THE CAPSULE HOTEL AS AN INNOVATIVE FINANCIAL MANAGEMENT SYSTEM IN THE AIRPORTS: THE NEAPOLITAN CASE OF “BENBO”

Viviana D’Aponte*

Abstract
The paper analyzes an innovative investment organizational model to be realized in the airport space, branded “capsule hotel”, whose mkt model directly recalls the logic of “b & b”. Objective of the reasoning is to show how, given the spread that such a model is having a global and European level, the recent implementation project of this service within the Naples airport, international airport, but medium-range could boost the attractiveness of the same and their attributes nodality. What emerges from the survey conducted, is that the city of Naples, making it a leader in the national project of such a scale, it would receive a major impact in terms of visibility and consequent increase of the tourist flow and a strong impetus to the overall development of tourism in the South.

Keywords: hub, nodality, capsule hotel.

1. Introduction - Financial geography, air transport and tourism
The study of medium-long term behavior of transport and tourism demand produces an interaction between flows whose territorial projections assume great importance for the financial implications. The relative geographical market basins, in fact, are areas in which there is a polarization on the territory of financial resources. The demand and supply of investments, in support of development of the various economic activities, revolve around these sectors. As been explained, the geographical research, trying to interpret the territorial forms of the markets and the financial services industry, investigating the complex relationship between global and local dimensions between processes of selective agglomeration of functions in metropolitan areas and diffused localization dynamics of activities and services (Lucia, 1999, p 15), performs an important function for the interpretation of all those organizational and productive phenomena, distributed throughout the territory which, due to their economic relevance, constitute an opportunity for financial activity. The consideration from which we start is that, despite the crisis that involved the main contemporary economies between 2007 and 2008, the transport sector, above all the air sector, and the demand for tourism, seem to have suffered somewhat from the repercussions of

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the negative conjuncture which, on the contrary, appears to be still laboriously contained in various spheres of the real economy (Federturismo, 2016). The confirmation that the contribution of travel demand, linked to tourism, represents a significant component for supporting the demand for air transport comes from the consideration that according to the UNWTO report, during the last ten years, tourist arrivals have grown with an average rate of around 4.5% and which will continue to increase, although at a slower pace, exceeding, at a global level, the threshold of over one billion travelers\(^1\). On the other hand, the airport sector has also experienced steady and continuous growth (SRM, 2008), even if, in the years of the global crisis, there was an evident contraction of total flows; however, all the forecasts coincide in assessing the growth of the sector around interest rates ranging between 4 and 5% per annum\(^2\).

From a strictly economic-business point of view, the forecast of significant increases in the demand for mobility poses many problems for the airport structure, whose adaptation needs involve numerous categories of technical interventions, aimed both at the aircraft handling sector and at to the receptivity and quality of services offered to users, including the aspect of security. These factors contribute to define a set of territorial systems that in the geographical reality express different and specific financial opportunities strictly linked to the public and private investments necessary for the adaptation of the infrastructural system.

2. Investments in the airport sector in Italy

While for airlines there are numerous risk factors to which carriers react with continuous modifications of their own set-ups, for the airport structure the increase in traffic involves substantial financial investments which directly affect the balance of the local management bodies. In Italy, with the recent DPR 201 of 2015, the Regulation adopted determines the infrastructural priorities of the air transport sector through ten homogeneous traffic basins, in which airports of national interest operate, among which thirteen are identified as strategic airports, while three national hubs perform intercontinental gate functions (Fiumicino, Malpensa, Venice). The use of resources that the active 2016-2019 four-year Plan is decidedly significant, amounting to just under €1.3 billion, of which over 2/3 are directly borne by local management (David, 2012).

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\(^1\) According to the data collected by the UNWTO (2018 Report), the greatest increases occurred in Asia, the Pacific and Africa (with values ranging from 4% to 6%) followed by the Americas and Europe (from +2% to +4%). Moreover, the Middle East has started to recover part of the losses recorded in 2011 (from 0% to +5%). See SEA, Annual Report.

\(^2\) The International Civil Aviation Organization (ICAO) forecasts a 4.7% annual growth between 2010 and 2030, the Airbus Industry 4.8% between 2010 and 2029 and Boeing estimates a doubling by 2030 of the global passenger traffic. An in-depth analysis of current trends in the global airline sector is carried out by the Word Aviation Yearbook, published annually by the Center for Aviation (CAPA).
As shown by the data, the airport sector, unlike other infrastructures, presents an extraordinary feature in terms of financial economy. In fact, in implementing the Development Plan, the necessary resources derive, to a large extent, from the same budget as the Management, while the State participates in it for less than a third. This explains how the development of airport network development leads to significant market space for financial activity (Forte, Sabatella, 2013).
<table>
<thead>
<tr>
<th>Traffic basin</th>
<th>Passenger 2015 (millions of)</th>
<th>Total investment by local management</th>
<th>Public financing</th>
<th>Total Amount (mil. €.)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Northen Region</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West Nord</td>
<td>(Milano Malpensa-Bergamo-Brescia-Cuneo-Milano Linate-Genova-Torino)</td>
<td>43 (Prev. 2030=68)</td>
<td>782.08</td>
<td>782.08</td>
</tr>
<tr>
<td>Est Nord</td>
<td>(Venezia-Treviso-Trieste-Verona)</td>
<td>14,3 (Prev. 2030=24)</td>
<td>634.8</td>
<td>648.6</td>
</tr>
<tr>
<td><strong>Central Region</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nordcenter</td>
<td>(Bologna-Firenze-Pisa-Parma-Ancona)</td>
<td>15 (Prev. 2030=22)</td>
<td>207.6</td>
<td>86.9</td>
</tr>
<tr>
<td>Center</td>
<td>(Roma Fiumicino-Ciampino-Perugia-Pescara)</td>
<td>42 (Prev. 2030=71)</td>
<td>1807.3</td>
<td>8.6</td>
</tr>
<tr>
<td><strong>South Region</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campania</td>
<td>(Napoli-Salerno)</td>
<td>6.1 (Prev. 2030=12)</td>
<td>44.3</td>
<td>0</td>
</tr>
<tr>
<td>Mediterranean</td>
<td>Adriatic (Bari-Brindisi-Taranto)</td>
<td>6.2 (Prev. 2030=9)</td>
<td>19.8</td>
<td>89.0</td>
</tr>
<tr>
<td>Calabria</td>
<td>(Lamezia Terme-Crotone-Reggio Cal.)</td>
<td>3 (Prev. 2030=5)</td>
<td>31.5</td>
<td>32.47</td>
</tr>
<tr>
<td><strong>Islands</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Est Sicily</td>
<td>(Catania-Comiso)</td>
<td>7.4 (Prev. 2030=14)</td>
<td>215.4</td>
<td>0</td>
</tr>
<tr>
<td>West Sicily</td>
<td>(Palermo-Trapani-Lampedusa-Pantelleria)</td>
<td>6.8 (Prev. 2030=13)</td>
<td>61.2</td>
<td>13</td>
</tr>
<tr>
<td>Sardegna</td>
<td>(Cagliari-Olbia-Alghero)</td>
<td>7.6 (Prev. 2030=12)</td>
<td>59.1</td>
<td>99.8</td>
</tr>
</tbody>
</table>

*Table 2: Territorial polarization of airport investments 2015-19.*


However, the most worrying aspect is the great difficulty of expenditure, as evidenced by the fact that in 2016, the initial year of programming, less than a third of the resources is actually reported. But, in any case, it is important that the investments distributed in the various regional areas of the ten “traffic basins” feed a large financial market.
3. Investments in Campania's airports

In the context of Continental Southern airport traffic, the position of Capodichino airport is relevant for at least two reasons. The first is represented by the fact that passengers represent 60% of the flow that involves the three southern regions with an airport (Campania, Puglia, Calabria). The second reason depends on the high rate of growth of the routes that the Naples airport has progressively added to its offer. Furthermore, for a second-tier airport operating in a region, the Mezzogiorno, still struggling to achieve stable endogenous economic growth, the forecast, in a fifteen-year period, of doubling traffic is a factor of attractiveness for financial activities.

<table>
<thead>
<tr>
<th>Year</th>
<th>Flow</th>
<th>%</th>
<th>Passenger</th>
<th>%</th>
<th>Cargo (tons)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>58.002</td>
<td>-3.3</td>
<td>4.588.695</td>
<td>-0.9</td>
<td>7.608</td>
<td>-0.1</td>
</tr>
<tr>
<td>2007</td>
<td>72.330</td>
<td>17.2</td>
<td>5.775.838</td>
<td>13.3</td>
<td>7.863</td>
<td>-5.9</td>
</tr>
<tr>
<td>2009</td>
<td>64.032</td>
<td>-6.6</td>
<td>5.322.161</td>
<td>-5.7</td>
<td>5.655</td>
<td>-2.5</td>
</tr>
<tr>
<td>2011</td>
<td>62.878</td>
<td>-1.1</td>
<td>5.768.873</td>
<td>3.3</td>
<td>4.948</td>
<td>-7.1</td>
</tr>
<tr>
<td>2013</td>
<td>55.940</td>
<td>-8.5</td>
<td>5.444.422</td>
<td>-6.2</td>
<td>7.515</td>
<td>42.3</td>
</tr>
<tr>
<td>2014</td>
<td>58.681</td>
<td>4.9</td>
<td>5.960.035</td>
<td>9.5</td>
<td>9.950</td>
<td>32.4</td>
</tr>
<tr>
<td>2015</td>
<td>60.261</td>
<td>1.4</td>
<td>6.163.188</td>
<td>3.4</td>
<td>10.727</td>
<td>7.8</td>
</tr>
<tr>
<td>2016</td>
<td>63.935</td>
<td>6.1</td>
<td>6.775.988</td>
<td>9.9</td>
<td>10.724</td>
<td>0</td>
</tr>
<tr>
<td>2017</td>
<td>75.013</td>
<td>17.3</td>
<td>8.577.507</td>
<td>26.6</td>
<td>11.068</td>
<td>3.2</td>
</tr>
<tr>
<td>2018</td>
<td>79.722</td>
<td>6.3</td>
<td>9.932.029</td>
<td>15.8</td>
<td>11.691</td>
<td>5.6</td>
</tr>
</tbody>
</table>

*Table 3: trend of “Capodichino” flow 2000-2019.

Compared to the traffic to the extension of the users and to the wide choice of directly connected destinations, for many reasons, the same configuration of second level airport appears rather limitative. The lack of a modern and fast infrastructure network on iron in the south of Salerno, ends up increasing the hinterland of Capodichino airport, to an extent that allows it to intercept the demand for extra regional transport towards Basilicata, part of Puglia and Calabria, in particular with regard to the European destinations which, with the new routes of imminent extension, will determine, for the Neapolitan port of call, a further increase in traffic (D’Elia, Festa, Marasco, 2001).
Figure 1: The airport destinations directed from Naples-Capodichino.

Besides, European airspace, while characterized by travel times between individual destinations within a time frame that rarely exceeds three hours, for traffic reasons, widely uses handling schedules in the very first hours of the day and, to optimize the filling of passenger seats, uses connections that provide for intermediate stops, with consequent lengthening of travel times and transit intervals of up to several hours. The result is a structure of the relationships between second-level airports that, in order to have the advantage of reducing the price of transport, make sure that the user adapts to various binding conditions, in terms of access to the terminal at inconvenient times, or, long waits inside the airport for route segmentation needs (Lupi, 2007). From the point of view of receptivity, the same airport facilities of the main airports have, for some time, performed an important function to satisfy both the need for intermediate parking, along a route consisting of more than one airport, or, in other cases, providing a support base for business activities. However, the reference business model placing itself fully in the hotel category, mostly within international groups, often within the same corporate aviation supply chain, in order to remain competitive it must have a wide application, a fast turnover arrivals and departures, or respond to promotional needs related to the policy followed by the airlines.

4. A new receptive model: the “capsule hotel”

As the need for contemporary cost reduction, both for the company that places the service on the market in a competitive perspective, and for the users that use that
service, a trend that produces an organizational model is emerging very recently (Chiang, 2018) of extreme interest for the aspects of innovation that it expresses, both financially and in terms of integration and expansion of the geographical background in which the intermediate level airports operate. On the one side, the economic difficulties that characterize the management of airports served by a few lines and on which limited routes converge, sees the hypothesis of a multiplication of the regional terminals completely disappear; on the other hand, the integration between different modes of transport, particularly on iron, allows for a greater concentration of flows within traffic basins that widely extend beyond regional boundaries, as determined in the current situation of the passenger flow handled from Naples Capodichino airport (D’Elia, Festa, Marasco, 2001). However, precisely because of security needs, which involve the extension of the times of advance at the airport with respect to the actual departure, as well as due to the distance from the places of residence of potential travellers, even a few hundred kilometres from the airport, in many cases it is necessary to have accommodation in the city at the start, or, on arrival, in the case of advanced evening landing hours.

Due to this market structure, the news is represented by an entrepreneurial project aimed at creating minimal structures, the “capsule hotels”, to be built in the same airport space. The construction of an accommodation facility within the airport space, represent a reception method aimed at satisfying, more than anything else, the demand for customers in transit, often attributable to the “business” segment, against which the determining factor is the maximum reduction in the cost of the service, without, however, sacrificing the attributes of comfort and absolute practicality of the same (Marèe, 2011).

The capsule hotel, to which airport receptivity refers, was born in Japan, in Osaka in 1979, but for a long time it remains a local experiment, strictly confined to Japanese practice and experience. Until 2012, year in which always in the East, but this time in Xi’an, in the very dynamic China (Huang, Sun, 2014), a first change in that receptive model takes shape, through the creation of minifunctional structures, designed to satisfy a rapidly growing demand in a place of great tourist interest. The capsule hotel formula has had an initial application in Europe just in 2014, in Belgium (Stupariu, 2017), from where it subsequently developed in Italy through two new contemporary realizations: the Bergamo experiment of Orio al Serio called “ZZZleeepandgo”, and the BEnBO project implemented in the Neapolitan reality and operational since the second half of January 2017. However, there is a clear difference between the Asian origin of the minimal receptive model of the capsule hotel and its revival in western reality. In fact, in Japan, the structure was created as an addition to the accommodation offer of the large urbanized areas, to perform short functions permanence and cost reduction.

On the contrary, in the experience that begins to assert itself on the European market this formula of accommodation offer is aimed at a mainly interested user to a short stop, even for a few hours, whose origin and motivation arise from functions linked to reasons of a transport nature, rather than the need to stay in a particular place. On a structural and dimensional level, the Asian and the European experiences are similar in purely technical terms and in the application of the related functional model. The constructive module, therefore, to a large extent, remains the simple and minimal one of the first original copies made in Japan, while their location, in the European reality and especially in the Italian case, which also inspires itself, is connected to the
geography of airport development. In other words, the entrepreneurship idea takes the form of a subsequent financial investment through an assessment of the attractive potential that the airport function expresses.

5. The Neapolitan case of the “Benbo” Srl

Given the explicitly expansive trend of passenger traffic handled by Capodichino airport and the forecasts in the expansion of destinations served by more than one low-cost airline, the attention to the business opportunities that the Neapolitan airport allowed us to think, could only be translated into concrete business initiatives. Also because, in the very last few years, the implementation of the four-year investment plan approved by ENAV for the Capodichino airport, recorded an appreciable progress in activities, with a significant 99% of the liquidation rate of resources made available for the 2015-2016 year. The innovative project that has involved the Neapolitan airport called, in an evocative way “Bed n Boarding”, led to the creation of a common area, equipped with all services, of 52 living units of the size of just 4 square meters, and an additional 4 modules, of the size of approx 5.40 sq. M., intended for the use of disabled people.

The structure is designed to work full-time (7 days a week and 24 hours a day), through a highly automated system for carrying out all the reception operations, from arrival to departure. An absolutely significant feature of the project is represented by the location of the structure that creates one virtuous form of reuse of abandoned areas from previous functions. The space in which they were made the “Bed n Boarding” modules, in fact, is the one where, previously, the company canteen of ex ATI employees had been built, for years demobilized, conceived in the first half of the Sixties, for accompanying and encouraging the development of national traffic. On a functional level, the project is based on the realization of real autonomous housing units equipped with the necessary comforts to satisfy the needs of relaxation, rest and privacy, capable to allow travellers to optimize waiting times and cancel travel stress. At the same time, the receptive structure represents a reality of undoubted interest for the same airport operator since, with the services made available to the users in transit, it allows a wider planning of departures, exploiting timetables also in the first morning band and allowing the conjunction between multiple routes (Tüzünkan, 2017). The capsule management system, to ensure effective automation of procedures, will be managed by software designed to guide customers through the entire process of reservation and management of use, from the allocation of the unit used, up to the final phase of the release of the structure, with the consequent cleaning at check-out. The methods of use provided are very simple: the customer can book his form, using personal and credit card data, even before arriving at the airport, both through the

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3 On a constructive level, the realization is conceived as a function of maximum flexibility with the use of lightweight materials in order to allow the transportability in complete assembly and to limit installation times to the maximum and allow to vary the capacity receptive, increasing or reducing it, depending on the needs. Each module is configured to ensure comfort and privacy, having: automated door and external walls in panels with thermal and acoustic insulation, window with blinds, standard bed, table work, air conditioning, lighting and power outlets, mirror and clothes hanger, Wi-Fi and iPod docking station and MP3 player, multimedia touch screen that allows access to entertainment functions, flight information, alarm clock.
website Internet of the manager, and with the use of a smartphone application. Moreover, from the architectural point of view, the project shows some aspects of great interest, that in the creation of the structure there is an explicit reference to the local context, as a function of a perspective that is attentive to the needs of differentiation, personalization and experience that characterize the contemporary traveller\(^4\). From a financial point of view, the investment falls within decidedly sustainable limits\(^5\), while the forecast of revenues, due to a rather prudent coverage of the offer (40% of the availability), as early as the first year of operation should cover at least 60% of the initial investment\(^6\).

\(^4\) The capsules are designed to recall the outward appearance of Neapolitan popular houses, and the fund is inspired by the paved in the historic center with the typical Hippodamian layout.
\(^5\) From the Master Plan of the Srl, an investment of around 600,000 euros is forecast.
\(^6\) From the documentation made available by the Srl, the following forecast data are obtained: annual beds available 14,600; rate of coverage of the offer 40%; stations sold 5,840 for the first year. Price per night € 25; hourly rates 8 euros the first hour, 7 euros a starting from the second. Evaluating the revenues of the individual activities, the gross revenue for the first year is expected to be in the amount of € .364,280 i.e. achievement of the fourth year of activity, the collection forecast stands at € 788,000. Deducts the various financial and management costs, beyond the rent of the premises (lease / RoY), it is expected to close the financial statements, net of taxes, starting from the third accounting year (EBITDA with positive profitability for the company).
6. Airport function as a strategic market factor

In the context of financial economy, the development prospects characterized by the presence of innovative factors of the industrial economy, translate into attractive conditions for the concentration of investments. In other words, when an unavoidable passage of scale of the productive structure is affirmed, in a concept based on complete automation of the production process, at the same time, the entrepreneurial model must undergo rapid evolution, to govern the control of the markets through the challenge of global competitiveness. And, precisely in this view, in the broader systemic context, the infrastructural sector constitutes an essential factor to ensure virtuous conditions of accessibility in terms of easy mobility, both for individuals and for the free movement of capital and goods.

And, from this point of view, the infrastructure sector plays a central role in ensuring virtuous conditions of accessibility, representing the true indicator of shared globalization. Although, therefore, within the limits associated with the research presented, which reasons for an extremely innovative project, BEnBO looks like a major project for two reasons: first of all, because this structure amplifies the background of the Naples airport, contributing to the enhancement of the attractiveness
of the demand for transport both for active tourism, and for the business flow, compared to European destinations that the Neapolitan airport allows to reach directly. Secondly, because this innovation occurs in the capital of Campania region which, although limited to European airspace, has an interest in strengthening the transit function with which provides a greater supply of final destinations. With regard to all these extensive methods of movement, the availability of a low-cost form of hospitality represents an appreciable supplementary form of the services made available to users. In conclusion, noting the entrepreneurial success that marks the experiment of the “capsule hotel” carried out in the Naples Capodichino airport the usefulness of the geo-economic analysis in identifying the market choices that accompanied the conclusion of the strategic agreements for the constitution of the business capital from which the investment created by the “BenBo” Srl company emerges to a very affirmative extent. Further, it is possible to affirm the coherence of a typically geo-economic paradigm in relation to which an important market is defined in terms of territorial investment attractiveness, confirming that “the geography of the financial industry continues to be a geography of settlements, activities, privileged functions” (Lucia, 2009 p.36).

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7 Particularly important, for the purpose of the expectation of a high success of the investment, the circumstance assumes that the capital committed to the realization is directly participated by the same private operator, who manages the airport, Gesac spa.
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