

## THE IMPORTANCE OF COMMERCIAL REVENUES<sup>41</sup>

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### Abstract

Traditionally commercial requirements haven't been a primary consideration with regard to the needs of aeronautical operations. However, the airport industry has evolved and today, the airport is becoming a commercial hub. The development of the airport sector, commercialization and privatization within the industry in particular, have provided airports with greater opportunities to expand their commercial activities. The objective of this paper is to highlight the importance of commercial revenues to the airport business. It also indicates clear regional variations in regard to the commercial revenue share. The paper identifies the main features of airport revenues generated from aeronautical and commercial sources. The revenue structure of individual airports may vary substantially from the average. It is mainly a result of the diverse factors affecting either their aviation or commercial revenue-generating potential. Airport retailing has become the main issue in the revenue generating strategies of many airport authorities. A breakdown of revenues for a sample of Dubrovnik Airport is detailed with the retail revenues as the largest commercial source.

**Key words:** airport revenue sources, competitiveness, commercial revenues, retail revenues, Dubrovnik Airport

### 1. INTRODUCTION

Airports represent some of the most dynamic and complex facilities and their activities are not associated only with receiving aircrafts or the processing of passengers and freight. In order to compete successfully in a highly competitive market airport authorities have to be focused on the developments and challenges facing the air transport industry and the future of the airport sector. Deregulation, liberalisation and privatisation of airlines, as well as increasing competition, are some of the most significant changes that affect the aviation industry. The emergence and growth of low-

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cost carriers followed the deregulation and privatization of the aviation market during the 1990s. In this regard, airports aim to attract new carriers and to meet the divergent requirements of two main competitors - network carriers and low-cost airlines. However, airport managers need to understand the changing airport-airline relationship and assess the degree of potential risk.

The development of the airport sector, particularly commercialization and privatization within the industry, have provided airports with greater opportunities to expand their commercial or non-aviation-related activities. Subsequently, these changes have shifted managerial attention towards non-core airport activities. Airport management should be aware that it needs to consider the benefits from both aeronautical and commercial activities and, in particular, the needs, wants and revenue opportunities of the consumers.

Contrasting the traditional and the commercial model means shifting interest from traditional air-side airport business to exploiting revenue-generating opportunities. While the traditional model depended largely on aeronautical charges, commercial airport model recognizes the significance of non-aeronautical revenues that require to be examined.

Revenues arising from commercial activities have approached those made by the core business of air transport. It is therefore becoming increasingly important for airport authorities to understand the emerging revenue streams within the context of dynamic industry bearing in mind the evolving airport-airline relationship.

The objective of this paper is to place emphasis on the importance of commercial or non-aeronautical revenues within the airport industry. It seeks to examine the airport revenue structure focusing particular attention upon the airport commercial revenues. The paper uses the case study of Dubrovnik airport as an example to demonstrate detailed airport revenue structure focusing on both aviation-related and commercial activities. It also highlights certain propositions concerning expansion of commercial activities.

The paper is divided as follows. Section 2 emphasizes briefly the evolving role of airports by contrasting traditional and commercial approach. This is followed by defining and identifying sources of airport operating revenues. This provides the context for the following section which outlines airport commercial revenues in more detail. It also indicates retail revenues, which are usually airports' most important commercial category. In Section 4 a breakdown of revenues for a sample of Dubrovnik Airport is presented with the retail revenues as the largest commercial source. Recommendations section indicates some proposals for future development with regard to improvement of commercial activities as well as further directions of the research. Finally, certain conclusions emerging from the previous sections are presented in Section 6.

## 2. AIRPORT REVENUE STRUCTURE

The changing nature of airports results in the emergence of different airport models. Freathy (2004)<sup>42</sup> identifies two approaches regarding airports. The traditional view of an airport postulates that it exists to ensure the efficient movement of passengers between one destination and another. In contrast, an

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<sup>42</sup> Freathy, P. (2004): "The commercialisation of European airports: successful strategies in a decade of turbulence", *Journal of Air Transport Management*, 10 (3), p. 191

alternative approach considers airports within a broader framework of economic change and commercial opportunity. In other words, the traditional role of airports was associated with airlines and generated most of its revenues from its core business or aeronautical activities. However, the role of airports has been evolving. Apart from its traditional air-side business, the increasing focus is on commercial activities. In this regard, Jarach (2001)<sup>43</sup> determines five new areas of activity as a complement of the traditional activities for the commercial airport: commercial services, tourist services, meeting and incentive services, logistic services and consulting services.

Depending on the source of airport business, traffic-related activities and commercial activities can be determined. Generally, airport revenue is grouped into two main categories: aeronautical or aviation and non-aeronautical or commercial revenues (Table1)

As it can be seen, two airport revenue sources can be considered as aviation-related activities on the one hand, and non-aviation-related activities on the other.

Table 1. AIRPORT OPERATING REVENUE SOURCES

Aeronautical	Non-aeronautical
Landing fees	Concessions
Passenger fees	Rents
Aircraft parking fees	Direct sales (shops, catering and other services provided by the airport operator)
Handling fees (if handling is provided by the airport operator)	Car park (if provided by the airport operator)
Other aeronautical fees (air traffic control, lighting, airbridges etc.)	Recharges (for gas, water, electricity etc.)
	Other non-aeronautical revenue (consultancy, visitor and business services etc.)

Source: Graham, A. (2007): *Managing Airports – An international perspective*: Elsevier Ltd., Butterworth-Heinemann, p. 56

In contrast, Wells and Young (2003)<sup>44</sup> present quite a similar and rather detailed classification. As they noted, airport operating revenues can be divided into five major groupings:

- Airfield area (landing fees, aircraft parking charges, fuel flowage fees etc.);
- Terminal area concessions (food and beverage concessions, travel services and facilities, specialty stores and shops, personal services, amusement, display advertising, outside terminal concessions-auto parking, hotels, motels etc.);
- Airline leased areas (ground equipment rentals, cargo terminals, office rentals, ticket counters, hangars, operations and maintenance facilities);
- Other leased areas (freight forwarders, fixed-base operators, governmental units and businesses in the airport industrial area);

<sup>43</sup> Jarach, D. (2001): "The evolution of airport management practices: towards a multi-point, multi-service, marketing driven firm", *Journal of Air Transport Management*, 7 (2), p. 123

<sup>44</sup> Wells, Alexander T. and Young Seth B. (2003): *Airport Planning & Management*, New York: The McGraw Hill Companies, 5th ed., p. 315

- Other operating revenue (distribution systems for public utilities-electricity and steam contract performed for tenants).

As Doganis (1992)<sup>45</sup> notes, the greatest uncertainty and confusion arises in relation to the revenue from the handling of aircraft or of passengers, baggage or freight. At most airports such services are provided by airlines or handling agents. In the case of handling agents a concession fee may be charged by the airport and revenues arising would appear as non-aeronautical. In the case of car park, Aldridge et al. (2006)<sup>46</sup> state that in the airport sector, directly charging employees for parking has very rarely been introduced as a strategy to manage the demand for car parking while in the non-airport sector, employee car parking charges are a little more common.

Freathy and O'Connell (1999)<sup>47</sup> maintain that funding imperatives have led to a cycle of market consolidation with commercial revenues now representing the single largest source of revenue for the majority of European retailers (Figure 1).

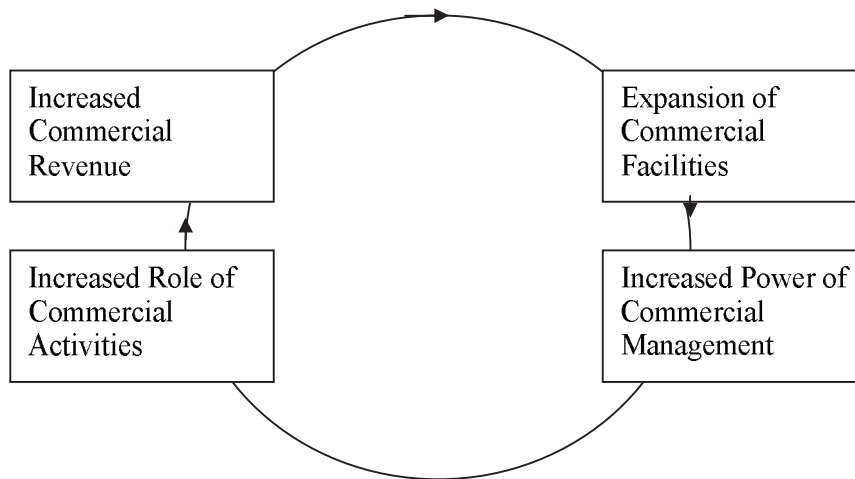


Figure 1. THE COMMERCIAL CIRCLE

Source: Freathy, P. and O'Connell, F. (1999): "Planning for Profit: the Commercialization of European Airports", *Long Range Planning*, 32 (6), p. 589

The increased emphasis on non-aviation-related revenue generation has resulted in commercial interest being represented as central for many airport authorities. Torres et al. (2005)<sup>48</sup> argue that the

<sup>45</sup> Doganis, R. (1992): *The Airport Business*, London and New York: Routledge, p. 53

<sup>46</sup> Aldridge, K. et al. (2006): "Car parking management at airports: A special case?", *Transport Policy*, 13 (6), p. 513

<sup>47</sup> Freathy, P. and O'Connell, F. (1999): "Planning for Profit: the Commercialization of European Airports", *Long Range Planning*, 32 (6), p. 589

role of airport managers is now often seen as that of running business with a focus on a better commercial orientation of the airport's operations and of their facilities. Horbert (2007)<sup>49</sup> maintains that the intensifying cost pressure passed on to airports by airlines generally results in the development of new sources of revenues and that this is an issue that affects all airports, indiscriminate of whether they predominantly operate low-cost flights or not.

Consequently, it is an important issue for airport managers to understand the changing nature of airport-airline relationship, dynamic aviation environment and to bear in mind the features of an individual airport. This is crucial in assessing the benefits from both aeronautical and commercial activities before negotiating with airlines or offering them any incentives. In this regard, the degree of potential risk should also be anticipated.

### 3. AIRPORT COMMERCIAL REVENUES

Over the last two decades, the trend has been for commercial revenues to grow at a faster pace than aeronautical revenues.<sup>50</sup> Generally, commercial revenue share now constitutes around half of all operating revenues, on average, although some differences can be observed. It should be also mentioned that significant contrasts between single airports can be found. Table 2 indicates clear regional variations in regard to the commercial revenue share.

Table 2. AIRPORT COMMERCIAL REVENUES BY WORLD REGION

Region	Commercial revenues (\$billion)	Commercial as % total revenues	Commercial revenues per passenger (\$)
Africa/Middle East	1.80	52.9	8.00
Asia/Pacific	6.92	45.7	7.06
Europe	16.61	48.1	12.15
Latin America/Caribbean	0.85	29.0	3.13
North America	9.05	52.6	5.92
Total	35.23	48.1	8.06

Source: Airport Council International, 2007 (cited Graham, 2009, p. 107)

In terms of commercial revenue per passenger, Europe generated the largest amount of revenues of \$12 (Table 2). Graham (2009)<sup>51</sup> argues that much of this is related to the large international traffic volumes within Europe and the relatively high income per capita, as well as the fact that many

<sup>48</sup> Torres, E. et al. (2005): "Passenger waiting time in an airport and expenditure carried out in the commercial area", *Journal of Air Transport Management*, 11 (6), p. 363

<sup>49</sup> Horbert, M. (2007): "Airports in the Process of Change – A Contemporary Business Model in a Low Cost Age", in S. Groß and A. Schröder, Eds.: *Handbook of Low Cost Airlines – Strategies, Business Processes and Market Environment*, Erich Schmidt Verlag, Berlin, p. 245

<sup>50</sup> Marvel, M. (2006): "Europe's Airports", *Travel & Tourism Analyst*, No.2, p. 33

<sup>51</sup> Graham, A. (2009): "How important are commercial revenues to today's airports?", *Journal of Air Transport Management*, 15 (3), p. 107

European airports are run on a very commercial basis. Within each global region and each country, commercial revenues will vary according to a multitude of factors including the volume and nature of passengers and other customers, consumer dwell time and stress levels, contractual agreements with commercial concessionaires and space/location considerations.

Main revenues sources are from retail, car parking, car rental, property and advertising. However, as can be observed, in North America the share of revenues from car parking and car rental are more important than retail. In other world regions retail is the most important non-aeronautical revenue source (Figure 2).

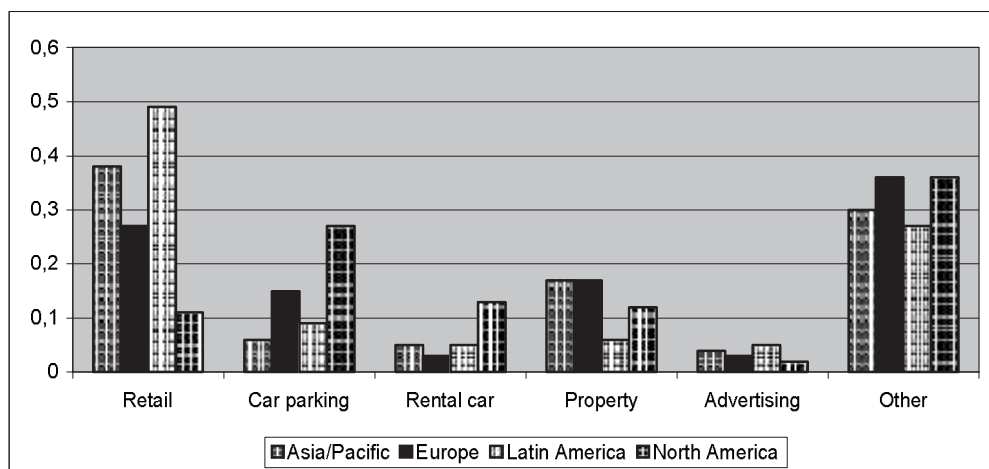


Figure 2. COMMERCIAL REVENUES BY SOURCE

Source: Airport Council International, 2008 (cited Halstead, 2009, p.18)

Another major feature is the position of an individual airport since its value is essentially derived from location. Morrison (2009)<sup>52</sup> argues that the attractiveness and impact of non-aeronautical activities at commercial airports varies naturally according to the business opportunities defined by land, location and assets. According to him, the development of non-aeronautical business can have different impacts on aeronautical prices and infrastructure investment depending on the governance structure of the airport.

As far as ownership forms are concerned, Adler et al. (2009)<sup>53</sup> conclude that, on average, airports with private majority ownership derive much higher proportion of total revenue from non-aviation

<sup>52</sup> Morrison, W.G. (2009): "Real estate, factory outlets and bricks: A note on non-aeronautical activities at commercial airports", *Journal of Air Transport Management*, 15 (3), p. 114

<sup>53</sup> Adler, N. et al. (2009): "Airport Performance Benchmarking", in: Presentation given at the 12th Hamburg Aviation Conference: "Change Course: New Challenges for Financial Viability and Economic Sustainability in Aviation", Hamburg, Germany, 11 – 13 February, 2009, p. 33

services than any other category of airports, while offering significantly lower aeronautical charges than airports in other ownership categories.

With respect to commercial revenues and future market trends Forbes (2008)<sup>54</sup> indicates that continued market segmentation will polarise the retail, product as well as food and beverage mix. In that context, the main international brands will predominate at the main airport hubs and the introduction of low-cost carriers terminals may focus towards fast service (e.g. 'Grab and Fly').

Figure 3 shows the structure of commercial revenue by source at world airports in 2006.

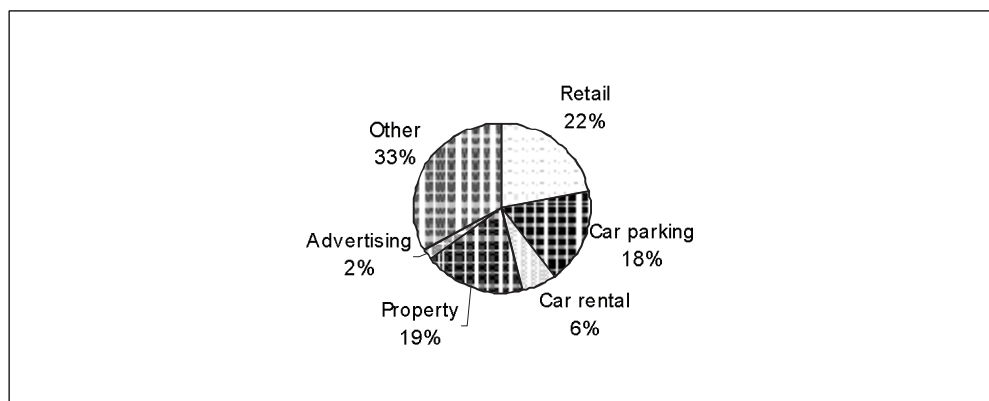


Figure 3. COMMERCIAL REVENUE BY SOURCE AT WORLD AIRPORTS 2006

Source: Airport Council International, 2007 (cited Graham, 2009, p. 108)

Retail revenue represents the greatest single source of commercial revenues and it mainly includes shops and food and beverage stores. With regard to this, the dominant form of commercial agreement is concession arrangement. As Zhang and Zhang (1999)<sup>55</sup> note, in practice, many airports use concession revenues to cross-subsidize aeronautical operations. Furthermore, concession revenues have grown faster than aeronautical revenues<sup>56</sup>. The common explanation for this phenomenon is that airports appear to face a constraint on aeronautical charges either because of airline opposition to the increase in aeronautical charges or because their own governments hold back or limit such an increase. As far as retail revenues are concerned, according to Appold and Kasarda (2006)<sup>57</sup> the

<sup>54</sup>Forbes, P. (2008): "Airport Commercial Revenues – Current Trends and Future Prospects", in: Presentation given at the 11th Hamburg Aviation Conference: "The Future of Airport Non-Aeronautical Revenues: Balancing Aviation and Commercial Interests", Hamburg, Germany, 13 – 15 February, 2008, p. 15

<sup>55</sup> Zhang, A. and Zhang, Y. (1997): "Concession revenue and optimal airport pricing", *Transportation Research Part E: Logistics and Transportation Review*, 33 (4), p. 287

<sup>56</sup> Zhang, A. and Zhang, Y. (2003): "Airport charges and capacity expansion: effects of concessions and privatization", *Journal of Urban Economics*, 53 (1), p. 55

<sup>57</sup> Appold, S.J. and Kasarda, J.D. (2006): "The appropriate scale of US airport retail activities", *Journal of Air Transport Management*, 12 (6), p. 286

financial potential of airport retail is sharply limited by passenger demography with the number of passengers having the largest single effect.

It is reasonable to conclude that the overall revenue constitution of individual airports may contrast with the average structure, primarily as a consequence of the diverse factors influencing on their revenue-generating opportunities.

#### 4. REVENUE STRUCTURE: THE CASE OF DUBROVNIK AIRPORT

The following illustration is based on the data obtained from the financial adviser of Dubrovnik airport via an interview that was undertaken in June 2009. Given the importance of overall airport revenues, the succeeding example focuses on both aviation-related and commercial activities.

Dubrovnik airport is located at a distance of approximately 20 kilometres from Dubrovnik city centre. In terms of total passenger volume, with 1,191.474<sup>58</sup> passengers it ranked third amongst the seven international airports in Croatia in 2008. Dubrovnik is a secondary airport and together with Zagreb and Split airports amounts to approximately 85 per cent of the total passenger traffic in Croatia. As well as other Croatian airports, Dubrovnik airport is 55 per cent owned by the state, with the remaining 45 per cent divided between different levels of local authority.

According to data supplied by the financial adviser, around 65 per cent of revenues at Dubrovnik airport come from aeronautical charges with a corresponding 35 per cent approximately coming from other non-aeronautical sources. This is consistent with a study<sup>59</sup> of 31 European airports which found that for airports of less than 4 million annual passengers commercial revenues represented 35 per cent of all revenues.

A more detailed breakdown of aeronautical revenues in 2008 is shown in Figure 4.

It can be well noted that aircraft-related fees and passenger-related charges were each producing quite a similar share of the total aeronautical revenues. The issue of handling fees is rather interesting. Generally, the airport operator may charge ground handling fees on condition that it chooses to provide these services itself. Therefore, these fees are not always income to airport operators. As the figure illustrates, in the case of Dubrovnik airport, airport authorities themselves provide all ground handling services generating 27 per cent of their aeronautical revenues in this way.

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<sup>58</sup> <http://www.airport-dubrovnik.hr> [Accessed 10 August 2009]

<sup>59</sup> Vogel, H. and Graham, A. (2006): "A comparison of alternative airport performance measurement techniques: a European case study", *Journal of Airport Management*, 1 (1), p. 72



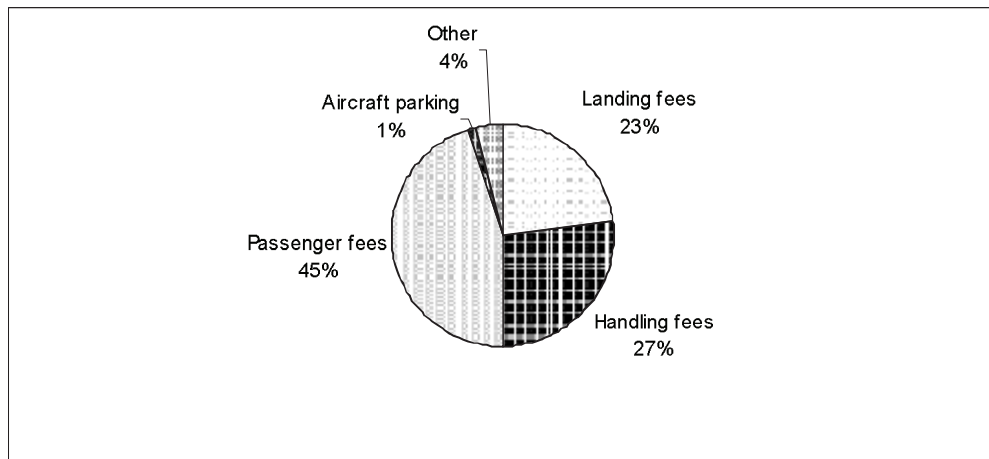


Figure 4. AERONAUTICAL REVENUE BY SOURCE AT DUBROVNIK AIRPORT 2008

Source: Data gathered via interview

Figure 5 shows the breakdown of commercial revenue sources in 2008. Among non-aeronautical sources, retail generates the largest share of revenues, around 63 per cent. This is followed by the revenues from rentals and leases while revenues from advertising and car parking are fairly spread.

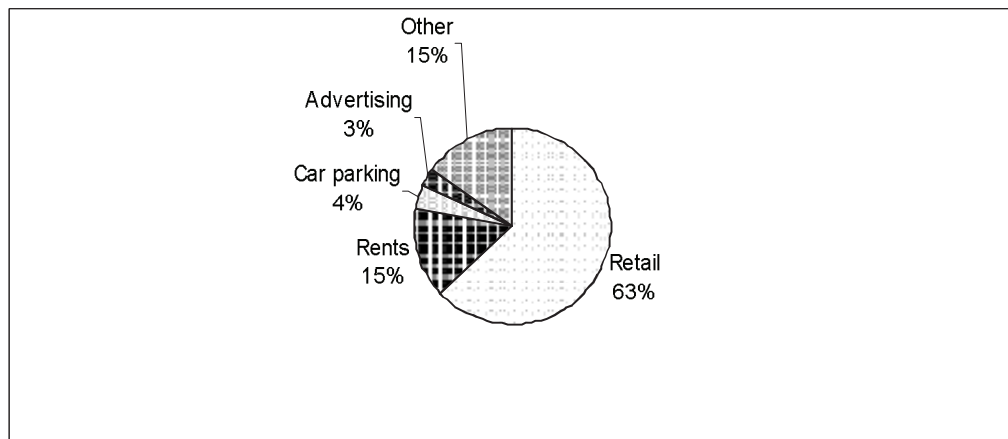


Figure 5. COMMERCIAL REVENUE BY SOURCE AT DUBROVNIK AIRPORT 2008

Source: Data gathered via interview

The revenue generated from car parking facilities is not a very important source of income for the airport. As it was expected, airport authorities offer free parking to employees. On the other hand, employee parking could represent a potential opportunity cost as it might generate additional revenue.

The majority of airports have some form of concession arrangement and this practice represents one of the most broadly adopted kinds of commercial contract. According to the financial adviser, the contract period is generally known to be 3-10 years for food and beverage stores, and 5 years for retail and convenience stores. He also indicated some details of the contract period, i.e., 1 year for parking contract, for rent-a-car and travel agencies, and 3-5 years for office lease, food and beverage and retail. It is interesting to mention that, in the case of Dubrovnik airport, duty free shop is run by the airport company.

In order to develop significant competitive advantage the airport authorities have entered into collaboration with retail specialist, e.g. food and beverage specialist. Developing mutually beneficial agreements based upon retailer's knowledge and expertise and airport's space and capital both parties seek additional ways to expand their commercial interests and improve the attractiveness for customers.

In addition to this, by segmenting their customer base airport authorities attempt to identify each group of potential customer in order to understand and meet their particular needs and requirements. Although their motivations may be quite different, their revenue-generating potential is indisputable.

On the one hand, commercial revenue structure of Dubrovnik airport seems significantly different from the average structure at world airports. On the other hand, its commercial revenue share is similar to the commercial revenue shares in European airports of the same size. Thus, it is accurate to underline the relationship between airport size and revenue generation. Consequently, it is reasonable to expect that smaller sized airports tend to be mainly dependent on aeronautical revenues and have less commercial opportunities. However, as traffic grows non-aeronautical revenues increase providing a growing portion of total revenues.

## 5. RECOMMENDATIONS

Given the fact that retailing represents an activity that offers notable growth opportunities and is one of the most profitable non-aeronautical sources more emphasis needs to be given to the issue. In this sense, it should be emphasized that improvements in commercial performance are required. On the one hand, it means more space in terminals devoted to commercial activities, e.g. more specialist shops, including the retail mix, international brands, regional products, souvenirs, basic items such as newspapers, books and soft drinks and greater variety of services. In other words, it suggests expansion in the range and type of retail activities on offer. On the other hand, airports have to focus on planning of their facilities correctly in order to benefit from airport retailing particularly when considering projects for terminal expansion or new terminals.

Furthermore, airports should get closer to retail operations avoiding direct competition with other market players. All the parties involved have the common goal to increase their commercial activities. One strategy to improve these relations is developing common operations in form of joint ventures and partnerships. These agreements provide a number of advantages for both parties involved. As the case study demonstrated, a specialist retailer provides knowledge, skills and experience and the airport operator provides facilities and capital. In this way, airport operator may access a new field of business with an experienced partner both aiming at expanding their commercial activities. This

clearly requires serious involvement of both parties and results in reducing competition between each other and improving their commercial activities.

It is important to consider the issue of abolition of purchasing duty- and tax-free products when travelling within the EU which occurred on 30 June 1999. This had the strong influence upon the commercial activities of European airports and consequently resulted in decreasing share of non-aeronautical revenues. Given the fact that Croatia is not in the EU, duty- and tax-free sales can still be made. However, Croatia is expected to join the European Union in following years and its accession to the EU will raise questions regarding the issue. A lot of attention should be primarily focused upon preparing strategies for the forthcoming changes. In that regard, airport authorities need to seek and develop other commercial opportunities and to diversify into new activities.

As the example of Dubrovnik airport illustrated, in order to become more customer oriented, airport authorities have to determine the profile of their customers. The task of the airport authority is to provide a wide range of specialist and service-related shops based upon the size and structure of its customer base. Consequently, the detailed segmentation of customer base is required. In this context, demographic and travel-related information are important, but the particular emphasis in future research should be placed upon psychographic and consuming behaviour. This information should include shopping behaviour, purpose of travel, spending characteristics, attitudes, relation with brands... In this sense, the airport authorities should seek to develop a more customer oriented approach by trying to match their commercial offer more closely to consumer needs and preferences. In addition, customer segmentation allows the retailer to focus resources and target more correctly the specific needs and requirements of the consumer.

However, it should be borne in mind that the structure of airport operating revenues is not the only segment worth exploring. Relating to this issues, further research should include analysis and comparison of airport costs with particular attention to the distribution of costs. Airport authorities need to have a clear understanding of both cost and revenues structure in order to face challenges in a highly competitive worldwide airport business.

## 6. CONCLUSIONS

Revenues emerging from commercial activities have come to rival those generated by the core business of air transport. The growing importance of non-aeronautical airport business is highlighted. As a result, non-aviation related activities have therefore come to play a key role in reducing the reliance of airports on state funding and aeronautical revenues.

The revenue structure of individual airports may vary substantially from the average revenue structure. It is mainly a consequence of the diverse factors affecting either their aviation or commercial revenue-generating potential. Subsequently, it is an important issue for airport managers to understand the changing nature of airport-airline relationship, dynamic and evolving aviation environment and to bear in mind the features of an individual airport.

The illustration of Dubrovnik airport was presented demonstrating evident differences from the average structure at world airports. As the example showed, the airport is significantly dependent on revenue from aeronautical related activities, but in examining the structure of commercial revenues within the airport, retail revenues compose the largest commercial source. In the case of Dubrovnik airport there is a clear connection between the airport size and the revenue generation. The prevailing reliance on aeronautical revenues is pointed out. With regard to retail activities, concessionaire based

retailing represents the dominant form of retail operation within the airport. It should be also noted that the airport operator in Dubrovnik is actively involved in providing ground handling services, unlike many other airports, and this modifies the evident share of revenues from commercial sources.

Experience gained from the case study raises some proposals for future improvement of commercial activities. Current trends in airport retail development place more emphasis on commercial revenue generation and on maximising non-aeronautical revenues. More emphasis needs to be given to space for commercial activities in terminals and improvements in commercial performance. Airports have differing passenger profiles followed by changing patterns of consumer behaviour. Therefore, this requires the detailed segmentation of customer base. Market segmentation of passengers allows the airport authorities to identify key consumer groups and analyse their needs and preferences. Consequently, consumer profiling brings together airport's commercial offer and consumer needs. It is of utmost importance that the commercial offer continues to be relevant to the evolving passenger profile. In that context, retail diversification is one of the key strategies for maximising commercial revenues. With regard to the form of common operations, more joint ventures between operators and airports are likely to emerge and grow in importance.

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