

Theses of the PhD thesis

PTE TTK Doctoral School of Earth Sciences

Specificities of Persian Gulf airlines' aviation policies and their impact on global aviation

Emil Kucsera

**University of Pécs
Faculty of Sciences
Institute of Geography and Earth Sciences
H-7624 Pécs, Ifjúság street 6.**

Pécs, 2022.

Supervisor:

Dr. Ferenc Erdősi Scientific Professor Emeritus

Dr. János Csapó Professor

1. Introduction

This paper summarises the results of several years of research.

Its topicality is due to the political and economic vibrancy of the Persian Gulf – in a broader sense the Middle East – over the last century, and the role of aviation in the world economy, its growing global importance and the spectacular transformation of the aviation industry since the turn of the millennium.

Emirates, Etihad and Qatar Airways have been the driving forces and key innovators in this process. These three airlines, which were all founded by the rulers of the United Arab Emirates and Qatar, represents a marked departure from existing operating structures and a significant change in approach. Their performance has had a major impact on the scope of competing European (and American) airlines, shaped the global air transport network and been instrumental in creating a new air transport pole between Europe, Asia and Africa by elevating the hub areas of the airlines.

The highly criticised policies of the US and the European powers have resulted in shattered societies, mutilated countries, an untangled web of people turned against each other, and irreconcilable conflicts in the region. In contrast, the diversification efforts of the two hydrocarbon-exporting blocs have been intended to break their unilateral dependence on developed countries, and their aviation policies have helped to usher in a new era of world aviation over the past 20 years. The economic role assigned to developing countries in this sector has been reversed, making them the dominant players in this era, and has set a sectoral pattern and challenged the conventions of the past.

In the context of our thesis, we have sought to answer the question of how Emirates, Etihad and Qatar Airways fitted (or did not fit) into the regulatory framework of the era defined here; at the turn of the millennium this framework represented the previous system constructed for other participants. To understand this, therefore, it was necessary to examine the competing airlines, the locations of competition and the underlying processes, based on historical documents and data analysis.

So, in order to answer our questions, we needed to know:

- the circumstances of and stages in the development of Emirates, Etihad and Qatar Airways,
- the content and periods of the evolution of the business environment,
- the competitors and their scope and mechanisms of operation,
- the territorial distribution and the rules of competition on the market,
- the performance indicators and the structure of competitive advantage of the airlines studied, and
- a number of related human, material, technical, institutional, organisational, cultural, etc. factors which are a prerequisite for presenting the context of the issue under consideration.

This complexity could not have been achieved without making use of natural, social, economic (marketing), historical/aviation history, legal and political/geopolitical knowledge. The spatial scope of our research was defined at the global, regional, and local levels, while the temporal boundaries – besides the historical retrospective – are primarily the last two decades (2000-2019).

Despite the atypical approach of the study, the chapters have been structured in a way that allows for a good flow of information, and for the different disciplines to be in harmony and form an organic whole. At the same time, it has not always been possible to formulate the

structure of the thesis in a coherent and professionally consistent way. The literature review had to be adapted to this, and in several cases (aviation history, marketing, resilience) it was only detailed in the subsequent reasoning related to the references.

Particular attention has been paid to the competition/cooperation with European (and to a lesser extent American and Asian) carriers for the region with the highest traffic in the coming years.

In conclusion, we consider that the importance of the sector and the airlines studied, which goes well beyond the region given their geographical location and economic potential, is of justified scientific interest.

The influence of Emirates, Etihad and Qatar Airways on European air transport – to which Hungary cannot be indifferent – justifiably implies research activity within our country's borders. And although the frequency of the studies produced does not bear this out, the wide range of international scholarship on the subject (the considerable number of foreign sources) underlines the relevance of research into air transport.

Nevertheless, our thesis offered the opportunity to define a new era of aviation, to present a methodological approach and new previously unused terminology, to compile a large database collected from international sites and to evaluate this database from a new perspective.

2. Objectives

After the turn of the millennium, the unmistakable changes in the organisational, operational and hierarchical structure of air transport led to preconceptions in professional circles.

In the context of this complex of symptoms, and searching for causal links, we felt it appropriate to examine the circumstances and role of the Gulf carriers (as new entrants), their position in the industry hierarchy, the degree of their stability, the main system-shaping events of the period under review, the business policy trends and the distinguishing features compared to the previous era.

In this thesis, we aim to verify the following four thesis-style findings:

1. The first two decades after the millennium marked a new, distinct era in global aviation.

Under this point, the soundness of the system of eras we have established, and in particular the distinctive third '**era of total price and quality competition**' is discussed.

The innovations and developmental, operational and strategic trends that emerged during this period were significantly influenced by the business policies of Emirates, Etihad and Qatar Airways. As a result, the former 3-pole network configuration of air transport was extended to 4 poles. The central hub cities of the Persian Gulf rim were initially transit points, but later increasingly entered the destination map.

2. The 'era of total quality competition' as we define it, was characterised by a more intense competitive battle than ever before, the direction and pace of which was dictated by the Gulf carriers.

In our view, the Gulf carriers have had the most visible impact on global aviation in the first two decades of the millennium. In this section, **the performance of Emirates, Etihad and Qatar Airways** is discussed, which is the main objective stated in the title of the paper. The demonstration of competitive advantage can be traced as follows:

- The development of the Middle East as an aviation hub region (including the main hubs: DXB, HIA, AUH), and it becoming an international player,
- a presentation of the performance parameters of the three airlines studied,

- the global presence of Emirates, Etihad and Qatar Airways in comparison with their main competitors,
- emphasising the role and importance of innovative brand and marketing elements (the most competitive argumentation of the era), supporting the results of our primary research.

3. All of the decisive factors for the economic viability of air transport are present in the Gulf airlines.

The system and operating mechanism that Emirates, Etihad and Qatar Airways have in place cannot be replicated elsewhere. The Gulf airlines will continue to maintain (and even increase) their competitive edge over the stated players, and their dynamic development path and global expansion cannot be limited by traditional methods.

The reasons, conditions and background for this success are discussed in a separate chapter. Here we will identify and **interpret the perceived/actual advantages** that may point to perceived differences in comparison with competitors.

4. The airlines surveyed have reliable and efficient resources and an adaptability based on a conscious learning process, which provides them with a solid basis for dealing with crisis situations.

We try to justify this statement by analysing the blockade of Qatar Airways. The case study shows that a resilience strategy based on effective action plans was able to manage the downturn following the shock, allowing the system to return to a growth path within a critical period. To support our findings, we have chosen a methodological approach not previously used, but we also felt it appropriate to introduce new terminology to describe the process as a whole.

3. Research methods

The aim of this dissertation is to verify the content of our thesis using the most comprehensive database available, and a unique and novel methodological approach. The visualisation of our thesis is supported by 31 tables and 75 figures.

The complexity of the thesis and the elaboration of chapters with significantly different contents required a different methodological approach.

This included the literature review, the use of various statistical and geographic information methods, questionnaire surveys and interviews, and field visits to the study sites. The research results obtained confirmed the validity of the methods and tools used.

Our databases were constructed from secondary and primary sources, were broad and diverse, and were adapted to the needs of the significantly varying sections of the thesis.

We used the following software applications: Word, Excel, Corel Draw X7, Q.gis 3.16, Google Maps, ACDSsee Photo 2000.

For the chapter on the history of aviation, secondary data sources such as aviation conventions of the period, air law, tariff and aviation conferences, several available reference books, emblematic summary publications, statistical data recorded by governments, institutes and organisations, and the remaining map information were used and ranked according to the research criteria.

Historical data on the history of aviation in the Middle East, usable material from airports with websites, historical publications on pre-globalisation air routes, and numerous reference books have helped us to understand the history of aviation in the Middle East.

The regional history of the southern Persian Gulf has been compiled largely from foreign sources, collections, field interviews, historical/topographical maps and satellite images, using a descriptive-analytical method.

In the case of the diplomatic crisis for Qatar, we wanted to see how effectively a resilience strategy could be implemented by one of the airlines we are studying in a highly unpredictable political and economic situation. The theoretical basis and models needed to illustrate this phenomenon were developed and refined based on the literature in the sector. To do this, we had to treat (compare and visualise) different dimensions of significantly different indicators (number of persons, tonnes, USD, etc.) on two independent but related curves, which required the definition of reference points and a common dimension. For the latter, the value of the changes expressed as a percentage was found to be appropriate. The change in the company's performance between 2012 and 2019 was analysed on the basis of annual data linked to the financial year-end and taking into account monthly data from the critical period after the blockade. In both the annual and monthly extensions, the factual data were compared and plotted against probabilities based on previous results. Since the economic power of the company is exercised through the operation of the system, it is our view that the strength (or weakness) of resilience is best revealed by knowing the activity of resources, by including as wide a range of parameters characterising the operation as possible, and by making them measurable and comparable. Accordingly, the following indicators were used for the analysis: Qatar Airways' fleet, destinations, passenger traffic, load factor, ASK, RPK, total revenue, Cargo, Yield; Hamad International Airport: aircraft movements, passenger traffic, revenue. To the best of our knowledge, our applied methodology is the first attempt to interpret the management of the economic and political conflict related to air transport from a resilience perspective.

Although the majority of the database used in the research was derived from secondary sources, the consumer side of the research required the use of primary forms of information gathering. A questionnaire survey was considered appropriate for this purpose. In order to make it approximately representative, we planned to collect a questionnaire of more than 1,000 respondents from European and Persian Gulf cities. Although the lockdown caused by the Covid-19 epidemic interrupted the survey process, we nevertheless obtained a data set of 713 travellers from 59 countries, which we consider to be very good.

The questionnaires were designed taking into account the international context, especially the multilingual environment and the cultural differences of the passengers. Therefore, the questionnaires were designed in six languages, English, German, French, Chinese, Arabic and Hungarian.

A descriptive statistical analysis was carried out based on the objectives of the thesis. This allowed us to present the characteristics of the variables, but also to gain a primary insight into and partly to operate with larger data structures. The demographic and motivational profiles of the surveyed respondents were evaluated separately and analysed in relation to the master data.

The consistency of the data was validated by determining the alpha value of the Cronbach's analysis (taking into account the items of the variables included the alpha value was 0.855.)

The distribution of the resulting data series according to the criteria set up was described using charts, tables, means, standard deviations, etc. The desired queries were displayed in graphical format using Excel's Display Wizard. Cross-tabulations were made to show the relationships considered important.

Transport research is characterised by a strong reliance on empirical data and intensive use of data analysis techniques. In contrast, the greatest difficulty in our research was obtaining traffic and performance data, and information on facilities and technologies.

4. Summary of results

In the course of our research, we were able to confirm the following findings in according with the thesis points:

THESIS-1: *The first two decades after the millennium are a new, distinct era of global aviation*

To structure the history of air transport, although many aspects are possible, we have taken into account the rules and policies of international power centres, the different interests of the actors and the influence of global processes. In our view, this approach has provided a comprehensive, well-defined and easily traceable characterisation of the era.

The turn of the millennium brought about a major change in the operational philosophy of the whole sector in several respects. Consumers have redefined value, i.e. what they want from air travel, which has driven air transport operators towards a focus on quality rather than/alongside price competition.

Our analysis confirmed that the most spectacular achievements and systemic innovations during the period 2000-2020 were delivered by the Gulf carriers, but there are also other characteristics of the era that justify setting this era apart. These include the following (see dissertation for details):

- An essential part of a decade-long process of liberalisation and deregulation in Europe has been completed, opening up a new perspective for European aviation.
- The demand for air transport has grown exponentially and optimism in the industry has reached unprecedented levels.
- The invasion of low-cost carriers and the acceptance of their modus operandi globally have proven the model's viability.
- The ratio between full-service, low-cost and charter carriers has been upset, with the gap opening up ever more spectacularly.
- The Middle Eastern (and, in part, the European) version of the hub & spoke operating model has been completed.
- Alliances and mergers have been launched and completed on an unprecedented scale.
- The role of the Persian Gulf airlines has become indispensable, and they have contributed to shaping the face of global aviation over the past two decades.
- World air transport has expanded from 3 to 4 poles.

THESIS-2: *After the turn of the millennium, the Gulf airlines became the dominant players in global air transport.*

Our analysis found that Emirates, Etihad and Qatar Airways outperformed their competitors across a range of indicators, with faster, more dynamic growth, more effective market mobilisation, more focused diplomatic concepts and a more effective marketing strategy.

In this context, our main findings are the following:

- The airport construction programme, launched as a result of the diversification policy of the South Persian Gulf oil enclaves, has been a key contributor to the success of the Middle East region, which has seen significant progress in specific areas. Statistical data were used to illustrate the rationale behind the development and to highlight the geopolitical context. The airport complex created here has been defined as the Middle East's aviation hub area.

- The structure and operations of the airlines studied were interpreted in terms of their historical embeddedness into the cultural and social environment of the Gulf States, their business policies and their actual performance data. We have highlighted the links between history, diversification pressures, performance, and global positioning.
- We have shown that the presence of the Gulf carriers has had a limited impact on Europe's internal operations, but has significantly disrupted the economic operation of long-haul routes, particularly the strategy for Asia. Between 2002 and 2017, European carriers steadily lost ground in this region to the airlines under investigation.
- The perspectives of Gulf airlines on the transatlantic system have been quantified and assessed in the context of the point of view and professionalism of European and US aviation policy. This shows that US airlines have focused predominantly on satisfying lucrative domestic and regional demand, while ignoring the dynamic, albeit riskier, growth of the long-haul market. Recognising this niche, Gulf airlines have steadily built/are building international routes between the US and Asia. They have added capacity to the system that was previously unavailable or difficult to access. As a result of conscious adaptation, a bridge has been built between East and West.
- In the context of the above, we concluded that the advantages of Dubai, Abu Dhabi and Doha tipped the balance of competition by operating hub airports from the most advantageous locations, offering ideally timed connection times, high flight frequencies and an experiential product offering.
- Building on our primary data collection, we investigated the content of the service palette, anomalies in the interplay between brand identity and brand image, the role of central HUBs and the cohesiveness of customer loyalty/commitment expected/desired from the target audience.

Our main conclusions based on statistical data are the following:

- 80 percent of the service elements considered important by the three airlines were rated as higher than medium, i.e. necessary or very important, but there were four cases where there was a significant difference of opinion. This shows that, although the direction of development is basically correct, the weighting of the service elements identified by the target audience needs to be reviewed.
- An analysis of the relationship between brand identity and brand image shows that the composition of the target audience's brand image is more directly related to perceived advantages and disadvantages, and that attributes linked to the company, rather than staff attitudes, are the main inspiration.
- Responses received in the context of building and developing the Persian Gulf HUB system and integrating it into the world aviation system show that for transcontinental routes nearly 80 percent more people choose the direct non-stop option than other options combined.

Good connections are not a real alternative, nor is the option of a content-filled stopover. Airports are overwhelmingly seen by passengers as a drop-off, pick-up and transfer point.

- The most sensitive issue in business policy is the question of 'passenger awareness'. The airlines in question are imagining the institution of air transport in a more complex way than in the past, moving away from the simple reality of transport and embedding it in a system of components drawn from the sciences, culture, art and entertainment. Our study did not, however, confirm the expected level of commitment and behaviour on the part of passengers, so we can conclude that the majority of passengers still see air travel more as a form of transport than as a venue for extensive services in other directions, and that

dependence on the lifestyle described could not be detected on the basis of the parameters indicating passenger loyalty.

THESIS-3: The success of the Gulf airlines is crucially determined by a cumulative incidence of conditions and capabilities

We have analysed the determinants and conditions of operational effectiveness at *global and local level*.

In the context of global factors, the geographical situation and its demographic and economic aspects are worth highlighting. We have found that the Persian Gulf region is in a better position than all the other air transport hub regions. From there, the airlines studied can easily and economically reach more than half of the world's population with their southern fleet, including Europe and the fastest developing countries in Asia and Africa, which offer a wealth of opportunities.

Some of these local factors can be replicated by any airline, while many of them are unique to a particular location. The latter are referred to as '*Gulf specificities*'. These aspects are primarily those creating the cost advantages that form the basis for the strengthening and expansion of competitiveness. We have included here categories relating to natural resources, traditions, cultural heritage, and technical, technological and organisational conditions. After evaluation of the above and comparison with competitors, it was concluded that the combination of factors detailed here does not add up in this form for other airlines, so that the system and operating mechanism applied by Emirates, Etihad and Qatar Airways cannot be replicated elsewhere.

Despite a number of business/political attacks, we feel that the results of the airlines under review can be attributed to the intelligent use of their resources and conditionality, and do not confirm the fact of unfair competition.

THESIS-4: Gulf airlines considered economically and politically stable – a case study

The economic and political stability of the Gulf airlines was examined using the example of Qatar Airways. In 2017, a diplomatic attack on the State of Qatar blocked the country's air transport operations by targeting the state-owned airline.

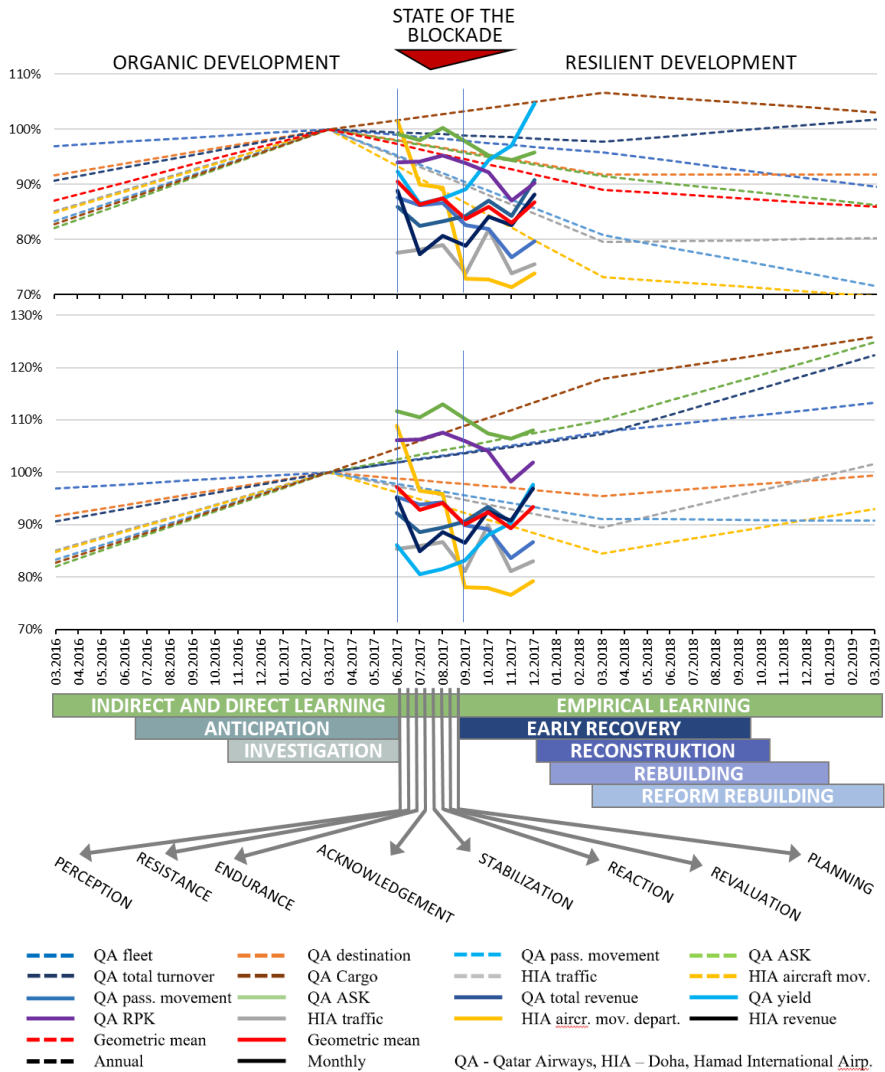
The focus of the analysis is on the content and process of resilience of the entity. We collected the reliable and effective resources that provided the company with a solid basis for dealing with the crisis. In addition to emphasising the learning process as an essential condition for adaptability, we pointed to the structure of the external environment as a space of connection and the system of relationships that it entails.

Based on the responses of Qatar Airways following the blockade, we concluded that the threat, despite its severity, intensity and scope, did not cause irreversible damage to the airline's functional operation and identity.

The post-shock downturn was managed through a resilience strategy based on effective action plans, allowing the system to return to growth within a critical timeframe. The impact of the crisis on the airline industry and the effectiveness of the management of the shock are illustrated by two interrelated graphs based on performance parameter data (Figure 1)

In the analysis, we have introduced terms (organic development, blocked state, resilient development) that both distinguish the decisive stages of the process in case-specific terms and provide a process-oriented construct of resilient behaviour. In this approach, the study of air transport from a resilience perspective represents a new opportunity to broaden the applicability of this paradigm of thinking and to think through the mechanisms of the crisis.

Figure 1. The process of resilience based on the analysis of Qatar Airways performance parameters.



Below: values based on factual data, showing the percentage change over the previous period.

Above: actual values expressed as a percentage of expected values (source: the author)

5. List of author's publications on this topic

1. Kucsера, E. (2021). Erdősi Ferenc: A globalizálódott tengerhajózás és a világkereskedelem. ELKH Közgazdaság- és Regionális Tudományi Kutatóközpont Regionális Kutatások Intézete, *Földrajzi Közlemények*, 145(3), 265-267.
2. Kucsера, E. (2021). The handling of the blockade against Qatar from the perspective of Qatar Airways' resilience. *Regional Statistics*, (Q2), 11(4), 101-125. DOI: 10.15196/RS110405.
3. Kucsера, E. (2021). The importance of environmental impacts in the marketing policy of Emirates, Etihad and Qatar Airways. *Turisztikai és Vidékfejlesztési Tanulmányok*, 6(2), 101-116. DOI:10.15170/TVT.2021.06.02.07.
4. Kucsера, E. (2021). A reptérfejlesztések geopolitikai vonatkozásai a Közel-Keleten *Geopolitikai Szemle*.
5. Kucsера, E. (2020). A Katar elleni blokádnak kezelése a Qatar Airways reziliencia képességének aspektusából (2020) Az előadás elhangzott: X. Országos Turizmus Konferencia. A konferencia helye, ideje: online, 2020. október 2.
6. Kucsера, E. (2020). A Perzsa-öböl-menti légitársaságok története, gazdasági háttere és működési mechanizmusa. *Modern Geográfia*, 15(2), 29-45. <https://doi.org/10.15170/MG.2020.15.02.02>
7. Kucsера, E. (2019). Points of law versus 'Gulf-specific' advantages? Az előadás elhangzott: The European Transport Conference, Dublin, Ireland ETC Conference. A konferencia helye, ideje: Dublin 2019. október 9-11.
8. Kucsера, E. (2019). A Perzsa-öböl menti légitársaságok európai térnyerésének geopolitikai vonatkozásai In: Vágány, J. B. & Fenyvesi, É. (szerk.) *Multidiszciplináris kihívások, sokszínű válaszok*, 10. Tudományos Szimpózium, Absztrakt kötet Budapest, Budapesti Gazdasági Egyetem, Kereskedelmi, Vendéglátóipari és Idegenforgalmi Kar, Közgazdasági és Üzleti Tudományok Tanszék (pp. 62-62.)
9. Kucsера, E. & Sánta, I. (2019). Points of law versus 'Gulf-specific' advantages? The European Transport Conference, Dublin, Ireland, ETC Conference Papers, Dublin, 2019. In: European Transport Conference 2019 Papers.
10. Kucsера, E. (2019). Az európai és a Perzsa-öböl menti légitársaságok perspektíváinak gazdasági-geopolitikai szempontú áttekintése Közép-Európai Közlemények, 12(2), 215-234.
11. Kucsера, E. (2019). Márkaépítés a Perzsa-öböl menti légitársaságok üzletpolitikájában. In: Csapó, J., Gonda, T. & Raffay, Z. (szerk.) *Turizmus, fogyasztás, generációk: II. Nemzetközi Turizmus Konferencia: Tanulmánykötet*. Pécs, Pécsi Tudományegyetem Közgazdaságtudományi Kar, (pp. 122-135.)
13. Kucsера, E. (2018). A Perzsa-öböl menti légitársaságok eredményességének geográfiai és demográfiai sajátosságai. In: Bábosik, M. *Geopolitikai folyamatok közép-európai perspektívából*, Absztrakt kötet (p. 36)

