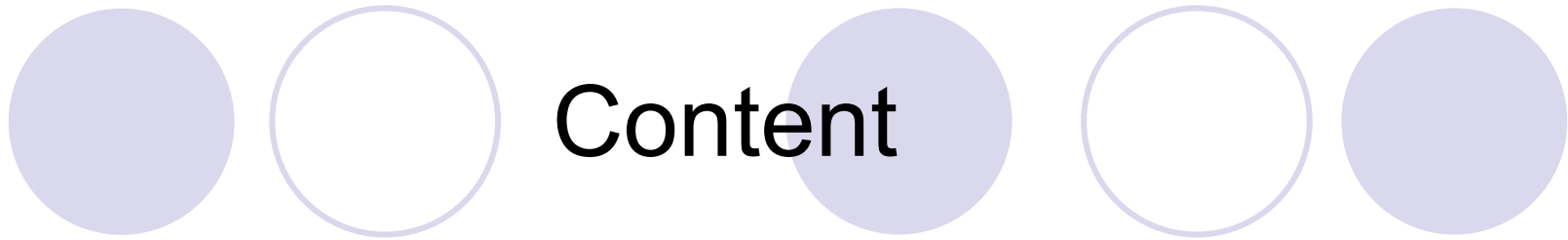




Airport Competition – Theory and
Application for Hinterland
Strategies

Katharina Ernst



- Introduction
- Theory on airport competition
- Airport choice and its implications on airport competition
- Conclusion



Introduction

- Limited research on airport competition
- Market competition requests strategies
- Which factors determine airport competition?
- How strong is airport competition?
- How does airport choice and access mode choice behaviour influence hinterland strategies?



Introduction

- Review of existing literature to give a theoretical framework on airport competition
- Hinterland (catchment area) is „a geographical zone containing the potential users and passengers of the airport“ (Transport Canada, 2008)
- Interconnection of population (Jones, 1955)



Theory on airport competition

- Competition might be an effective device for ensuring efficiency (Forsyth, 2004)
- From public service organisation towards public or privatised corporation (Starkie, 2002; Tretheway & Kincaid, 2005)
 - capable of maintaining competition
- Monopolies might be efficient, but may have incentives to abuse its power



Theory on airport competition

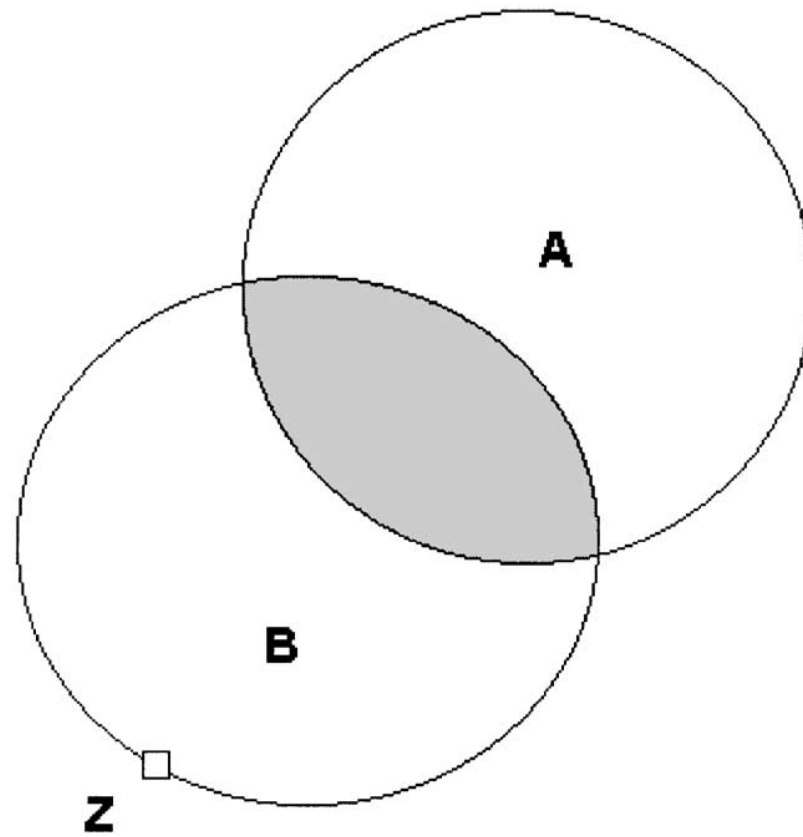
- Monopolistic competition in a spatial setting (Starkie, 2002)
- Increasing competition due to shared markets (Starkie, 2002)
- Locational natural monopolies (Forsyth, 2004)
- Increasing importance of hinterland strategies



Theory on airport competition

- Airport competition on basis of overlapping catchment areas
- Immovable → unalterable location
- Dependence on customer's flexibility, airport choice and the airport's recognition
- Shapes and dimensions the catchment area (Strobach, 2008)

Theory on airport competition



Source: (Starkie 2002, 68)



Theory on airport competition

- Overlapping catchment areas require superior hinterland use and give reason for enlargement

Theory on airport competition

- Proximity → Substitution
- Types of competition
 - Competition for connecting traffic
 - High substitutability
 - Dependent on airlines & their strategic behaviour
 - Operational strategies (Tretheway & Kincaid, 2005)
 - Passenger's choice (Forsyth, 2004; Starkie, 2002)
 - Competition for cargo
 - Very intensive (Tretheway & Kincaid, 2005)
 - Destination competition
 - Linked to scope and frequency of air services
 - Competition for non-aeronautical service (Tretheway & Kincaid, 2005)
 - Competition with other transport modes (Tretheway & Kincaid, 2005)



Theory on airport competition

- The strength of competition is dependent on availability of substitutes (Starkie, 2002)
- Indicators for product substitutability are manifold (Forsyth, 2004)
- Factors influencing substitutability
 - Proximity (Forsyth, 2004)
 - The minor the distance, the higher substitutability
 - Influenced by time and cost of access
 - Competitive advantage arises from better access facilities (Forsyth, 2004)

Theory on airport competition

- Population density (Forsyth, 2004)
 - Access
- Transport Improvements (Forsyth, 2004)
- Strength of competition is determined by the type of traffic and type of airport (Forsyth, 2004)
 - low cost → moderate/strong
 - long haul originating leisure traffic → moderate/strong
 - hub traffic → moderate
 - full service → weak
 - long haul business and destination traffic → weak



Theory on airport competition

- Strong competition between airports with equal services increase the demand for hinterland access and enlargement

Airport Choice and its implications on airport competition

- Determines basis for competition and attractiveness of the airport (Strobach, 2008)
- 4 dimensions of choice (Hess, 2007)
 - Destination
 - Timing
 - Mode of Travel
 - Route choice

Airport Choice and its implications on airport competition

- Limited to the extent of travel purpose (Bondzio, 1996)
- Determinants are
 - Distance between departing point and destination point
 - Accessibility of the airport
 - Time to travel to the airport
 - Cost to travel to the airport

Airport Choice and its implications on airport competition

- Destinations and frequency offered
- Cost of ticket price
- Airport facilities

(Bondzio, 1996; Harvey, 1987; Blackstone et al., 2006; Ishii et al., 2005)

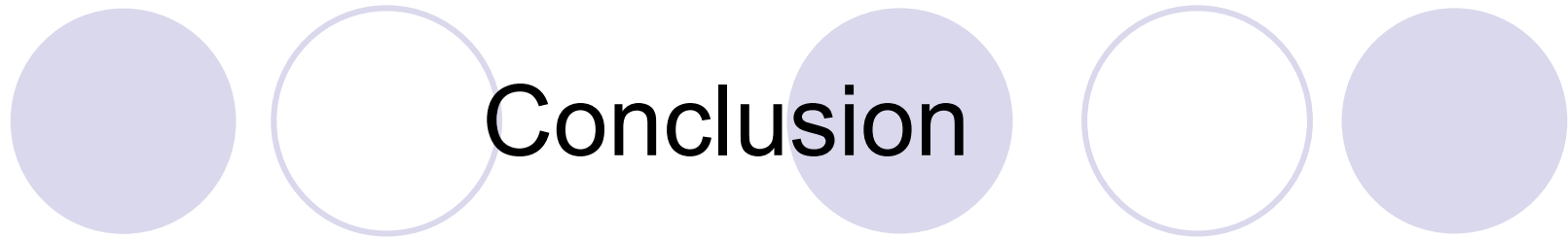
- Importance of providing fast access
- Provision of wide range of destinations at a high frequency level and competitive price
- Using hinterland strategies to attract passengers

Airport Choice and its implications on airport competition

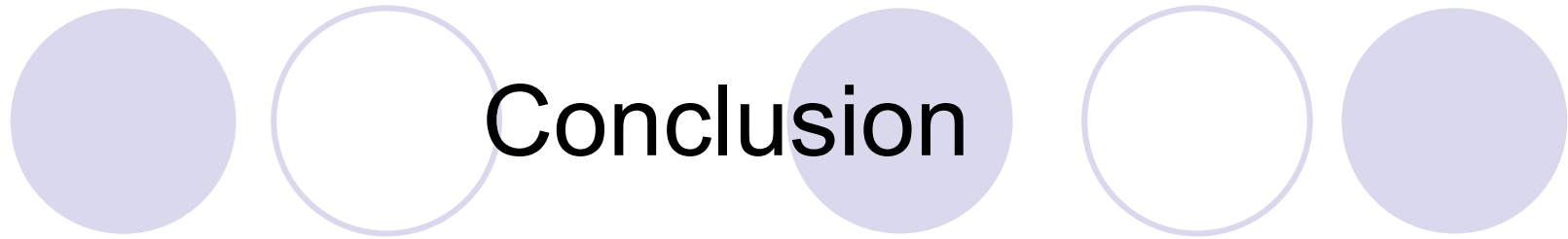
- Mode choice is highly dependent on the airport (Bondzio, 1996)
- Includes range of means of transportation (car, rail, public transport, taxi) and landside infrastructure (Bondzio, 1996)
- Car and taxi provides fast, convenient access, but additional parking cost (Bondzio, 1996; Psaraki & Abacoumkin, 2002; Hess, 2006)
 - used by business travellers

Airport Choice and its implications on airport competition

- Public transport provides cheap access, with comfort restrictions (Bondzio, 1996; Psaraki & Abacoumkin, 2002; Hess, 2006)
→ used by leisure travellers



- The knowledge of competition and passenger's airport choice establishes a basis for effective use of hinterland
- Hinterland strategies comprise the efficient use of the airport's catchment area
 - Enlargement plays important role to increase advantages and benefits

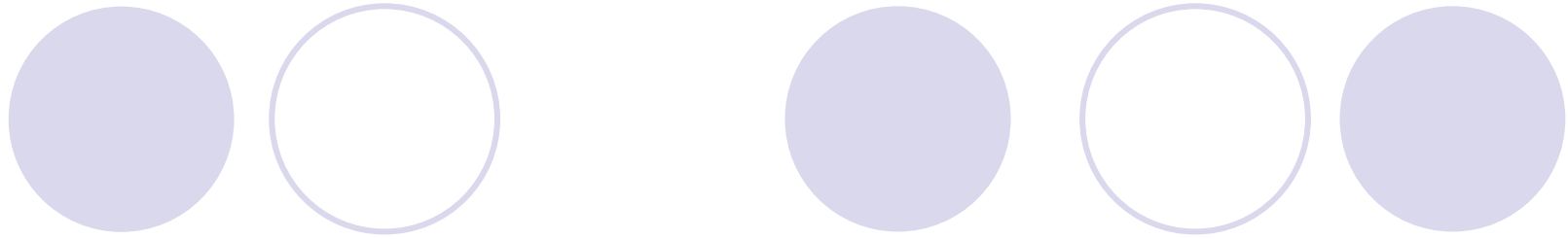


- Acquisition of customers by hinterland improvement
- Emphasis on spatial settings and customers attraction
- Substitution highlights the significance of providing services cheaper, faster and more convenient



Conclusion

- Reasoned hinterland strategy is essential to attract high volume of passengers and provide fast and convenient access
- Especially advanced access and connection to the hinterland is essential
- Technical, economic and political premises need to be given
- Airport managers need to consider the importance of factors like availability of public transport and parking facilities



Thank you for your attention!
Any questions or comments?



References

- Blackstone, Erwin A.; Buck, Andrew; Hakim, Simon (2006) 'Determinants of Airport Choice in a Multi-Airport Region'. In: Atlantic Economic Journal 34, pp. 313-326
- Bondzio, Lothar (1996) 'Modelle für den Zugang von Passagieren zu Flughäfen'. Schriftenreihe Lehrstuhl für Verkehrswesen, Ruhr Universität Bochum
- Forsyth, Peter (2004) 'Airport Competition: Regulatory Issues and Policy Implications'. In: Lee, D.: Competition Policy and Antitrust. Elsevier B.V.: Amsterdam
- Harvey, Greig (1987) 'Airport Choice in a Multiple Airport Region'. In: Transportation Research Part A, Vol. 21A, No. 6, pp. 439-449
- Hess, Stephane (2007) 'Modelling Air Travel Choice Behaviour'. Available at:
● [http://stephanehess.me.uk/files/Hess_GARS_2007.pdf]
- Ishii, Jun; Jun, Sunyoung; Van Dender, Kurt (2005) 'Air Travel Choices in Multi-Airport Markets'. Department of Economics and Institute of Transportation Studies, University of California, Irvine
- Jones, Lewis W. (1955) The Hinterland Reconsidered, American Sociological Association, Vol. 20, No. 1, pp. 40-44
- Pels, Eric; Nijkamp, Peter; Rietveld, Piet (2000) 'Airport and Airline Competition for Passengers Departing from a Large Metropolitan Area'. In: Journal of Urban Economics 48, pp. 29-45
- Pels, Eric; Nijkamp, Peter; Rietveld, Piet (2001) 'Airport and Airline Choice in a Multiple Airport Region: An Empirical Analysis for the San Francisco Bay Area'. In: Regional Studies, Vol. 35.1, pp. 1-9
- Pels, Eric; Nijkamp, Peter; Rietveld, Piet (2003) 'Access to and competition between airports: a case study for the San Francisco Bay area'. In: Transportation Research Part A 37, pp. 71-83
- Psaraki, Voula; Abacoumkin, Costas (2002) 'Access mode choice for relocated airports: the new Athens International Airport'. In: Journal of Air Transport Management 8, pp. 89-98
- Starkie, David (2002) 'Airport regulation and competition'. In: Journal of Air Transport Management 8, pp. 63-72
- Strobach, Daniel (2008) 'Competition among airports and overlapping catchment areas – an application to the state of Baden-Württemberg'. In: Forsyth, P.; Gillen, D; Müller, J; Niemeier, H-M: Competition in the European Airport Industry, German Aviation Research Seminar Series No. 4, Ashgate Aldershot, 2008 (forthcoming)
- Transport Canada (2008) Airports. Non-Financial Analysis. Available at:
● [<http://www.tc.gc.ca/programs/airports/RSAS/nonfinanalysis.htm#CATCHMENT%20AREA>]