A model for airport strategic planning and master planning in the Arabian Gulf

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A Model for Airport Strategic and Master Planning in the Arabian Gulf

By

Dheya A. Aziz Towfiqi

A Doctoral Thesis

Submitted in Partial Fulfilment of the Requirements for the Award of

Doctor of Philosophy of Loughborough University

May 2018
Special Dedication

To my sister

FAIZA

1950-2015
ACKNOWLEDGEMENT

First, I would like to thank my supervisor, Dr David Pitfield, for his continuous help and guidance in this research, which took more than six years, and for greatly contributing to the required improvements in the quality and depth of the research.

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ABSTRACT

The Gulf Cooperation Council (GCC), including Kuwait, Saudi Arabia, Bahrain, Qatar, the UAE and Oman, has undertaken massive construction projects to develop its airports. Such development has taken place over a very short span of time and has involved particularly heavy investments. These projects were, and still are, funded by the governments. The financial return of these projects was not their prime objective, but they were implemented to satisfy the air transport demand and to gain prestige. Some of these projects were a success and some were not, due to a lack of proper and efficient planning and implementation. One could say that this is a natural situation considering the very short time frame in which they were completed after the independence of the GCC in the early 1970s coupled with the good financial situation of these countries. However, this situation will not continue forever; indeed, many of these countries have reviewed their implementation of projects, including airport development plans, positively. Nevertheless, there is a lack of strategic planning practices in many GCC airports, where an airport master plan (AMP) is used in isolation without a strategic plan.

Generally, airport projects have not received adequate attention in terms of research on project implementation or strategic planning. Such projects cannot be considered as normal projects, as airports are unique, complicated and demanding due to their complexity, security and safety requirements, international regulations, operations, high cost and high versatility. Therefore, it is essential for any airport to introduce and implement a strategic plan before the enacting development plans to minimise the risk of failure.
The competitive environment between the GCC members and the demand for ground and air transportation are factors that led airport management to implement new strategic policies and identify the way forward. This research explains the theory of strategic management and relates it to airports and the airport industry. It also uses Bahrain International Airport as a case study. The case study included the collection of qualitative data through interviews with airport authorities and companies. The collected data were applied to business tools.

The new management, the Bahrain Airport Company (BAC), has created a plan for the implementation of a strategic plan, and the research found that strategic planning has been initiated at Bahrain International Airport (BIA) but that there are differences between its implementation and the general strategic planning theories.

BIA has very special characteristics and is unique in terms of its patterns of traffic and geographical location. These should be considered to be success factors and must be used to compete with other airports and enable BIA to be one of the leading airports in the provision of effective and quality services.
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Abbreviations:

ATC : Air Traffic Control
AMP : Airport Master Plan
BAC : Bahrain Airport Company
BAS : Bahrain Airport Services
BIA : Bahrain International Airport
CAA : Civil Aviation Affairs
DIA : Doha International Airport
DXB : Dubai International Airport
EASA : European Aviation Safety Agency
FAA : Federal Aviation Administration
FIR : Flight Information Region
GCC : Gulf Cooperation Council
GF : Gulf Air
IAG : International Airlines Group
ICAO : International Civil Aviation Organization
ICT : Information and communications technology
LMRA : Labour Market Regulating Agency

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<td>MTT</td>
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CHAPTER 1 INTRODUCTION

1.1 BACKGROUND

The assessments of several airports have verified them to be incompetent in predicting and construing rapid and sudden disparities and highly challenged in managing the financial agenda and the brisk advancements in technology that are expected to change the industry. In recent times, aeronautics and airports have been regarded as being efficient in exerting a fluctuating impact on the region; besides being competent in moving goods and people, they are also adept employers and appeal to air travel companies (ITL 2014).

Airport construction projects of such magnitude should begin with precise planning. Many projects are withdrawn due to unnecessary delays or non-performance on the part of the contractor (De Neufville and Odoni 2003). An airport construction project must be managed without any hitches and completed on time and within budget. Strategic planning for airports helps project managers to manage the projects effectively to meet their social, economic, operational and environmental obligations, taking into consideration the changing business environment. The airport industry, like any other industry, has experienced many changes, aiming to address safety and security measures in particular. There have been developments in the long-term strategic management of airports, which have helped project managers to cope effectively with changes and transformations.

The competition that has developed in the airport industry has made the development of proper strategies in the planning and construction of airports paramount. Unfortunately, despite the benefits of strategic planning for airport management and construction projects, the strategic planning of airports has not been widely embraced. The lack of strategic planning can be seen in airport construction projects that have been delayed or cancelled.
With adequate financial backing, Middle Eastern companies should adopt modern strategies in the management of their airport construction projects to avoid the past pitfalls. For instance, the Kuwait Airport expansion project, scheduled to be completed by 2016, has been delayed, as it did not meet the expected technical specifications. In addition, the estimated costs were 39 per cent higher than the lowest bid. This expansion project involved the construction of a new terminal and the expansion of the existing runways and car parks.

The Muscat International Airport project in Oman is another example of poor planning, as it was scheduled for completion in April 2014 but instigated in late 2017. Further, the Hamad International Airport project of Qatar faced a 10-year delay due to the failure to deliver the project and conform to Qatar’s new civil defence building codes before starting its operations in 2014. It was initiated in 2005 and scheduled to be completed in 2009, but, due to a series of costly delays, it was not completed on time. As airport construction projects are large scale and complex, they tend to encounter technical issues at all stages, before and after project completion. Therefore, it is imperative to plan for such delays.

According to Fiddian (2007), Gulf countries have made use of their geography and profits from oil to implement massive airport development, improvement and expansion projects. By the end of 2007, the six countries of the Gulf Cooperation Council (GCC) had invested around $38 billion in airport construction and improvements, with Saudi Arabia in the lead. It has 27 airports, 4 of which are international, and it has invested more to improve its airports. These airport projects in the Gulf have been motivated by the need to catch up with the developments in air travel and have been supported by high oil prices. The expansion of airports in the region has also been necessitated by the region turning into a global hub for travel. According to Ameinfo.com (2013), the Middle East will have 2,370 aeroplanes, which are estimated to be worth a staggering $470 billion, by 2030. This demand for new and improved aeroplanes has been brought about by the rapid growth of air travel not only in the region but around the world. Some of these aeroplanes have special landing needs that call for new and improved airports.
Dubai is another area in the Gulf that has undertaken massive airport construction and improvement projects. Dubai International Airport was improved with a budget of $5 billion US dollars and has become the busiest airport in the region, handling more than 75 million passengers annually.

Dubai has also constructed a new airport, Jabal Ali Airport, which opened for freight operations in 2010 (McGinley 2012) and for passengers recently; the airport is expected to handle the arrival and departure of around 150 million passengers annually.

1.2 PROBLEM STATEMENT

With the growth in air travel, airports are increasingly under pressure to expand their passenger-handling capacity. Some improvements in airport construction projects have also been necessitated by events like 9/11, which resulted in the adoption of new security measures to make airports safer. These factors have contributed to constant alterations of airport construction projects. These projects have also been prompted by new airline carrier business models, which have forced airports to improve to be able to provide the additional space needed. Construction projects have become an integral part of airport operations, because airports have to deal with buildings and expansive areas that need to be refurbished, maintained and expanded to meet the constantly increasing demands of the aviation industry. Airline business models will inevitably continue to evolve, and their requirements may differ slightly in the near future and substantially in the long term, with a clear need to deal with the uncertainty of the aviation industry (Perez 2009). Such changes in airlines business models will have direct implications for airport design.

Further, as commercial markets increasingly grow on a national and an international scale, airports are catalysts for economic development. The prospects of creating job opportunities, affluence and bringing together new business possibilities are reasons for investing in better construction and enlargement of airports, both internally and externally and by private as well as public patrons. An apt spatial design is considered to be of paramount significance for the future strength of a region. While airports are
situated on the outskirts of a region, with some attention paid to the position of socioeconomic features, ample literature exists on the enumeration of these features, with some paradigms analysing the improvement of airports from a comprehensive perspective.

Generally, airport projects have not received adequate attention in terms of research on project implementation and strategic planning. Such projects cannot be considered as normal projects, as they are unique, complicated and demanding due to their complexity, security and safety requirements, international regulations, operations, high cost and high versatility. Thus, it is essential for any airport to introduce and implement a strategic plan before enacting an airport development plan to minimise the risk of failure. Effective collaboration on tasks and accountabilities is essential for efficient airport planning.

Bilateral agreements still play a main role in international air transportation, but the new context of the airport industry is increasingly dominated by less regulation, both within countries and across borders (Belobaba et al. 2009). Such changes will have an effect on the AMP and possibly on the airport design to cater for the changes, for example duty-free shopping, immigration borders and low-cost airlines’ requirements.

Historically, airports have been developed following traditional methods of airport master planning. The traditional paradigm of the master plan does not account for the increased uncertainty that airports experience in a liberalised context due to increased competition (Jimenez et al. 2013a). This uncertainty has always been the major challenge facing airport planners. Another challenge to traditional airport master planning is the lack of flexibility. In particular, master plans do not provide flexibility to adapt to unavoidable changes, such as the rise of the low-cost models for airlines (de Neufville 2008).

To execute airport construction projects effectively, airport project managers need to embrace strategic planning and incorporate it into airport master planning. Airports have evolved and have become not only places where passengers transit from one
location to another but also structural marvels. Architects have produced airport designs that are not only functional but also elegant, increasing the competition in the airport industry. However, airport project managers, in answer to their competitors’ advancement, should not forget that the primary role of an airport is to provide transportation of goods and passengers across the globe. Accordingly, airport construction project managers should also adhere to airport construction rules and regulations as instituted by national and international aviation regulatory bodies. This research study explores a strategic planning model that can be adopted to help in the effective management of airport construction projects.

1.3 AIMS AND OBJECTIVES OF THE STUDY

The aim of this thesis is:

To formulate an efficient model for strategic planning and airport master planning to be used in the Arabian Gulf airports.

The objectives formulated for the study are:

1. To determine the importance of strategic planning for airports;

2. To identify various strategic management models for airport planning that can be used to manage airport construction projects effectively;

3. To examine the factors that catalyse airport projects for the proposed case study;

4. To explore whether strategic planning for airports is effective in airport projects by conducting a case study;

5. To identify factors such as security and globalisation, which contribute to the need for airport construction projects through analysis of the case study.

6. To develop recommendations for airport authorities and companies for adaptation and implementation of airport master plans and strategic plans.
1.4 RESEARCH QUESTIONS

The research questions formulated for this research study are:

1. What is the significance of a well-defined strategic plan in the construction of airports?

2. How do airport plans generally work? Are all plans executed as expected?

3. How will an airport master plan aid in the development of a structured airport?

4. What is the forecasted demand for air travel? How will it affect the planning of an airport?

5. How are the facility requirements of an airport ascertained? How can these requirements be incorporated into the strategic plan?

1.5 SIGNIFICANCE OF THE STUDY

As this research aims to identify a model that can be used for airport development plans, it will be beneficial mainly to airport management companies for improving their processes. The research will be able to provide airport management with information on how to undertake projects with fewer hitches from inception to completion. It will highlight the drawbacks of implementing airport projects in the traditional way, relying primarily on master planning, and will demonstrate a method that will enable future airport projects to avoid such pitfalls.

The study will provide information on the benefits of using an airport master plan. This will highlight the importance of developing a plan that adheres to airport construction regulations and simplifies airport construction projects. By highlighting the importance of using strategic plans, the study will outline their effectiveness in airport construction projects. It will further benefit students, instructors, scholars, authors, the general public and the aviation industry. Moreover, the research will add to the pool of knowledge about strategic plans for airport construction projects and their effectiveness.
1.6 STUDY OUTLINE

For the research’s aim, objectives and questions to be satisfied, the thesis will be structured as shown in Figure 1 Study Structure.

Figure 1: Study Structure
This study on airports and strategic planning theories is divided into nine chapters. The first chapter provides an introduction containing background information on airport construction projects. This chapter sets the foundation for the whole research study. It is in this chapter that the conceptualisation of strategic plans for airports takes place. The conceptualisation aims to improve the understanding of the whole research study. This introductory chapter also presents the research problem that led to the carrying out of this research study together with the objectives that it aims to achieve, the research questions, the significance of the study and the study outline.

The second chapter contains a literature review. This chapter aims to identify, present and analyse past studies on airport construction projects and to compare them with similar studies. It helps the researcher to gain a deeper understanding of how to answer the questions and achieve the objectives. The literature review chapter also considers the strategic planning theories and how they apply to the airport industry.

Chapter 3 discusses and explains the process and methods used to undertake the research. Chapter 4 highlights the internal environmental analysis of Bahrain International Airport. Chapter 5 is devoted to market analysis, including external drivers and the competitiveness of BIA. Chapter 6 addresses BIA’s competitiveness model and challenges, whereas Chapter 7 focuses on the strategic practices implemented at BIA. Chapter 8 analyses the strengths of BIA, and finally Chapter 9 presents the findings of the research, including the model to be adopted at BIA for strategic and master planning.
CHAPTER 2  LITERATURE REVIEW

2.1 INTRODUCTION

This chapter highlights several studies pertaining to airport construction projects, their characteristics and their challenges and conducts a thorough exploration of airport strategic planning, which includes a framework, the process and adaptive approaches. This study, with a specific focus on airport construction in Bahrain, is briefly introduced while addressing the strategic planning theories that have been implemented in the airport industry. In addition, the essential aspects to comprehend the depth of airport strategic planning are explored, such as airport master plans (AMPs), management theories, contingency theory, systems theory, strategic performance in the aviation industry, challenges for airports and airport strategic directions and methods.

2.2 CHALLENGES AND COMPETITIVE ANALYSIS OF THE AIRPORT INDUSTRY

2.2.1 Challenges

In the age of stringent fiscal rules, the airport industry has experienced methodical evolution of traffic. This has eased the improvement and practice of prescribed master plans. Airport functions and the amount of traffic have mainly been influenced by unforeseen factors. Airport management is a demand-responsive stipulation of amenities and facilities and reduces the threats of excessive endowment. Societies living near airports, as well as broader groups of environment preservationists, have had to comply with proximate common choices approving of the offering of greater transport capacity to meet the increasing demands for the purpose of aiding the airport industry and financial growth. The situation in which airports operate has changed (Caves and Gosling 1999).

Several airports are facing new challenges with the rapid growth of low-cost carriers. Low-cost carriers frequently use smaller regional or secondary airports, where they receive preferential treatment. Regional and smaller airports change to a niche
catchment area to keep their low-cost carrier clients. A niche strategy can be used to offer low prices, which can be negotiated through low-cost carriers. Since smaller and regional airports do not have much traffic, it makes sense for them to attract low-cost carriers, since their facilities are usually underutilised.

The downside of this kind of strategy is the difficulty of coping with the increased demand. When the demand grows in airports, new facilities are needed, but low-cost carriers may not be willing or able to pay for them. The other kind of airports facing the challenge of low-cost carriers is medium-sized airports (Dennis 2007). These airports have relatively reliable traffic. Low-cost carriers also form part of their business but not the core. Because medium-sized airports serve regular clients and low-cost carriers, and low-cost carriers require different treatment, airports need to rethink their strategy to offer differentiated products. To reduce their costs, some airlines are resorting to low-cost terminals.

Further, airports are confronted with a different type of developmental challenge. Contrasting with airlines, which can expand their capacity swiftly by buying more planes, expanding airport capacity is cumbersome and necessitates extensive processing time besides highly demanding stakeholder conversation and negotiation.

2.2.2 Competitive Analysis

The era in which airports acted as monopolies was overthrown by modernisation and competition. Competition between airports has gained more attention with the rise of low-cost carriers and the snowballing usage of minor airports in several metropolises, such as New York, Tokyo, Jakarta, London and Delhi.

The foremost purpose of amending airports is their possible exploitation of market power – that is, rising prices produce advanced returns – but this causes an upsurge in tariffs and consequently reduces air travel. For the sake of increasing profits, airport operators with market power promote both normal airlines and low-cost carriers. While the consequence of the demand is associated with the rent for the location, reducing the normal rent, the descending burden on profits will ascend when amplified air traffic capacities are approved with an outlay of lower prices. With the understanding that an
airport has additional capacity and syndicates both undertakings, the motivation will be to fix low charges. Higher prices will bring about lower total benefits. Urban or regional airports may compete with each other to cope with approval or low-cost traffic. Airlines too have a great amount of negotiating control over these airports relative to city airports, and they can always apply pressure by threatening to switch airports. Thus, the market power of urban and regional airports is reduced by the pressure to retain their prices near their costs. There are numerous minor public airports that are not synchronised, as they attempt to entice additional passengers with their expansions or because they are not thought to have substantial market power. These smaller airports principally serve low-cost carriers, and the competitive pressures impede them from competing with other regional or urban airports due to price regulation (Hancioglu 2008).

Porter’s five forces framework of competitive analysis, a simple structure for measuring and appraising the competitive power and status of a business, will be used in analysing the competitive nature of the airport industry. Porter’s five forces assist in ascertaining where the power lies in a business environment. This is suitable for comprehending the power of an organisation’s present competitive rank as well as the power of the competitive position that the organisation aims to reach. Porter’s five forces framework analyses competition in relation to five points: the threat of new entrants, substitutes, the power of buyers and suppliers and the rivalry between existing business organisations.

I. Threat of New Entrants

Due to the amount of investment required in the construction of airports, threats from new entrants into the industry seldom arise. Apart from the huge financial investments that are required for the construction of an airport, there are other requirements, like regulatory requirements and long planning and implementation processes, which keep new entrants away. Moreover, airports are said to lose economies of scale once they reach a capacity of three million passengers (Pels et al. 2003). Airports therefore do not face threats from new entrants.
II. Threat of Substitutes

Airports are not threatened by substitute means of transport, because they offer a unique service, especially to their international clients. However, the threat of high-speed rail is mitigated by low-cost carriers. Low-cost carriers have made air travel popular and affordable (Esplugas et al. 2005).

III. Power of Suppliers

Airports are confronted with competition from external suppliers of non-aeronautical facilities, such as retail, food and so on, and other methods of conveyance, like ICE, Eurostar and TGV. Airports are supplied with services such as cleaning, traffic control, security and commercial activities. These services are offered by third parties, which are given contracts through competitive bidding. The power of suppliers does not greatly affect the operations of airports, but this also depends on the kind of service or product for which a supplier is responsible (Bosch and Montalvo 2003). The power of suppliers in the airport industry is enormous, because airlines require fuel, aircraft and employment from the peripheral environment. For example, the expense of fuel for aircraft depends on variations in the international oil market, which can change unpredictably due to geopolitical and other elements. Likewise, employment is contingent on coalitions that habitually negotiate and obtain irrational and deep discounts from airlines.

Lastly, the airline industry requires aircraft through outright trade or wet lease, which means that airlines depend on larger aircraft for their aircraft requirements; thus, the power of the suppliers with respect to the three obligatory inputs is characterised as prominent according to Porter’s five forces framework (MSG n.d.).

IV. Power of Buyers

The customer is always right, so states the adage. When it comes to airport management, the customer has limited power. Consumers have power in the airport industry when choosing one airline over another. With the limited number of airports, customers have no or little choice regarding airports (Starkie 2002). A customer can
only have an upper hand if he or she owns a plane, but even then his or her choices are limited to the available airports.

V. Rivalry among Existing Airports

The competition in the airport industry is not as cut throat as that in other industries. The low or non-existent level of competition among airports could be attributed to the fact that most airports are state owned. Another factor that contributes to the limited or lack of competition in the airport industry is the number of airports in a particular area: there are no competing airports in a given area (Starkie 2002). The only form of competition seen in airports is in their construction. With the exception of the UK, most airports are owned by governments and states that seek prestige and recognition; thus, they indulge in the construction of sophisticated airports just to show off and because they can afford to do so. This trend has been apparent in the construction of Middle Eastern airports in countries such as Bahrain, Abu Dhabi and Dubai.

2.3 DIFFERENCE BETWEEN STRATEGIC MANAGEMENT AND STRATEGIC PLANNING

Both strategic management and strategic planning are solutions to commercial accomplishment in any industry. According to a 2009 Harvard Business Review article, 88 per cent of companies are involved in strategic planning. However, some of them manage their strategies effectively, while some successfully accomplish organisational objectives. Industries must make plans and manage their processes every day, which will result in long-term success.

Strategic planning, comprising plans of action, is assumed to arise from conference room meetings; however, it occurs in the unofficial forms of discussion that take place in lobbies, informal work crowds or spontaneous thoughts. Strategic planning generally comprises a long-term outlook and a mission that is perhaps the functional aim of the company, the necessary resources and an agenda of the plan to ensure that it is ideal for the company’s mission (Ansoff and McDonnell 1990). Strategic planning includes action plans that aim to answer concerns such as who is responsible
and what are the objectives, the location, the time frame, the organisational goals and the outlay.

Strategic planning involves three main responsibilities that should be up to date and reviewed during each planning cycle: strategy design, strategic programming and strategic and operational budgeting. Strategic planning at the business level is not a top-down or a bottom-up process but a multifaceted, integrative action demanding contributions from important affiliates of the company, which suggest the ideas and aims from the top, and contributions from the business and operational levels of the company for detailed logical options. Strategic planning offers a valuable interaction system that gives a voice to managers pertaining to their individual views concerning the comportment of the company. It also provides crucial contributors with an indispensable shared experience (Geel 2014).

Strategic management includes strategic thinking as well as strategic planning. Strategic thinking is perhaps illogical and deviating, while strategic planning is logical, methodical and joined. From this perspective, it is evident that strategic management is the outcome of strategic thinking and planning processes. Conversely, it must not be regarded as the finish; instead, it is the feats and ensuing inspection of the preceding phases that can lead to innovative commencement and to recursive rotation. Strategic management is the yearly cycle that includes planning and execution integrated into an organisation’s culture. It comprises a systematic approach to managing changes, the status of the organisation through strategy and planning, the actions that are taken to resolve the issues and concerns that occur in the company and the structural management of resistance during the execution of strategies (Ansoff and McDonnelle 1990).

Strategic management augments the structure, development, techniques, course of action and resources of an organisation. It provides an essential business outlook that includes all actions, which are carried out in an organised way. It is important to categorise the entities for the purpose of being able to assess and estimate their performance, growth and value, all at the same time as these strategic plans become known, into smaller action plans and then into a conclusion (Geel 2014).
2.4 TRADITIONAL MASTER PLANNING FOR AIRPORT CONSTRUCTION

Planning for airports has emerged as a crucial element for the efficient maintenance of airports and the overall enhancement of the aviation industry. Traditionally, for the construction of airports, four main phases of strategic planning are instigated, namely pre-planning, evaluation, implementation and monitoring (Transportation Research Board 2009). The four phases of airport planning are applicable to all airport construction projects irrespective of their size and nature of activities.

2.4.1 Strategic Planning for Airports

The strategic planning for airports extends beyond security and safety to cover the future vision for airport management. With the primary aim of providing an infrastructural system and transportation facilities, airports have evolved to accommodate the changing needs of their clients, and, in the process of strategic planning, airports have improved (Walker et al. 2001).

An example is Vancouver Airport, which evolved from a regional airport serving the local community into an international gateway that connected the Asia Pacific region, Europe, Latin America and North America (Vancouver International Airport Authority 2013). Airport construction projects are undertaken for varied reasons. One of these reasons is competition and competitive advantage. Airport operators differentiate their airports from those of their competitors by improved offers ranging from day spas to wine bars. The top management, during the strategic planning process, elicits opinions from different groups of people, like workers and passengers. In several cases, the airport management considers the opinion of airport users, including passengers, airport staff, the immigration authority, customs, security, ground-handling agents, commercial and retail entities and any government authority involved in the funding of the airport. By the time the management produces a strategic plan, it encompasses most of the views and needs of the airport. Since airports serve diverse groups of people, ranging from airport tenants to air cargo operators and passengers, it is important for the needs of all these groups to be taken into consideration during the strategic planning process.
Another reason that can prompt an airport construction project is the changing aviation industry, including improved and larger aeroplanes that require special handling (Dewar 2002). Amidst all these challenges, airports must maintain flexibility, adaptability, growth and profitability.

While undertaking strategic planning for an airport, the management also has to take into account the airport regulation guidelines. Airport operators must abide by regulatory requirements that have been instituted by the respective governments or country authorities. Governments create guidelines for airport construction projects. For example, the Abu Dhabi Government has the right to design and build contracts with respect to construction projects, which include regulations and guidelines, airport design and construction. Environmental guidelines are also provided. Airports vary in size; therefore, there cannot be one formula for airport construction (Butler 2008). Initially, the government must have a strategic plan at the state level for the development of various airports. This should be based on the air transport requirements, availability of funds and forecast for both passengers and aircraft. To construct the strategic plan, aspects such as financial, economic, security and political factors are considered, as they exert a large impact on the growth of the air transport sector. The result forms the basis of the policy for airport development and acts as the foundation for the airport master plan. The airport development company will therefore rely on this to produce its own plan for airport development. This factor explains why airport strategic planning is tailored to meet the specific needs of an airport. Strategic planning should be dynamic and continuous.

**Pre-planning:** In the pre-planning stage, the top management establishes the reason and procedure for the strategic planning process. It is in this stage that the need for the development of a strategic plan arises. Other activities that are conducted during this stage include: the evaluation of the organisation’s readiness for strategic planning, definition of the scope of the process and a time line for planning the activities, identification of the planning team and determination of the stakeholders that ought to take part in the process and their roles in the strategic planning process (Busenberg 2001).
**Evaluation:** In the evaluation stage, the construction project is measured against the vision and mission of the organisation. It is in this stage that the strategies are aligned with the objectives and organisational goals.

During the evaluation, strategic issues are identified while grand and generic strategies are developed. Both long- and short-term objectives are also set at this stage. The strategies that have been developed are then communicated to the rest of the organisation for implementation. The evaluation also involves the examination of the airport’s financial capacity to undertake such a project, the personnel capability and the benefits that the project will bring to the airport. Other activities undertaken are: the evaluation and understanding of the organisation, articulation of the organisational mission and vision, environmental scanning, development predictions, critical analysis of the gaps and reassessment of the organisational vision (De Neufville 2003).

**Implementation:** In this stage, the planning team looks for the best ways in which the key performance measures and objectives of the strategic plan can be developed and communicated to stakeholders. Key performance indicators (KPIs) are usually instrumental in the evaluation and measurement of incremental performance, aiding in the achievement of the objectives formulated in the strategic planning process. The implementation stage also involves the implementation of a reward system, which is aimed at motivating employees to implement the plan. During the implementation, strategic issues are identified, generic and grand strategies are determined, long-term objectives are set, short-term objectives are formulated and action plans are created. Responsibilities and project deadlines are also defined at this stage, performance measures and targets are selected and training and development programmes are created (Dewar 2002).

**Monitoring:** In this stage, the KPIs are monitored to compare the effectiveness of the strategic plan with the actual outcomes. If there is a disparity between the two, then adjustments are made. In the monitoring stage, it is decided who is responsible for the monitoring of the implementation process, the frequency with which the implementation process will be monitored and the way in which the monitoring results
will be reported. Reviews of the implementation of the strategic plan and objectives are also conducted during this stage (Frey and Dym 2006).

### 2.4.2 Airport Master Plan (AMP)

The *ICAO Airport Planning Manual* (ICAO 1987) describes the full progress of master planning as occurring in five main steps, as shown in Figure 2.

<table>
<thead>
<tr>
<th>STEP</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>1</td>
<td>Inventory of existing conditions</td>
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<tr>
<td>2</td>
<td>Forecast future demand</td>
</tr>
<tr>
<td>3</td>
<td>Facility requirements (infrastructure and systems)</td>
</tr>
<tr>
<td>4</td>
<td>Analyse different alternatives according to the requirements</td>
</tr>
<tr>
<td>5</td>
<td>Select the most appropriate alternative followed by a detailed plan</td>
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*Figure 2: Summary of the ICAO Airport Planning Manual*
Airport master planning is a paradigm process in the airport industry that is employed for the planning and design of airports and the reorganisation of existing airports, for which the International Air Transport Association (IATA) and several international organisations have established standards. These comprise suggestions to manage airport authorities and their approaches to ensure that the overall process functions efficiently. Further, they delineate the levels of service (LOSs) for all the management processes in the terminal to guarantee a specific quality level at all airports globally, such as waiting times at counters. Moreover, this plan includes the association between the number of passengers in an airport and the required area in the airport for effortless management (Jones and Pitfield 2007).

The master plan provides a guide to the development of physical facilities in the airport and the land use for the areas surrounding the airport, the determination of the environmental effects of the development and the establishment of the requirements regarding airport access through surface transport modes (Ashford et al. 2011).

Since airport development is a cumbersome process, involving effects on the environment and high investment, an airport must be designed such that it can accommodate any change effortlessly. Airport construction projects have adopted AMPs for long-term development. According to Burghouwt and Huys (2003), an AMP helps in the future development of an airport.

The main aim of an AMP, according to the FAA (2007), is to provide a set of regulations to ensure that the future developments of the airport conform to the aviation demand in a cost-effective way (Kazda and Caves 2013) as well as to resolve the ecological, aviation and socio-economic concerns that befall a region (FAA 2007). There are several components (as depicted in Figure 3) that restrain airport planning, and they must be considered with the utmost care, as one piece can be responsible for the success or failure of an airport project (Celada 2014).
2.5 BENEFITS OF STRATEGIC PLANNING

Strategic plans provide a framework showing how the organisation should achieve its vision, mission and objectives through construction projects. Some of the benefits of strategic planning include increased efficiency as a result of the establishment of performance parameters and project monitoring. The key financial benefit of strategic planning is that it allows the airport management to form its strategic response to organisational changes in the business environment to sustain financial consistency. The planning process is suitable for instituting metrics to evaluate the performance of the industry. Furthermore, it aids in conveying the mission and vision of the industry to its workforce.

The other benefit of employing a strategic planning process is that it acts as a device for unifying the challenging exigencies of representatives, the public and airport
lodgers and users. The practicality and benefits of the strategic planning process include developing public encouragement and clarifying to the chosen executives how the airport will affect the community’s fiscal growth (ACRP 2009). The benefits of strategic planning relate to organisational and operational factors, stakeholders and the community (Transportation Research Board 2009).

**Organisational benefits** are those that accrue to an organisation due to the implementation of a strategic plan. Strategic planning makes it easy for airport construction projects to adhere to government and council standards. When these regulations and guidelines are incorporated into the planning process, it is easy to implement them, because they are implemented and evaluated with other strategic plans. Strategic plans bring order and make the organisation consider the future.

Strategic planning also allows the top management to link performance evaluations at all the organisational levels to the organisational objectives (Hansman et al. 2006). Strategic planning during implementation motivates employees through reward systems that increase their performance and the eventual profitability of the organisation. Through this kind of motivation, the organisational vision, mission and objectives are achieved.

The **operational benefits** of strategic planning lead to increased efficiency and the creation of a formula for prioritising projects. Strategic plans enable the airport management to examine the proposed strategies and create alternatives if necessary. This is viewed as an easier way of initiating alternatives than during the master planning process (Mitchell 2007).

The **stakeholder benefits** of strategic planning include the diffusion of tensions between airports and tenants. When projects are well planned and the process of their implementation is carried out properly and monitored well, delays are minimised, thereby reducing conflict between the prospective tenants and the airport management. For example, the construction project of Ajman Airport in the UAE deployed a master plan to define the form and structure of the project to meet the projected deadline (Atkins n.d.). By communicating the strategy, conflict is also
reduced when rates are increased as a result of the construction of new or improved airport facilities, like passenger terminals or car parks.

Through strategy communication, the community learns how the expansion or construction of an airport can be of benefit to them. In the strategic planning process, organisational needs are identified. Among these needs is usually the acquisition of land. The land needed for airport expansion does not always belong to the government or the airport management (Karlsson 2003). By following a strategic plan, the top management identifies the need for land and acquires the land for future use. This helps in averting conflict between the airport management and the community when the airport decides to undertake a construction project. This process also enhances the consensus building before the implementation of the AMP.

2.6 DISADVANTAGES OF TRADITIONAL AIRPORT MASTER PLANNING

Despite the implementation of traditional airport master plans, they have not always been successful in planning future airports efficiently. The Denver International Airport adopted an AMP, but it flopped because of the lack of future orientation (Philips 1994). The main drawback of an AMP is its reliability on demand forecasting. Demand forecasting involves the estimation of future airport handling with all the associated uncertainties.

The forecasting takes into account the future number of passengers that the airport hopes to handle, the tons of goods to be handled and the number of airport transport movements. This helps the top management in establishing whether the prospective constructions are warranted. It effectively handles the future outlook of airport construction projects. Airport forecasts are made using past, present and future trends. However, Flyvbjerg et al. (2003) criticise forecasting for its bias and its failure to forecast failure and uncertainty. They claim that forecasts are biased because promoters are partisan and present the project as favourable even when it is not.

Forecasting has become even more complex because of the changes in the aviation industry. The aviation industry has experienced many changes and has largely moved from state owned to privatisation, aeroplanes have become bigger and better,
passenger numbers have increased and security measures and requirements have become stringent. According to Burghouwt (2007), air traffic has become volatile and uncertain, making forecasting even more problematic.

Uncertainties in airport master planning are also undermined by developments pertaining to regulations, technologies and demographics. Another drawback of airport master planning is its lack of flexibility. After the top management has produced strategies, they are passed down to the lower-level managers for implementation. In this stage, the plan is implemented and no attention is paid to change. This makes AMPs rigid, whereas an airport planning process should be flexible and take into account changes that could be necessitated by globalisation, increased population, security and increased cargo. A study of the present longstanding planning method of Amsterdam Airport Schiphol discovered that numerous qualms along with the demand are not clearly handled. However, ambiguities are dealt with mostly by formulating explicit conventions that are merely approximations instead of varieties of values (Kwakkel et al. 2008).

AMPs entail major drawbacks. One of these drawbacks is their failure to predict the future. The future is unclear and cannot be predicted with certainty. An AMP is normally carried out to cover a long period, during which the planners cater to the growth in passengers, cargo and aircraft.

However, the planners cannot predict some events, like regulation changes, security changes necessitated by occurrences like terrorist attacks and economic crises. When unpredicted events take place, they send the planners back to the drawing board. Given that most master planning is for the long-term development of airports, these events derail their progress, because the planners have to return to the start and establish ways of incorporating the new challenges and at the same time deliver on their promise (Lempert et al. 2003). This makes it very difficult for airport projects to be completed on time.

Master planning cannot be used as a blueprint for the future. AMPs have failed to predict the future and can therefore not fully be trusted to do so, especially in the
twenty-first century, when change is rapid. Master planning cannot be used to predict changing consumer preferences, increasing competition, new technology and opportunities (Mclain and Lee 1996). Once instituted, plans are supposed to be implemented regardless of the environmental situation. This factor makes airport master planning static in a dynamic world.

2.6.1 Disadvantages of Airport Strategic Planning

Though strategic plans provide a framework in which an organisation should achieve its vision, mission and objectives, they fail to address critical situations that can threaten the organisation’s existence. Strategic plans do not provide ways of escaping from or surviving a crisis.

This planning inhibits intuitive judgements and thinking, especially among employees and lower-level managers. Once strategic planning has been performed by the top management, the rest of the airport staff are expected to support the organisational vision through implementation. Before instituting strategic planning, organisations should ensure that it takes into consideration all the views and concerns of the stakeholders (Lempert 2002).

Strategic planning has also failed to address all organisational issues. By focusing on the organisational progress and the framework for achieving the organisational vision, mission and objectives, strategic planning neglects other aspects of the organisation, like employee motivation, stakeholder input and project harmonisation. These factors contribute significantly to the success of the strategic planning process. By identifying the most significant issues confronting the organisation, strategic planning is able to focus on these issues and minimise the details, as a result improving the chances of successful implementation.

Strategic planning is also limited by its complexity. Strategic planning is not easy. Since it needs to be a creative process that includes all the organisational stakeholders, this makes the process of strategic planning complex and tedious. The planning team has to take into account all the stakeholder views and analyse them to produce a competitive and representative plan. Most of these planners are also
implementers, and the final decision on strategic planning rests with the top management, which might decide to neglect the suggestions made by other stakeholders or adjust the strategic planning, which slows down the process.

Strategic planning is also time consuming. Much time is taken in the planning process, from pre-planning and considering stakeholder views to the approval of the plan by the top management and the implementation and monitoring of the plan (Lempert et al. 2003).

2.7 ADAPTIVE APPROACHES TO AIRPORT STRATEGIC PLANNING AND FORECASTING

The failure of AMP has led to the development of adaptive or flexible approaches to airport strategic planning. Since the future is uncertain, the top management should make flexible airport plans that can adapt to future changes, which sometimes cannot be predicted. As a result of the problems associated with AMPs, various approaches have emerged (e.g. de Neufville 2000; Burghouwt 2007; Kwakkel et al. 2007). Adaptive/flexible approaches can deal with future uncertainties during the implementation of the project.

Flexible strategic plans (FSPs) were suggested as an alternative to traditional AMPs by Burghouwt (2007). He added that flexible design is becoming a new paradigm for engineering system planning. Since master plans dominate airport planning, flexible designs for airports have not been common (de Neufville 2008).

Instead of trying to predict the future demand, which is known to be very volatile, it is recommended that plans should be able to cope with a range of demand levels (Kwakkel et al. 2010). Flexible airport planning is oriented towards and focuses on the risk analysis of different possible scenarios, unlike traditional AMPs, which rely on a single point of forecasting.

i. Dynamic strategic planning

Dynamic strategic planning allows for project adjustments during the implementation process. These adjustments can be made over time depending on the conditions,
enabling the project to be flexible at all stages. Dynamic strategic planning recognises that the future cannot be forecast. Dynamic strategic planning outlines the activities that result in a dynamic strategic plan. These activities are: modelling, optimisation, the estimation of probabilities, decision analysis, sensitivity analysis, the evaluation of real options and the analysis of implicit negotiation (Lempert 2002).

ii. Adaptive policy making

This is another approach to dealing with uncertainty. An adaptive policy makes no assumptions about the future and recognises the fact that the world is changing rapidly and that forecasting can fail. An adaptive policy enables adaptation to the rapidly changing business world.

According to Walker et al. (2001), an adaptive policy consists of two phases – the thinking phase, during which the policy is developed, and the implementation phase, during which the developed policies are implemented. Performance is also measured in the second phase, and policy adjustments are made if they are valid and necessary. In the second phase, a basic policy is designed. This policy can also be analysed to identify vulnerabilities. These vulnerabilities are then taken into account, and mitigation measures ensure that the project is a success. A monitoring system is created to monitor the vulnerabilities and make sure that they are well mitigated and that they do not interfere with the progress of the project.

iii. Flexible strategic planning

This form of strategic plan is generally viewed as an alternative to a traditional AMP, since it borrows from dynamic strategic planning but is thought to be more flexible and proactive in its approach to uncertainty. Flexible strategic planning recognises the uncertain future and maintains that the construction of the airport should be used in shaping the uncertain future. Flexible strategic planning relies on real options to enhance the realisation of a flexible strategic plan.

It also relies on other factors, such as contingency planning, back casting, monitoring experimentation and diversification (Burghouwt 2007). However, the exact application
of flexible strategic planning remains to be seen (Burghouwt 2007). It is alleged that there is no evidence to support the claims of flexible strategic planning regarding uncertainty.

Given the number of people involved in airport strategic planning processes, it is very difficult to institutionalise changes to the original plan. Such an adjustment would need many approvals, which would only delay the project further. Besides, airport planning involves the use of sophisticated equipment; therefore, the use of an AMP with all its drawbacks is normally seen as a more cost-effective way of planning airport construction projects. According to Walker et al. (2001), for airport planning to be effective, the three adaptive approaches to airport planning should be incorporated into the inception of strategic planning. This will help the planners to consider unforeseen uncertainty, anticipate adjustments and prepare for them before they derail the project.

2.8 AIRPORTS’ STRATEGIC OPTIONS

2.8.1 Cost Leadership

A cost leadership strategy puts an organisation among the lowest-cost producers in its industry. By adopting a cost leadership strategy, the airport management reduces the costs of inputs, distribution and location by offering standardised products. This strategy gives an organisation the opportunity to price its products lower than the competition. However, this strategy might not work in airports. Airports are used by people because they have to board planes (Forsyth 2010). Normally customers do not have to choose between airports, the choice to land at an airport being made by the pilot and the airlines that schedule their flights to designated airports.

2.8.2 Differentiation

Differentiation involves offering a unique product that the competitor does not have. Differentiation can be achieved through efficient service offerings, promotions, brand image and technological advancements. Airports can be differentiated by the provision of more terminals serving different kinds of passengers or airlines. Differentiation can
also be performed by having terminals managed by different operators. However, this kind of differentiation has not gained popularity for security reasons and due to the nature of competition in the airport industry, which is low (Forsyth 2010).

**2.8.3 Focus or Niche?**

This strategy involves focusing on a segment of the market. An airport could decide to focus on charter or freight flights only. This kind of service attracts organisations that aim to offer personalised services but are not able to target the entire market. This kind of strategy has been adopted by low-cost carriers seeking cost advantages against their competitors. Examples of niche airports are Liege Airport in Belgium, which provides specialist cargo facilities, and the London City Airport, which offers facilities for short-haul business (Forsyth 2010).

**2.9 AIRPORTS’ STRATEGIC DIRECTION AND METHODS**

An appraisal of the strategic directions that airports have followed along with the strategic methods that they have employed is highlighted in this section. The strategies that airports espouse to expand their competitive advantage are mostly developed by carrying out a competitive analysis of the airport sector and evaluating the degree of impact that the airport operators have on the features that influence an airport’s effectiveness. The significance of these features is surveyed next against the background of the diverse strategies that airports cherry-pick to implement, along with the directions and methods that airports have preferred to adopt (Graham 2004). A strategic direction involves producing products and services that are developed for particular markets. Airport strategic directions include market penetration, market development, product development and expansion.

**Internal Growth**

Any organisation yearns to grow internally through the market or product development. Internal growth was adopted by airports because they were publicly owned. To begin with, internal or gradual growth occurs. Airports conventionally implemented these strategies as there were minimal opportunities due to the
possession of the public sector and the stringent governing atmosphere for air transport. Hence, it was essential for introducing market penetration, wherein discounts were provided on new regional services to boost the use of an airport. This can be achieved by introducing loyalty cards that entitle the holder to certain privileges. Internal growth can also be attained by introducing new services (Gillen and Niemeier 2016).

If an airport offers only long-haul services, it can introduce short-haul services too. Internal growth can also be achieved through the introduction of commercial services, like car booking or foreign currency exchange (Freathy and O'Connell 2000). In the airport industry, market development can be achieved internally by encouraging the development of amenities, like the construction of local roads, improving or building a bus stop or improving rail transport. It can also be attained through the development of shopping, resident and business facilities.

Integration

Integration is used in airport strategic directions because of privatisation, which has enhanced the acquisition of airports by other airports and has afforded private airports the opportunity to pursue other methods for development strategies. The acquisition or merger of one airport by another can be referred to as horizontal integration. According to Graham (2003), airports have begun to embrace this trend in the form of having established airports operate other airports. Markets can be developed in this way, since products that never existed in an area are introduced into those areas. Horizontal integration is normally used in cases in which business organisations want to create market power and strengthen their brands (Klenk 2004). Horizontal integration enhances market penetration. A case in point is the acquisition of East Midlands and Humberside Airport by Manchester Airport. Horizontal integration is also instrumental in reducing and eliminating competition. However, this is insignificant in the airport industry because of the low level of competition. Airports can also use vertical, forward or backward integration in their strategies, for instance the British Airports Authority’s expansion of World Duty Free.
Alliances and Franchises

Some airports opt for alliances and franchises as methods for strategic development. This strategy gives airports a chance to advance without giving up control or ownership of the airport. Alliances help to reduce the pressures posed by competitions. Nevertheless, in an industry with low levels of competition, the effects of alliances are limited. Franchising, on the other hand, enhances market development. Though popular in other industries and used for rapid market development, in the airport industry, it is not practised. Franchising can be used in the airport industry by an airport group that wants to expand its reach.

Economising and Divestment

The airport industry is in general a developing industry that is still progressing, and the strategic directions and methods mentioned above are related to growth. Conversely, there are about 13 cases in which a competitive advantage could be enhanced if strategies for economising are embraced. The airports in Zurich and Brussels pursued these strategies subsequent to the failure of their chief airlines. Furthermore, the rarely employed divestment strategies, for instance, the BAA, which was privatised in 1987, entailed significant liberty to expand into numerous distinct fields by actions such as introducing newer hotels, real estate investment and running designer retail centres. Nonetheless, the BAA afterwards determined that the expansion strategies were innumerable and that it had shifted all its focus to new domains, then aiming to concentrate on the actual business.

2.10 STRATEGIC PERFORMANCE IN THE AVIATION INDUSTRY

To ascertain the mechanisms of comprehending and enhancing the aviation industry, it is imperative to evaluate the performance in the industry. The receptiveness of the industry regarding its stability and the degree of handling of the challenges and demands must be determined. In addition, the industry will be able to make improvements following the performance evaluation, thereby developing further strategies to aid in excelling in the airport business.
Entities across all industries strive to achieve two main types of objectives: financial and strategic. The strategic objectives of an organisation concern the way in which it performs in a market environment. A number of entities have faced substantial challenges due to the fact that there is a high level of competition in the current market. Strategic objectives also aim to achieve the satisfaction of customers or users of an entity’s brand in terms of both their needs and their expectations.

Airport strategic planning is an all-inclusive method for the management of an airport to make sure that the economic viability, operational efficiency, natural resource conservation and social responsibility are achieved (Lurie 2009). Among the airport’s strategic and financial objectives would be to ensure that it grows in revenues, stock prices and earnings and to enhance the cash flows, since such an achievement would give the entity proper financial ability to gain a competitive advantage.

An airport with higher performance, particularly in all the airport operations, such as administration and finance, planning, design and construction, procurement, operations, security, facilities, communications and marketing, is an effective airport. Further, it is necessary to develop measurable performance objectives and report on the development frequently (Lurie 2009).

Global economic development also receives a noteworthy enhancement from air transport. This extensive economic advantage will be produced by growing networks between cities by allowing the movement of imports, the general public, investment, technology and philosophies – and decreasing the air transport costs (Pearce 2016).

With a good financial position, an airport entity can provide facilities and services that meet the needs and expectations of consumers of airport services, leading to their satisfaction, which is integrated with customer loyalty. The environment of the airport should also be one of the major concerns of the airport operation strategist. The environment in which an entity operates should be considered to ensure proper strategic management. Hence, there is a need to conduct environmental scanning for both internal and external environments to understand the environment of the airport in which entities operate. In that way, suitable approaches and strategies can be
formulated to make an entity successful in such an environment. Organisations need to invest in research to ascertain all the factors in an airport environment before making decisions with respect to gaining a competitive advantage (MSG n.d.).

2.11 AIRPORT INDUSTRY IN THE GCC

The aviation industry has experienced tremendous change and development over the last three decades. During this period, there has been an increase in the number of commercial planes. Aeroplane safety and airport development have also improved over time. Privatisation, liberalisation and globalisation have catalysed the rapid growth that has been experienced in air transport. Pollution and environmental awareness have also contributed to the gains that have been witnessed in the aviation industry.

Since airports provide connections between nations and regional economies, they often undergo dramatic transformations (Nahyan et al. 2012b). These transformations are aimed at helping airports to meet their social, economic, operational and environmental obligations in the face of changing conditions. When airports are constructed, the amount of investment is massive. It is therefore important that they are planned and executed effectively to minimise, delays, losses and cancellations.

Ulrichsen (2015) highlighted the topography of the GCC, which has rendered the region a crucial element in the international aviation sector from the initial phase of international flights. This was primarily emphasised around the GCC setting within the extensive scope of imposing communications that associated the United Kingdom with India, Hong Kong and Australia. In 1932, when the British Imperial Airways instigated an eastern airway from London’s Croydon Airport to Brisbane in Australia, it began an overnight stop and created an airfield in Sharjah. The significance of this attempt rebounded over time, when, 80 years later, the UAE and Qantas founded a code-sharing alliance that resulted in the rerouting of the European flights of the airline via Dubai, another emirate of the UAE, instead of Singapore (The Australian 2012).
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<tr>
<th>Year</th>
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<th>Current Status</th>
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<tr>
<td>1945</td>
<td>Saudi Arabian Airlines</td>
<td>Operating as Saudia</td>
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<tr>
<td>1950</td>
<td>Gulf Aviation</td>
<td>Gulf Air/national carrier of Bahrain since 2007</td>
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<td>1953</td>
<td>Kuwait Airways</td>
<td>Operating</td>
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<td>1985</td>
<td>Emirates</td>
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<td>1993</td>
<td>Oman Air</td>
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<td>1994</td>
<td>Qatar Airways</td>
<td>Operating</td>
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<td>2003</td>
<td>Etihad</td>
<td>Operating</td>
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<tr>
<td>2003</td>
<td>Air Arabia</td>
<td>Low-cost carrier based in Sharjah</td>
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<td>2004</td>
<td>Jazeera Airways</td>
<td>Low-cost carrier based in Kuwait</td>
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<tr>
<td>2005</td>
<td>Wataniya Airways</td>
<td>Kuwaiti carrier, ceased operating in 2011</td>
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<tr>
<td>2006</td>
<td>RAK Airways</td>
<td>Ceased operating in 2014</td>
</tr>
<tr>
<td>2007</td>
<td>Flynas</td>
<td>Low-cost carrier operating in Saudi Arabia</td>
</tr>
<tr>
<td>2007</td>
<td>Bahrain Air</td>
<td>Low-cost carrier ceased operating in 2013</td>
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**Figure 4: Airlines in the GCC (Ulrichsen 2015)**
Then ruler of the emirate of Sharjah, Sheikh Sultan bin Saqr Al Qasimi was remunerated with 800 rupees by the Imperial Airways for landing flights along with an amount of 500 rupees as sponsorship every month. In return, the ruler built accommodation at Al Mahatta Fort. Britain’s Royal Air Force (RAF) persistently used the Sharjah airfield as a provincial headquarters up to 1971, when Britain’s military pulled out of the Gulf (Heard-Bey 1996). Sharjah’s ground-breaking role in regional aviation was replaced in the 1950s by the establishment of Saudi Arabian Airlines in 1945, Gulf Aviation in Bahrain in 1950 and Kuwait Airways in 1953, as shown in Figure 4 (Ulrichsen 2015).

Freddie Bosworth, a British former RAF pilot, founded Gulf Aviation. This was a private shareholding organisation and began normal planned flights to Qatar, the UAE and Saudi Arabia. Subsequent to the sudden demise of the founder, the British Overseas Airways Corporation (BOAC) obtained a 22 per cent share in Gulf Aviation, which was further purchased by the governments of the newly independent states in 1973. However, each of the governments gained a quarter share in Gulf Air, a newly established aviation company that turned out to be a transporter for the UAE, Qatar, Bahrain and Oman. Additionally, Gulf Air was more successful when it started its first flight to Australia and direct flights to South Africa. Nevertheless, Qatar and Abu Dhabi followed Dubai and founded their own airlines, pulling out of Gulf Air in 2003 and 2005, respectively. Oman withdrew in 2007 too, leaving Gulf Air as the national airline for Bahrain (Khaleej Times 2011).

2.12 AIRPORT CONSTRUCTION PROJECTS IN BAHRAIN

One major airport construction project in Bahrain is the expansion of Bahrain International Airport. Initial plans to expand the airport were made in 2008 at an estimated cost of BD300 million. The proposed expansion plans were then revised to cover the transportation needs for the next two decades. The initial expansion projects included the construction of a car park, the resurfacing of the main runway and the erection of a new perimeter fence. The expansion plan was to be implemented in phases. After planning and consultation, the first phase of the expansion of the airport
officially began in 2011, with a time line of four years, and was due to be completed in 2015 (Ameinfo.com 2013).

The expansion of Bahrain International Airport will increase the capacity of aircraft stands to 110 and construct 17 new remote aircraft parking bays. The expansion will also improve the baggage-screening facilities and increase the passenger-handling capacity of the airport to 27 million annually over a period of 30 years. The airport is also working to increase its cargo-handling capacity from 350,000 cubic metres to 1.5 million.

The expansion project also includes the construction of a new VIP terminal and an airport centre that will house entertainment facilities, shops and a car park. Furthermore, plans are underway to build a light rail line that will connect the airport to the rest of the country. The expansion project aims to address the exponential growth witnessed in the aviation industry with a capacity to handle 45 million passengers annually when all 3 phases of expansion are completed (AirportTechnology.Com 2012). Some of the initial expansion plans have been reviewed. Baggage handling, which stood at 300 bags, has been increased to 15,000, and, by the time of completion, the expansion is expected to result in 80 check-in counters. The airport stands will be able to accommodate Airbus and Boeing. The car park will also be able to handle 3,000 cars. The air bridges will be increased from 7 to 14, with 2 air bridges specifically dedicated to the A380. The expansion project of Bahrain International Airport was contracted to the Bahrain Airport Company.

The company noted that the expansion costs could increase because of the increased cost of material and labour. Adjustments to the plan could also raise the expansion costs. So far, the expansion project of Bahrain International Airport has been on target, and construction is expected to be completed as scheduled in 2019 (Ameinfo.com 2013).
2.13 GAPS IN THE LITERATURE

Though there is a large amount of available literature on airport and strategic management theories, only a few studies have focused on applying airport strategic planning in the GCC. There is an insufficient amount of data pertaining to such strategies in the airport construction projects in the GCC and Bahrain in particular.

In the last decade, the construction of large infrastructure projects has been in demand to meet the needs of people in Bahrain. It has also become imperative to provide comprehensive services to both public and private consumers. Though many infrastructure projects have been completed, there has been a lack of investigation to discover different approaches to improving airport construction projects in Bahrain.

Such gaps can normally be filled by conducting primary research. The available literature on the strategic planning process has not been tailored to airport construction projects. The availability of such information will provide insights into the working of airport expansion projects, the challenges faced and the corrective measures that are supposed to be taken. The lack of standardised airport construction also makes it difficult to identify the required airport construction standards. Airport construction planners have to rely on the governments and local authorities, which might not be able to provide the required expertise and experience of regulating airport construction standards. Airport constructors are left to depend on the volatile and rapidly changing demands of the aviation industry to help them to ascertain the general, specific and special needs of their clients. Nevertheless, such a strategy will encounter difficulties in the case that the demand increases to such a level that new amenities are obligatory, but the airports may not be equipped to compensate for them.

The availability of universal airport construction standards will make planning easy for airport planners, who will only need to refer to the universal standards and make improvements to cater to the needs of their clients. The ICAO provides guidelines and a framework for the construction of airports to be certified. While this will reduce the time needed to plan an airport construction project and enable the planner to use the
much-needed time on the implementation, evaluation and monitoring of the airport construction project, the disparity in the necessities of different airports might cause the planning not to be generalisable. Furthermore, the ICAO lacks the capacity to monitor all airport construction projects around the globe. Literature on its effectiveness is lacking, and there are no examples of airport construction projects that have been rejected by the ICAO as being substandard or not certified for failing to follow the guidelines.

Another gap in the literature concerns the implementation and use of strategic options in managing airports. The competition levels make it hard to use strategic options in the management of airports. Part of the lack of the adoption of strategic options is caused by the absence of the cut-throat competition that is witnessed in other industries. More information should be available on how strategic options, such as attracting low-cost carriers to fill their excess seats, have been used in the management of airport construction projects. The availability of this information will enable airport managers to see how strategic options can be used in the management of airport operations. The available literature is also limited regarding the implementation and regulation of airport construction rules and regulations. There are guidelines showing what is necessary in the construction of airports. However, they do not state clearly what the penalties will be for airports that fail to construct their airports in accordance with the given regulations.

The focus of the current research is Bahrain. The available information on this topic is general and fails to address the process and management theories used in massive expansion projects. This gap should be filled adequately by research. Primary research will be able to provide information on the expansion project, its successes and failures and ways in which it can be improved. This can be achieved by exploring the perspectives and opinions of airport staff, cargo handlers, tenants and passengers. Every construction project experiences hitches. These can also be addressed by primary research through interviews with project managers, who can highlight the challenges that they face in the project.
2.14 SUMMARY

This chapter has addressed strategic planning, airport management strategies and the challenges encountered, which are relevant areas to this research. Strategic planning defines the routes that are supposed to be taken for a company to attain success. Strategic planning involves creative thinking and the focus and direction of the project at hand. It enhances good project management and entails setting parameters that will enable the undertaken project to be successful. It is also concerned with the introduction of a strategic framework within which a project needs to be developed.

A strategic plan should have a time frame and should be updated annually. Strategic planning helps the management in understanding the company’s current situation and plan for the future. The need for strategic planning is emphasised by the ever-changing business environment and globalisation. In airport construction projects, strategic planning focuses on the long term and the way in which the undertaken projects can serve their clients effectively in the future. The strategic planning for airports extends beyond security and safety to cover the future vision for airport management. Airport construction projects are undertaken for varied reasons. One of these reasons is competition and competitive advantage. By the time the management produces a strategic plan, it encompasses most of the views and needs of the airport.
Since airports serve diverse groups of people, ranging from airport tenants and air cargo operators to passengers, it is important for the needs of all these groups of people to be taken into account during the strategic planning process. The strategic planning process of airport projects includes the pre-planning, evaluation, implementation and monitoring phases. Strategic planning should be dynamic and continuous. Uncertainties are experienced in the process of strategic planning for airports, which can be addressed through the adoption of adaptive approaches to airport strategic planning. Among these approaches are dynamic strategic planning, adaptive policy making and flexible strategic planning.
CHAPTER 3 METHODOLOGY AND RESEARCH

3.1 INTRODUCTION

This chapter will present the research methodology applied in the current study. A research methodology explains the procedure for conducting a particular exploration for the purposes of resolving a specific issue by deploying research methods and techniques. Following a methodology, a researcher evaluates the phases that are utilised to reach specific outcomes and provides the rationale behind the choice of methods. The entire investigation depends on the research methodology, and it is imperative to deploy appropriate research methods to acquire the final interpretation of the results.

Figure 5 shows how the thesis is structured to ensure that the aim, objectives and questions are satisfied.
Aim: To formulate an efficient model for Strategy Planning and Airport Master Planning in the Arabian Gulf Airport.

<table>
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<tr>
<th>S. No.</th>
<th>Objective</th>
<th>Methods</th>
<th>Chapter</th>
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<tr>
<td>1</td>
<td>To determine the importance of Strategic Planning for Airports</td>
<td>Review of Literature</td>
<td>Chapter 2: Literature Review</td>
</tr>
<tr>
<td>2</td>
<td>To identify various strategic management models for airport planning that can be used to manage airport construction projects effectively.</td>
<td>Review of Literature</td>
<td>Chapter 2: Literature Review</td>
</tr>
<tr>
<td>3</td>
<td>To examine the factors that catalyse airport projects for the proposed case study.</td>
<td>Open Ended Interviews Review of Documents Reviews of Literature SWOT Analysis Statistical Data Review</td>
<td>Chapter 4: BIA Internal Analysis Chapter 5: Market Analyse of BIA Chapter 6: BIA: Competitiveness Model and Challenges.</td>
</tr>
<tr>
<td>4</td>
<td>To explore whether strategic planning for airports is effective in airport projects by conducting a case study.</td>
<td>Open Ended Interviews Review of Documents Reviews of Literature</td>
<td>Chapter 7: Strategic Practices at BIA</td>
</tr>
<tr>
<td>5</td>
<td>To identify factors such as security and globalisation, which contribute to the need for airport construction projects through analysis of the case study.</td>
<td>Open Ended Interviews Review of Documents Reviews of Literature</td>
<td>Chapter 8: Analyse of BIA's Strengths</td>
</tr>
<tr>
<td>6</td>
<td>To develop recommendations for airport authorities and companies for adaptation and implementation of airport master plans and strategic plans.</td>
<td>Review of Results</td>
<td>Chapter 9: Conclusion and Recommendations</td>
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</table>

Figure 5: Case Study Method and Research Approach

This chapter discusses the research paradigm, research approach, research design, data collection and ethical issues.
3.2 RESEARCH PARADIGM

The purpose of research is to discover and build ideas in an effort to resolve an issue. It is an examination that attempts to gain knowledge, analyse issues and solve them by acquiring insights into the depth of the problems (Jupp 2006). A research paradigm enlightens the general methodology of the research (Johnson and Christensen 2010). There are two paradigms in the broad spectrum of research, namely positivism and interpretivism.

Positivism is a structured method that entails logical deductions backed by observations. The investigator gathers general information, and, based on numerical information or facts, deductions are made (Creswell 2003). Positivistic approaches aim to evaluate any phenomenon through rational explanation (Collis and Hussey 2003). Interpretivism, on the other hand, is a research philosophy that is subjective, whereby researchers highlight the real facts and figures according to the research problem (Creswell 2003). Interpretivists are those who consider the truth of human perceptions above all and aim at ‘understanding’ any phenomenon. Interpretivism intends to remove dissimilarity among readers and writers by creating theories based on observations.

Research Paradigm Adopted

This research utilised the paradigm of interpretivism to answer the research questions; it is imperative to gather engaging information from a specific group of respondents and induce theories or hypotheses from that information.

3.3 RESEARCH APPROACH

The research approach defines the methods adopted to carry out an investigation. It describes the philosophy that drives the direction of the investigation (Gliner and Morgan 2000). Quantitative and qualitative are the two research approaches that are most commonly deployed in practice (Thomas 2003).

A qualitative approach is subjective in nature and utilises a phenomenon or setting to understand, illustrate and generate a hypothesis. In other words, such an approach is
adopted by those studying their equipment in their surroundings and evaluating the phenomenon through other people’s opinions (Burman 1997). The qualitative approach is formative and dynamic and can exploit both formal and informal instruments for collecting data (Gupta and Gupta 2011). It comprises thoughtful inspection of the subjective information acquired from human experiences to identify the meaning behind them and to analyse the information (Brace et al. 2006).

On the other hand, a quantitative approach is descriptive in nature and aims to reach a conclusion through facts and numerical data. It is used by researchers to comprehend dissimilar promotional input possessions of the client, thus enabling marketers to identify the performance of consumers (Bryman 1984).

**Research Approach Adopted**

The current research utilised a qualitative research approach, as it is the most appropriate for evaluating the strategic planning of airports with specific reference to BIA. For this study, an exploratory research design was adopted, since it can provide effective results by identifying the described problem. Explanatory research typically involves case studies, participants or non-participant observational techniques and the collection and analysis of historical data, while qualitative and quantitative techniques may be involved (Brewer 2007). In the current research, no attempt was made to evaluate a sample from a population; individuals with knowledge about the issue at hand were selected and interviewed to grasp the desired information. For this purpose, a case study method was adopted to study the real-time characteristics of BIA via interviews.

**3.4 DATA COLLECTION**

The most crucial element of an investigation on which all the results and findings rely is the process of data collection. Data collection is segregated into primary and secondary data collection methods. Information that is accumulated specifically from the respondents is referred to as primary information. Primary data are fresh data that are collected by the researcher through means of various data collection techniques, such as case studies, interviews and questionnaires, among others (Hackston and
Milne 1996). Grinnel and Unrau (2008) state that secondary information has already been collected and is available in the form of books, academic papers, reports and so on.

**Data Collection Methods Adopted**

The research made use of primary data collection methods, and BIA was used as the case study. The primary data collection method involved in this research was interviews.

Since literature and studies on strategic planning related to airports are not available in sufficient quantities, the areas addressed in this report aim to provide a better understanding of this topic. The research methods used in any study should reflect and answer the research questions (Yin 1994). Various criteria were considered to select the method with the aim of relating the findings from the literature to the airport industry. Different external and internal factors affecting airports as well as strategic methods have a direct impact on airports. Data were gathered through direct access to the selected airport for the case study.
The data collected for the case study were based on two methods, namely a literature review, which was covered in Chapter 2, and interviews. The interviews included a direct discussion with carefully selected key persons in the airport industry, aiming to obtain data on the traffic at BIA. In addition, some quantity data based on statistical information were used. Furthermore, secondary data were used, including both internal and external data (Lancaster 2005). The external secondary data were obtained from reliable publications, such as reports, journals, magazines, articles and so on. The internal secondary data, such as annual reports, traffic data, written reports and suchlike, are used by the airport for forecasting purposes. The data collection for the current study is depicted in Figure 6.
3.5 CASE STUDY

A single comprehensive case study can be as effective as multiple case studies (Yin 1994). Given that the research is based on a single case study, it must be demonstrated here why BIA was selected for this study. The main reason for the selection of BIA is the accessibility to the data and the possibility of conducting the research. A question that could be raised here is whether the research should be limited to one case study. Due to difficulties in obtaining information from other airports, it was logical to limit the research to one case study. The accessibility to information related to BIA is the prime reason; however, it must be emphasised that there were other significant factors that led to the decision to study BIA:

I. Massive changes in the BIA traffic pattern: From the early 1970s, BIA was a major transiting airport in the Middle East, until the traffic pattern was changed due to the introduction of long-haul aircraft and new airlines in the GCC countries. From 2000, the traffic grew significantly, reaching 8,479,266 passengers in 2012. This was mainly a result of Gulf Air using BIA as its main hub. Such a fluctuation in traffic over the years makes BIA an important case study.

II. Gulf Air’s situation and its effect on traffic at BIA: Gulf Air used to be owned by four GCC countries, namely Bahrain, Qatar, the UAE and Oman. Currently it is completely owned by Bahrain. The other countries pulled out gradually, as each established its own flag carrier. This worked well with BIA due to the concentration of all Gulf Air activities at BIA rather than being spread over the four countries. It also exerted pressure on BIA in terms of facilities. This situation increased the financial pressure on Bahrain as well. The company has endured heavy financial losses that have made it difficult to sustain such a situation. Currently, Gulf Air is undergoing a major cost reduction by decreasing its aircraft fleet, destinations and staff.

III. BIA’s Overall Management Structure: Until 2005, there was one entity for the development of BIA, acting as the regulator, namely Civil Aviation Affairs. In parallel with the changes in Bahrain following the introduction of government companies, BIA’s
management structure changed, as shown in Figure 7. BIA underwent major changes regarding the management of the airport, which had a prominent effect on its work.

![Figure 7: Management Structure of BIA](image)

**IV. Lack of Research Related to BIA**: Given the lack of studies on BIA, this research aims to fill this gap by making significant contributions to the literature.

3.6 INTERVIEWS

The Delphi method is an investigation approach that can be employed to obtain unanimity through a sequence of rounds of questionnaire surveys, customarily two or three, wherein the board members are provided with the data and outcomes after every round. While the Delphi method was a viable option, the researcher decided to conduct a case study and interviews instead due to the Delphi method’s complexity in analysis and greater time demands.

For this study, interviews were conducted with members of the management of BIA. A qualitative research design can be complicated depending on the level of experience that a researcher may have with a particular type of methodology (Turner 2010). There are three formats for interview design, which were summarised by Gall et al. (2006): (a) informal conversational interviews, (b) the general interview guide approach and (c) standardised open-ended interviews.
(a) Informal Conversational Interviews: An informal conversational interview, as mentioned by Gall et al. (2003, p. 239), is ‘the spontaneous generation of questions in a natural interaction, typically one that occurs as a part of ongoing participant observation Fieldwork’. With this type of informal conversation approach, the interviewer does not ask particular questions but relies on the interaction with the participants (McNamara 2009). This is a flexible type of interview, in which the direction of the discussion can be changed as the interview progresses. Others consider this type of interview to be unreliable because of inconsistency, which makes the collection of data difficult (Creswell 2003).

(b) General Interview Guide Approach: This is a more organised approach, as it provides a structured guide in addition to some flexibility (Gall et al., 2003). This type of interview can deviate and address unplanned questions. However, it develops rapport with the participants, creating an environment for follow-up questions and answers (Turner 2010).

(c) Standardised Open-Ended Interviews: This is an extremely structured approach in terms of both questions and answers. The participants are always asked identical questions, but the responses are open-ended (Gall et al. 2003). The open-endedness allows the participants to provide detailed information and the researcher to ask probing questions (Turner 2010).

For the purpose of this research, the standardised open-ended interview format was the most appropriate and suitable option for this subject. The major reason for selecting this method was the limited time available to hold interviews with the senior officials, which meant that research approaches such as the Delphi method were unsuitable; therefore, a prime requirement was to ensure that the interviews were completed within the allocated time and all the required information was obtained. Further, some information was confidential; thus, the researcher sent the questions to the interviewees ahead of the interview.
The Selection of Interviewees

Creswell (2003) indicated the importance of acquiring participants who are willing to share information openly and honestly. It is also important to conduct the interviews in a comfortable environment to ensure better results.

Two organisations were taken into account as the prime stakeholders of BIA, namely Civil Aviation Affairs and the Bahrain Airport Company. The selected interviewees were chosen based on the following conditions:

- An employee with awareness of policies and future plans.
- Someone who can provide the required information.
- Someone who has the ability to discuss the research topic.

Based on these conditions, standardised open-ended interviews were conducted with various senior management officials working in the airport industry of Bahrain. Three were interviewed from the Bahrain Airport Company, namely Mr Mohamed Al Bin Falah, CEO, Mr Abdulla Janahi, Vice President, and Mr Gordon Stewart. The others were from Civil Aviation Affairs of the Ministry of Transportation and Telecommunications: Mr Ahmed Nemat, Acting Undersecretary, Ms Ebtasam Al Shamlan, Director of Air Transport, and Mr Kamal Hefney, Advisor.

Development of Interview Questions

The process defined by Churchill and Iacobucci (2002, p. 315) was followed to develop the interview questions, as presented in Figure 8.
Figure 8: Questionnaire Development Process

Source: Churchill and Iacobucci (2002)
A qualitative questionnaire was used during the interviews with officials concerning the BIA expansion project and was developed in line with the scope and dimensions of the research questions and objectives. The questionnaire focused on the issues faced during the planning and implementation of the strategic business plan for airport development and expansion. A comprehensive analysis of the questionnaire from the respondents' point of view was carried out to establish how the questions were interpreted and how the respondents understood the concepts related to strategic business plans for airport expansion. The questions were designed to gather relevant information and valuable and informative responses from the officials at BIA. Examples of the interview questions are as follows:

1. Give your opinion regarding the situation of Bahrain International Airport’s strategic management.

2. What kinds of incentives are provided to the various international and domestic airlines using BIA for their operations?

3. In your opinion, what are the obstacles faced by Bahrain International Airport?

4. What will be the impact of Bahrain’s rail connection plans with other GCC countries on the strategies and management of the BIA master plan?

5. Share your opinion regarding the development issues of BIA.

6. What are your estimation and projection with regard to the passenger traffic at BIA in the near future?

7. How do you plan to increase the popularity of BIA?

8. Explain the cost challenges faced by BIA and its management for the implementation of the airport development plan.
Analysis of the Interviews

Interviews were used as a form of qualitative data collection in this case study. These structured open-ended interviews were analysed using the descriptive analysis technique. A systematic content analysis was performed for the quasi-statistical qualitative data collected during the interviews with the selected respondents to develop an efficient approach to airport strategic planning.

3.7 HOW SPECIFIC CHAPTERS WERE WRITTEN

3.7.1 This section describes how the chapters related to the case study were written in the research. These chapters are Market Analysis, BIA Internal Analysis, Competitiveness Model and SWOT Analysis.

3.7.2 The market analysis was carried out by analysing the strategic location of BIA coupled with historical information about its development after the independence of Bahrain. In addition, a review of the major operators at BIA and their effect on the requirements for continuous development at the airport was conducted.

The analysis of the air traffic at BIA is an important element of this chapter, which presents a comprehensive comparison of traffic from 1972 until 2017. This includes passengers, cargo and aircraft.

External drivers related to BIA were then studied, including foreign trade policies, economic factors and legal factors. All of these were carried out by referring to relevant publications, as mentioned in the chapters, as well as various data.

Finally, an analysis was performed of the implementation of SWOT analysis at BIA. This was based on the market analysis of BIA, taking the information from the various interviews carried out for this research as well as the literature review and references to various articles and publications. The primary stakeholders at BIA were identified (the BAC and BAS) to form the basis for the SWOT analysis as well as information on ongoing BIA projects. The study was undertaken on the basis that the end of the analysis would propose strategic plans supported by the benefits from the opportunities, at the same time minimising the threats and mitigating the weaknesses.
The strength analysis was performed primarily based on the information from all the interviews in addition to focusing on the availability of the airport infrastructure projects to determine their existence and how the airport will benefit from them in addition to the effect of these developments on the future of BIA.

Unique characteristics of BIA were identified and established to reach a conclusion regarding their possibility to act as important elements of the strengths. Other elements for review and analysis were the situation with Gulf Air at BIA, the government policy regarding BIA and the geographical location of BIA.

3.7.3 The BIA internal analysis deals with the analysis of BIA’s strategic management, competitiveness, development issues and master plan.

The analysis of BIA’s strategic management was carried out first by describing and stating the theories behind such management systems. From the interviews conducted, information was obtained related to any possible strategic strategies used at BIA in addition to information related to its master plan. Information from publications and articles was also used to establish the same. Statistical data were referred to for the purpose of determining the average annual traffic growth at BIA.

The expansion plans of BIA were then discussed considering the development to accommodate the demand forecast, modernisation issues, integration plans and alliances, providing a full and in-depth review of the current situation of BIA’s plans.

The analysis of BIA’s competitiveness and infrastructural services was followed with specific references to the establishment of care areas of competitiveness by referring to the theoretical aspects as well as obtaining information from literature reviews, articles and publications.

Finally, an analysis of BIA’s master plan was undertaken carefully by referring to theories and articles related to master planning and specifically comparing the various points with each of the points established during the various interviews. A figure is provided to show the time line of BIA’s development plans to clarify the current situation.
As a result of the above analysis, recommendations are made for implementation concerning the plans and issues.

3.7.4 The creation of the BIA competitiveness model in Chapter 6 started with the categorisation of the competition at airports followed by a demonstration and analysis of various theories and articles. Reference was also made to one of the airports. The airport competitive model used by Park (2003) was described and analysed.

This shifted the study to focusing on and discussing management and development challenges, adopting a similar method to the literature review and article analysis and referring to statements made by the interviewees. Other issues covered under the model are increasing competition, staff-related challenges, cost-related challenges and safety challenges. A comparison was then made to identify the competitors and perform a competition analysis at BIA. This compared the major facilities provided at the neighbouring airports and compared them with those at BIA to establish the areas of competitiveness.

3.8 LIMITATIONS OF THE CASE STUDY

The researcher encountered many obstacles in the preparation for this case study:

- A limited amount of literature was available pertaining to the research area, as strategic planning in airports is not widely covered.

- The lack of availability of the required data from the CAA and BAC. The case study was based on the information obtained during the interviews, but written information about the areas related to the case study was not available. In the BAC case, there is neither an established strategic plan nor an approved master plan.

- Acquiring access to some of the required key personnel from BAC to obtain valuable information was not possible.

- Four to five years elapsed between the time when the interviews took place and the time when the research was concluded. Though this is considered to be a long time, it is believed that it has not affected the aim and objectives of the study, as
the organisation chart at BIA and the work environment related to AMP issues have not changed and no significant changes have occurred in the cultural understanding of new approaches to AMPs. However, it must be mentioned that a significant amount of developments have been undertaken at BIA in terms of the construction of a new passenger terminal building, which is scheduled for completion by the end of 2019 and is part of the latest BIA master plan.

3.9 ETHICAL ISSUES

According to Greenwood and Levin (2007), the analysis conducted in an investigation must follow basic ethics. The purpose of the following ethics is to ensure that the respondents participating in research are protected. In the current study, the researcher follows these ethics by gathering informed consent from the interviewees before the data collection.

i. The research was conducted in relation to strategic planning at BIA only;

ii. The interviewees were familiarised with the research prior to the interviews;

iii. The interviewees were approached and, after gaining their consent, the interviews were held on a voluntary basis;

iv. The personal information of the interviewees remained confidential;

v. The data analysis was carried out truthfully.

3.10 CONCLUSION

This chapter discusses the research methodology adopted in this study based on strategic planning and the development of airports. This is a qualitative study conducted using a case study and interviews for data collection. This research adopted interpretivism as a research paradigm to evaluate the research problem following an exploratory qualitative approach with special reference to BIA. For this purpose, a case study on BIA’s expansion project was carried out along with direct interviews with carefully selected officials from the airport industry to acquire relevant data and information about BIA.
CHAPTER 4  BIA INTERNAL ANALYSIS

4.1 INTRODUCTION

The strategic location of Bahrain and its simple access to other markets and regions give BIA a competitive edge. The BAC has fine-tuned and reviewed the current master plan, which paved the way for the implementation of the current expansion project of the passenger terminal (Ministry of Transportation and Telecommunications, Bahrain State Action Plan, 2014). When these two projects are launched, the quality of services and facilities provided to the users of the airport will be enhanced. This chapter presents a systematic analysis of BIA and its strategic expansion plan undertaken by the BAC. The chapter is divided into sections that analyse BIA’s strategic management by the BAC and the airport’s management committee; the airport’s competitiveness, infrastructure and services in comparison with its competitors; the airport’s developmental issues; and its master plan.

4.2 ANALYSIS OF BIA’S STRATEGIC MANAGEMENT

According to Balanced Scorecard (2013), strategic planning by organisational management is used to set precedence, concentrate resources and energy and enhance operations to ensure that the stakeholders and employees have similar targets, set up contracts around the intended results/outcomes and adjust the direction of an organisation in response to changing surroundings. It is a disciplined effort that generates major actions and decisions pertaining to what an organisation is, who it serves, how it performs and why it operates, with a focus on the future. Efficient strategic planning not only communicates where a company is heading and the actions required to develop but also determines whether it is successful or not. A strategic plan is a document used to interact with the company and the targets of the company, the actions required to accomplish those targets and all the other critical elements developed during the exercise of planning. According to FPM (2013), the three major keys to successful implementation of strategic planning are credibility,
commitment and communication. Implementing a strategic plan is also important in making an integrated system, by which the strategic plan becomes the measuring factor for development in any organisation and then it becomes an accountability system. Thus, strategic planning is the key to ensuring that an organisation is ready to face tomorrow’s challenges.

*When the CEO of BAC was asked about the situation of BIA strategic management, the interviewee Mohamed Al Bin Falah mentioned that they are operating on a five-year plan ahead of the strategic plan for the BAC that involves rewriting the visions and review of the mission statements. He also added that their present plan was made in-house by the BAC with assistance from certain consultants.*

On the basis of the interviews with Mohamed Al Bin Falah, the CEO of the BAC, the company is planning to expand the international airport to continue the development of Bahrain not only by offering businesses in Bahrain the access that they have requested for the future but also by enhancing the developing logistics and aviation industry in the kingdom. According to Airport-Business (2011), Al Rumaihi K, the Chairman of BIA, mentioned that BIA is an essential component of Bahrain’s economy due to its strategic geographical location at the centre of the Gulf region. The growth and expansion of the airport will enhance the status of this historical country into a lively platform for passengers and strengthen the role of BIA as a gateway to the world.

An essential expansion project at BIA will increase its capacity by 50 per cent with an intake of 14 million passengers every year. When considering the passenger traffic at BIA, according to the interviewee, the developments are essential, particularly due to the downsizing of Gulf Air. A new airline like Bahrain Air will also be implemented. If a new airline is to be incorporated, then it must not compete with the existing Gulf Air. One of the major issues while incorporating Bahrain Air is the rivalry that may occur between Bahrain Air and Gulf Air. Bahrain Airport has been driven mainly by Gulf Air. When a new airline is introduced, it will rely heavily on the developments at the airport. If such developments are not supported, then it will become difficult to attract newer airlines. Almost all the regional airports in the GCC countries have spent heavily on the infrastructural development of airports, and similar development is necessary for
BIA. The competitive edge and attractiveness that BIA used to enjoy has decreased to some extent. According to Anna.aero (2011), the traffic at Bahrain Airport decreased after the Middle East political situation during 2011, which also led to the cancellation of a major international sporting event, specifically the Formula 1 Grand Prix, which used to attract a large number of tourists to the nation. However, soon afterwards, the traffic started to increase, as shown in Figure 9 below, which presents the BIA passenger traffic from 2005 to 2017:

![Average Annual Growth 5%](image)

**Figure 9: BIA Traffic**

**Source: BIA**

According to the Centre for Aviation (2012), after enduring severe repercussions and widespread political unrest in the Middle East in 2011, the two local Bahraini airlines, Bahrain Air and Gulf Air, both accounted for developed market conditions and improved passenger traffic numbers despite the regional instability and the severe competition from local competing airports in the Gulf region.
The situation of the two airlines is decidedly better than it was in 2011, when the passenger traffic had reduced by almost 30 per cent. The passenger traffic at BIA has rebounded, essentially in the past few months, although it has returned to the level of 2010. Gulf Air has experienced an increase in revenue of 6 per cent annually.

According to McGinley (2010), Gulf Air is Bahrain’s national carrier and is considering moving its ground services, such as the handling of passengers, in-house catering and cleaning, as reported by the Gulf Daily News. These services that Gulf Air provides will no longer be needed by its largest client, and the services of several Bahraini employees will not be required. The plan implementation awaits the approval of Gulf Air, as it would risk a lay-off of around 250–2000 employees working at the BAC. In the interview, Mohamed Al Bin Falah pointed out that the major risk faced by BIA is related to Gulf Air. Stability is essential for BIA, but it is not completely dependent on Gulf Air, since it will remain operational even without this airline. According to Gulf Air (2013), it will perform with greater standards of corporate governance internationally and is committed to transparency. According to the Deputy Prime Minister, the management of Gulf Air has a balanced strategy of restructuring that will lead the airport towards sustainability and assist in Bahrain’s future economic growth.

The strategy aims to enhance the core services of the national carrier by optimising its network and fleet, streamlining its structure and organisation and re-engineering its internal process to transform the airline into a more efficient and dynamic national carrier that will continue to serve the Kingdom of Bahrain and its customers. McGinley (2010) mentioned that the steps taken by Gulf Air to develop its competitiveness must not be at the cost of the national economy or Bahraini labour. Successful companies must adapt themselves to the competitive surroundings, and Bahrain Airport Services and Gulf Air are no exceptions. The Bahrain Government has planned to recoup the losses incurred by the national carrier, which in 2009 had a debt of $502.9 million, an increase of 21 per cent. Gulf Air is regarded as one of the single biggest employers in
Bahrain, where privatisation is opposed by public and opposition political parties due to the threat to job security.

MyBahrain (2011) mentioned that the Government of Bahrain will invest more than $1 billion in Gulf Air in its attempt to develop its business and competency. This measure highlights the commitment of the state to the government-owned carrier, which has undergone a management change as well as monetary loss in its fight to compete in the aviation market of the Middle East. The Government increased the carrier’s authorised share capital by 400 million Bahrain dinars and explained it as the airline’s first capital restructuring. According to My Bahrain (2011), the BAC projects an optimistic future due to the assistance acquired from the government authorities and leadership, specifically from the long-term commitment and the Civil Aviation Authority protected by its stakeholders. These investments will assist the BAC in accomplishing its airport objectives, which will ensure the Kingdom’s economic development and the creation of a world-class airport.

The CEO of BIA mentioned that Mohamed Al Bin Falah will continue the solid accomplishments that BIA has made and will add a lot of experiences in developing and handling the airport. He also added that they trust that Mohamed Al Bin Falah will enhance the work that has been undertaken and pursue the strategic plans that they have set to achieve the vision of having the best Bahraini airport.

Thus, it can be inferred that the BAC plays an essential role not only in the success of the aviation industry of the Kingdom of Bahrain but also in the socio-economic development of the country. It therefore contributes significantly to the economy of the country.
4.3 BIA INTERNAL ANALYSIS

4.3.1 Expansion Plans of BIA

Development to Accommodate Demand Forecasting

To accommodate the increasing passenger traffic and growing need for modernisation of the airport facility, the development of a new terminal has been proposed. According to Ventures Onsite (2016), massive funds have been allocated to the development of the airport to enhance international customers’ travel experience at the airport. However, considering the demand forecasts of ever-growing international passenger traffic at the Middle Eastern airport, an entirely new terminal is to be developed, upholding the aesthetics of modernisation. ADPi has been appointed to design and develop the new terminal at BIA. The new terminal is being developed as part of the Bahrain Airport Modernisation programme. The new passenger terminal building is being developed with modernisation as its theme to give it a modern feel. Among other proposed constructions to develop and modernise the airport are the plans to develop a main service building and an aircraft bay. At BIA, around 8 million passengers travel every year, and BIA is presently expanding to manage the capacity in the future.

The development needs are to be integrated with the demand for exclusive services offered by the other competing airports in the region, like Dubai International Airport and Doha Airport. The range of specialised services offering a unique customer experience for international travellers and transit passengers includes executive flight services for corporate clients, and many other infrastructure-based services offering a quality experience and facilities at the airport have been designed to enable this airport to be an international space par excellence. Vast funds have been allocated to this process of modernisation and the makeover of BIA (Ventures Onsite, 2016).

Modernisation

A huge sum of around $1.0 billion had been raised for the modernisation and expansion projects by January 2016 as a grant to the Kingdom of Bahrain from Abu Dhabi. The modernisation plan of the BIA includes the development of a new
passenger terminal building covering an area of 50,000 square metres. This expansion plan of BIA, launched by the Ministry of Transportation and Telecommunications, is the largest aviation infrastructure project undertaken by the kingdom in the last twenty years. This infrastructure expansion project will further consolidate the country’s strategic location and status not only in the Middle Eastern region but also internationally.

Integration

According to the Bahrain News Agency, after the modernisation and infrastructural expansion of the airport, its passenger-handling capacity will increase to 14 million passengers a year. The BIA expansion project will also create additional jobs for Bahrainis, as the master plan includes the expansion of retail shops, cafes, banking facilities, entertainment lounges and many other services that will lead to job creation. This project will integrate economic development along with the strengthening of the kingdom’s airport competitiveness and status as a gateway to the GCC market. It will also integrate the various business sectors of the country with the civil aviation industry and create a sector for the integrated development of all the sectors.

Alliances and Collaborations

The BIA expansion project is being undertaken as a joint venture between the UAE’s Arabtech and Turkey’s TAV Construction. Besides this major collaboration, five other alliance agreements have been announced to cover distinct expansion projects. Among these are China’s CIMC for the construction of passenger air bridges and contracts with KONE from Finland for horizontal and vertical transfer systems. Also included are collaborations with L3 Communications of the USA for the security screening equipment and another contract with Vanderlande from the Netherlands for the baggage-handling systems. A contract with SETEC from France for designing the MRO facility has also been signed. Such collaborations and alliances have been adopted to ensure that the expansion project is executed in accordance with the highest technology, design, safety and environmental standards. Thus, expertise and
competitiveness are being maintained in the expansion and development project through expert alliances and foreign collaborations.

4.4 ANALYSIS OF BIA’S COMPETITIVENESS AND INFRASTRUCTURAL SERVICES

According to Brueckner (2003), small and medium airports can secure higher levels of passenger traffic and compete with their larger and geographically advanced counterparts. This is described as a reverse traffic shadow theory, whereby long-distance travellers patronise small and medium hub airports, because of which these airports record higher growth rates for passenger traffic. In accordance with the reverse traffic shadow theory, BIA also benefits under the reverse traffic shadow theory and is in a strategic location that allows it to steal passenger traffic from larger and geographically advanced airport hubs in the region, like Dubai International Airport and Hamad International Airport. Furthermore, due to its strategic location, the BIA expansion plan will help it to grow further as an airport hub for various international and national airlines and compete with the other airport hubs in the region, as proposed in the Bahrain airport expansion plan. At present, the airports of Dubai and Doha are the major airline hubs, and Bahrain Airport’s expansion will compete with these airline hubs, which can in turn lead to growth in the transit passenger traffic at BIA. Currently, BAS serves as the airport hub for the national carrier, Gulf Air. After the expansion plan’s execution, the airport will become capable of acting as a hub for other airlines as well. It can also serve as a major cargo hub airport, since the cargo-handling capacity is proposed to increase to 1.5 million cubic metres (Gulf Daily News 2009).

4.4.1 Core Areas of Competitiveness

According to Graham (2004), product and price are two core characteristics that are advantageous for an airport operator to control the impact in the competitive analysis. There are some regions where the airport operator has essential control and others where it has little control. Azmi (2013) stated that the Kingdom of Bahrain spends a considerable amount on its logistics infrastructure. The sector possesses substantial
development importance in the future, particularly due to the expansion of cargo in the Gulf.

According to the analysis of the current research, all the infrastructure of the BIA is maintained by the Government, which invests substantially in it. The BAC is the authority liable for managing and operating BIA. As part of its role as the operator, the BAC is liable for expanding the services and infrastructure of the airport. It involves the development of aviation capabilities of the kingdom by attracting more travellers and altering the demands of the involved stakeholders. Interviewee Mohammad Al Bin Falah (MF), the CEO of the BAC, commented:

*Almost all the regional airports in GCC countries have invested heavily in airport infrastructure, and, without this commitment, BIA cannot develop its attractiveness and its competitive edge will diminish with regard to commercial outlets, such as shops, cargo, car park and logistics. These areas attract investments from the private sector.*

According to Barrett (2004), the airport operator has high control over the supply and cost department pertaining to non-aeronautical facilities and services at BIA along with the enclosed land. The airport has gained experience in acquiring benefits from buyers and suppliers by exploiting numerous commercial or non-aeronautical opportunities. This has been accomplished by increasing the number and integration of retail caterers and operators, implementing various branding and rivalry strategies and handling the increasing expectation level of the customers of BIA with experience.

Though these developed commercial facilities are increasing the popularity of BIA, they play a small role in influencing travellers’ preference for the airport. There are also a few special cases that attract customers *en masse*, for instance when duty-free costs or products are used to attract the attention of transfer travellers.

However, these non-aeronautical revenues will contribute greatly to the overall financial aspect of an airport. Graham (2003) mentioned that, if the airport performs under an individual, the development in commercial revenues may be reimbursed by reducing the aeronautical charges. Though regulation is attractive to the airport, it may
not be in the best interest of the airport operator. It indicates pressures for innovation, business development and diversification, which could essentially bring extra competitive benefits. Moreover, the inability of an individual to permit pricing effectively and assign it adequately may motivate congestion through low charges, which will make the airport less attractive to some services within it.

In Bahrain, the distance between the airport, the seaport and the logistics processing zones is the shortest of those in the Gulf region. Therefore, Bahrain is the most rapid and efficient processing centre for trading products. BIA is the home to the national carrier, Gulf Air, and hosts more than forty other airlines. It has connections to major worldwide business and financial centres. BIA is closer to two essential developments: the Khalifa Bin Salman Port and the Bahrain Logistics Zone. The Khalifa Bin Salman Port is connected to Saudi Arabia through the King Fahad Causeway and offers greater quality shipping, logistics and sea freight services. The Bahrain Logistics Zone is a customs-free logistics park concentrating on value-added logistics and re-exporting activities. Numerous success factors have fuelled BIA to acquire strategic strengths over other airports. With regard to strategic planning, Abdullah Ahmed Janahi (AJ), the Vice President of the BAC, revealed:

We also have strategies to increase revenue, improve security, minimise costs, improve quality, improve efficiency, improve reliability, improve safety, etc. Consultants are appointed for developing the strategic and master plan. However, currently, there is no current master plan for BIA.

According to the Bahrain Airport Company (2014), another competitive factor of BIA is its strong corporate social responsibility (CSR). The BAC strongly believes in its CSR and is involved in numerous initiatives, which include vast activities in sports, culture, charity and the environment. The BAC firmly believes that, in addition to creating an economic influence through its business activities, it is obligated to play an active role in the overall development of the society as a liable corporate entity. Therefore, it offers substantial practical and financial assistance to Bahrain’s local community. The BAC has actively motivated young Bahrainis and athletes to be
involved in maintaining their surroundings and encouraging its team to be involved in the community, charity and national fund-developing activities.

Another area of competitiveness is the advertising space. The power of airport advertisement displays is indisputable. BIA has incorporated premium brands within the airport premises to engage customers. It offers a perfect platform to captivate customers, such as elite, corporate and leisure passengers, who invest their time at the airport before and after the landing of flights. The advertisement platform of BIA provides a real chance to advertisers to reveal engaging new products. Apart from regular customers who travel every day, travellers from around the world visit BIA. The media highly influence such places and the development of the airport surroundings with creative media technology (BAC 2014). The interviewee Gordon Stewart, Chief Support Services Officer, mentioned:

*To increase the popularity of Bahrain aviation, we must engage more people by first attracting the businessmen and then the other potential customers, such as tourists. For that, we can develop advertisements and other means of engaging the customers. The purpose should not only be limited to nationals but also for increasing international clientele.*

According to The Free Library (2013), one of the competitive factors of BIA is effective leadership. BAS requires surroundings to perform the complexity and diversity of its operations, but, in terms of the differences and depth of sensitivities, the local factors are constrained. Simultaneously, executing radical changes throughout the operational and corporate spectrum puts the skills of the leadership to the test. It is important to construct a realistic vision that is accepted by the employees by implementing a change that motivates people. BIA needs to establish a constructive strategy and work closely with its employees towards its implementation. It must be able to view the global-level picture by assisting its employees in recognising innovative solutions. BIA must understand its employees by setting up a climate of fairness, mutual respect and integrity. All the above-mentioned features must be transparent and recognise the possibility of failure while also celebrating the success of the team. Gordon Stewart further stated:
All the people involved in the development team of BIA work hard. The inspiration for our efforts is due to our CEO, but not only him; the employees are doing their best too. Also, the change of goal is what has caused us to work harder.

According to Pit and Brown (2001), there are some airport products over which airport operators have little or no control. These are referred as one of the most essential factors that influence the competitive position of BIA. The factors that exert an impact on the attractiveness of a place involve the size of the population and its propensity to fly, the economic power of the region and its significance as a business or tourist destination. The competitive place of airport hubs, which are developed mainly for traffic transfer without a natural local region due to tourism or economic factors, may be weak.

Barrett (2000) mentioned that, although BIA cannot change its location, its catchment area lacks flexibility, for instance its dependence on long-haul and short-haul services. In short-haul services, travel to familiar places may attract rivalry from other airports, and the catchment area is likely to be comparatively small. For places with less familiarity or longer distances, there is probably less rivalry, so the catchment area will expand over a larger region. The changes in the catchment area are dependent on the services provided by Bahrain Airport and its neighbours and the similarity in their quality and nature of surface access connections. It has been observed that low-cost carriers have been particularly successful in attracting travellers from vast catchment areas compared with other airports. Gordon Stewart explained:

I have done the research for considering the external environment comprising the present situation and population of Bahrain. The traffic of Bahrain is from within its population of 1.2 million people followed by the people of the eastern province of Saudi Arabia. There is also forecasting that the aviation industry will gain more traffic. The drawbacks of Bahrain Airport are that its design is not that attractive and the Bahrainis are not that interested in tourism. Business in this field will increase with the help of promoting tourism and building a model as per the demands of the people. Then we will have a higher number of passengers, in the millions maybe.
4.5 ANALYSIS OF BIA’S MASTER PLAN

According to Jane (2013), a master plan highlights the details concerning the business. It involves everything from the general mission statement to the profiles of the major players and a list of services or products. A master plan of a business is not especially different from a regular business plan, but the actual copy is always known as the master copy. A master plan is a business plan of an organisation. It must be written before the business is launched officially. The plan of a business is a component of its planning process. While some business owners write the plan before recording and acquiring extra funding, others write it after the name of the business has been registered along with the state and protected funding. Master plans offer an excellent plan for a business that does not have any reservations in consideration of any essential investors or lenders.

According to the interviewee with Janahi, BIA, in the year 2007 a master plan was developed by CAA. Another growth plan by the BAC involved transferring the airport to another location, but the Government decided to revalidate the proposed place for the new airport. Plans and strategies are being developed to decide on the best land to use. They include many strategies to increase the revenue, reduce the costs and improve the security, reliability, safety, quality and efficiency.

According to the Oxford Business Group (2009,) through Mumtalakat, the integrated mother firm, the BAC works closely with Gulf Air. The group that coordinates airport expansion is aware of its requirements for development over the coming years. The team has developed the master plan for BIA, which was constructed around its aspirations to become the most streamlined and convenient transit centre in the Gulf region. Gulf Air has set common targets for itself so that the airport expansion and the development of the national carrier progress hand in hand. Some specific advantages of Gulf Air are the expanded capacity of the airport to address delays during peak travel times. The team requires a short distance between the car park and the check-in area as well as from the check-in area to the gate. It aims to reduce the transit time from the car park to the gate by 10 minutes, which is unheard of in the industry. Additionally, the operational efficiency aims to reduce the time for which the aircraft
are on the ground and to optimise the hours of active flying and the usage of fuel. All these requirements have been included in the master plan, and these developments are being followed closely. According to Gulf-Daily-News (2010), the BAC has signed an agreement with ADPi (Aeroports de Paris Ingenierie) to combine the concept design of the infrastructure plan with the airport development at BIA. ADPi has been operating since April 2010 and has developed the master plan for BIA’s expansion over two phases. The first phase was completed in 2015 and included a short-term solution to develop the existing terminal’s interim capacity, involving upgrades to the present facilities, such as the arrival hall, check-in area, extra retail outlets, departure gates and passenger traffic area.

The second phase is an extensive long-term expansion master plan, which will be initiated in the first phase with the new runway expansion, terminal facilities, general infrastructure and aviation, taxiway, cargo and aircraft maintenance hangars. This major master plan is projected to be in line with the Economic Vision 2030 of the Bahrain Kingdom.

*When the interviewee was asked about the incentives for airlines, it was found that Bahrain airport offers an extensive package of incentives including fee reduction, hotel accommodation discounts for crew members and reduced costs of fuel.*

STRAIR (2005) explained how all the promotional efforts at Bahrain were channelled through a single co-ordinated group involving the Airport Services of Bahrain, Petroleum Company in Bahrain, Bahrain Duty Free and Air BP. A number of small regional airports can provide low-cost air services that include the charges for handling as well as offering these services themselves. According to the Oxford Business Group (2008), the aim of the BAC is to become a major centre of trans-shipment in the Gulf region. The BAC has also prioritised the facilities and infrastructure for logistics. One of the essential components of the proposed master plan is the offering of easy access between the airport and the new Khalifa Bin Salman Port and industries. This integration with the existing King Fahad Causeway, connecting Bahrain to Saudi Arabia, will develop simple trans-shipment and save money and time on transportation to other markets of Bahrain. Taking a long-term view, once the
The proposed Causeway of Bahrain–Qatar becomes operational, it will provide opportunities for logistics and trans-shipment business. On the other hand, the interviewee Janahi also mentioned that discounts and incentives will be offered to the airlines. The BAC does not become involved in tariff negotiations, but the incentives are set up by the BAC. The BAC has recruited a specific team for offering incentives and discounts to airlines.

According to the interviewees (including Mr Al Bin Falah, Mr Gordon and Mr Janahi), there are numerous obstacles faced by the BIA. It has decided on two plans but has not implemented them because of the numerous options, and it could not decide on a proper one. The BAC had to alter three management teams, and every management team had different thoughts.

According to the Oxford Business Group (2007), Bahrain needs more space for cargo and offices to attract investors and companies. It also requires a better skilled workforce, which the private sector can offer.

When the interviewee Kamal Hefney was asked about the rail connection plans for Bahrain and the GCC countries, he stated that Bahrain aims to finish its master plan for rail, which involves mainline links to neighbouring countries in the GCC countries, such as Qatar and Saudi Arabia, including light, metro, monorail and metro systems, by the end of 2019. The air transport advisor of Bahrain, Kamal Hefney, mentioned that it needs to connect the railways to the airport and decide the actual alignments, which are the most cost-effective and essential approach.

According to the Bahrain News Agency (2012), the railway of Bahrain will link the Saudi rail land bridge and the GCC network, which will connect Dammam city parallel to the Gulf coast of Bahrain with Red Sea Jeddah through Riyadh. In future, these lines will be connected to a wider rail system of the Middle East and then ultimately Central Asia and Europe. Having a railway link to the rest of Bahrain is seen as advantageous. Firstly, it will make the movement of heavy cargo cheaper and easier, thus developing overall trade. It will also make it simpler to develop the ability of the manufacturing industries of Bahrain to export as well as to enhance the imports of
bulkier commodities and goods. The railway between Dammam and Bahrain will operate adjacent to the King Fahad Causeway across the Bahrain Gulf, and a considerable amount of traffic that presently uses the causeway will probably transfer to this railway, the first to be constructed in Bahrain; the plans’ completion is expected by 2030.

Developed connectivity will help to lower the costs for the economy of Bahrain and improve the growth of several essential sectors, from manufacturing to tourism to finance. Transportation projects are by nature long term, capital intensive and complex due to their international scope. It will be essential to finish the new road and regional rail links of Bahrain on time, as they will be significant in the further economic development of the country.

According to My Bahrain (2011), Bahrain Airport aims for a 1 billion US dollar expansion to offer 8 more parking spaces for aircraft and 8 more air bridges. This is targeted at developing the capacity of Bahrain Airport to 15 million travellers every year by 2019. The check-in desks will be doubled, and several shipping facilities will be provided. Other plans involve the construction of a new multi-level car park and the provision of retail outlets and offices, which will be connected to the major terminal building.

The success of Bahrain Airport’s development and expansion plan will be based on the successful implementation and execution of the master plan, which aims to integrate growth and development with a focus on several infrastructural facilities to ensure better services and facilities for leisure and business travellers as well as the airlines using BIA.
FIGURE 10 Timeline of BIA Development Plans

(Source: BAC 2018)
Figure 10 describes the time lines of different master plans prepared for BIA from 2007 until the planned date of completion for the construction of the new passenger terminal building in 2019.

4.6 ANALYSIS OF BIA’S DEVELOPMENTAL ISSUES

When the interviewees were asked about their views on the development issues of BIA, they revealed that they came across a new programme approach to redesign the strategic management plan of BIA. This programme is very interesting in creating the systems of the strategic management.

The major tools of the new programme are all related to the procedures and then the strategic planning of BIA. According to Industry-Me (2013), the BAC is presently putting in place several infrastructure plans that will expand, diversify and develop the airport in an impressive way. They are in the last development stage and are expected to develop the airport as a regional centre when completed. The BAC has been striving to handle the airport as a global-class airport and develop the aviation capabilities of the kingdom in line with the national plans. Considering the development strategy, the BAC has adopted an approach that differentiates the revenue streams of the airport with non-aeronautical and aeronautical services to provide travellers with an excellent experience and meet the changing requests of the stakeholders.

The Chief Executive Officer Mohamed Al Binfalah mentioned that they are honoured to serve travellers during peak seasons with heavy traffic due to a busy pilgrimage season.

According to My Bahrain (2011), the expansion projects of Bahrain involve the formation of a new complex for the maintenance of aircraft, which offers facilities for aviation training and a new logistics centre and cargo. The government officials at BIA have been developing and expanding it because of its projected growth in air traffic and usage by the international airlines.

When the interviewees were asked about the increase in passenger traffic in Bahrain Airport compared with other airports, it was reported that, according to Zawya (2013),
BIA recorded growth of almost 9 per cent during 2012 compared with 2011. BIA accounted for around 8,480,885 travellers between January and December 2012. Figure 11 below shows the passenger traffic statistics for 2016:

<table>
<thead>
<tr>
<th>Bahrain International Airport Passenger Statistics 2016</th>
</tr>
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<tbody>
<tr>
<td>Arriving</td>
</tr>
<tr>
<td>Transit</td>
</tr>
<tr>
<td>Departing</td>
</tr>
<tr>
<td>TOTAL</td>
</tr>
</tbody>
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**Figure 11: BIA Passenger Traffic Statistics 2016**

*Source: Zawya (2013)*

*The Chief Executive Officer of BAC mentioned that they are glad to serve their customers during challenging summer seasons with heavy passenger traffic due to the pilgrimage undertaken by Muslims all over the world in those months and due to international sporting events, such as F1, among others.*

BIA has also acquired a cargo fleet of new IAG Boeing 747-8F jet airliners, which touched ground for the first time in Bahrain during 2012 followed by a similar model from Cargo Luxe.

According to DIA (2013), there is also increased passenger traffic at Doha International Airport during the summer months. Doha International Airport received more than 21 million passengers during 2012, and the passengers using Doha International Airport for transit purposes also increased during 2013. According to
Dubai Airport (2013), the passenger traffic at Dubai International Airport reached around 57,684,550 in 2012, representing nearly 13.2 per cent growth from 50,977,960 passengers during 2011.

Finally, Sambidge (2013) mentioned that in Abu Dhabi the traffic in 2012 consisted of 1,317,689 million passengers, a 14.8 per cent increase compared with 2011, making it the busiest airport on record. When compared with Dubai, Abu Dhabi and BIA, the passenger traffic is high at Doha International Airport.

According to Proudly Arabian (2013), some of the best methods suggested for BIA will contribute successfully to placing Bahrain distinctly within the region. Usually the Middle East finds it difficult to engage in commerce worldwide, and it is believed that Bahrain provides the best place to enter this multi-billion-dollar market. The pivotal position of Bahrain in the geographical mid-Gulf made it a logical preference for sea trade centuries ago, which later led to the development of the first airport in the region. Operating flying boats to Europe and beyond, the airport provided a convenient and friendly transit hub for cargo and passengers for the Northern Gulf as well as the huge Saudi Arabian markets and the GCC. Presently, BIA is benefitting cargo operators and passengers by providing a user-friendly, convenient and modern place with ideal sea and road links to the area.

The BAC is operating closely with CAA to promote passenger usage and greater airport development. The BAC will enhance all the available support services for airlines arriving in and departing from Bahrain, and it hopes to witness massive growth in the number of flights and airlines using its international airport. It is essential for the BAC to provide the best available facilities and services for the entities and passengers using the airport, even though it is operating successfully on a commercial basis with transparency. The BAC will review its fees and charges to bring them into line with the prevailing rates in the region, such as those for renting airport space. It will also rapidly enhance the facilities and infrastructure of the airport to attract huge investment and increase the numbers of leisure and business travellers. The advantages for the economy include greater revenue from tourism, good services for consumers and the business community and support for the Kingdom of Bahrain in its
effort to become a major transportation, distribution and trans-shipment centre in the Gulf.

According to the CAPA (2013), Gulf Air intends to develop a much more commercially viable and leaner carrier fleet from 2013 onwards, although the losses are expected to continue in the short term. Given its significance and prominence in Bahrain as a national policy tool, its financial rehabilitation and restructuring are a sensitive problem politically.

The Bahrain Government is supporting the performance of Gulf Air within the country, but the airline faces stiff competition outside the national borders. Compared with its regional competitors, its basic cost is still high and its product needs further development. Still, BIA cannot compete with either huge regional full-service carriers or rapidly expanding reduced-cost airlines, so it is aiming to create its own niche (Gulf Air 2013). After many years of heavy losses, Gulf Air must change to stop the loss of government money. The most crucial plan to revive the airline is extensive, but it remains to be seen whether the structural and institutional issues of the carrier can be solved in the long term.

4.7 IMPLEMENTATION: PLANS AND ISSUES

Need for Adaptive Planning

To implement a long-term development plan for the expansion of the airport successfully, strategic planning is necessary. For this purpose, an airport strategic plan (ASP) must be approached using the AMP (de Neufville and Odoni 2003). The master plan provides a systematic and detailed blueprint for the strategy to develop and expand the airport to accomplish the goals of expansion. AMP specifies the detailed approach required to accommodate the future demands as well as systematically listing the steps to be taken to complete the expansion project. The need for an adaptive planning approach is recognised in the highly dynamic future environment of airports. Due to the uncertainties prevalent in the political, legal and social environments and the constant changes in technologies, modernisation, policy
framework and liberalisation of airlines, a flexible approach to dealing with and accommodating such future changes in the master plan must be developed. This can be achieved through adaptive planning (Kwakkel et al. 2010). Adaptive planning includes robust planning and a long-term policy to facilitate decision making in uncertain environments. Another approach is the application of an exploratory model for the systematic analysis of potential future scenarios (Lempert 2002). An important adaptive management approach developed by Walker et al. (2001) suggests the development of a monitoring system and pre-specification of responses through planned adaptation. Dynamic strategic planning is another approach to adaptive planning for AMPs. It relates to planning in relation to infrastructure and the changes necessary to adjust to the actual situation and condition. Flexible strategic planning, as suggested by Burghouwt (2007), is used as an alternative to the traditional AMP. According to this methodology, dynamic strategic planning (DSP) must be implemented along with pro-active planning. To deal with an uncertain policy and regulatory environment, adaptive policy making is used as a generic approach. This approach entails the AMP being split into two phases, a thinking phase and an implementation phase.

Issues in Implementation

Since the AMP is drawn up in the present environment, undertaking certain assumptions about the future, the planning and implementation could result in failure due to dramatic changes in the environment in the future, which is always uncertain. Several issues can have an adverse impact on the successful implementation of any airport expansion plan, as the functioning and factors affecting the dynamics of the airport environment are diverse and inconsistent. Among the many issues faced by the airport development authorities are the changes in the legal environment pertaining to the privatisation or liberalisation of airlines and airports, the introduction of new kinds of aircraft with constant technological advancements, the introduction of low-cost carriers to the existing fleets by airline operators, fuel price developments and changes in the political and environmental framework in relation to emission norms and so on, all of which render the future uncertain. One of the main ways to
deal with the uncertainties in the implementation of an AMP is to forecast the aviation demand. Demand forecasting can be performed with respect to technological advancements, regulatory frameworks, fuel pricing, stakeholder behaviour, passenger traffic and so on. Future demand forecasting can be carried out by identifying the past trends and underlying theories and extrapolating them for the future. A master plan should be dynamic instead of static to accommodate the demand forecasting and control future uncertainties (Kwakkel et al. 2010).

4.8 SUMMARY

In sum, airport firms must exert a disciplined effort in their strategic marketing plan to generate major actions and decisions that guide and shape what an airport is, what it offers and why it exists. In addition, the implementation of a strategic market plan is a determinant of the airport’s success. The success of the BAC’s strategic plan lies in the development and expansion of BIA. It must consider the targets to be achieved by the national carrier, Gulf Air. The success of BIA will follow the success of the airline and others operating at the airport and will add to the revenue production capabilities of a sustainable world-class hub of aviation. The main task of the BAC is to self-finance and remunerate itself by reinvesting its profits in the airport. The growth curve of the BAC is developing every year by providing a proper infrastructure, creating maximum convenience and offering developed operations. Supporting and attracting airlines and providing travellers with great services are the major developments of the BAC. The firm is seen as being open and friendly towards partnerships and ready for the future (Business-Destinations 2012). Thus, with world-class services, infrastructure and facilities, the BAC hopes to make an aviation centre by integrating the entity targets that form the BIA and to be ready for the future.

BIA has unique characteristics in terms of geographical location, traffic pattern and type of passengers. The airport development plan and expansion must be based on such features and not necessarily like those of other competing airports, which serve different types of airlines and associated passengers.
CHAPTER 5 MARKET ANALYSIS OF BIA

5.1 INTRODUCTION

This chapter presents an extensive market analysis of BIA, indicating the strategic location of the airport in the GCC region and the potential for its growth. It discusses the political environment, foreign trade policies and economic and legal environment of BIA in light of the expansion plan. Furthermore, the measures taken by the Government to promote BIA are highlighted and the competition faced by BIA from other popular airports in the GCC nations is reviewed. A comprehensive and critical review of the AMP is conducted through an environmental analysis and a detailed SWOT analysis. Various implementation issues of the airport development plan are examined.

BIA is strategically located in the Arabic Gulf and serves more than 40 international airlines flying to over 60 destinations worldwide. Since its inception in 1932, Bahrain has grown from humble beginnings with its first scheduled commercial flight into one of the leading airports in the Middle East. The US army used the airport as a stopover en route to other destinations. Gulf Air began using the airport in 1950 (Bahrain Airport Company 2013). Two years later, the Gulf Aviation Company expanded its fleet to four. This increased the airport traffic because it had the best runway, lighting, control tower and communication facilities in the region. More airlines, like Middle East Airlines, Cathay Pacific and Air India, began to use the airport. The airport was upgraded to accommodate the increased traffic and a new passenger terminal was opened in 1961.

In 1971, when Bahrain gained its independence, the airport opened a new passenger terminal with associated airside facilities to accommodate B747 aircraft. By 1976, BIA had started to receive supersonic flights. The airport had grown to become a major hub in the Middle East. It had also become the fastest-growing cargo centre in the region. Bahrain’s airspace has undergone major changes since 1986. According to
reports, military traffic added about 79,000 flights to the civilian movements and about 200,000 commercial movements were controlled by the ACC in 2005 (Ministry of Transportaion and Telecommucations, Bahrain 2014).

BIA is DHL’s super hub for the company’s worldwide network. It serves as a major regional centre for both truck and airline cargo. Between 2007 and 2009, the airports’ passenger capacity grew by 22 per cent to serve 9 million passengers. BIA provides a vital gateway to the Northern Gulf region. It is a major hub for Gulf Air, which accounts for 71 per cent of the airport’s weekly operations (Routes Online 2013). Other international airlines, like KLM, Cathay Pacific, Lufthansa and British Airways, also use the airport. BIA is continuously improving its capacity to meet its growing passenger and cargo demands (Bahrain News Agency 2011; Shaw-Smith 2012). Bahrain’s aviation industry is forecast to attain higher growth in passenger and cargo traffic owing to the recent economic growth, expanding middle class, improvements in socio-economic status and overall air travel penetration due to favourable demographics (Ministry of Aviation, Bahrain 2014). The domestic airlines operate in a high-cost environment, with aggressive fleet expansions and intense competition, which have constrained the yields of capital structures and profitability. The drivers that influence the political environment are increasing consumerism, rising disposable incomes, the entry of low-cost carriers, increasing tourist travel, untapped market increasing competition, rising middle-class population and increasing business travel. The increase in passenger traffic and business travel is further explained with the help of the foreign trade policies that have resulted in such changes. The economic policies and the environment are responsible for the rise in the middle class travelling more by air, thereby increasing the passenger traffic. Similarly, increasing consumerism, rising disposable incomes and low-cost carriers are discussed as part of the economic policies. The section on the competitors of BIA reflects on the untapped market and increasing competition.

The Bahrain News Agency (2012) reported that the airline sector in Bahrain was revolutionised by the Act of Air Corporations in 1998 by allowing private parties to facilitate scheduled domestic services. The BAC agreement was signed with the aim
of enlarge the capacity of the airport to keep a consistent pace. It was mainly designed to examine the various offers in the aviation industry and to develop their potential, problem-solving skills and critical thinking. BIA has planned to expand its development not only by offering business services but also by enhancing the future logistics development in the aviation industry. According to Airport Business (2011), BIA is an essential component of Bahrain’s political economy. It provides a high level of strategic planning and a geographical place by expanding its growth in the aviation sector. The growth benefits the passengers and strengthens the role of BIA as a gateway to the world. An expansion project at BIA will increase its capacity by 50 per cent every year (Aerospace Web 2005).

BIA has experienced a significant increase in the number of passengers, aircraft and passenger movements, as shown in Table 4.1 below. This table presents the historical statistics of BIA since 1972. The passenger statistics were around 1 million passengers per year in the early 1970s followed by a steady increase to 9 million passengers in 2009. Due to a combination of economic reasons, regional politics and Gulf Air, the figure dropped to approximately 7 million in 2017. Despite such a drop, it can be inferred that BIA plays an essential role in the success of the aviation industry of the Kingdom of Bahrain and enhances the socioeconomic development of the country while contributing substantially its economy (Aerospace Web 2005).

Table 5.1 below shows the changes in passenger traffic and cargo traffic over the years. BIA had a very low traffic when it started the operations after the start of operation at the passengers Terminal Building in 1972 with only 698,582 passengers, 5,362 tonnes of cargo and 19,974 aircraft movements. Traffic started to grow until 1982 and a steady traffic occurred until 1989. The economic boom helped BIA to increase the traffic annually until 2008. The global economic recession contributed then in reduction and fluctuation of traffic. A decline of about 12 per cent was recorded in 2011 and about 13 per cent again in 2013. However, an increase in passenger traffic was recorded for the years 2014 and 2015 with the improving economic and political situation in the country. An alarming change has been recorded in cargo traffic, which has followed a steady decline since 2008 and failed to recover. This
could be the result of competition from the neighbouring airports or the economic slowdown worldwide.

<table>
<thead>
<tr>
<th>Year</th>
<th>Passengers</th>
<th>Cargo</th>
<th>Aircraft</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972</td>
<td>698,582</td>
<td>5,361</td>
<td>19,974</td>
</tr>
<tr>
<td>1973</td>
<td>870,608</td>
<td>6,653</td>
<td>22,570</td>
</tr>
<tr>
<td>1974</td>
<td>1,034,580</td>
<td>7,739</td>
<td>24,764</td>
</tr>
<tr>
<td>1975</td>
<td>1,055,436</td>
<td>7,769</td>
<td>28,918</td>
</tr>
<tr>
<td>1976</td>
<td>1,626,461</td>
<td>16,774</td>
<td>35,714</td>
</tr>
<tr>
<td>1977</td>
<td>1,843,610</td>
<td>18,848</td>
<td>39,726</td>
</tr>
<tr>
<td>1978</td>
<td>2,285,342</td>
<td>24,797</td>
<td>40,604</td>
</tr>
<tr>
<td>1979</td>
<td>2,727,076</td>
<td>24,926</td>
<td>45,732</td>
</tr>
<tr>
<td>1980</td>
<td>2,939,212</td>
<td>29,581</td>
<td>41,180</td>
</tr>
<tr>
<td>1981</td>
<td>3,032,715</td>
<td>32,110</td>
<td>41,180</td>
</tr>
<tr>
<td>1982</td>
<td>3,209,810</td>
<td>14,757</td>
<td>38,644</td>
</tr>
<tr>
<td>1983</td>
<td>2,736,037</td>
<td>35,596</td>
<td>37,708</td>
</tr>
<tr>
<td>1984</td>
<td>2,924,136</td>
<td>41,110</td>
<td>36,654</td>
</tr>
<tr>
<td>1985</td>
<td>2,976,480</td>
<td>46,601</td>
<td>40,160</td>
</tr>
<tr>
<td>1986</td>
<td>2,820,532</td>
<td>43,504</td>
<td>41,576</td>
</tr>
<tr>
<td>1987</td>
<td>2,661,749</td>
<td>44,699</td>
<td>40,796</td>
</tr>
<tr>
<td>1988</td>
<td>2,873,115</td>
<td>42,236</td>
<td>44,010</td>
</tr>
<tr>
<td>1989</td>
<td>3,025,449</td>
<td>50,189</td>
<td>45,768</td>
</tr>
<tr>
<td>1990</td>
<td>2,608,744</td>
<td>62,398</td>
<td>41,112</td>
</tr>
<tr>
<td>1991</td>
<td>2,412,095</td>
<td>79,896</td>
<td>57,921</td>
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<tr>
<td>1992</td>
<td>2,789,033</td>
<td>72,468</td>
<td>48,638</td>
</tr>
<tr>
<td>1993</td>
<td>3,006,056</td>
<td>77,408</td>
<td>51,529</td>
</tr>
<tr>
<td>1994</td>
<td>3,296,753</td>
<td>92,379</td>
<td>53,156</td>
</tr>
<tr>
<td>1995</td>
<td>3,431,244</td>
<td>104,372</td>
<td>53,831</td>
</tr>
<tr>
<td>1996</td>
<td>3,406,944</td>
<td>118,270</td>
<td>56,751</td>
</tr>
<tr>
<td>1997</td>
<td>3,445,697</td>
<td>116,586</td>
<td>54,314</td>
</tr>
<tr>
<td>1998</td>
<td>3,434,813</td>
<td>125,514</td>
<td>56,169</td>
</tr>
<tr>
<td>1999</td>
<td>3,417,216</td>
<td>126,562</td>
<td>54,763</td>
</tr>
<tr>
<td>2000</td>
<td>3,930,585</td>
<td>146,794</td>
<td>60,072</td>
</tr>
<tr>
<td>2001</td>
<td>3,991,623</td>
<td>152,111</td>
<td>60,419</td>
</tr>
<tr>
<td>2002</td>
<td>4,147,105</td>
<td>176,112</td>
<td>61,965</td>
</tr>
<tr>
<td>2003</td>
<td>4,296,979</td>
<td>237,673</td>
<td>69,493</td>
</tr>
<tr>
<td>2004</td>
<td>5,144,200</td>
<td>301,906</td>
<td>72,530</td>
</tr>
<tr>
<td>2005</td>
<td>5,581,503</td>
<td>334,832</td>
<td>73,891</td>
</tr>
<tr>
<td>2006</td>
<td>6,696,025</td>
<td>358,670</td>
<td>80,538</td>
</tr>
<tr>
<td>2007</td>
<td>7,320,039</td>
<td>377,160</td>
<td>87,417</td>
</tr>
<tr>
<td>2008</td>
<td>8,758,068</td>
<td>367,968</td>
<td>101,203</td>
</tr>
<tr>
<td>2009</td>
<td>9,053,631</td>
<td>342,734</td>
<td>103,727</td>
</tr>
<tr>
<td>2010</td>
<td>8,898,272</td>
<td>329,937</td>
<td>106,556</td>
</tr>
<tr>
<td>2011</td>
<td>7,794,482</td>
<td>279,240</td>
<td>103,419</td>
</tr>
<tr>
<td>2012</td>
<td>8,479,266</td>
<td>262,386</td>
<td>105,931</td>
</tr>
<tr>
<td>2013</td>
<td>7,371,651</td>
<td>245,146</td>
<td>95,966</td>
</tr>
<tr>
<td>2014</td>
<td>8,102,502</td>
<td>219,333</td>
<td>96,193</td>
</tr>
<tr>
<td>2015</td>
<td>8,586,645</td>
<td>207,936</td>
<td>100,625</td>
</tr>
<tr>
<td>2016</td>
<td>8,766,151</td>
<td>217,056</td>
<td>101,345</td>
</tr>
<tr>
<td>2017</td>
<td>7,132,371</td>
<td>236,355</td>
<td>95,966</td>
</tr>
</tbody>
</table>
Table 5.1: Traffic by Calendar Year for Passengers, Cargo and Aircraft Operations

Source: Bahrain CAA

5.2 EXTERNAL DRIVERS

The external drivers related to Bahrain International Airport are discussed here in relation to foreign trade policies, economic factors and legal factors.
5.2.1 Foreign Trade Policies

The trade policies of Bahrain are liberal, characterised by low tariffs and import and export restrictions for security and health reasons. The kingdom’s foreign trade policies are overseen by the Foreign Trade Relations Directorate, which follows up foreign trade-related issues. Bahrain’s service sector accounts for 74.3 per cent of the country’s GDP, manufacturing for 13.3 per cent and oil and gas for 11.8 per cent (Ministry of Industry and Commerce 2011). However, oil and gas still play a significant role in the country’s economy, accounting for 70 per cent of the government’s income and merchandise exports. Deliberate steps have been taken to improve the kingdom’s business and environment climate by attracting foreign direct investments. Foreign companies have refrained from investing in certain sectors of the economy, like infrastructure.

Following the implementation of GCC’s common external tariff, Bahrain decreased its tariff protection (World Trade Organization 2007). There has been an improvement in trade policies, such as the competition policy, multilateral commitments, resource allocation and the trade regime. Bahrain’s regulatory framework is relatively streamlined. Wage increases have surpassed the overall growth in productivity. The kingdom has no restrictions on repatriation on capital or profits and no exchange controls. It is a regional financial hub with both domestic and foreign investors gaining access to modern financial services.

The liberal trade policies of Bahrain with foreign countries and the improvement in related trade policies have increased the multilateral trade agreements and led to an increase in the air traffic flow to other countries, which is depicted in Table 5.2 below.
### Busiest Routes at BIA (by Number of Flights Weekly)

<table>
<thead>
<tr>
<th>Rank</th>
<th>City</th>
<th>Country</th>
<th>Number of Flights</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dubai</td>
<td>United Arab Emirates</td>
<td>111</td>
</tr>
<tr>
<td>2</td>
<td>Doha</td>
<td>Qatar</td>
<td>87</td>
</tr>
<tr>
<td>3</td>
<td>Abu Dhabi</td>
<td>United Arab Emirates</td>
<td>76</td>
</tr>
<tr>
<td>4</td>
<td>Muscat</td>
<td>Oman</td>
<td>55</td>
</tr>
<tr>
<td>5</td>
<td>Kuwait City</td>
<td>Kuwait</td>
<td>50</td>
</tr>
<tr>
<td>6</td>
<td>Riyadh</td>
<td>Saudi Arabia</td>
<td>35</td>
</tr>
<tr>
<td>7</td>
<td>Jeddah</td>
<td>Saudi Arabia</td>
<td>31</td>
</tr>
<tr>
<td>8</td>
<td>Dammam</td>
<td>Saudi Arabia</td>
<td>31</td>
</tr>
<tr>
<td>9</td>
<td>Istanbul</td>
<td>Turkey</td>
<td>24</td>
</tr>
<tr>
<td>10</td>
<td>London</td>
<td>United Kingdom</td>
<td>21</td>
</tr>
<tr>
<td>11</td>
<td>Mumbai</td>
<td>India</td>
<td>21</td>
</tr>
<tr>
<td>12</td>
<td>Amman</td>
<td>Jordan</td>
<td>20</td>
</tr>
<tr>
<td>13</td>
<td>Cairo</td>
<td>Egypt</td>
<td>19</td>
</tr>
<tr>
<td>14</td>
<td>Frankfurt</td>
<td>Germany</td>
<td>15</td>
</tr>
</tbody>
</table>

**Table 5.2: Busiest Routes at BIA (by Number of Flights Weekly)**

**Source: CAA Statistic Report**

#### 5.2.2 Economic Factors

Bahrain is an economically stable country that does not impose taxes on personal income. On the economic front, the country’s economic growth fell from 4.1 per cent in 2010 to under 2 per cent in 2011. The reduced growth rate was a result of the worldwide economic recession and local political events in Bahrain. Bahrain has one of the freest economies in the Middle Eastern region. In the last quarter of 2012, the GDP of Bahrain rose by 0.5 per cent. The country grew at a rate of negative 0.08 per cent in 2011 and 2012. Its growth rate reached 2.8 per cent in the last quarter of 2012. The slow rate of economic growth was attributed to the low level of oil production and the failure of the non-oil sector to improve. However, in 2013 the growth rate is expected to reach 5 per cent due to the rebound in the production of oil and the expansion of other non-oil sectors (Sambidge 2013).
According to the Bahrain Economic Development Board (EDB), the country’s non-oil sectors are also expected to expand by 6.7 per cent. The EDB is a public agency with the responsibility to attract investments to Bahrain. The board focuses on improving investments in the manufacturing, ICT, logistics and transport sectors. It can be inferred that the aviation sector will witness huge growth and development in the next 10 years. As such, the development and expansion of airports are becoming increasingly important. Bahrain has achieved economic growth over the past decade, supported by the rapid expansion of its financial, retail, construction and real estate sectors. Other sectors that have potential for the country are the knowledge-intensive sector and the value-added manufacturing sector. Bahrain’s financial services sector is one of the most advanced in the region. It includes Islamic finance, asset management, wealth management, insurance and reinsurance. According to the Country Risk Report (2012), Bahrain has a country risk tier of 3. Regarding economic freedom, Bahrain scored 75.5 in 2013, ranked twelfth in terms of the freest economy in the 2013 economic freedom score. This indicates a 0.3 per cent increase from the previous year. In the Middle Eastern region, the kingdom is ranked first of the 15 nations. The economic growth has also been a result of openness, diversification and modernisation based on economic freedom (Index of Economic Freedom 2013), Figure 12.
The country is multi-ethnic, with Bahrainis accounting for the majority of the population, 63 per cent. There are also immigrant workers in Bahrain. A third of the population is foreign born: 19 per cent Asian, 18 per cent Arabs and others. There are more men than women in Bahrain, and there is a high birth rate at 14.41/1000 and a life expectancy of 78.29 (CIA 2011). The country hopes to gain economically in the future due to its young population (Stanford 2013). Since only 1 per cent of the country’s land is arable, it relies on food imports. The economy relies heavily on the production and processing of petroleum. It has also diversified into other sectors, like banking and finance, offshore banking, aluminium smelting, ship repairing and tourism. The country’s GDP was $31.1 billion in 2012, and it has an unemployment rate of 4 per cent and an inflation rate of 1 per cent. In 2012, Bahrain had foreign direct investments worth $780.9 million (Index of Economic Freedom 2013).
The economic factors that affect the airport are as follows: the price of fuel, the labour demand cash, the costs of food and less travelling, which leads to slower business. The various types of businesses and industries around the airport and the encroachment of houses force the closure of the airport and result in the restriction of airport operations (Luther 2005). The loss of business due to high fuel consumption and the heavy aircraft manufacturing cost leads to the closure of airports in a profitable way.

The different types of economic conditions and employment issues have a huge impact on the performance of airports according to Luther (2005). The major economic factors that influence the development of an international airport are the aircraft operations, the ground service equipment of airports, the airport and vehicles for passengers and the storage of fuel for the aircraft.

5.2.3 LEGAL FACTORS

There are some legal factors pertaining to regulations that influence the airport industry of Bahrain. Bahrain has adopted an open-skies policy to bolster the growing financial and tourism sectors. More than 40 international carriers use BIA, and the number of international airlines is expected to grow. CAA regulated the air space of Bahrain and the efficient air navigation services for airspace users of the Bahrain Flight Information Region (FIR) and BIA (Bahrain Aviation Report 2010). A new law to improve the safety of the country’s airline industry was approved in 2013. The law makes provisions for closer scrutiny of aircraft during inspections. Under this law, planes will not be allowed to take off without certificates stating that they are in excellent condition and are suitable for flying. The law also stipulates the safety, scrutiny and comfort of passengers from their arrival at the airport until they reach their destination (Albawaba Business 2013). The law also covers issues like the licensing of planes, the responsibilities of captains, passenger and luggage transfer, airspace trespasses and technical aspects of aviation field regulation. This law makes the Bahrain airspace safer and gives passengers confidence, because they will be flying in certified and flightworthy planes. Bahrain subscribes to national and international
agreements and conventions. These agreements include aviation legislation and air navigation regulations (Civil Aviation Affairs 2011).

5.3 COMPETITORS AND COMPETITIVENESS ANALYSIS OF BIA

According to Nuseibeh (2009), the major competitors of BIA are Doha International Airport, Dammam International Airport and Dubai International Airport. Traditionally, BIA has been one of the major international airports of the region. In the past several years, numerous expansions of the airports in Doha, Abu Dhabi and Dubai have reduced the popularity of BIA. The withdrawal of Oman, Qatar and the United Arab Emirates, which assisted Gulf Air, had an influence on the airport. As a result, BIA lost passenger traffic partly due to the over-usage of airports and its capability to accumulate a large number of passengers. It was also due to the highly insecure position of Gulf Air, as it competes with a huge number of aeroplanes in neighbouring countries, with the expansion of other regional airports. GCC airlines are highly dependent on their status as the hub between Asia, Australia and Europe (Nuseibeh 2009).

5.3.1 Hamad International Airport

In Qatar, Hamad International Airport is the only commercial airport. It has 42 parking bays for aircraft, 8 baggage claim belts and 60 check-in gates. The present capacity stands at 25 million travellers every year. The 14,993 foot runway is one of the biggest runaways at a civil airport, and it is the major base for Qatar Airways. The airport was mostly used by holiday makers and foreign workers who came for the oil and gas sector in the past. In the present scenario, the airport is attracting the attention of different types of passengers, like transit travellers and holiday makers. Qatar Airways is extending and developing rapidly.

The ancillary buildings and control tower were configured by Fentress C W and FAIA of Fentress Architects. The new airport, as part of the expansion plan of Qatar Airport, is situated 4 kilometres away from the present facility. It sits on 2200 land hectares and will have the capacity to manage 29 million travellers every year from the first day.
Hamad International Airport is developing rapidly into a prime worldwide airport hub with around 35 international airlines providing access to leisure cities and major businesses across the globe (Doha Airport 2010).

5.3.2 Dubai International Airport

Dubai International Airport is regarded as the busiest and premier airport in the Middle East. It is located in the district of Al Garhoud, 4 kilometres away from Dubai southeast. Despite the influence of worldwide events in 2001, Dubai registered a 10 per cent increase in passengers, totalling 14 million. The ACI (Airport Council International) traffic statistics indicate that Dubai International Airport is a rapidly developing airport. With the travel demands of the twenty-first century, the Civil Aviation of Dubai Department started a US$540 million expansion programme in 1997, which ended with the launch of Sheikh Rashid Terminal in 2000. In 2009, the airport was the seventeenth-busiest airport in passenger traffic and the eleventh-busiest airport in cargo traffic worldwide. It was the sixth-largest airport in the world in terms of international travellers. In addition to being an essential traffic hub for travellers, the airport is one of the busiest airports for cargo, managing 1,824 million tonnes in 2008 (an increase of 9.5 per cent in the cargo traffic since 2007). The new $5 billion Terminal 3 established on 14 October 2008 was built exclusively for the use of Emirates Airline. Concourse 3 is part of Terminal 3 and was finished in 2011. It was constructed exclusively for Emirates Airbus A380. Terminal 3 added 2 kilometres to the airport, and it is the biggest building in the world by floor space.

Dubai International Airport will be complemented by Dubai World Central International Airport with a new 140 kilometre airport that will efficiently manage the passenger influx in the future. Presently, Dubai International Airport has the capacity to manage more than 80 million travellers every year (Dubai Airport 2013).

5.3.3 Dammam International Airport

KIFA (Dammam International Airport) is situated around Qatif, Saudi Arabia. It is the biggest airport globally in terms of area, 780 km², exceeding the area of Montreal–
Mirabel International Airport. KIFA is the third primary hub in Saudi Arabia and was completed in 1999, after King Abdulaziz International Airport in Jeddah and King Khalid International Airport in Riyadh. The airport serves primarily Dhahran, Dammam, Qatif, Jubail, Khobar and Ras Tanura. The terminal has 6 levels, 3 of which are allocated to traveller processing. The sixth level is for departures, the third level is for arrivals and the fourth level is for boarding. The terminal is supplied with numerous counters for customers, of which 66 were distributed to Saudi airlines, 44 to foreign airlines and the remaining to the immigration and customs departments. Dammam International Airport works in partnership with stakeholders, improves their processes and capabilities continually, adopts profit-driven and commercially oriented business practices, respects the surroundings, integrates with the community and treats its passengers as its most valuable assets (KFIA 2013).

5.4 SWOT ANALYSIS

To review and analyse the current state of the AMP implementation, a SWOT analysis can be conducted to shed light on the various aspects of plan implementation, identify the gaps in the actual implementation compared with the proposed plan and highlight the issues faced during successful implementation. SWOT analysis is conducted using relevant information reflecting the strengths, weaknesses, opportunities and threats. Such information must be collected from internal as well as external sources, like the stakeholders, including the airport authority’s senior management and airport staff members, among others (JMAA 2016). With respect to this study, the primary stakeholders in BIA are CAA and the BAC. The respective stakeholders are aware of the policies, future and requisite information related to the airport expansion plan and therefore can give well-informed feedback related to the strengths, weaknesses, opportunities and threats. The SWOT analysis facilitates the understanding of the strengths of the strategic airport development plan in terms of location, network carriers, customer service, military relationships, work environment and parking revenue (JMAA 2016).
The strengths of BIA’s development can be identified in its strategic location in the Arabian Gulf. The growing cargo traffic and transit passenger traffic are attributed to its strategic location, which is a major strength. More than 35 international carriers and airlines use this airport to fly to over 60 destinations worldwide. Similarly, the severe competition that BIA faces from its neighbouring rival airports, like Dubai International Airport and Doha International Airport, is one of the major challenges or threats faced by this airport and can exert an impact on the airport development plans. Other threats in terms of infrastructure and so on must be addressed to implement the AMP successfully.

5.4.1 Introduction

The present analysis aims to identify and evaluate both the positive and the negative aspects of BIA. The positive aspects are the business opportunities that the external environment, in which the air transport system is developed, can offer (opportunities), while the negative aspects are the threats that can emerge in that environment. The main purpose of this analysis is to propose strategic lines of development that:

- Are supported by the strengths to obtain benefits from the opportunities and to minimise the threats.

- Mitigate or suppress the weaknesses, since they do not allow access to the opportunities or multiply the potential of the threats.
All the strategic lines are linked, considering these four factors: the elements comprising each of these factors will be extracted from the diagnostic of the system, comparing the current situation with that desired to be achieved in 20 years. Thus, the following analysis is an extension of the conclusions of the diagnosis, oriented towards the future, which will be used to define the 20-year strategic plan.

5.4.2 SWOT Analysis

STRENGTHS

• *Institutional Aim To Improve*

The Bahrain Government has undertaken the expansion and modernisation of BIA, focusing on airport infrastructure development and expansion to improve the airport services and develop the aviation infrastructure, which is not only world class but also capable of meeting the expected increase in passenger traffic as well as cargo and
air traffic. Accordingly, the Government of the Kingdom of Bahrain is developing BIA under the Airport Modernisation Programme (Timetric 2017).

According to the CEO of the BAC, Mohammed Al Binfalah, ‘The signings completed at BIAS 2016 are a historical milestone in the progress of the Airport Modernisation Programme and signify an important step in maintaining Bahrain’s strong position in the civil aviation sector’. According to the CEO, the expansion and modernisation project is the largest infrastructure project undertaken by the BIA in the last thirty years. The highest environmental and technological standards are being maintained by the company handling the expansion programme and due attention and detail are being given to the maintenance of safety and security in the execution and implementation of the AMP. It is expected to be completed by 2019, and a threefold increase in airline traffic using direct flights and airlines using the new passenger terminal for their services is estimated because of this expansion project (Ventures Onsite 2016).

• The Only Airport Serving Bahrain

Since BIA is the only airport handling the air traffic of the country, the construction of 18 aircraft stands as part of the airport expansion plan will increase the handling capacity to 64 aircraft at any one time. However, Bahrain is planning to build another international airport on a man-made island off the country’s north coast to accommodate the estimated increase in growth in air traffic in the coming decades. Although this airport would be additional to the only international airport in the country now, it may replace BIA at a later stage. Thus, at present BIA is the only functional international airport in the country and is undergoing a $1 billion expansion to quadruple the capacity from 4 million passengers per year to 14 million (Ventures Onsite 2015).
• Gulf Air Using BIA as its Hub

At present the national carrier, Gulf Air, uses BIA as its airport hub. With the expansion plan, the airport could become capable of serving as the airport hub for other airlines as well. It can also act as a major cargo hub, since the cargo-handling capacity is proposed to increase to 1.5 million cubic metres with the expansion plan (Gulf Daily News 2009).

• Liberal Sky Policy of the Government

The airport industry of Bahrain is also influenced by the legal factors affecting the regulations related to airspace usage and the sky policies of the Government. To boost the growing financial and tourism sectors, Bahrain has adopted an open-skies policy. More than 40 international carriers use BIA, and this number of international airlines using BIA is expected to grow further with the expansion and modernisation of the airport. CAA regulates the airspace of Bahrain and the efficient air navigation services for airspace users of the Bahrain FIR and BIA (Bahrain Aviation Report 2010).

• Ongoing Modernisation Projects

The new modernised passenger terminal is being developed with state-of-the-art infrastructure facilities and is expected to be completed by 2018, covering 201,467 square metres, making it 4 times the size of the existing terminal and accommodating 14 million passengers per year. The modernisation and expansion plan includes a 4,600 square metre departure hall with 108 check-in counters, 24 passport control booths and 28 security lanes, while the terminal’s air bridges will be increased from 7 to 25. To make the airport more attractive to foreign buyers and tourists, the duty-free area will be expanded to 9,000 square metres. Other modernisation projects include improvements in the airport arrival section by establishing 36 passport control booths, 5 e-gates and 8 baggage reclaim belts. In addition, a 1,000 square metre duty-free zone is being developed along with a car park with capacity for 7,000.
The Airport Modernisation Programme carried out to execute the country’s long-term strategy to develop the aviation infrastructure and industry capabilities to sustain and grow will address future needs. The scope of work includes the construction of a new fire station and integrated support infrastructure to the north of the runway to replace the current building, which will be demolished. The modernisation also includes the building of a new access security gate, called the Supergate, which will be at the end of the airfield and will be developed with the latest technology and equipment, as it will become the main airside access point for all the airport staff working on the airfield. The contracts related to the modernisation of BIA were awarded in the first quarter of 2015 (Ventures Online 2016).

• Proximity to the Eastern Province of Saudi Arabia

The strategic location of BIA in the Arabian Gulf accounts for its increased passenger traffic and greater accessibility, allowing it to serve more than 40 international airlines flying to over 60 destinations worldwide. Its proximity to the hugely popular and extensively used neighbouring airports in the province of Saudi Arabia and the Middle East has supported its growth by providing it with a competitive edge. One of the biggest economic strengths of Bahrain Airport is its proximity to the eastern province of Saudi Arabia, which is the largest market in the Gulf region. Bahrain is connected to the economic heartland of the Gulf region, that is, the eastern province of Saudi Arabia, by a causeway, making it a highly attractive business and commercial destination. The Government is focused on developing, supporting and improving the environment and facilities to capitalise on this strength and achieve long-term sustainable growth. The development of the airport and related infrastructure in the region will further strengthen Bahrain’s economy (The Report, Bahrain 2012). The major competitors of BIA, like Doha International Airport, Dammam International Airport and Dubai International Airport (Nuseibeh 2009), are already handling huge passenger traffic, and the BIA expansion programme will enable Bahrain to compete and take over the market share. Traditionally, BIA has been one of the major international airports of the region. In the past several years, numerous expansions of
the airports in Doha, Abu Dhabi and Dubai have reduced the popularity of BIA, but this will be improved after the expansion and modernisation.

WEAKNESSES

• **Shortage of Facilities at the Airport**

The airport expansion programme will help to overcome the weaknesses due to the lack of modern facilities at BIA. Bahrain Airport suffers from shortages and limited facilities at the airport in comparison with the other major competing airports in the GCC region. For example, Hamad International Airport provides facilities for prayer rooms, child care, Wi-Fi services, banking services, play areas for children, special assistance, electronic gates, relaxation areas and so on, and Dubai International Airport provides facilities such as executive flight services, like Marhaba, and international hotels, while Dammam International Airport offers facilities such as travel agencies, pharmacy facilities, banking, relaxation, shopping and Food and Beverage Services. Consequently, BIA suffers from facility shortages in comparison with other regional airports. Thus, the BIA expansion plans include the construction of aerobridges along with new high-tech scanning machines, the extension of the duty-free area, featuring additional luxury brands, the provision of free Wi-Fi across the terminal, the introduction of more food and beverage options and many more facilities (Ventures Online 2016).

• **Lack of a Clear Airport Management Model**

According to the interviewees, several obstacles are faced by BIA and the expansion project and AMP. As reported in the interviews, two plans had been decided but could not be implemented because of the numerous options, the lack of clarity and the failure to choose a more appropriate plan. The BAC had to alter three management teams, and every management team had different thoughts. Therefore, there was a clear lack of a systematic airport management model, but this was rectified with the new management.
• Lack of Infrastructure Planning and Investment Plans

As reported by Janahi in the interviews, in the year 2007, CAA developed a master plan for the expansion of BIA. There was another growth plan by the BAC to transfer the airport to another place, but the Government decided to revalidate the proposed location for the new airport. Infrastructure plans and investment plans are also needed to decide on the best land to use and to develop strategies relating to the revenue, reduced costs, improved security, improved reliability, improved safety, improved quality, improved efficiency and so on (Oxford Business Group 2009).

• Need for New Airlines To Operate to and from BIA

At present the major registered operators at BIA are the Bahrain Royal Flight, Gulf Air, DHL Aviation, Mena Aerospace and TAG Aviation, of which only Gulf Air and DHL Aviation conduct scheduled and non-scheduled revenue flights in and out of Bahrain (Ministry of Transportation 2014). Clearly there is need for new airlines to operate to and from BIA. While only one airline, Gulf Air, uses BIA as its airport hub, BIA must be developed and expanded so that more international airlines can use it. The other major carriers operating from BIA are Emirates, British Airways, Saudi, Etihad and Qatar Airways.

• Inadequate Aeronautical Authority Structure

According to the analysis of the current research, all the infrastructure of the BIA is maintained by the Government, which makes substantial investments in it. The BAC is the authority responsible for managing and operating BIA. As part of its role as the operator, the BAC is responsible for expanding the services and infrastructure of the airport. It involves the development of the aviation capabilities of the kingdom by attracting more travellers and altering the demands of the stakeholders involved. Clearly there is a lack of a proper aeronautical authority structure.
OPPORTUNITIES

• Increasing Commercial Relations with Other Airports

The BAC organises the annual Bahrain International Airshow. The airshow attracts exhibitors from various countries across the globe, like the USA, the UK, many European countries as well as neighbouring countries of the Middle East and far-off Asian countries like Japan and other GCC member nations. It provides an opportunity to advertise the business potential of Bahrain (Ameinfo 2013). The event gives BIA exposure as a regional hub, not only for businesses but also for travel.

• Easy Entrance to the Country for Foreign People

BIA recorded 8 to 9 per cent growth in both passengers and cargo traffic in 2014, and similar growth levels are expected for the following years (Ventures Onsite 2016) in the wake of the easing of the entrance procedures for foreign travellers into the country. Citizens of the GCC countries do not require a visa to visit Bahrain and may use their national ID card to enter the country. Moreover, citizens of most European nations gain a visa on arrival into the country at the airport. This makes entry into the kingdom relatively easy and hassle free in light of the liberal visa policies.

• Touristic Potential of the Country

Bahrain is in the Middle Eastern Arabic Gulf region, with Qatar and Saudi Arabia as its immediate neighbours, tucked into a pocket of the sea. It is a friendly country that is more socially liberal than the other Islamic countries in the region. It is a popular tourist destination attracting travellers from all over the world due to its authentic ‘Arabness’. Since, it is a Western-friendly country, despite being a Muslim country, it does not strictly enforce Islamic law on its non-Muslim minority. Thus, it is a tourist-friendly country in comparison with other hard-line Muslim nations in the region. Even though its economy is mostly based on the oil sector, its relaxed culture and economic policies have made it a social and shopping mecca.
THREATS

• *Current Local Economic Situation*

Although Bahrain has one of the most liberal economies in the Middle Eastern region, the country is experiencing a negative economic growth rate. The slow economic growth rate could be attributed to the failure of non-oil sectors to prosper and the low production level in the oil sector, which is the most significant sector in the Bahrain local economy, resulting in restricted growth. The local political events in Bahrain and the global recession also led to a recession in Bahrain’s economy, producing a growth rate of less than 3 per cent. According to Sambidge (2013), the growth rate is expected to rise to 5 per cent in the coming years due to the production of oil and the expansion of other sectors. Currently the Bahraini economy relies heavily on the oil and petroleum sector.

• *Strong Competing Touristic Destinations*

The Kingdom of Bahrain is located close to Saudi Arabia and Qatar. Another significant destination in the region is the UAE. All these are quite popular tourist destinations with a huge influx of global tourists every year. These destinations, such as Dubai and Abu Dhabi in the UAE, have been a major tourist attraction and shopping destination for many years. Therefore, Bahrain faces strong competition from such neighbours and consequently the airport is losing passenger traffic to the more developed and more popular airports in the region.

• *Overall Worldwide Economy*

The world economy at large is experiencing a phase of recession and restricted economic growth. The global recession is also responsible for hampered economic development, creating negative impacts on the expansion projects and tourism in the Gulf region, as elsewhere.
5.5 CONCLUSION

The strategic location of BIA, the growing air traffic in the Gulf region and the extensive use of Middle Eastern airports as major transit airports between the East and the West have all led to the need to expand and modernise BIA to create a niche market in the region and to compete with the other leading airports in the region that cater to such a demand. The successful completion of the project promises greater economic gains for the country and the people of Bahrain. The expansion will lead to job creation and integrated economic development in the region. Successful airport construction projects can lead to higher revenues, resource optimisation and human development. The political development of the country will also be aided by the airport expansion. The strategic expansion project, influenced by the liberal foreign trade policies of the country and the varied expertise-oriented technological foreign collaborations, will ensure competitiveness and the attainment of high standards. The legal environment in Bahrain has also been made cohesive to ensure the smooth execution of the airport expansion project with the help of policies like the open-skies policy and many other civil liberalisation policies. Adaptive planning and management approaches are needed to handle such issues when they emerge to ensure successful execution of the long-term airport expansion plan.
CHAPTER 6  BIA: COMPETITIVENESS MODEL AND CHALLENGES

6.1 INTRODUCTION

The combination of the privatisation and commercialisation of airports with the aviation industry’s deregulation has caused an upsurge of competition among distinct airlines. The increasing competition and rivalry have opened opportunities for BIA to develop efficient strategies for acquiring competitive benefits. Strategic planning is a term used for the process by which an organisation can fulfil its prospects by analysing the current challenges and evaluating development mechanisms for enhancing its productivity. With regard to the current subject, the expansion in competition among airports pertains to the larger requirement for strategic planning in the airport business industry. To attain success, the airport management must implement new strategies and recognise its major competitive strengths. Based on the analysis of BIA’s internal and external environment, developmental issues, strategic management practices, infrastructure, competitiveness and master plan, an airport competitiveness model is developed in this chapter. Furthermore, this chapter highlights the various challenges identified through this study that need to be dealt with to ensure the success of BIA.

6.2 AIRPORT COMPETITIVENESS MODEL

Airport competition can be divided into:

- Airport competition – how passengers and airlines choose particular airports
- Airline competition – how passengers choose particular airlines
- Airline economics – the financial incentives that drive airlines
- Airport economics – the financial incentives that drive airports
The drivers influencing passengers’ choice of airlines depend on both short-term factors and long-term factors. The choice of airlines is a passenger-driven phenomenon. Some passengers choose airlines based on destination and flight times, which means that they have precise requirements; that is, they are business passengers. The cost and fares to the airports are relevant as well. Passengers mainly choose airports based on their convenience, that is, the relationship between convenience and time/price. Airline products, namely service factors, also affect this choice (Hess and Polak 2006).

Allowing carriers to expand their services and offering airport access to new entrants are crucial for maintaining airline competition. At the same time, gaining access to some major carrier connecting hubs is costlier for new entrants as well as being difficult. Several airports have adopted management practices that effectively control the airport facilities given to their dominant carriers. This type of practice at the large commercial hub airports helps the administration in long-term processes and management.

When choosing between two airports, most passengers consider the set of ‘airline and airport’. Airlines and airports are vertically connected, and the interests of the two in attracting passengers are coincidental. The study conducted by Brander and Zhang (1990) presented the airline competition theory with empirical applications and a conjectural variation model. Brander and Zhang reported that the relations between airlines and airports have been identified based on the internalisation of the congestion costs. The study conducted by Basar and Bhat (2004) used a probabilistic multinomial choice model to identify the determinants of airport choice. Basar and Bhat established that flight frequency and access time are the two major factors that determine airport choice. Earlier studies found that the access time to the airport and flight frequency were the only primary determinants of the airport choice behaviour of passengers. However, Bashar and Bhat (2004) found that these variables were influenced by the moderating effects of traveller demographics and trip characteristics.

The model obtained for EOH (Olaya Herrera Airport) showed that business or work travellers prefer that airport, as the airport’s terminal is accessible by private
transportation, making the airport a high-utility airport. Moreover, it is favoured by travellers who prefer to travel by private or smaller aircraft. Therefore, this study revealed that business travellers’ airport and airline choices are least affected by the air cost or higher airfares in comparison with those who travel for leisure purposes (Muñoz et al. 2017).

Apart from these, travellers’ individual characteristics and the requirements of the trip are two variables that can influence the airport choices of customers. The study conducted by Hess and Polak (2006) on passengers’ choice of airports using data from the Greater London area reported that passengers face three choices: access mode, airline and airport. Cross-nesting model structures were used in this study to identify the correlation between the access mode, the airline and the airport. The results showed that the airport choice depends on several factors, such as flight frequency and in-vehicle access time, which exert a significant impact on airport attractiveness, access mode combinations and airline access. Aircraft size and air cost affected the choices of only some subgroups.

Park (2003) identified the core factors that describe an airport’s competitive advantages or airport competitiveness model as demand factors, managerial factors, service factors, spatial factors and facility factors. An airport’s facilities are a significant factor in airport competitiveness. Airports have to compete with others to develop new facilities by deploying marketing strategies. Ground and airside infrastructure are the two infrastructure types that are linked with airports. The infrastructure for the airside airport directly controls the facilities, namely aircraft runways, terminals, parking stands and more. The infrastructure of the ground connects the airport’s transportation networks in the metropolitan areas. The facility factors must concentrate on these factors, namely the physical conditions, facility level and expansion. Figure 14 below illustrates the above-mentioned factors of the airport competitiveness model (Park 2003).
Pujinda (2006) and Park (2003) pointed out that spatial factors in airports enhance the terminal services and the core product to reach the expected standards. Airports’ initial wave of competition concentrates on creating attractive terminals comprising duty-free shops and car-parking facilities. The second wave includes a wide range of retail shops in the terminal. It also expands the variety of leisure, retail and accommodation at the terminal and in the airport’s surroundings.

Airport hubs address the competitive pressure in the same manner, due to which the core offering in the airport has become tough to differentiate. After the extension of
the new terminal, the international airport can provide a quality core product. The development of the airport’s surrounding regions through aviation-associated industrial complexes, convention and logistics centres, international trade zones and other facilities also improves the airport’s competitiveness. Spatial factors also concern the development of the airport’s vicinity and the economic and environmental conditions.

The O-D (origination–destination) level, that is, the change in demand factors and transfer traffic, is influenced by the economy of the region where the airport is located. Relevant demand factors are: legal factors, like the liberalisation of air transport, social factors, like destination popularity, or economic factors, like metropolitan and GDP population. The demand factors must concentrate on the network of the hub and the O-D demand. The managerial factors are influenced by economic considerations, such as efficiency and airport costs. The managerial factors have to concentrate on productivity and costs and revenues (Park 2003; Pujinda 2006).

According to Park (2003), the service factors include the kinds of services, types of customers, different charge levels and aircraft operations. For passengers, the users’ experience at the airport hub will be helpful in making a decision when choosing a route for travel. Airlines have to consider the gate departure efficiency, hourly capacity and taxi departures. Another important factor to be considered in relation to the airport hub’s competitiveness is the various charges associated with the airport. Airport charges must increase the revenue and profit for the airport at the time of maximising the utilities of the airline passengers who use the airport hub. The airport service factors also include the service level, operating systems and operating conditions as factors that exert an impact on the airport’s competitiveness.

6.2 CHALLENGES TO BIA’S SUCCESS

Success depends on the challenges identified by BIA and the way in which those challenges are dealt with during the execution of the expansion plan. The following are the major challenges in the airline industry as identified by BIA:
6.3.1 Management and Development Challenges

According to MacDonald (2013), Bahrain’s Duty Free is facing a challenging year due to the difficulties posed by international tobacco firms. It is also under pressure from the reduction in flights of Gulf Air and the shutdown of Bahrain Air, which is threatening to decrease its customer base. The closure of Bahrain Air and the service reduction by Gulf Air pose a major challenge to BIA.

Slater (2012) observed some external and internal challenges that interfere with the management of Bahrain Airport Services and its long-term strategic planning. The challenges relate to the restructuring efforts of the national carrier, Gulf Air, to meet the economic challenges through the restructuring of the fleet and the rationalisation of the network. Its success is linked inherently to the traffic volume and the type of services provided by Gulf Air as its largest airline. Another major challenge faced by Bahrain Airport Services seems to be corporate fatigue. Bahrain Airport Services has been serving the aviation community for more than 35 years and, although it is a well-set-up firm in its domain, a company of this size and age will experience corporate fatigue. As stated by Abdullah Ahmed Janahi:

*Gulf Airports, developments and uncertainty are the challenges. When we lost our position as we started in the 1970s, others came and are ahead of Bahrain in infrastructure. Heavy investment is required in the long-term planning. We will need years to build the airport and, during such a period, things could change and therefore this takes us to the first point for having a flexible design.*

Beunardeau (2014) observed that the ground handlers face development challenges in performing efficiently within the airport surroundings. They must utilise distinct airline departure control systems (DCCs) every day, and one managing organisation will have employees using varied systems. The complexity of pairing ground-handling systems with specific business norms of airlines leads to greater productive problems and information technology operational costs for ground handlers. Different airline systems lead to the requirement to recruit a large number of ground-handling employees, resulting in larger costs of training and reduced flexibility. Across the
globe, more ground handlers are overcoming these challenges at airports and acquiring efficiencies in these areas for obtaining gains and assuring their survival.

According to The Free Library (2013), Bahrain Airport Services' operational triangle comprises three major elements: systems, staff and processes. Several major alterations have been executed and are still in action. A multi-phased mission critical project was established in early 2012 to handle the problems holistically in their domain of core ground-handling systems. First, a gap was identified through an in-depth analysis to recognise the challenges or missing elements in the operational surroundings and to identify an order of events for integrated servicing of aircraft turnarounds with the help of system-oriented skills, resources or procedures. A thorough programme of process re-engineering was established to re-configure the operating methods from the bottom up from basic daily coordination and communication protocols and constructs to systemic procedures, needs and processes. This enabled BAS to streamline and simplify its operations, benefit from synergies and optimise the use of its ground equipment and HR, assisted by new techniques. The key operational unit structure has been changed to allow an effective set-up of lean management by removing unnecessary intermediate levels and enhancing direct accountability and shared responsibility. All these issues need high intensity and collective energy, effort and continuous follow-up.

Apart from infrastructure, other issues affecting the success of BIA are the lack of human and physical resources, transit facilities' lag and limited connectivity (Berthon and Bringand 2001). Therefore, BIA needs to concentrate more on the infrastructure-related issues along with gathering the required resources and improving the connectivity. Substitutes must be considered for air freight. Buyers are influenced by the airport’s charging practices. Therefore, airports must concentrate on the commercial links to enable them to strengthen their business.

Another challenge identified by BAS is the inefficiency in adopting timely operational and organisational changes. The incorporation of such changes involves the successful implementation of resource management systems along with new methodologies. BAS includes an elite management team in charge of training the end-
users of the resource management system (RMS). The RMS unit is responsible for carrying out the functions in resource planning for operational divisions of BAS. One of the important variables is the employees’ speed in acquiring the new techniques and knowledge introduced by the RMS system and their ability to adapt to the change. The top management’s assistance and involvement are crucial for the success of the new RMS. Similarly, rapidly acquiring and reshaping the business model to the altering dynamics of regional and domestic markets present another major challenge. At the macro level, BIA is located an hour away from three major airline hub airports in the Gulf region. This poses the challenge to develop quickly a world-class global carrier potentially to deal with the competition presented by these large hub airports in the region (The Free Library 2013). In the current research, Janahi further elaborated that

There are too many plans. In the last four years, we had two plans, but they did not get implemented. We also had many options but could not decide on suitable options. He gave an example that in four years the BAC had to change three management teams, with each management team having a different school of thought. This acted negatively on the progress of the airport. The ultimate vision is not clear, which is needed from the regulations.

6.3.2 Increasing Competition

According to the IATA (2013), the airline industry is a highly competitive field in most countries. When considering BIA, the airlines have various competitive pressure factors and challenges: the entry threat, competition between airlines, airline suppliers’ bargaining power pertaining to airports, technology and liberalisation, more competition among airlines and expensive deregulation improvements. These competitive forces impose great difficulties on the airline sector and result in low returns for the investors in the supply chain. In airports, aircraft are considered to be expensive assets, and airlines are especially capital intensive. They must position their fleets on routes that increase the potential for revenue earning. BIA must be strong in its incentives to select the best routes to obtain better results. Furthermore, to manage the rivalry, the airport must concentrate on traffic that is point-to-point to
limit the extent of the rivalry. In the current analysis, Ahmed Nemat, the Undersecretary at the Ministry of Transportation (CAA), reported:

*AN advised about the reduction in traffic in Bahrain due to the current situation with Gulf Air. This company is undergoing restructuring of its manpower and operation. The fleet size has been reduced from 40 to 27, which will affect the traffic at BIA quite considerably, as this airport primarily depends on Gulf Air. If the market grows, airports will grow in parallel. However, BIA will lose its competitive edge with other airports due to the current situation.*

Therefore, the competition among the airports with Gulf Air has affected the traffic of customers at BIA.

**6.3.3 Staff-Related Challenges**

According to The Free Library (2013), another challenge faced by BIA is finding appropriate staff. The BAC’s staff is its most essential property, and, as a service provider, it all leads to the way in which individual dispatchers, check-in agents, loading supervisors and load controllers interact. Thus, recurrent and ongoing development as well as training of the staff are priorities to build up the second tier and plan methodically for the success of the organisation. However, the training and selection method of the front-line staff is a tough challenge due to the need for consistent quality of service and a proactive culture. For this, a thorough cross-training programme is in progress, which identifies the employees who can perform numerous tasks. This programme results in fewer people but the same operational workload. Sometimes people take it to be under staffing, although the first parameter that is identified in this case is the under skilling of already-existent human capital and the way in which it is used. Benham (2006) pointed out that the threat posed by new entrants is very high in the airline sector. New competing airports offer a variety of discounts and schemes to attract more customers, even though they need huge investments for infrastructure, regulation and so on. The active involvement of all their staff is an imperative activity to understand their importance.
Thus, BIA is determined to spend its resources on its staff through recurrent and better training, rewards and incentives based on a solid appraisal system for developing future leaders and managers. Furthermore, BIA requires systematic performance towards altering certain people’s mentalities and habits. They must overcome the routine day-to-day operations, be proactive, work hard to develop their credibility and provide Bahraini hospitality to ensure a genuine smile on travellers’ faces with the help of their front-line staffing. This poses a great challenge; therefore, BIA’s efforts must be determined to make efficient developments in time.

In the current analysis, Gordon Stewart mentioned that, to overcome the challenges of staff-related problems, BAC has implemented certain strategies. He elaborated:

So, what has been achieved is a successful BD 500,000/- that was a successful goal-setting strategic process item on the job employee setting. This is what we’re doing at an annual business level; i.e., to get the employees on a tight schedule, we did several commercial stats. For example, understanding the goals and objectives of each employee, the work they do and their departments. For this, I require a control system to keep an eye on all the employees at all the levels, from management to the CEO.

6.3.4 Cost-Related Challenges

The financial issues faced by airports are over-capacity, cost controls, productivity and labour reform, capital market access, foreign currency exposure, fund costs and poor results on surplus funds, debt or equity taxes, cash flow and self-financing ability. According to Trade Arabia (2012), another financial issue faced by BIA is the high cost of fuel.

The national Bahrain carrier, Gulf Air, is paying around 7 times more to purchase its jet fuel than some regional competitors; therefore, its opportunities to make decent gains are hindered. Most of the flights for Gulf Air depart from BIA, nearly 70 per cent of all the departures from BIA. Therefore, it is natural that, as the biggest carrier hub and a major infrastructure asset assisting the Kingdom of Bahrain, Gulf Air acquires its jet fuel at a much more competitive cost based on volume. On the other hand, BIA
is terminating its payment of greater costs than its competitors, and other regional carriers purchase fuel from BIA. The reality is that both the regional carriers and the national airline using BIA are hit by large differences in the cost of fuels. Such practices are hampering the profit potential of Gulf Air and suppressing its development. BIA bought 92 million gallons of fuel, costing $282 million. Nearly 20 per cent of the total annual costs of the carrier are related to fuel bought from its home base. Since Gulf Air is based in an oil-generating country and is completely owned by the Government, ideally it must not be exposed to the increasing costs of fuel. The Gulf Air pricing in Bahrain is based on the standard market, and it does not receive preferential treatment for refuelling at BIA. The airline sector must also concentrate on several factors, namely oil prices, costs and other charges, infrastructure quality and other events that influence the industry’s financial health. Oil is the most significant input for the airline. It must be considered as a globally traded commodity, and the price must be determined by the market supply and demand. The complexity of maintaining the airline has been maximised by the factors on the demand side, encompassing the high cyclicality and seasonality, the quality and maximum number of available seats and the time required to reach the destination. The airline service cannot be inventoried, since it is perishable. It has been attempted to explain the perishability problem by utilising various tough price discrimination strategies in the competition of destructive price when trying to fill seats in the airline (Berthon and Bringand 2001; World Airlines 2010). In the current analysis, Ebtesam Al Shamlan, Director at Air Transport (CAA), elaborated on the cost challenges faced:

The company has suffered big losses due to mismanaging and also due to opening losing destinations. The company was able to support itself when it was owned by four of the GCC countries. With the current situation, in which it’s owned only by Bahrain, the financial pressure is solely on Bahrain. The problem started many years ago due to not having proper management. In addition, the announcement of bankruptcy of Bahrain Air has added to the problems.

According to Ringbeck et al. (2006), the airline industry is using switching costs and will face challenges in terms of costs. Switching costs are generally costs that are
included in changing part or all of a user’s demand (which cannot be met by the current supplier) from one supplier to another. Switching costs comprise asset relocation at a new airport, encompassing sunk investments, namely airline facilities for the terminal (airport lounges, check-in desks, etc.) and maintenance facilities, breaking commitments, staff costs, consisting of recruitment, relocation and redundancy, and loss of scale economies (for example when shifting the operations from one airport to another).

According to BAS (2011), optimising the use of its human capital, supervising its performance, benchmarking itself and re-engineering its processes will permit BIA to develop its service level and control its expenditures in an effective manner. Employing new techniques, which are currently absent from the BIA services, will make it more productive.

6.3.5 Safety Challenges

According to Maktoum (2010) and World Airlines (2010), government intervention encompasses national pride and the significance for the airline sector is based on the passengers’ safety. Safety measures are the main issue in the airline industry. The Bahrain Government has to consider air transport to be important for the economy of the country and focus on the aspect of national security. Millions of customers travel by air, and their safety has to be considered by avoiding inappropriate policies, safety standards and poor maintenance.

Ebtesam Al Shamlan mentioned that:

*The major air transport problem is the effect of security issues on general matters and gaining approval for airlines to operate in Bahrain.*

However, on the other hand, Janahi mentioned that BIA is taking measures to ensure security at the airport. He said:
• *We also have strategies to increase revenue, improve security, minimise cost, improve quality, improve efficiency, improve reliability, improve safety, etc. There is also a Security Law and Aviation Law. The BAC is therefore working on such a basis. CAA is providing regulators to ensure that the laws and regulations are followed.*

6.3 SUMMARY

BIA is facing many challenges, and it needs to be financially stable in the long term. Bahrain Airport can succeed by concentrating on ‘marketing general aviation’ and ‘planned airlines’, respectively, with their distinct needs and requirements for competitive surroundings. Bahrain Airport is now working in a competitive manner following a competitive strategy for which knowledge could offer comprehensive insights for accomplishing an essential competitive edge. This chapter discussed the airport competitiveness model, which has been developed to aid the strategic and planned development of BIA. The model includes the spatial, facility, managerial, demand and service factors influencing the airport’s competitiveness. The chapter further identified the various challenges faced by BIA in attaining success in its operations as well as the successful execution of the airport’s strategic expansion plan.
CHAPTER 7  STRATEGIC PRACTICES AT BIA

7.1 INTRODUCTION

A strategic business plan is an adaptive document that describes and highlights the initiatives and policies undertaken to implement the development and expansion of an airport. At BIA this plan is executed in a consistent manner with core values focusing on the products and services that are competent and strategically significant for the attainment of the corresponding infrastructure in the region for air transportation. The strategic business plan includes the adoption of specific strategic practices that are instrumental in achieving the objectives. The strategic practices adopted at BIA are discussed in this chapter: cost control and operational efficiencies, unique BIA products and services, marketing strategies, business diversification and strategic alliances of BIA.

Mr Abdulla Ahmed Janahi, Vice President of the BAC, mentioned that the company had initially developed a five-year plan in 2011, which it planned to revise in accordance with the expected changes over the next five years. Regarding the objectives, Mr Janahi stated during the interview that these were only general at the moment and that they were mostly defined for the higher level. The company further planned to appoint a new consultant for the development and implementation of an AMP. The strategy for such a master plan would be commercially driven and consequently lead to the establishment of the ultimate vision. CAA had originally developed a master plan for airport development in 2007. The BAC later developed its own airport development plan, which included moving the airport to another location; this was later revised by the Government, and it was determined that the BAC would continue to operate in the same location for the next twenty years. According to the authorities, the master plan would include strategic policy measures for the future in the absence of a strategic plan. According to Mr Janahi, the BAC is developing strategies to determine the best land utilisation, increase revenues,
improve security and safety, minimise costs and improve quality, efficiency and reliability. According to Mohammed Bin Falah, the BAC strategic plan must be reviewed and rewritten according to the mission and vision statements. The current plan was prepared in-house by the BAC with the help of consultants.

7.2 COST CONTROL AND OPERATIONAL EFFICIENCIES

According to Mr Ahmed Neemat (CAA of Ministry of Transportation), BIA is undergoing personnel and operational restructuring as part of the strategic plan to improve efficiency at the airport and handle the challenges that it is facing that adversely affect the traffic at BIA. The strategic plan had been prepared for the period 2012–2016 for the Ministry of Transportation, which includes CAA. As far as the AMP is concerned, according to the interviewee, that should be developed by the BAC but critically approved by CAA.

Doganis (2010) asserted that market-based industry cost reduction is an essential way to compete with rivals. Lowering the overall costs is the usual practice, but the impact of every component on the total cost depends on the common practices of airline operations. The airport sector is dynamic, requiring frequent upgrades in most of its functional, operational and technical aspects; for this reason, clear knowledge of the various costs involved and their determinants is important for decision making.

According to Shroff (2013, BAS is the first step of the multi-phased project, which targets greater service delivery standards and operational efficiency by developing major processes, integrating a lean structure of operation, implementing systematic and extensive supervision of operational performance and introducing a modern operating idea. BAS, starting in July 2013, deployed the newly developed RMS as the first measure towards increasing the operational efficiency by enabling the organisation to attain optimal utilisation of its workforce and improve its operations handling in real time. The BAC has implemented its process of operational restructuring, which targets a more effective and leaner structure in which the existing personnel perform numerous functions efficiently. Similarly, BAS is developing the implementation of a modern operational idea based on the setting up of a centralised
integrated operations control area, the Bahrain Airport Services Operations Centre (BOC). All the major functions will be centralised in one place, accomplishing substantial effectiveness in control, coordination and communication to handle better the operational problems emerging on a daily basis.

BAS is migrating methodically into a new age of a customer-centric and performance-driven culture. It is important to advance and streamline its operations to ensure greater quality, competitiveness and efficiency while handling its operating costs more efficiently. Similarly, BAS is focusing on the training and development of its human capital to provide all its customers and airlines with consistent and reliable standards of service.

The LMRA is working with the BAC (as part of its development plans in 2014) to have sufficient personnel and enough counters to facilitate employees in efficiently recording passenger details, including their fingerprints. Huge investments have been injected into the private sector to enable the development of skills of the Bahraini airport employees. BIA has built and maintained its position through operational efficiency and speed, which will continue with its trademark services.

Attaining the dual targets of efficiency and speed without compromising service quality and safety levels will be significant. Training is the major facilitator of this end for BIA. Bahrain Airport Management has taken up the challenge of ensuring that its employees are trained and equipped with the latest know-how as technology advances. Back-office processes as well as front-line personnel must provide a service that exceeds clients’ expectations. There are several areas in which BIA can lower its costs, reinvest part of these savings back in the training of its employees and enhance the service quality to accomplish the best value for money for all the airport users.
7.3 UNIQUE BIA PRODUCTS AND SERVICES

7.3.1 Products

According to BIA (2014), the Bahrain Duty Free shop located in BIA was set up in 1990. The shops are located in the departure and arrival regions of BIA, with a landside shop named A to Z that is situated in the arrival hall. The products have been developed extensively, with several top brands working at Bahrain Duty Free; it provides the best in cosmetics, perfumery, liquors, tobacco, confectionary, jewellery, fashion and accessories. Extra services extend to online pre-ordering, 24-hour duty-free shopping, customer loyalty cards, promotions of online car draws and cash raffles.

According to TaxFreeTravel (2014), Bahrain Duty Free is a multi-award-winning organisation providing customers with excellent services, well-renowned luxury brands and a useful online pre-ordering service that passengers can access through the revamped retailer website. The airport also offers food and beverage facilities for airport users through strategically located coffee shops and other cafes.

7.3.2 Services

BAS, which was founded in 1977, offers wholly integrated airport services at BIA. BAS is an ISAGO-accredited Provider of Ground Service, which operates and owns 4 business units, assisted by 3000 personnel. With a new mission and vision statement and a set of new strategic objectives, BAS is committed to continuous development in operational efficiency, customer satisfaction and service quality while ensuring uncompromised implementation of security and safety standards.

BAS’s core competencies and business units consist of cargo services, catering services, ground and airport operations and aircraft engineering services (Bahrain Airport Services 2011).
7.3.2.1 Cargo Services

The cargo division of BIA manages around 280,000 tons of freight yearly, involving exports, trans-shipment and imports. The cargo terminal surrounds a region consisting of 19,000 square metres with a multi-bay storage racking warehouse and a range of special facilities for valuables, perishables, dangerous livestock and goods. BAS’s cargo department offers complete services to chartered and planned carriers as well as freighter aircraft operators. Taking advantage of Bahrain as an international node because of its link through a road system to Saudi Arabia and close proximity, BAS has developed an efficient handling methodology of intermodal trans-shipments between air transportation, Mina Salman seaport and the road network. Additionally, facilities of break bulk are accessible for consolidators while bonded warehousing is available for specialist companies. The warehouse capacity is expanded by the use of a multi-level racking system using forklift trucks with a capacity of around 13 tons. Specialised handling systems offer aircraft ULDs to be managed effectively and efficiently through elevated transfer vehicles and roller beds. Communication systems and state-of-the-art modern computing systems are used for handling multi-faceted operations to ensure customer service and optimum efficiency.

7.3.2.2 Catering Services

According to Bahrain Airport Services (2011), the infrastructural capacity of modern inflight catering, covering an area of approximately 11,000 square metres, has a maximum production capacity of 35,000 meals every day. The modern in-flight cuisine contributes to the service quality perception and airline image. The catering services of BAS have constructed a desirable reputation for quality and service at competitive costs. They serve 28 airlines flying through Bahrain as well as royal and private flights. Their procedures and facilities adhere to the security standards implemented by expert security staff for all services of inflight catering provided to rival flights as well as commercial flights. An HACCP (Hazard Analysis Critical Control Point) system is in place, with rigid international hygiene standards and regulations. The catering service department of BIA has received numerous prestigious international awards for quality and innovation.
7.3.2.3 Ground and Airport Operations

The traffic services division of BAS is a front-line operating and handling service that includes every aspect of ground-handling operations at the airport. The operation division of BIA has a handling capacity of nearly 9 million passengers per year. It presently serves 35 airlines, offering an extensive number of ground-handling services, including ramp and passenger handling, aircraft and dispatch load control, handling of baggage, special services and so on.

BAS has been authorised by the ISAGO (IATA Safety Audit for Ground Operations) for all functions of handling operations. The Standards and Procedures of the IATA Safety Audit for Ground Operations are applied to all traffic services. The coordination of different activities needs a highly trained and skilled team working round the clock to offer professional and effective services to all customers and airlines. The continuous changes in traffic volume and profile mean that BAS must develop and change to accommodate more complex and challenging surroundings. BAS aims to offer a greater service level to the customers using BIA and a congenial travelling experience to its passengers. A positive experience for the migrating travellers at BIA is beneficial for the image of both the airlines and the airport.

7.3.2.4 Aircraft Engineering Services

The aircraft engineering services offer technical certification, line maintenance and troubleshooting under EASA Part-145 Approval of Maintenance Organisation. The department manages approximately 8000 aircraft maintenance movements per year. BAS has set up a sound customer basis offering technical certification and aircraft maintenance on a 24-hour basis through several highly skilled aircraft engineers for 19 airlines. The experienced engineering staff is assisted by an array of ground equipment to offer greater servicing standards to 17 airlines. BIA’s Part-145 Organisation is agreed officially by the civil aviation authorities of the United Arab Emirates, Oman, Bahrain, Egypt, Qatar and so on. The Line Maintenance division is responsible for the exterior and interior cleaning of aircraft, which involves turnaround
cleaning, specialised deep cleaning, overnight cleaning and transit cleaning (Bahrain Airport Services 2011).

7.4 MARKETING STRATEGIES

According to Huff (2011), if an airport needs to gain the attention of numerous travellers, it has to offer new carriers or extra concessions. Marketing is thus a major priority in a depressed economy with a lack of overall operational budgets; every airport operation involves a marketing strategy that can be reviewed regularly to keep up with the industry standards and solve economic and environmental problems. Mr Gordon Stewart, Chief Support Services Officer at the BAC, mentioned that the strategic plans must not only focus on the investment challenges but should also aim to produce results through defining customers and generating revenues for the BAC, which should be the ultimate motive. The master plan revamped by Mr Stewart emphasises airport security and safety procedures, fast data connection services and the implementation of all safety procedures, other than traffic forecasting and marketing for LEK strategies, without which expansion is insufficient.

Market leadership is the most successful and effective strategy in the airport industry. Innovation strategies refer to the new plans made by the airport to promote advancements in services or technology, generally by spending on R&D activities (Smart Marketing 2011). According to Business Dictionary (2014), innovation strategies reflect how airports aggressively adopt new technology and future business opportunities. The general marketing strategies for an airport are market dominance strategies, innovation strategies and growth strategies. The BAC signed two agreements during BIAS 2014 to develop the services and facilities further. Growth strategies examine the economic, physical, regulatory and community constraints to develop a plan to achieve the business objectives.

The BAC focuses on 1) developing the existing business model; 2) attracting airlines with developed facilities and infrastructure; 3) developing the peripheral services of the airport; 4) expanding the operations; and 5) differentiating the business activities by establishing essential ventures related to aviation (Oxford Business Group 2008).
Though developing a marketing strategy is a time-intensive method, it leads to the success of an airport. It is the basis on which to attain international targets by preparing a particular roadmap that can be implemented and developed accordingly. Without an appropriate strategy in place, communication and marketing are ineffective at best. Mr Gordon Stewart, Chief Support Services Officer at the BAC, however, pointed out that the strategic plan of the BAC does not specify a definite strategy and that it is a challenge to work around it. According to him, there are no strategic documents that lay out the strategic plan or a master plan for airport development. There are a few documents that present something like a partial master plan.

7.4.1 Development of BIA’s Market

The major objective of the BAC is to develop BIA’s role as an economic contributor and to develop its status, facilities and infrastructure further to the advantage of all its users and stakeholders. The BAC optimises the revenue streams by expanding the business through non-aeronautical and aeronautical activities. The BAC works as a commercial entity with transparency and commitment to enhancing the status of the airport as a major international airport in the region through world-class services, facilities and infrastructure. The strategic plan at BIA is constructed for five years. The strategies developed by the involved stakeholders are related to increasing the revenues, acquiring a skilled workforce and personnel and developing security procedures, high data connection services and cost-efficient mechanisms. The strategic planning concerns not only the development but also its adequate implementation. At BIA, strategies related to personnel and increasing the actual traffic at the airport have been incorporated. Traffic forecasting and all the marketing terms for the strategy have been used and the work for the strategy has been conducted. Bahrain has undertaken a massive project to restore itself to its original place as an aviation hub and preferred point of transit. BIA’s development is part of the strategic economic development plan of Bahrain under its Economic Vision 2030. The project concentrates on offering an appropriate infrastructure to ensure better management of a broader network and better financial performance as a major
contributor to the gross domestic product to make the aviation industry one of the major economic sectors in the Kingdom of Bahrain.

Airports De Paris Ingenierie (ADPI), a completely owned subsidiary of ADP, has acquired a new agreement to monitor the expansion and modernisation of BIA and to plan its future. ADPI was chosen by the airport operator and the Bahrain Ministry of Transportation and Telecommunications (MTT) to monitor and design the new passenger terminal building according to the initial findings of the first master plan and to analyse and evaluate all the previous studies on the airport to forecast the future developmental requirements. In addition, it has been tasked with the implementation and adaptation of the new airport site in the next 20 years. These 2 missions will be performed over a 5-year term and are expected to bring nearly €25 million in revenue for ADPI. The new terminal building should be completed in 2019. BIA is the base for Gulf Air and transports 9 million passengers every year; after the initial development phase, BIA will be able to handle nearly 13 million travellers every year (ADPI 2014).

These expenses, valued in excess of US$1 billion, will offer the terminal much required capacity, with extra gates, passenger upgrades and amenities in security and safety measures. The GCC countries alone are funding expenditure of nearly US$45 billion in the aviation industry over the next 5 years. The needs for border surveillance technology, knowledge and aviation security have developed in an impressive way; they are rapidly developing as an essential high-development sector. As Bahrain International Airshow 2014 provided a distinct opportunity to showcase its services and products in front of the BAC, the Ministry of Transportation and other operators of airports within Gulf areas, BIA was glad to introduce the Airport, Security and Surveillance Pavilion. The Pavilion, which resided at the heart of the air show, offered demonstration and exhibition opportunities within one of the most reputable aviation events in the world.

The development plans for the new airport will be finished in the next 5 to 10 years, depending on the number of travellers, and may involve the construction of a new site or the modification of an existing site. BIA presently hosts around 11 cargo carriers and 23 traveller airlines offering 724 flights every week to 41 destinations, with Gulf
Air accounting for 60 per cent of the traffic. There is a Bahraini market despite the reduction in traffic in 2013 and 2012. BIA is expecting Gulf Air to initiate improvements either through new routes or through an increase in the number of flights.

According to World Construction Network (2014), Hill International has acquired an extended agreement valued at about $18.3 million from MTT to supervise the BIA modernisation programme. Hill will offer consultancy services for project management under the 4-year expansion. The modernisation programme involves a new master plan for the next 20 years. The project involves the refurbishment and extension of the existing terminals for 13 million travellers every year. The development of passenger traffic at BIA necessitated the extension. The BAC is responsible for BIA and develops its contribution to the local economy in line with the national plans. In its operational role, the company is the representative client for the Ministry of Transportation in enhancing and executing projects that expand the infrastructure and operations.

BIA is an essential component of Bahrain’s economy due to its strategic geographical location at the heart of the Gulf region. Its location has been used historically by travellers between the East and the West for transit purposes and by cargo suppliers for the transportation of cargo between different countries.

BIA satisfies the importance and authority set by the Economic Vision 2030 of Bahrain, thus linking the country to the globe and contributing to its socio-economic development. The plans will offer businesses in Bahrain the access that they have requested for the future and will strengthen the logistics and the aviation industry in the kingdom. Furthermore, they will offer travellers an enhanced experience and the BAC developed opportunities to produce revenue that can be reinvested in the airport.

The BIA expansion and development project will involve new check-in facilities for the first and business classes, a dedicated departure waiting lounge, security facilities for departures, an expanded immigration hall for departures, a new makeup area and baggage handling area, extra retail spaces for departures and arrivals, an increased baggage reclaim area, new transposal facilities, a multi-storey car park, developed traveller circulation, coaching gates for arrival and a new airline lounge, administration offices and airline offices (Bahrain News Agency 2011).
7.5 BUSINESS DIVERSIFICATION

Terterov and Shoult (2005) described Bahrain as developing into an ambitious and dynamic economy because of the aggressive economic diversification programmes of the Government. Since Bahrain has been supplied with fewer oil reserves than its neighbours, it has pursued active policy development to attain enhanced diversification and openness. The economy of Bahrain prospered as it became one of the region’s most progressive economies with investment regimes, trade and liberal exchange rates. Presently Bahrain manages a distinct integration of regional, local and international businesses, thus offering a wide number of different financial activities, services and products.

Mr Gordon Stewart (interviewee) indicated that, during the second phase, strategic objective changes were made pertaining to ICT technologies to look five years ahead to achieve the stated objectives. By focusing on the preliminary changes made in 2012–2013, a plan was developed, much like a strategy calendar.

According to the Oxford Business Group (2010), BIA has prioritised its target areas for diversification, such as professional and business services, ICT, education, logistics and greater value-added industries, tourism and health care, as well as financial services. Its focus is on three major areas: enhancing the private area to drive development, developing the business surroundings and investing in its passengers. Only the private areas can provide the expenses and jobs needed to assist growth and diversification. They aim to change the government role from operator to regulator to enhance the development of the private sector. Bahrain must continue to offer attractive business surroundings in which Bahraini businesses can develop. International businesses need to spend and operate to access the trillion-dollar GCC market. Mr Bin Falah also asserted that BIA cannot develop alone in isolation with its master plan but must develop under the umbrella of a national plan and that multiple stakeholders’ perspectives should be involved in the strategic development of the plan. According to Bin Falah, not everything in the strategic plan is related to the master plan for airport development. For example, strategic planning with respect to the development of human resources or marketing strategies may not relate directly
to the airport development and expansion master plan. The strategic plan must be dedicated to sustainable development. In accordance with the ministerial order in 2009, the BAC was delegated the complete responsibility to manage, operate and develop the airport. The development of the BAC involves the consideration of the interests of all the stakeholders. Funding will be provided through government equity holdings, and various strategic alliances are being developed.

According to the Bahrain Airport Company (2013), it obtained HTF MBA (Hochtief Facility Management Bahrain) by purchasing 50 per cent of the shares in a joint venture that is set to add to the BAC’s existing 50 per cent of the joint venture to make it an organisation that is owned completely by the BAC. This represents a bid to diversify its revenue streams and develop its service quality. The solutions of Hochtief Services had been used for international sales as an outcome of a restructuring practice that the organisation had undertaken. The BAC supervises the opportunities and market trends closely, enabling it to satisfy its commitment to excellent service, in keeping with its mission to develop the capabilities of Bahrain Airport and diversify its streams of revenue. The BAC visualises valuable potential business following the complete acquisition of Bahrain Airport’s Hochtief Facility Management. This change will not influence the operations at BIA, and that business will operate as usual. The BAC will start operations under the new recognition and the term BAC Facilities Management W.L.L. will still offer services for Bahrain Airport’s apron, terminal building, administration buildings, hangars, fire building and halls for cargo.

According to Global Edge (2014), as a major financial centre, Bahrain’s development has been the most vastly heralded perspective of its diversification effort. Bahrain is a regional business and financial centre, where international financial institutions perform both onshore and offshore without hindrances and the financial sector is presently the biggest contributor to the GDP at 23 per cent in the year 2010. According to Industry-Me (2013), the BAC is presently experiencing infrastructural plans that will expand, diversify and improve the airport in an impressive way. They are in the last development stage and are expected to strengthen the airport as a regional hub when
completed. The BAC has been striving to handle the airport as a world-class airport and develop the aviation capabilities of the kingdom in line with the national plans.

As Mr Kamal Hefney, Air Transport Advisor (CAA), stated, while keeping the development strategy of Bahrain Airport in mind, the BAC acquired a process that focuses on diversifying the revenue streams with the integration of non-aeronautical and aeronautical services, configured to provide excellence for travellers and address the changing demands of the stakeholders.

7.6 STRATEGIC ALLIANCES

Gray (2009) defined a strategic alliance as rapport between more than two entities that share resources to accomplish an advantageous objective. According to Helihub (2013), Donaldson Aerospace & Defense, which is a division of Donaldson Company, is increasing its strategic alliance with Global Aviation Services, based in Bahrain, to encompass sales and assistance of filtration solutions for military ground vehicles and fixed-wing general aviation aircraft as well as helicopters for major markets in the Middle East. Global Aviation Services is a privately owned organisation based in the Kingdom of Bahrain. Global Aviation Services is familiar with the distribution and supply of vast aircraft and components as well as interior parts for the commercial aviation sector and for defence and military aircraft systems. This strategic alliance will reduce the Donaldson customers’ supply chain, permitting them to take advantage of simultaneous fronts, including cost and time (GAS 2013).

According to Gulf-Daily-News (2014), MENA Aerospace Enterprises, based in Bahrain, and the United States’ Firm Temptus Jet Centers have signed a contract to set up a strategic alliance at BIA. The new company, MENA Tempus, will develop the organisation to provide a different and exceptional aviation product to the Middle Eastern area. Tempus Jets performs extensive maintenance of aircraft and provides interior completion facilities and modification services. MENA Aerospace has an aircraft office and hangar complex at BIA and works on an integrated fleet of business jet aircraft and Boeing aircraft. MENA intends to offer a direct connection between the facilities in the United States of America and the customer base in Gulf areas through
the strategic alliance. As a hub of logistics, Bahrain is the perfect base from which the new strategic alliance can grow across the GCC region. Thus, MENA Tempus will offer an effective platform from which to provide aviation sectors both regionally and locally with a comprehensive array of complementary services. Thus, a successful strategic alliance will enhance the strengths of all involved. Successful strategic alliances are constructed on nurturing and setting up a healthy rapport.

7.6.1 Competitor Analysis between BIA and Other Airports

BIA is situated in Muharraq, an island on Bahrain’s northern tip, located 7 kilometres from the capital, Manama, in the northeast. It serves as the airport hub for Gulf Air and was also the hub of unused Bahrain Air (Johnson n.d.).

Major airport development is under construction for a 50,000 m² new passenger terminal building for a contract amount of about US$1 billion. The project also includes multi-storey car parking, a new baggage-handling system, aerobridges etc. (MB interviewee)

Most of the passengers using the airport are Western expatriates and Saudis from Saudi Arabia’s Eastern Province (Curry and Putzy 2001). Limousines and designated bus services move passengers from Al Khobar, Dammam and other cities of Saudi to Bahrain Airport. BIA is serviced by 40 airlines, including Qatar Airways, Emirates, Etihad Air, British Airways and Gulf Air. BIA is well known for its features and services, which it offers to its passengers through several amenities. BIA has a unique feature, which provides its passengers with premium check-ins. The premium check-in facility is available to all premium-class travellers, which is equivalent to the first-class passenger facility in the US. Premium-class travellers are checked in in a peaceful lounge away from the airport. BIA was named the Best Airport in 2010 in the Middle East at Skytrax 2010 World Airport Awards (Bahrain Airport Company 2013).
7.6.1.1 Services for Passengers

Bahrain Airport Services is committed to continuous development in operational efficiency, service quality and customer satisfaction while implementing greater security and safety standards in the industry. The services provided by BAS are ground and airport operations, catering services, lounges, cargo services and aircraft engineering services. The operation division of BIA has a managing capacity of 9 million travellers yearly, and it presently serves 40 airlines, offering an extensive number of ground-handling services involving ramp and passenger handling, special services, aircraft and dispatch load control, baggage handling and so on. Similarly, the cargo services manage 280,000 tonnes of freight yearly, involving export, trans-shipment and import services. The modern infrastructure of in-flight catering encloses a region of around 11,000 square metres and has an enormous production capacity of 35,000 meals daily. The service of aircraft engineering offers technical certification, troubleshooting and line maintenance under the Approval of the EASA Part-145 Maintenance Organisation. It manages a total of 8,000 aircraft maintenance movements yearly (Bahrain Airport Company 2013). The services provided by other competing airports in the region, like Dubai International Airport, are Al Majlis, Ahlan, Executive Services of Flight, Marhaba and the services of the Dubai International Hotel. Services like ‘Al Majlis’ provide luxurious facilities and a home-based environment for travellers at Dubai International Airport. ‘Ahlan’ services provide special care and privileged assistance to make the arrival process at Dubai International Airport smooth and pleasurable. ‘Marhaba’ exclusively deploys a meet and greet service at Dubai International Airport, which can be used by its clients to facilitate the arrival of their friends, family and business partners. An executive flight service from Dubai International Airport is configured to the requirements of business aviation of corporations and individuals. Dubai International Hotel is operated and managed by a highly dedicated and motivated group of service-oriented experts (Dubai Airport 2013).

Similarly, the services provided at Doha International Airport include prayer rooms, Wi-Fi, child care, currency exchange and banking facilities, a play area for children,
medical facilities, an electronic gate facility, special assistance, relaxation and Al Maha regions. Additionally, at Doha International Airport, passengers can select different types of beverage and food outlets, which are open 24/7, offering services to all departing and arriving passengers at Doha (Doha Airport 2010). Similarly, the services available at Dammam International Airport are shopping, food and beverage facilities, relaxation, banking services, a departure hall, travel agencies and pharmacy facilities. At Dammam International Airport, there are numerous food and beverage establishments in public areas ranging from regional and local food fare to international brand name cafes, delis and restaurants. Whereas banking services (ATM facilities and banks) are abundantly available at Doha International Airport and Dammam International Airport, they are not readily available in Dubai and BIA. The above comparison shows that, to increase the competitiveness of BIA with other major international airports in the region, the airport expansion plan must provide a wide range of competing facilities (KFIA 2013).

7.6.1.2 Security in Airports

BIA provides high security to its passengers and ensures that their journey is comfortable and safe. A new blast protection unit has been set up at BIA for the safety and security of its staff and passengers. State-of-the-art security equipment has been installed at the airport to carry out proper screening and checking of passengers and baggage to ensure the safety and security of all travellers. Passengers need to clear various levels of security checks, including X-ray machines and metal detectors, and must not pack any restricted materials in their baggage. Passengers are also charged for their luggage depending on the airline regulations (Bahrain Airport Company 2013).

Similarly, Dubai International Airport provides high-level security checks for passengers and travellers, involving the Dubai police. Security services like pre-screening exist at the airport entrance of all the terminals, and 3200 surveillance cameras for the entire premises ensure the safety and security of passengers (Dubai Airport 2013). Doha International Airport provides similar security services, including the screening of luggage with the help of equipment as well as visual screening as
required. Passengers’ luggage is checked for liquids, gels, aerosols and so on. At the New Doha International Airport, the existing CCTV surveillance system was replaced with the advanced Indigo Vision whole IP video solutions, deploying 600 CCTV cameras for in-depth surveillance to compete with Qatar Airways’ information technology department. Indigo Vision’s surveillance system has the capacity to provide greater-quality video with reduced bandwidth and, in combination with the alarm systems and access control, adds powerful features to the video management software. Dammam International Airport has also installed regular security controls at various levels and stages of domestic and international departures and arrivals (Doha Airport 2010). The comparison of security services reveals that at present Dubai International Airport has installed a greater number of CCTV surveillance cameras than the international airports of Bahrain, Doha and Dammam.

7.6.1.3 Passenger Traffic:

BIA registered nearly 8,479,884 travellers between January 2011 and December 2011. Compared with BIA, around 12 million passengers travelled to other places from New Doha International Airport. In addition, the airport was completely developed in 2015 at a cost of 6 billion US dollars to manage around 50 million travellers, 2 million tonnes of cargo and 320,000 planes every year. The passenger traffic at Dubai International Airport consists of around 75 million travellers annually. According to the report, the passenger traffic reached 57,684,600 in 2012, that is, an increase of 14 per cent from 50,989,965 passengers during 2011. The number of passengers is expected to rise to 100 million by 2020. Dammam International Airport has the capacity to manage around 12 million passengers and 125,000 tonnes of cargo every year. The passenger-managing capacity of Dammam International Airport is targeted to reach 16 million. The comparison shows that Dubai International Airport has more passenger traffic than the international airports of Bahrain, Dammam and Doha.
7.6.1.4 Car Parking

At BIA, parking cars is easy, cost efficient and rapid, providing various choices for passengers depending on their needs and preferences. BIA has allotted 1900 spaces for car parking. Passengers arriving at BIA by car may leave their bags in front of the airport terminal at the level of departure. Car drivers are not allowed to park while leaving or seeing off travellers. This is because of the security steps taken at BIA, which do not allow cars to park by the terminal pavement (Bahrain Airport Company n.d.).

At arrivals, the pick-up lane is handled by an automated ticket system, and the parking of cars is not allowed at BIA. The tariffs at BIA vary with a competitive tariff structure. Dubai International Airport provides 24/7 parking in its long-term and short-term spaces at Terminals 1, 2 and 3. The car-parking space at Dubai International Airport covers 177,500 m², which can accommodate nearly 1870 cars. The tariffs differ from one terminal to another for car parking. Dubai International Airport also has valet parking for its passengers at Terminals 1 and 3. Valet parking has both regular and VIP services. The valet parking service is handled by Val Trans. Doha International Airport provides short- and long-term parking for the convenience of its passengers. Doha International Airport provides a long-term car park situated opposite the airport for longer-term parking of passengers, whereas short-term car parking at Doha International Airport provides the best solution for passengers, as the first 15 minutes are free and each hour is charged at QAR 5 for 1 month. Outside the arrival and departure halls of Doha International Airport, 900 metres of parking are available, which can accommodate nearly 350 cars. The Dammam International Airport car parking is divided into 3 enclosed floors. There are nearly 4,897 car park spaces available for both long- and short-term car parking. There is straight access to the terminal from the first floor of the parking area. It is connected to the terminal and has secured access. Two open areas are available for parking the car rental service to accommodate the extra cars. The rates of parking at Dammam International Airport for 1 hour are SAR 1 or part of the remaining day. From the above comparisons,
Dammam International Airport has a much larger car park facility than the international airports of Bahrain, Doha and Dubai.

7.6.1.5 Special Needs

BIA identifies the requirements of all its travellers. Disabled access is provided at all terminal levels through either ramps or elevators. The service providers at Bahrain Airport monitor requests for disabled passenger assistance and handling at BIA. Dubai International Airport assures that it satisfies the requirements of all types of passengers across the world. Passengers with special requirements are handled with the utmost care and given access to all the services at Dubai International Airport. It offers special services for PRMs (passengers with restricted mobility). Dubai International Airport has dedicated desks for passengers with special needs situated between row A and row B of the departure hall. Electric carts are also provided to transport passengers to and from the concourse. Doha International Airport also offers special assistance to its passengers. It provides separate forms for special assistance passengers with a lounge situated next to the first gate on the ground floor for passengers. A separate special assistance programme is allotted for Doha International Airport passengers. Dammam International Airport provides special assistance for disabled passengers. All the parking areas contain separate spaces allocated to handicapped parking for authorised vehicles. These spaces are represented by the international symbol for the disabled. Dammam International Airport also arranges wheelchairs for ramps at different places for simple access. Thus, it can be inferred that all the airports provide facilities to serve passengers with special needs properly.
7.7 SUMMARY

In sum, the airport industry after deregulation is dependent on market forces. The cost factors can be helpful for airport managers when planning actions to lower their costs and accomplish competitive advantages over rivals. BIA’s products and services are aimed at achieving operational efficiency, customer satisfaction and service quality. Similarly, developing an appropriate marketing strategy for BIA is a time-intensive method that can lead to the success of the airport. The development plans of Bahrain Airport are focused on enhancing the travel experiences of passengers and providing several business opportunities with a combination of aeronautical and non-aeronautical services to develop the profitability of the airport. BIA has a strategic advantage and sustainable development through diversification and strategic alliances for developing a successful airport industry in the future.
CHAPTER 8 ANALYSIS OF BIA’S STRENGTHS

INTRODUCTION

Established in 1927, BIA is an international airport that is situated on Muharraq. Muharraq is an island located on the northern edge of Bahrain, which is about 7 km northeast of the capital city, Manama (please refer to Figure 15). It is the primary hub of Gulf Air and was the hub for the recently bankrupt Bahrain Air.

![BIA's Location](image)

**Figure 15 BIA’s Location**

Historically, BIA was known as a strategic transit point for flights between the West and the East due to its location at the centre of the Gulf. However, this has diminished due to the technological development in aircraft technology and the ability to operate long-haul air flights. Nonetheless, the strategic location of the airport with over 60
years of experience has benefitted the airport’s productivity, as it serves as a distribution hub for global cargo companies.

Another significant factor highlighting the relevance of BIA is related to the ownership of Gulf Air. This company used to be owned by other GCC countries, namely Bahrain, Qatar, the UAE and Oman, but Bahrain is currently the sole owner. Previously, Gulf Air had stronger financial support, more destinations and a larger operation. With a change in ownership, the size of Gulf Air diminished due to the losses incurred by the company. This had a direct effect on BIA, which was highly dependent on Gulf Air. Despite this major shift, there are other issues that maintain the important position of BIA among the other airports of Bahrain and the Gulf. This chapter discusses the various factors contributing to the strengths of BIA. It further portrays the case study analyses regarding the growth of BIA, the challenges faced and the programmes deployed to enhance BIA’s efficiency.

8.2 AREAS OF BIA’S COMPETITIVENESS AND STRENGTH

This section explores the different features that provide BIA with competitiveness and strength.

8.2.1 Growth of BIA

Air services, which commenced in the early 1930s, have played an important role in shaping the development of the country’s infrastructure and economy. A flight carrying 24 passengers from London en route to Delhi was the first scheduled commercial flight arriving in Bahrain. The forerunner of the British Airways Corporation (BOAC) and later British Airways, Imperial Airways had operated several flights through the Gulf in the late 1920s. The first Imperial Airways flight to Bahrain took place in August 1927.

The Handley Page HP 42 became the standard long-haul aircraft for Imperial Airways and was used on the route between the UK and India after the airline began scheduled services via Basrah – Iraq, Bahrain and Sharjah – United Arab Emirates, with Kuwait added soon afterwards as an optional calling point. By 1936, the operation had become a twice-weekly regularly scheduled flight.
In 1937, Bahrein Marine Airport passenger terminal was constructed (at that time Bahrain was spelled Bahrein) to meet the demand of the commercial ‘flying boat’ long-haul aircraft. Such services to Bahrain continued into the early 1950s. By 1950, the BOAC had returned to more traditional forms of air transport, which offered a greater passenger payload. This resulted in the return of commercial passenger flights to Muharraq using Argonauts, four-engine aircraft, which could carry up to sixty passengers. Services were steadily built up to the point at which three Argonaut services a week from Europe terminated in Bahrain.

The year 1950 was very significant for aviation in Bahrain, as the Gulf Aviation Company was established (now Gulf Air). This airline had only one aircraft, which was a second-hand Anson Mark II and was used mainly for operations to Bahrain and Saudi Arabia. However, the airline soon expanded to four De Havilland aircraft and four DC-3s. Since then, Bahrain has developed its aviation services, including the provision of the necessary airport infrastructure and facilities, well ahead of other Gulf countries and airports. This was coupled with further enhancement of Bahrain’s position with the establishment of a new FIR based in Bahrain to cover the navigation of aircraft in transit through Gulf airspace, which required the installation of modern and new navigational and communication equipment.

Later, Bahrain entered the jet age with the arrival of the Comet and then the Boeing 707. This led to a reduction in the number of long-haul routes, leaving Bahrain as a major stopover point between Europe and the Far East. As a result of this increased transit traffic, a new passenger terminal was opened in December 1961. Aviation grew rapidly, adding pressure to BIA’s facilities and requirements for expansion, particularly when Boeing 747 jumbo jets started to land in Bahrain. Bahrain executed a further expansion plan for its commercial aviation service sector, which was completed in December 1971 with the opening of new passenger facilities and an apron area that could accommodate four B747 aircraft.

Qantas, BA, Air India and Singapore Airlines all used BIA as a major transit stop with their B747 aircraft. Most of these flights used BIA at the same time, putting more pressure on the airport and leading to the need for further expansion. A further
expansion therefore took place and was completed by 1976, which was a significant year for BIA, as the BA Concorde services between London and Bahrain were inaugurated.

During those years, Gulf Air was progressively expanding its network. In 1976, it received its first Lockheed Tri-Star aircraft, marking its transformation from a local airline into an international company serving worldwide destinations with BIA as its home. Further expansion of the BIA facilities took place in the early 1980s, and a terminal was opened in March 1994 to increase the capacity to 10 million passengers a year (bahrainairport.com 2014).

Please refer to Figure 16 for an illustration of BIA’s historical development.

1927

Welcomed British Airways, formerly known as Imperial Airways

1936

Bahrain became the midpoint between India and the UK. The stop in Bahrain became a biweekly flight
1937

Short’s Empire seaplanes operated regularly at ‘Bahrein Marine Airport’

1950

Weekly flights to Karachi, Singapore and Hong Kong and three times a week to Sydney

1960

Gulf Air, known as the Gulf Aviation Company at the time, was formed
1970

Qantas, BA, Air India and Singapore Airlines all began to use BIA as a major transit stop with their B747 aircraft.

1976

BA Concorde service between London and Bahrain in 1976.

1994

Further expansion of the airport’s facilities.

Figure 16: Illustration of the Historical Time Line for BIA’s Development

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Gulf Air is now fully owned by the Kingdom of Bahrain through the Bahrain Mumtalakat Holding Company. The airline started as a small-scale commuter service, serving the oil fields of the Gulf and some regional customers. Today, Gulf Air is a major international airline serving over 30 destinations worldwide (gulfair.com 2014). This gives BIA the main advantage of being the hub for Gulf Air. Apart from these, BIA serves major airlines, like Air India Express, British Airways, Cathay Pacific, Indian Airlines, Emirates Airline, Lufthansa, Etihad Airways and so on (Bahrain International (BAH) Airport n.d.).

8.2.2 Geographical Location of BIA

The geographical location of BIA, at the heart of the Gulf and the whole world, has worked as an asset. The location of BIA has been considered as one of the superior benefits that not only attracts passengers from all parts of the world but also assists the cargo companies in their operations.

In addition, its proximity to Saudi Arabia is a vital factor. Bahrain, as an island, connects to Saudi Arabia through the King Fahad Causeway, which was built in 1986. At that time, this was among its main advantages, which changed the overall transportation modes and was particularly important to BIA and its air transport growth. Passengers from Saudi Arabia and mainly the Eastern Province started to use BIA for their destinations rather than flying from Saudi airports. The construction of Dammam Airport made the journey between the cities and their airport in the Eastern Province of Saudi Arabia longer, and passengers preferred to travel through BIA.

Another causeway will be built between Saudi Arabia and Bahrain (King Hamad Causeway) linking to the northern part of Bahrain. It will be 25 km long and will take four years to construct. This will increase the importance of BIA with stronger land connectivity. Another causeway is planned with Qatar to connect Bahrain from the southern area to Doha, but the time frame has not been established yet.
The proximity of Bahrain to Qatar, Abu Dhabi and Dubai is a major advantage to BIA in terms of transferring passengers. Passenger statistics for top movements at BIA for neighbouring airports, according to CAA, Ministry of Transportation, Kingdom of Bahrain, Annual Report 2013, are shown in Table 8.3:

<table>
<thead>
<tr>
<th>Destination</th>
<th>Annual Traffic (2013)</th>
<th>Percentage of Total Destination at BIA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doha International Airport</td>
<td>814,911</td>
<td>22.8%</td>
</tr>
<tr>
<td>Dubai International Airport</td>
<td>588,581</td>
<td>16.5%</td>
</tr>
<tr>
<td>Kuwait International Airport</td>
<td>234,813</td>
<td>6.6%</td>
</tr>
<tr>
<td>Abu Dhabi International Airport</td>
<td>196,772</td>
<td>5.5%</td>
</tr>
<tr>
<td>Muscat International Airport</td>
<td>158,473</td>
<td>4.4%</td>
</tr>
</tbody>
</table>

Table 8.3: Passenger Statistics for BIA’s Top Movements and Neighbouring Airports

* The total number of embarked passengers in 2013 was 3,577,890.
Doha International Airport (now Hamad International Airport) accounts for the biggest share, 22.8 per cent of the total embarked passengers travelling to this airport from BIA. The main reason for this rate is that Qatar Airways provides more choices for flight connections to various destinations. This is an important element for BIA to attract passengers to fly from Bahrain to Doha for such flight connections from Bahrain and Saudi Arabia.

A similar phenomenon applies to Dubai but with a lower percentage, 16.5 per cent. Other listed airports are not significant in the transfer operation and include primarily final-destination passengers.

8.2.3 Free Trade Policies and Business Incentives

Located between the new seaport and BIA, the Bahrain International Investment Park (BIIP) has established a contest with other foremost investment asset hubs in the region, such as Saudi Arabia and Dubai.

Alongside the set-up by the Ministry of Industry and Commerce, the park permits investors to target the local market by means of incentives such as duty-free contact with the Arab world and the GCC countries and a cost base that is much more competitive than that of Bahrain’s neighbours. An added incentive is the waiver of the policy of ‘Bahrainisation’ for firms in the Bahrain International Investment Park for the initial 5 years of their license. Regarding business incentives, there is 100 per cent foreign ownership, corporate tax at 0 per cent for a guaranteed period of 10 years, exemption from the import duties on equipment and raw materials, duty-free access to all the GCC markets, access to free trade with the United States, 100 per cent return of capital and no restrictions on recruitment. The BIIP provides firms with a 5 per cent margin against all the free zones located in the GCC countries. Comparable with the free zones, Bahrain enjoys duty-free imports of equipment and raw materials for manufacturing (Davis 2010).
8.2.4 Proximity to Free-Trade Zones

Its proximity to free-trade zones is one of the major strengths of BIA. *FDI Magazine* ranked BIA nineteenth in its list of free zones of the future, and BIA ranked fifth in the top-five best airport zones (Global Outlook 2012). In 2013, the US Heritage Foundation ranked Bahrain the twelfth most free economy in the world. Bahrain is home to 3 special economic zones, which were ranked in the top 20 locations for business expansion, economic development and inward investment in *FDI Magazine*’s Global Free Zones of the Future 2012–2013 report (MEED 2013).

According to McFann (2010), Bahrain does not impose any restrictions on ring-fencing within the ‘free zones’. Bahrain also has no corporate tax or personal tax and permits 100 per cent foreign ownership of organisations, which acts as the key attraction for international business. The BIIP is not a free zone, so it is not subjected to 5 per cent tax while shipping goods to Bahrain. While BIA is not a free zone, the infrastructure plans are at the final stages and include a possible free zone.

Like most airports, BIA has a bonded cargo terminal that helps importers to delay the payment of duty until the products leave the facility. BIA offers retail space, cargo facilities and offices as well as a foreign trade zone with no customs or duties. The cargo facilities are located in a terminal of 19,000 square metres and provide trans-shipment facilities, export cargo sales, break bulk cargo handling and customs clearance. BIA provides a bonded cargo terminal that acts as the major competitive benefit. The availability of various facilities provides BIA with competitiveness and strength.

8.2.5 Ease of Obtaining a Visa at BIA

The visa procedures are simple and are clearly stated for every type of visa at BIA. A visa is not required by passport holders of the GCC nations, and passengers in transit with confirmed tickets and relevant documents are subject to the limitation of a 72-hour time window and restricted mobility within the transit area. Entry visa options for other foreign nationals include a tourist visa (for groups or individuals), 72-hour visa, visit visa, family visa, 7-day visa, business visa, employment visa or dependent visa.
Citizens of the USA, the European Community, Australia, Canada, Japan, New Zealand, Hong Kong or Japan and visitors who have been residents of the GCC for at least six months and who own a return visa for the country of the GCC residency can obtain a visa on arrival at BIA at the King Fahad Causeway. Moreover, entry visas can easily be obtained by travellers with the help of licensed tourist and travel agencies in Bahrain (Bahrain International Airport n.d.). The 7-day and 72-hour visa categories specifically benefit businesses, trade delegations, exhibitors and so on.

8.2.6 Link to Saudi Arabia via the King Fahad Causeway

The link to Saudi Arabia via the King Fahad Causeway provides BIA with additional competitiveness and strength. BIA is only the commercial airport and a key hub for the region. It is located on an island that lies northeast of the Kingdom’s capital, Manama. A public transport road helps to link BIA and Saudi Arabia via the King Fahad Causeway. A 24-hour service bus links BIA with a city bus station to connect outside arrivals. Apart from these, express buses link BIA with different destinations in eastern Saudi Arabia via the King Fahad Causeway. Bahrain has several advantages, including excellent transport facilities throughout the region and easy access to the Gulf markets, particularly Saudi Arabia, via the King Fahad Causeway. It is possible to reach Saudi Arabia within 30 minutes or a 25 km drive. Apart from these, a rail bridge and road to Qatar are planned. These facilities will provide BIA with additional competitiveness and strength.

8.2.7 Government Support

The Government of the Kingdom of Bahrain provides excellent support for BIA. As represented by the BAC, the Government of the Kingdom of Bahrain has introduced Cavotec as a project (costing US$35 million) to assimilate and provide BIA with environmentally friendly ground service equipment for all the remote aircraft.

This project has enhanced the airport in terms of automated operations and helped it to regain its state-of-the-art reputation. Cavotec has industry-related experience from 1960. It is well known as a manufacturer and complete systems integrator. Financially, this is one of the major projects in the history of Cavotec.
The BAC’s outstanding commitment to the environment and green technologies has been the reason for the success of this project. The United Nations Climate Change Conference held from 7 to 18 December 2009 aimed to establish new agreements especially for the reduction of greenhouse gas emissions to replace the Kyoto Protocol. This conference calls for the aviation industry to contribute to the reduction of greenhouse gas emissions.

Responsible environmental stewardship is a major aspect of the BIA expansion programme. Technologically advanced systems allow BIA to improve its efficiency and environmentally friendly practice throughout its aircraft operations and at the same time increase the comfort of its passengers (Cavotec 2009). Dr Osama Al Ali, former CEO of the BAC, mentioned that all these key aspects make BIA one of the most advanced airports around the world.

At present BIA hosts 40 airlines and acts as the home to the national carrier, Gulf Air, and the now defunct Bahrain Air (which filed for voluntary liquidation in 2013). Bahrain’s expansion programme aims to create 110 aircraft stands, 87 of which are contact gates. The Cavotec pre-conditioned air (PC) system supports the BAC in providing auxiliary power unit (APU) free aprons to obtain benefits in reducing costs and pollution. This makes the PC system beneficial to all the airport constituencies, such as airport operators, airlines and the communities surrounding the airport. Bahrain Airport plans to spend USD 4.7 billion on the expansion to address the projected growth in freight and passenger numbers (Cavotec 2009).

8.2.8 Limited Business Environmental Regulations

The steadily rising investments in Bahrain ensure a stable economic climate and competitive costs. The business-friendly culture in Bahrain offers an open, liberal and transparent environment that provides additional growth (Bahrain Airport Company n.d.), rendering Bahrain a strategically attractive place in the Gulf market. The Economic Development Board (EDB) is a dynamic agency managed by the Government and responsible for creating the right business environment and culture in Bahrain to promote foreign investments and formulate strategies for economic
development. First-time investors in Bahrain are provided with services such as investor facilitation services by the EDB to ease the setting up of investment projects in Bahrain. Among other services provided are the provision of relevant information, guidance through procedures and incentives and coordination with government bodies for registration and approval procedures. Such agencies have been established in Bahrain to foster a more business-friendly environment in the country (Ministry of Industry, Commerce and Tourism 2017).

8.2.9 DHL Hub

DHL Aviation (Deutsche Post DHL) is a division of DHL Express and is responsible for offering air transport capacity. DHL Aviation is not a single airline but refers to several airlines co-owned, owned or chartered by DHL Express. DHL acts as the market leader of sea and air mail. Deutsche Post is the largest logistics company that operates around the world. SNAS/DHL is incorporated as DHL International Aviation in the Middle East, and it is the cargo airline based in Bahrain. SNAS/DHL provides services for the Middle East destinations from its hub at BIA. The main base for DHL Express is BIA, which allows it to provide parcel and express services in the regions of the Middle East, including Iraq, Pakistan and Afghanistan (DHL Airlines 2008). Thus, the DHL hub offers BIA additional competitiveness and strength.

8.2.10 Low Airport Fees

A highly competitive environment lowers business costs in some regions. Bahrain invests significantly in integrated infrastructure, logistics and business. It is possible to obtain benefits faster because Bahrain provides the shortest transit anywhere in the Gulf between airport, logistics and seaport processing zones. This allows everyone to enjoy low business costs and excellent value. The competitive nature allows BIA to offer low airport fees.

8.3 CASE STUDY ANALYSIS

The analysis of the interviews with the airport management has been covered in Chapter 5; however, it is relevant to present the growth and challenges faced by BIA
on its path to success. Initially, an analysis of traffic is conducted for BIA to obtain a clear picture of the current situation and future outlook. The average passenger growth at BIA from 2005 to 2011 was 10 per cent. In 2009 the traffic reached its peak at 9,053,631 passengers and then started to decline to 8,898,272 passengers in 2010. The decline in passengers continued in 2011, falling to 7,794,482 passengers.

The negative signs for traffic at BIA are a decline in traffic from the Eastern Province of Saudi Arabia via coaches. This fell to 89,395 passengers in 2011 compared with 196,445 in 2008.

Importantly, traffic in the neighbouring Dammam Airport has increased. The numbers were 5,451,813 passengers in 2011 compared with 3,225,200 passengers in 2005. This shows that neighbouring airports, due to Bahrain’s situation together with other airlines having more traffic rights in Saudi Arabia, have produced a decline in traffic at BIA.

Dubai International Airport is ranked number one within the GCC countries, with 50,977,960 passengers and average annual growth of 14 per cent, followed by Jeddah International Airport, with 19.7 million and average growth of 6 per cent, and Doha International Airport, with 18.2 million passengers and average annual growth of 16%.

The airports with the highest passenger growth in the first half of 2012 were Doha International Airport and Abu Dhabi International Airport, with average growth of 23 per cent, followed by Muscat International Airport with 20 per cent, Dubai International Airport with 14 per cent and BIA with 13 per cent.

With regard to aircraft movements, the total reached 103,419 in 2011 and 106,522 in 2012. The aircraft movements in GCC airports from 2005 to 2011 were on average 24 per cent for DIA, 12 per cent for Dammam International Airport and 10 per cent for Jeddah International Airport and Muscat International Airport.

The cargo operation at BIA experienced a decline in 2012 for the following reasons:
• DHL stopped operations to Iraq due to obstacles imposed by the Iraqi Government on the company, increasing air navigation fees and the reduction in the number of flights.

• Reduction of operations to Afghanistan to three a day compared with difficulties in obtaining over-flight permits from the Iranian Government.

Comparing with BIA, other GCC airports recorded growth from 2005 to 2011, 22 per cent for DIA and 12 per cent for Dammam International Airport as well as DXB.

Gulf Air has announced restructuring and reduction of its fleet, as discussed during the interviews, which will have a direct negative impact on BIA. Gulf Air represents 60 per cent of BIA’s traffic. As a result of these analyses, it is clear that BIA has been affected considerably in terms of traffic and operations for reasons related to political and security issues in the Middle East. In addition, the incentives provided by Dammam International Airport for other airlines has led to an increase in traffic at that airport and many others at the expense of BIA. This is particularly the case for passengers from the Eastern Province. Competition from other GCC airlines, such as Emirates, Qatar Airways and Etihad, cannot be neglected, as they provide much better service quality than Gulf Air, leading passengers to opt for those airlines.

In terms of strategic planning, clear evidence emerged during the interviews that the BAC does not have a specific strategic plan in place. Instead, it has a master plan for the airport, which has been developed and revised in accordance with the expected and proposed changes and developments in the future. The BAC lacks a comprehensive strategic plan due to continuous changes in the management, with each member having a different perspective. With a lack of such basic requirements, a major obstacle to the evaluation of any available strategic plan was encountered during this case study.
On the other hand, CAA has a strategic plan embedded in the strategic plan of the MTT. It was noted that such a plan is not being implemented in accordance with any established time scale (Ministry of Transportation 2012–2016).

In 2012, BIA lacked a strategic master plan for the development of the airport. In accordance with the current distribution of responsibilities, it is the responsibility of the BAC to prepare such a master plan and implement it. This is not in place yet due to continuous changes in the management. However, after the change in the BAC’s management, a comprehensive master plan was finally established by incorporating the revised strategies, as indicated by Mr Gordon Stewart during the interviews.

The analysis of the case study of BIA has shown that the airport has experienced difficult times for a variety of reasons. First is the lack of a strategic plan and consolidated master plan for the development of BIA. Second is the lack of experienced management at the BAC that is capable of taking responsibility for the development of BIA, particularly in strategic planning areas. The change and reduction in traffic at BIA due to the Gulf Air situation has influenced the airport significantly. This will continue to be the case until the Gulf Air situation has stabilised. Finally, the present situation in the Middle East and Bahrain has affected the economy, exerting a direct effect on the airport.

The strategic plan for the airport must be under the umbrella of the state plan. It will be impossible to implement any sort of airport development in isolation from the state strategic plan. According to Caves and Gosling (1999), airports are seen as an integral part of the state air transport system. The strategic process is described in the FAA’s advisory on state airport system planning (FAA Advisory Circular 2015).

8.4 SUMMARY

This chapter discussed the various factors that affect the competitiveness and strengths of BIA. Following its establishment in 1927, BIA recorded massive growth and development during its initial years due to its strategic location in the Gulf region, proximity to significant trade hubs and business parks in neighbouring countries, like Dubai, and liberal political environment and sky policies in comparison with the other
competing airports in the GCC countries. However, over the years BIA has faced decreased passenger traffic and lost out in competitiveness to the other rival airports in the region that have more efficient operating systems and offer better services to their passengers. Bahrain Airport is now undertaking a massive expansion and redevelopment plan to regain its competitiveness in the region and improve its efficiency to become a major contributor to the Bahrain economy.
CHAPTER 9 CONCLUSION

9.1 INTRODUCTION

The aim of this study was to assess the importance and efficiency of strategic planning in airports. For this purpose, a case study was conducted on BIA. The relevant literature was critically appraised, and information was synthesised to answer the research questions. The strengths and competitiveness of BIA were evaluated through data collection from interviews with senior management officials at the BAC and CAA. After presenting the analysis and results of the current research, this chapter elaborates on the major findings in relation to the research questions and research objectives. The discussion here shows the competitive strengths of BIA and how the strategic planning has augmented its growth and development. It also discusses the challenges faced in the strategic planning of the airport. Furthermore, the chapter provides insights into the recommendations regarding future research and the limitations identified in the current investigation. The following sections discuss how the study answered the research questions and achieved the research objectives.

9.2 SIGNIFICANCE OF AIRPORT PLANNING

The first objective of the research was to determine the importance of strategic planning at airports. This objective was attained in this study by comprehensively highlighting the significance of strategic planning at airports for undertaking airport development and expansion. This also answers the research questions that aimed to determine the significance of strategic planning in airport construction projects.

This research revealed that the planning of airports is an essential component of their efficient and on-time development. Planning is important for the smooth functioning of the airport and the hassle-free movement of passengers, cargo and baggage. Planning takes into account the demands of customers as well as the dynamic changes taking place within the industry to ascertain the developmental needs of the
airport (Block 1969). The plans are fabricated on the basis of the modernisation and privatisation of the aviation market while considering wide-area comprehensive transportation planning. Some of the benefits of airport planning include increased efficiency due to the establishment of performance parameters and constant project monitoring. Airport strategic planning entails significant benefits for the organisation, stakeholders and communities at large (Transportation Research Board 2009).

Airport planning enhances good project management. It also strengthens team approaches and helps in obtaining a clear focus and direction for a particular project. A strategic plan entails the identification of the parameters that will make the project successful (Phillips and Moutinho 2014). It is also concerned with a strategic framework within which a project needs to be developed. A strategic plan should have a timeframe and should be updated annually. Strategic planning helps the management in understanding the company’s current situation and plan for the future. The need for strategic planning is emphasised by the ever-changing business environment and globalisation (Dutton and Duncan 1987). Strategic planning is also a way in which an organisation prepares for uncertainties in the market. In airport construction projects, strategic planning focuses on how the projects undertaken can serve their clients effectively on a long-term basis. Strategic planning has been rendered all the more significant by the increasing customer demands and rapidly changing business environment.

Airport development is a difficult process, which requires rigorous planning and strategising (Wijnen et al. 2008). The major characteristics of large airport projects comprise a vast number of stakeholders, a high level of complexity and high risks (Gil et al. 2012; Guo et al. 2014). If these characteristics are not handled in a relevant manner, then large airport projects can face early termination or complete failure by resulting in a cost overrun (Cantarelli et al. 2010). This highlights the importance and relevance of airport planning.

The importance of planning has been recognised by BIA, and a new approach has been adopted by the airport. In accordance with the planning, the airport management
envisions the future of the airport five years from now and sets out the objectives and goals of the organisation. Each of the management teams and employees visualises five years ahead to evaluate what the airport wants to achieve. BIA needs to develop a strategy based on the preliminary developments that have taken place during 2012 and 2013.

9.3 STRATEGIC MANAGEMENT MODELS – AMP

This section examines the development of strategic management models that help in the effective management of airport construction projects as the second objective of this study. The results of the case study indicated that the development of an AMP is an effective tool for the strategic management of an airport construction project. They also answered the research questions relating to how the AMP aids in the development of a structured airport and how the demand for air travel is forecasted. How will it contribute to planning an airport?

The results of the current study revealed that the BAC is responsible for initiatives towards airport development on the basis of its own plan and an assessment of the airport requirements. The BAC is the authority responsible for managing and operating BIA. As part of its role as the operator, the BAC is responsible for expanding the services and infrastructure at BIA. The primary responsibilities of the BAC in this regard relate to the development of the kingdom’s aviation capabilities to handle the growing passenger and cargo traffic.

The last master plan was prepared in 2006 and is now out of date. The BAC was established in 2008, and it did not rely on this master plan for the development of BIA but instead appointed another consultant to prepare a new master plan. In 2008, the team had developed a partial master plan for the expansion of the airport, as stated by Gordon Stewart, Chief Support Services Officer at the BAC. However, none of the master plans and strategies have been implemented effectively so far. The land required for the expansion was not owned by BIA; therefore, the new master plan was not practical and was quite expensive to implement.
Yet another consultant produced a new master plan (ADPi) in 2010. It offered two recommendations: the development of a new airport near the sea and away from the current airport and the enhancement of the current passenger terminal. It recommended that the terminal building currently in use could not provide additional capacity, thereby necessitating the need for the development of a new passenger terminal building.

Recently, the NACO has become involved to conduct yet another study to determine the location of the future airport, and as a result the earlier ADPi study has been rendered incompatible. However, BIA is proceeding with its airport development on the assumption that it can continue its operations in the foreseeable future with the existing runway and current terminal location and capacity. Consequently, with the downsizing of the national carrier, Gulf Air, and the construction of other airports, the enhanced capacity at BIA will ensure increased competitiveness and better growth prospects. Therefore, in the current scenario, there is little need for a new airport, although this situation may change in the future. According to the CEO of the BAC, another optimisation study of the current airport will support the airport without any constraints over the next 20 years. The minimum requirement is to invest in the terminal building and make use of the available operators in commercial areas. The land expansion study will focus on the maximisation of land use.

Rawson and Hooper (2012) determined that the participation of all the stakeholders in the construction of a master plan for an airport is crucial for obtaining a successful outcome. The same has been revealed in the current research. The formulation and implementation of the master plan has to be commenced with the involvement of all the stakeholders. The direct stakeholders are those involved in the main operations, such as airlines, operators, fuelling companies, the duty-free company, DHL and so on. Other related parties that provide infrastructural support include electricity authorities, water, municipalities, roads and suchlike. Therefore, it is imperative for BIA to develop a master plan for sustainable future growth, since an AMP assists in the planned long-term development of the airport.
9.4 NEED FOR A MASTER PLAN FOR AIRPORT CONSTRUCTION PROJECTS

The third objective was to examine the factors that catalyse airport construction projects. The airport construction project at BIA was carefully examined following the case study approach to ascertain the catalysing factors proposing the development of a master plan for airport construction and development towards the attainment of this objective.

The increasing air transport demand in the GCC countries and Bahrain in particular has encouraged the Government to develop and construct large airport projects (Hooper et al. 2011). The development in this sector will provide public services, facilitate economic growth and decrease the dependency on the oil sector. Apart from the financial burden, which is also considered to be one of the biggest challenges for the Government in developing large airports, making the project operationally ready is also a complicated task (Doherty 2008). Such developments therefore require a master plan of construction.

The BIA is continuously improving its capacity to meet its growing passenger and cargo demands. With the improvement in airport facilities and operations through infrastructural and strategic development, success in the global market can be ascertained (Wijnen et al. 2008). The Government of the Kingdom of Bahrain is promoting the development and expansion of BIA through the BAC to facilitate the economic growth and development of the country.

BIA is essential to the sustainable and economic growth of Bahrain, as it offers numerous employment opportunities and promotes national and international tourism. The airport aims to improve its operations with sustainable development and investments in infrastructure. With appropriate measures, the BAC aims to deliver a better customer experience and expand the international and national reach (Bahrain Airport Company 2014). According to the current findings, after the BAC was established in 2008, a Ministerial Order was implemented in 2009 to specify the mandate of the BAC. The mandate clearly stated that it would manage, operate and develop the airport in addition to marketing.
It is inferred from this research that BIA has several strategies related to ensuring security, minimising costs, increasing revenues and improving efficiency and reliability. For this purpose, consultants are hired to work on generating such strategies. However, apart from these strategies, this research confirms that there is no master plan at BIA that is under evaluation. The airport team, the Ministry of Transportation and Telecommunications, the BAC and the aviation authority are working together to elaborate a plan for airport construction, but no comprehensive master plan has been prepared.

9.5 EFFECTIVENESS OF STRATEGIC PLANNING

This section answers the fourth research objective concerning whether airport plans generally work and whether all plans are executed as expected. This also helps in comprehending the effectiveness of strategic planning for airports in the effective execution of airport construction projects through a case study, thereby helping to attain the fourth objective of this study.

9.5.1 Execution of Airport Plans – Reasons for Delays and Failure

Uncertainties in airport strategic planning are also related to the changes and developments pertaining to regulations, technologies, operational readiness and demographics. Due to certain challenges, there have been several cases in which airport plans were executed behind schedule, leading to a delay. Instances have occurred involving large airport projects with multiple stakeholders being unable to commence operations at full capacity on the very first day.

Delays in opening may also affect the project’s return on investment (ROI) and reputational risk, as was the case with the delays in the opening of Hong Kong Airport in 1988 (Lee 2000). Another case of initial airport failure is Bangkok’s Suvarnabhumi Airport, which finally opened in 2006 after facing many problems and issues beginning on the first day of its operations such that the Thai Government was forced to close the airport for some time, terminate the operations and return to using the old airport.
In 2008, Heathrow Airport – Terminal 5 (T5) was opened for operation, failing on its first day and costing its stakeholders and operators both money and reputation (Brady and Davies 2010).

There are also airport plans that have been well executed on schedule. In the UAE, large airports have been constructed with proper planning of the processes to attain successful development. Al-Maktoum International Airport in Dubai World Central (DWC) is being planned to be the world’s largest passenger and cargo hub, with its construction costing around $8.1 billion (Kardes et al. 2013). In addition, Abu Dhabi International Airport and Sharjah International Airport were constructed on time, along with Al-Maktoum International Airport (Murel and O’Connell 2011).

In the context of the development and expansion of BIA, even though strategic planning has been formulated, the plan has not been implemented. Therefore, not all airport plans work out as scheduled. The results indicated that BIA is not competing with airports like Dubai International Airport and Hamad International Airport, as they are already ahead of BIA in terms of traffic and development. Those airports have already achieved huge capacities, whereas BIA has maintained a certain level of traffic. Since 1994, BIA has not taken any positive steps towards positioning itself in the global aviation market.

9.5.2 Strategic Planning at BIA

Middle Eastern countries are considered to be among the emerging economies in the world (Jones and Viros 2014), and the GCC states are viewed as being the engines of the Middle East, which generate some of the world's highest GDP per capita. The GCC countries are now considered as high air transport markets with an increase in passengers and cargo traffic. Such a surge in air transport in the region has been spearheaded by the successful expansion of fleets by Middle Eastern airlines, such as Emirates, Etihad and Qatar Airways (Murel and O’Connell 2011). The demand created by the airlines has forced major cities, such as Dubai, Abu Dhabi, Doha and Bahrain, to launch massive airport expansion projects with a forecasted passenger
capacity to reach 340 million passengers per year with the assistance of strategic planning.

The strategic plan at BIA covers five years. The strategies developed by the involved stakeholders are related to increasing the revenues, acquiring a skilled workforce and personnel and developing security procedures, high-level data connection services and cost-efficient mechanisms. The strategic planning concerns not only the development but also its adequate implementation.

At BIA, the strategies related to improving the efficiency of personnel and increasing the actual traffic at the airport have been incorporated through traffic forecasting, training and marketing. Such forecasting has been performed in the light of the external environment and the current requirements of the population of Bahrain. It also makes forecasts regarding the functionality of the aviation sector and the competitive scenario between Gulf Air and Bahrain.

According to the findings of this research, BIA has focused on the strategy for the structural employee development at the airport. The management has developed a series of four half-day plans for approaching the IT management in 2013. There are two types of strategic plans, general-level and high-level plans, pertaining to commercial development. The strategy at BIA focuses on planning airport construction and expansion as well as the outside environmental and strategic aspects of the aviation sector. The major disadvantage for BIA is that there is no clear vision or strategy regarding the aviation sector and less participation from all the stakeholders. To formulate a clear strategy, the integration of all the involved stakeholders is an essential attribute.
9.6 IDENTIFICATION OF FACTORS AND FACILITY REQUIREMENTS FOR AIRPORT CONSTRUCTION: CASE STUDY ANALYSIS

The *last objective* of the study was to identify the factors, such as security and globalisation, that contribute to the need for airport construction projects. The following section identifies the various competitive factors with respect to global competition and the increase in the demand for security as well as passenger traffic specifically for BIA. It also answers the *research questions* related to the determination of facility requirements for airport construction to be added to the strategic plan and establishes how air travel demand forecasting contributes to the airport development plan.

9.6.1 Airport Competitiveness with Respect to Security and Globalisation for BIA

Airport competitiveness is an essential standard for assessing the productivity and accomplishment of countries in the political, economic and commercial competition fields. As pointed out by Graham (2004), commercialisation and globalisation have led to the liberation of the aviation industry. This has fuelled the competition among the airports and enticed the development of new strategies for achieving a competitive advantage.

Jarach (2001) stated that it is critical to refer to the actual amount of control that BIA has over aeronautical operations. The competitive forces differ between various kinds of airports, and as such several norms and regulations are related mainly to security and safety, which BIA operators are required to follow. Therefore, the role that BIA plays in this regard relies heavily on the extent of the direct control by the Government or the nature of the economic regulations.

BIA can be useful for frequent low-cost carriers or short-haul air operators. The reduced costs of operations and fuel at BIA can be developed as a competitive strategy. Graham (2004) revealed that non-aeronautical products that are offered to passengers can be changed along with the fixed products through expansion plans. BIA deploys cost-efficient strategies that are suitable for the current scenario. Developing advertisements for attracting customers and travellers from around the
world has also been an efficient way to increase revenues. BIA attracts airlines by attending events and shows like Routes and similar events in the region and worldwide.

According to Graham (2004), product and price are two core characteristics that are advantageous for an airport operator to control the amount of impact in the competitive analysis. There are some regions in which the airport operator has essential control and others in which it has little control. Azmi (2013) stated that the Kingdom of Bahrain spends a considerable amount on its logistics infrastructure. This is the main competitive strategy chosen by BIA whereby both the Government and the private sector invest heavily in its infrastructure. The competition between Gulf Air and Bahrain Air has increased. The asset value of BIA is inappropriate, as there are some parts, such as catchment area expansion, that are paid for by the Government and others, such as commercial shops, that are paid for by private firms. Therefore, a single financial model cannot be used and BIA has to introduce new airlines to improve its operations and growth, which entails investment for enhancing the infrastructure.

Koopman and Lancy (2012) described another competitive factor for BIA: aircraft certification. The ability to generate an airport that meets the standards of global safety and can therefore be certified by the aviation authorities of the country is a fundamental task for a producer both financially and technologically. Delays in acquiring certification as well as variations in national regulations across nations can add complexity and time to the process of certification and can leave the manufacturers at a competitive disadvantage. In the current research, the findings revealed that BIA deploys this competitive strategy of acquiring certification but is not very efficient at it. The BAC must undertake strategies to improve this essential factor.
9.7 CHALLENGES ENCOUNTERED BY BIA

According to Bahrain Airport Services (2011), optimising the use of its human capital, supervising its performance, benchmarking itself and re-engineering its processes are the actions that will allow BIA to develop its service level and control its expenditures more effectively. Employing new techniques that have long been missing from BIA’s services will enable it to become more effective. However, the active involvement of all its staff is imperative for the realisation of this objective.

Thus, BIA is determined to invest in its people as part of the accomplished margins through recurrent and better training, developed rewards and incentives based on a solid appraisal system, mainly to develop future leaders and managers. The management at BIA has recognised this challenge, as it utilises strategic planning that considers the goals and demands of the employees. A control system is deployed to keep an eye on all the employees at all levels from the management to the CEO.

Another challenge for BIA will be the greening of aviation (Cavotec 2009). It is not just the development of bio fuel and the influence on the surroundings that influence the aviation industry; BIA also has to cope with the establishment of legislation that would tax it based on greenhouse gas emissions. The BAC’s long-standing dedication to its surroundings and green technologies has driven the selection of systems for its project. The BAC’s proactive position on this progressive project exists as an interest boost ahead of UN climate change conferences. However, this aspect is not considered much by BIA, and there are no such strategies to maintain the surroundings of the immediate environment.

According to Ringbeck et al. (2006), the airline industry is using the cost-switching strategy to face cost challenges. Switching costs generally involve changing part or all of a user’s demand from one supplier to another and thereby changing the costs. Infrastructure is the biggest challenge for BIA, and hence switching costs is necessary to attract customers. The ability to create revenue at other airports will be an important issue in switching. BIA has been advertising to attract more customers and to increase its traffic. It has focused largely on promoting tourism. However, airports that serve as
airport hubs for airlines face many hurdles in switching costs to generate higher revenues.

Other than infrastructure issues, many other issues affect the success of BIA’s industry. The issues are namely the lack of human and physical resources, the transit facilities' lag and the limited connectivity (Berthon and Bringand 2001). It can be inferred from the current research that, apart from the advertising strategy, BIA is not deploying any cost-efficient strategy to increase the number of passengers. Work must be undertaken on the formulation of cost-efficient strategies pertaining to low-cost carriers. Bahrain Airport can succeed by concentrating on its respective segments of ‘marketing general aviation’ and ‘planned airlines’, each with its distinct needs, and requires competitive surroundings.

9.8 BIA’S STRENGTHS

Over the years, BIA has shown immense growth in terms of expansion, popularity, economic development and revenues. Regarding the current study, the major strengths of BIA are dependent on the support acquired from the Government, the free-trade policies and business incentives, the increase in tourism, financial services and improved transport and logistics services. The overall strengths of BIA are the following:

- The investments are made by the Government in the infrastructure development of BIA.
- With its strategies for employee management and control, BIA has acquired a skilled workforce.
- The geographic location of Bahrain is a positive point that offers close proximity to the Gulf market.
- With the current developments, BIA will offer adequate infrastructural facilities.

Table 9.9 summarises the present research with respect to the current situation at BIA, the competitive situation, the strategic direction and the challenges encountered.
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<tr>
<th>KEY COMPETITIVE FACTORS</th>
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<tr>
<td><strong>General Conditions</strong></td>
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<td>Increase in traffic</td>
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<td>Absence of authorities’ certification</td>
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<td>High revenues</td>
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<td>Need for expansion</td>
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<tr>
<td><strong>Competitive Situation</strong></td>
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<tr>
<td>High competition from Gulf airports</td>
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<tr>
<td>Lacking infrastructure development</td>
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<td>Lack of strategic plan implementation</td>
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<tr>
<td><strong>Strategic Direction</strong></td>
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<tr>
<td>Employee management strategy</td>
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<td>Engaging customers through advertisements</td>
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<td>Acquiring investment from the Government for expansion</td>
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<td>Focus on security</td>
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<td>Cooperation with Gulf Air</td>
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<tr>
<td><strong>Challenges and Factors Leading towards BIA’s Development</strong></td>
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<td>Management and development</td>
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<td>Increasing competition</td>
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<td>Staff-related challenges</td>
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<td>Cost-related challenges</td>
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<td>Greening of aviation</td>
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<td>Security issues</td>
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Table 9.9 Key Competitive Factors at BIA
9.9 FLEXIBLE AIRPORT STRATEGIC AND MASTER PLANNING MODEL

Airport managers must increasingly safeguard the economic performance of their airport (Barrett 2000; Starkie 2002). Due to the massive airport financial investments required for development programmes and the uncertainty in the air transport industry, a flexible airport planning model is vital to protect such investments and to reduce the risks of losses and control. Traditional airport master planning does not acknowledge the existence of market uncertainties, which may have serious effects on the reliability of forecasting (de Neufville 1991a).

The successful airports will be those with the ability to invest just in time in the right facilities in a way that contributes to good economic performance (Werson and Burghouwt 2006, p. 28). On the other hand, the implementation of the traditional airport master plan in isolation from the strategic plan will not achieve the optimum expected results for airport development programmes due to the uncertainties.

Based on the literature review, the experience of the researcher at BIA, the knowledge of neighbouring airports, the overall regional environment and the case study conducted on Bahrain International Airport, the results showed that BIA is on the correct path as far as airport development is concerned, with all the approved plans for airport modernisation. The case study also shows the limited scope for strategic planning at BIA, which needs to be addressed and a comprehensive plan implemented. This strategic plan must be linked with the airport master plan, and the two must act as a single process with the main feature of flexibility and provision for updating. Flexible strategic planning explicitly addresses uncertainty in strategy formatting and planning (Burghouwt 2007). Though uncertainty is the key issue in any sort of airport strategic and master planning, it has a significant effect on the development plans of BIA and the airports of the region due to factors related to the economy, finance, politics and airlines. Therefore, the need for adaptation of flexible strategic planning leading to the implementation of the master plan is a key factor for the successful implementation of a viable development plan.
Figure 17 illustrates the Flexible Airport Strategic and Master Planning Model to be adopted by BIA and possibly other airports.
The model is divided into three stages. Stage 1 is the strategic planning, Stage 2 is the master planning and design and Stage 3 is the implementation of construction. The key issue in the model is that there is no separation between Stage 1 and Stage 2 to allow for the uncertainties and the necessary updating through periodical reviews of each process to address any changes due to unforeseen circumstances. The traffic forecast must be updated for periods of shorter horizons and the effect of such changes reflected in the strategic plan as well as the master plan.

This model requires a well-coordinated and efficiently managed system with all the stakeholders involved in the production of airport plans.

9.10 AIRPORT CULTURAL CHANGE TO ADOPT WITH THE IMPLEMENTATION OF THE MODEL

When it comes to the implementation and introduction of any new system in the management of any organisation, it is of paramount importance to establish a very strong foundation in the organisation to be ready for such implementation. The lack of strategic planning and personnel at BIA was particularly clear from all the interviewees. As the model suggested by this research is based on an understanding of strategic planning, the shift from the implementation of traditional airport master planning to the suggested model requires an organisational cultural change. The organisational culture is one of the most important factors in a company’s success or failure (Kulvinskienė 2009). Therefore, the introduction of any new management or planning model will not be successful without changing the culture of the staff related to strategic management and its understanding. The organisational culture includes the shared beliefs, norms and values within an organisation. It sets the foundation for the strategy. For a strategy within an organisation to be developed and implemented successfully, it must be fully aligned with the organisational culture. Thus, initiatives and goals must be established within an organisation to support and establish an organisational culture that embraces its strategy over time.
In addition, the airport environment is predominantly dynamic and complicated by the evolution of airports and rapid technological advancement, so understanding such dynamism is crucial to reach the objectives of the correct and efficient implementation of the master plan.

Gordon and Cummins (1989) define an organisational culture as the drive that recognises the efforts and contributions of the organisational members and provides a holistic understanding of what is to be achieved and how, how goals are interrelated and how each employee could attain the goals.

Organisations differ in their cultural contents. For instance, some organisational practices place a premium on recruitment and selection, training and development programmes, compensation administration and even performance management (Osibanjo and Adeniji 2013).

<table>
<thead>
<tr>
<th>Development stages of an organisation</th>
<th>Establishment and early development of the organisation</th>
<th>Growth of the organisation</th>
<th>Maturity of the organisation</th>
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</thead>
<tbody>
<tr>
<td>1. Incremental change through general and specific evolution</td>
<td>2. Insight</td>
<td>3. Promotion of hybrids within culture</td>
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<tr>
<td>4. Schematic promotion from selected subcultures</td>
<td>5. Technological seduction</td>
<td>6. Infusion of outsiders</td>
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<tr>
<td>7. Scandal and explosion of myth</td>
<td>8. Turnarounds</td>
<td>9. Mergers and acquisitions</td>
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<td>10. Destruction of rebirth</td>
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**Figure 18: Change Mechanisms of Organisational Culture**

**Source:** Kasiulis et al. (2003, p. 127); Schein (2004, p. 291)

Figure 18 identifies ten ways to change the organisational culture. This model applies to BIA, in which cultural changes can take place in the way described in the above table. This is discussed in more detail below.
It will also be necessary to adopt a flexible cultural development system. Organisations that remain flexible are more likely to embrace change and create an environment that remains open to production and communication. The culture within an organisation can serve many purposes, including unifying the members within an organisation and helping to create a set of common norms or rules within an organisation that employees follow. This is an essential requirement to cater to the flexibility approach in the preparation of the AMP.

To make the change of the organisational culture effective, employees should be involved; the results already achieved should constantly be highlighted; efforts should be made to infiltrate the organisation and feel every aspect of it; it should be shown that there are no losers and that every change is only for the best; employees should be encouraged to devote themselves to the new ideas; and the focus on the desired culture should constantly be maintained (Armstrong 2001, p. 125; Burton et al. 2004, p. 315). Therefore, a strong culture within any organisation is the key dominator in achieving the goal and the target of any newly established systems or models.

**Process Implementation**

Part of cultural alignment and strategy implementation involves process implementation. Processes include the utilisation of technology to facilitate goal attainment and the results that a company seeks when working with customers to meet their needs. While most of the time the hard problems and needs of an organisation are met, the culture becomes neglected in the process. That is where processes come into place and strategy implementation gradually transpires to uphold and maintain the organisational culture and strategies.

When the culture aligns with the strategy implementation, an organisation is able to operate more efficiently in the global marketplace. The culture allows organisational leaders to work both individually and as teams to develop strategic initiatives within the organisation. These may include building new partnerships and re-establishing old ones to continue delivering the best possible products and services to the global market.
Changing the Organisational Culture

When an organisational culture is already established, people must unlearn the old values, assumptions and behaviours before they can learn the new ones. This applies to BIA and the BAC; in the introduction of a system and a new working platform for the implementation of the master plan, specific points must be taken into account:

- **Executive support:** The executives in the BAC must support the cultural change, in ways that extend beyond verbal support. They must show behavioural support for the cultural change. The executives must lead the change by changing their own behaviours. The training and education of the executive will therefore be the key to the start of such a new process.

- **Training, communication and mentoring:** Cultural change depends on behaviour change. Concerned staff at BIA and the BAC must clearly understand what is expected of them and know how to implement the new behaviours once they have been defined. Training can be very useful in both communicating expectations and in teaching new behaviours. Mentoring and effective communication are also crucial.

- **Create value and belief statements:** Use the BAC's employee focus groups to put the mission, vision and values into words that state their impact on each employee’s job. This exercise gives all employees a common understanding of the desired culture.

- **Practice effective communication:** Keeping all employees informed about the organisational cultural change process ensures commitment and success. Telling employees what is expected of them is critical for effective organisational cultural change.

- **Review the organisational structure:** Change the relevant parts of the organisation structure of the BAC to align it with the desired organisational culture.

- **Review all the work systems to make sure that they are aligned with the desired culture.**
9.11 EVALUATION OF THE RESEARCH (LIMITATIONS)

After a rigorous and comprehensive examination of the strengths and challenges of BIA, the current strategic plan was analysed. However, during the current investigation, certain limitations were met by the researcher, which are discussed below.

The current research adopted the case study method, selecting BIA. Interviews were conducted with the senior management officials at the BAC and CAA as a means of collecting relevant data. To analyse the collected data, qualitative text analysis was performed, during which the interview transcripts were interpreted. The approach used in this study was effective in answering the research questions and leading to appropriate research findings. However, other analytical tools or theories, such as thematic analysis or grounded theory, could have been considered for a more comprehensive investigation. In addition, interviews with more employees or wider questionnaire distribution could have provided another perspective on the present matter.

Another limitation of this study is the accessibility restriction on the data pertaining to the strategic plan of BIA due to data confidentiality. Although BIA deploys several strategies for development and growth, the mechanisms and processes involved in such strategies remained unclear. The officials provided little insight into the dimensions of their strategic plan. Furthermore, the documentation of airport planning at BIA was unavailable and therefore limited the scope of the current study.

The study is limited in terms of context and location. Although a literature review was conducted, exploring strategic planning within the global aviation market, only the BIA case was studied in detail.

9.11 RECOMMENDATIONS FOR FURTHER RESEARCH

For the value of a specific research study, it is imperative to provide recommendations for future research by using the current study as a foundation. Further research can be conducted on airport strategic planning using a cross-country analysis. As the
aviation industry operates in a highly competitive global market, it would be useful to conduct an investigation that compares the strategic planning of two airports in different countries. In addition, as mentioned earlier, European airports have high productivity; therefore, a comparative study can be conducted between European airports and BIA. Such a study could be useful in evaluating the shortcomings of BIA.

A thorough examination could be conducted, if accessibility to data is not a constraint, on the dimensions and procedures within the strategic planning of airports. Other analytical tools, such as value chain analysis, can be utilised to construct a more detailed investigation. The impact of airport planning, construction and development on the environment and social aspects of the community can also be studied in future research.
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APPENDIX A: PHD QUESTIONNAIRE

Interview Questions:

1. General
   Please state your name, position and current responsibility.

2. BIA’s Strategic Plans
   1. Has your company developed a strategic plan?
   2. If yes, what are its goals and objectives?
   3. How are these goals set and what mechanism is used for implementation and monitoring?
   4. Where do you see BIA 10 years from now, considering the current economic trends?
   5. Has BIA established any strategic alliance with any airline other than Gulf Air?
   6. How do you coordinate the strategic plan issues and future development with other stakeholders?

3. Airport Management
   1. There are mainly two players at BIA, namely the BAC and CAA. What is the nature of their relationship with each other?
   2. Who is responsible for preparing and approving the master plan?
3. Who is funding the airport development programme?

4. Who is responsible for making decisions on investments, expansions and improvement of airport services?

5. Do you train your staff on strategic management and business development issues?

6. Do you think that the current situation in Bahrain has affected passenger movements at BIA?

7. Do you provide financial incentive schemes to attract airlines or to increase their operation at BIA? If yes, what are they?

8. When was the last time the master plan was prepared or updated?

9. What monitoring tools does CAA have for the BAC, if any?

10. Gulf Air is the prime operator at BIA. What sort of special facilities and incentives do you provide for it?

11. Do you undertake research and studies? If yes, what types have you conducted so far?

12. What about market research and analysis to develop air services? Who is responsible for them?

13. How do you think BIA will operate if there is a significant reduction in the operation of Gulf Air?

14. There are talks about a railway system to connect GCC. Do you think that this will increase air traffic at BIA?

15. Plans are in the works for the construction of a causeway with Qatar. With this, Bahrain will improve its roadwork connectivity in addition to the King Fahad Causeway. How do you think that this will affect BIA's traffic?

16. Does BIA take into account environmental factors as a result of aircraft movements at BIA? If yes, what sorts of programmes are available?

17. Do the facilities at BIA cater for large aircraft? And are they flexible enough to adopt the required changes?
4. Airport Environment

1. In your opinion, which airports are competing with BIA?

2. What are the main characteristics of BIA that are advantageous compared with other competitive airports?

3. What are the risks that BIA faces?

4. How does BIA maintain good relations with existing airlines?

5. Are there obstacles to the progress of the airport development programme? If yes, what are they?

6. Do you consider government approval procedures as obstacles to the efficiency of obtaining funding for airport projects?

7. What are the effects of political issues, both internationally and regionally, on BIA?

5. Final Remarks

1. How would you summarise the future of BIA in light of the current circumstances involving Gulf Air, airport development, the economy and the situation in Bahrain?

2. Is there any additional information that you wish to share?