THE INTERNATIONALISATION OF URBAN PLANNING STRATEGIES: ENVIRONMENTAL SUSTAINABLE URBAN CENTRES IN THE KINGDOM OF SAUDI ARABIA

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List of Abbreviations

BREEAM  British Research Establishment Environmental Assessment Methodology  
CBD     Central Business District  
DPZ     Duany Plater Zyberk  
GCC     Gulf Cooperation Council  
HCDR    High Commission for the Development of Riyadh  
HLA     Henning Larsen Architects  
KAFD    King Abdullah Financial District  
KSA     Kingdom of Saudi Arabia  
LEED    Leadership in Energy and Environmental Design  
MoEP    Ministry of Economy and Planning  
MoMRA   Ministry of Municipal and Rural Affairs  
PPA     Public Pension Agency  
RIC     Riyadh Investment Company
Abstract
Since the early 1960s the government of the Kingdom of Saudi Arabia (KSA) has had several urban development strategies that have been designed to spearhead development through the deployment of internationally recognised architects and urban planners. The adoption of this strategy has opened debate on the paradigm shift away from restrictive planning regulations at both national and regional levels. The process has enabled foreign policies and ideas based on internationalisation to drive the new urban centre developments in Saudi cities including Riyadh and Dammam. In 2008, this key shift saw the traditional restrictive urban development strategies, which prescribed – among other things – the number of storeys a building could have, being replaced by a strategy permitting an unlimited number of storeys. This dissertation examines the role played by international firms of architects and developers in shaping how architecture is practised in the Kingdom. The process has led to the adoption of modern architectural styles and has advanced a modernised planning approach, whereby traditional architectural structures and the use of local materials have gradually been replaced by modern styles, high-tech buildings and the use of new foreign materials, causing the loss of historic buildings throughout the country. This is seen by many to constitute an injury to national culture and could lead to cultural conflicts that may be exacerbated by the possible importation of planning principles and regulations. A chronological review of internationalisation and how international architectural practices have been mobilised to work in the KSA reveals the impact of this process on the Kingdom’s urban development. While this may be desired by the authorities, it has been argued that the process does not seem to provide any clear strategy for the implementation of the desired sustainable urban centre development in the KSA. Hence, in the absence of clear directives, international architectural firms operate their own set of sustainability criteria to deliver the desired urban centres in the Kingdom.

There has been little or no research into the mobilisation of international firms and foreign policies, nor into the impact of internationalisation on the development of planning codes, the modernisation of urban centres and the sustainability approach espoused by the KSA’s planning development strategy. This study investigates the impact of the participation of international firms in Saudi Arabia’s urban development. Government planning regulations and master plans are reviewed and a case study is conducted to identify the factors behind the engagement of international firms in the delivery of two capital projects: the King Abdullah Financial District in Riyadh and the Central Business District in Dammam. The study also explores the concept of sustainability and the engagement of foreign firms from the perspectives of various stakeholders through face-to-face interviews and a structured questionnaire. It establishes how the role of internationalisation as a driver of policy mobility has impacted on the new sustainable urban centres and in addition, how internationalisation has been operationalised through the notion of sustainability. Although planning codes and regulations may have been developed with good intent by the international firms concerned, their implementation has not yielded the desired result of delivering sustainable urban centres in the KSA. Thus, there is a conflict between a rapid urban development which seeks to integrate historical and traditional contexts on one hand, and the continual import and impact of globalised morphologies on the other. This leads to clear demarcations in urban evolution, making this conflict one of the key characteristics of emerging urban centres in the KSA.

Key Words
Internationalisation, Sustainable urban centres, Central business district, Urban planning, Riyadh, Dammam, Kingdom of Saudi Arabia
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1. CHAPTER ONE: GENERAL INTRODUCTION

1.1 Introduction

In recent years, the mobility of professionals has increasingly impacted on global business, especially in the construction industry. Their practices in the construction industry have seen a deviation away from local design and construction, which has had a great influence on urban development policies and procedures in countries where they pursue their activities. When a country embarks on developing its urban centres, it has to have strong urban policy guidelines and practice in order to exercise control over the governance of these developments (McCann, 2011). International architectural and planning companies are amongst the global professional teams that have constituted a business force seeking to work with governments and their agencies to attract private investment with the aim of improving the attractiveness of central business districts (CBDs) (Peyroux et al., 2012). The process has paved the way for a global phenomenon where urban policies can now be easily transferred from one part of the globe to another, through the internationalisation of professionals and their delivery of urban development projects, in addition to their ability to create or transform existing systems that are capable of producing and governing urban space and urbanity without losing focus on the promotion of business and private commercial interests (ibid).

Over recent decades, the Kingdom of Saudi Arabia (KSA) has been the subject of growing internationalisation, owing to increased international trade and foreign investment (Saleh, 1998a; Saleh, 1998b), combined with related pressure to match the pace of urban development taking place in the region. As a response to this demand, the Kingdom has seen the need to position its cities most effectively and acquire the status of a hub through the establishment of networks of support with international firms and the provision of premium infrastructure, while seeking to balance this with cultural demands. This has strongly affected the delivery of infrastructure in urban centres, especially in Riyadh and Dammam. The urbanisation processes witnessed in Saudi Arabia are influenced by the Kingdoms’ oil boom (Al-Hathloul and Edadan, 1993); hence the use of Western architecture and international architects to orchestrate their grand designs and communicate the Kingdom’s financial stability to the world, while attracting international investors to base their assets in the country.
Since the early 1970s, there has been a paradigm shift in planning regulations at national and regional level in Saudi Arabia. Notably, restrictive urban development strategies which prescribed, for example, the number of storeys a building could have, have given way to a strategy that permits an unlimited number of storeys. In addition, the planning regulations of 2010 marked a shift in the planning and development of CBDs to foster the creation of sustainable urban centres and during this process local planning and architectural firms have seen government patronage of their service decline. This shift highlights the beginning of the adoption of sustainable urbanisation policy in the KSA, taking into account the environmental and socioeconomic dimensions of sustainability accelerated by the involvement of international firms in the creation of the desired sustainable urban centres in the country. This new approach to urban planning has had implications for urban form, especially with the government’s strategy of engaging international architectural and planning firms to implement the new policies expressed in the planning regulations, which has the potential to distort the existing urban form in the area. Abu-Ghazaleh (1997) argues that there is a link between architecture and culture; hence, one possible effect of the internationalisation of urban development is seen around the introduction of advanced building technology and the use of foreign materials. These factors in themselves constitute a strong threat to national culture and could lead to cultural conflicts that may be exacerbated by the possible importation of planning principles and regulations (ibid). Key to what is obtainable in other countries regarding the implementation of internationalisation is the Kingdom’s conservative and traditional nature, which is still visible in every facet of national life; therefore, the government deems it necessary to use internationalisation as a means of responding to the threat of being left behind, especially among the Gulf Cooperation Council (GCC) group of nations. Consequently, this research examines the internationalisation of urban development and how the adoption of sustainability has been used to accelerate the internationalisation of urban centres in the KSA. The research engages in global and local discourse on the internationalisation of urban planning strategies for new urban centres in Saudi cities, with a specific focus on how sustainability in urban planning has been implemented in Riyadh and Dammam. This first chapter introduces the key terminology and summarises the contents of the thesis. It outlines the rationale for the research, its background, motivation and significance, and then sets out its aim and objectives. It also states the research questions and offers a brief conceptualisation of the internationalisation of new urban centres in the KSA.
1.2 Background Information

The urban landscape of the KSA has undergone radical changes since the 1950s, from the small, densely populated, low-rise cities and towns of the period before the oil boom to the large sprawling cities of today. This transformation has been driven by four main factors: accelerated population growth, rapid urbanisation, growth in wealth following the discovery of oil, and the subsequent modernisation of the economy (Al-Mubarak, 1992, Saleh, 2002). In response to the changing economic fortunes of the Kingdom, the government introduced planning strategies for establishing new urban centres in Saudi cities, leading to increasingly rapid urbanisation. However, it was only in the last decade that the authorities began to develop a framework for planning and regulating the growth of cities such as Riyadh and Dammam. A key challenge is to find ways for the new planning strategies to cope with the process of internationalisation in urban development.

The first master plan was produced in 1968 by the Greek agency Doxiadis, hired in response to the accelerating population growth and urbanisation that followed the influx of oil wealth. The purpose of the Doxiadis plan was to guide Riyadh’s growth through to the end of the century (Ashwan, 1990). It addressed three main factors: land use, transit issues, and urban planning and structure. This was the first input from international urban planning consultants in Riyadh.

In practice, the Doxiadis plan proved to be too modest; within ten years, growth had far exceeded its projected scope, thanks to the improved financial status of the KSA resulting from higher oil prices, leading to the rapid transformation of most urban centres. Thus, by 1977, Riyadh’s physical development plan had exceeded 700 km\(^2\) (Al-Mubarak, 1992), whereas the Doxiadis blueprint had planned for only 300 km\(^2\). As a result of this unanticipated growth, in 1976 the Ministry for Municipalities and Rural Affairs (MOMRA) ordered a revision of the Doxiadis master plan from a French consultancy firm, SCET. Its revised agenda was published in 1982 as a framework for expansion to cover the period from 1987 to 1990. These revisions established urban highways on a wheel-and-spoke pattern and included a much more structured map covering land-use patterns (Ashwan, 1990; Al-Mubarak, 1992). The second master plan saw the expansion of the urban centre to cater for another 1.6 million people and included a planning network for maintained 2X2 blocks and high streets designated as commercial streets. However, the city’s growth was affected by the strategic location of projects that were integrated into the city fabric (MEDSTAR, 2003).
Taking into consideration the future growth of the city, with the population forecast to reach 7.2 million by the year 2025, there was an urgent need to create a number of sub-centres to support the city centre through the redistribution of economic activities and administrative and residential services to new residential areas of the city. This was promoted for the Riyadh urban centre through the Metropolitan Development Strategy for Arriyadh (MEDSTAR, 2003), which guided the expansion of the urban centre from 1992.

In response to changing demographics, the Saudi government continued to revise its planning strategies and the regulatory framework in respect of urban development, resulting in the decision to increase building height and thus density, by removing the original two-storey limit in favour of no formal limit to the number of storeys that buildings could have. In 2010, the Arriyadh Development Authority (ADA) proposed a new CBD which saw the creation of residential urban sprawl resulting from the government’s desire to improve the quality of life of its citizens and specifically its response to the high demand for housing, through the provision of free land on which citizens could build their own dwellings.

To address urban sprawl, the government has embarked on the modernisation of cities and the creation of ‘sustainable’ urban centres, starting with major cities such as Riyadh and Dammam. While the government’s intentions may be genuine, there has been a lack of critical evaluation of past urban planning strategies and how they have influenced the form of urban centres in the KSA. It is therefore important to undertake an examination of the internationalisation of sustainable urban centre development strategies and its impact on urban centres, by critically analysing how the new planning codes have been influenced by international firms. Considering the Kingdom’s involvement in recent decades with various international firms that have promised to deliver sustainable projects, this examination will help to gauge the degree of sustainability that has actually been implemented and the socio-cultural response of stakeholders to this infrastructure.

This research focuses on the cities of Riyadh and Dammam, with a view to examining how the internationalisation process has helped to shape the sustainability agenda in the development of their urban centres, through the involvement of international firms’ practices. It also considers the implications of a transferred internationalisation policy being adopted in the urban centre projects over the years by the KSA government. The
following subsections outline in turn the relevance to the study of two central concepts: internationalisation and urbanisation.

1.2.1 The Internationalisation of Urban Development and Planning Policies

Internationalisation is seen as geared towards a lowering of international barriers, with the aim of the economic betterment of the urban environment (Sassen, 2010). The internationalisation of companies has become widespread over time and this process has attracted the attention of scholars. From a business perspective, the concept originated with Johnson and Wiedersheim-Paul (1975) and Johnson and Vahlne (1977), who examined how indigenous business firms transferred their services abroad while retaining their visibility locally. The process led not only to firms establishing their presence on the international scene but also to a quick turnover of interest through the process. Thereafter, other firms, including those in construction, have been seen to follow this path (Sullivan and Bauerschmidt, 1990; Leonidou and Katsikeas, 1996; Eriksson et al., 2000; Vyas and Souchon, 2003). Prior to the seminal work of Oviatt and McDougall (1994), who suggest that internationalisation can be characterised as an entrepreneurial act, the research streams focusing on entrepreneurship and internationalisation were rarely combined (Andersen, 1993). Although the focus of the present study is not on political economy, this is taken into consideration to highlight the different dimensions of its application. The international business literature offers various theoretical models that attempt to explain the slow process of internationalisation among firms. The most widely recognised are the stage models, such as the Uppsala Internationalisation Model (Andersen, 1993), which is used in the present study to explore the process of internationalisation amongst firms operating in the KSA.

Globalisation can be seen as the integration of economic, political and cultural systems across the globe, and may also refer to an ever more connected, integrated and interdependent world in the dimensions of socioeconomics, technology, culture, politics and ecology (Jena, 2010). When interpreted as internationalisation, globalisation refers to increasing transactions and greater mutual dependence among nations. Thus, in a globalised world, there is increasing movement of people, communication, ideas, goods, money and investment between nation states and territories. Hirst and Thompson (1999) view globalisation as an intense form of internationalisation, such that ‘global’ is a particular form of ‘international’.
Other less discriminating analysts use ‘global’ and ‘international’ as interchangeable synonyms. From this perspective, globalisation is often conceived quantitatively as an accelerated internationalisation process. Thus, for Rodrik (2001), globalisation is measured as a proportion of GDP, while A T Kearney Consultants and Foreign Policy Magazine have developed a globalisation index which mainly concerns cross-border activities (Scholte, 2005). It is significant that these indicators are expressed in terms of territory, describing one country as more or less globalised than another. It is attractive to see globalisation as internationalisation, because this requires little intellectual or political adjustment. Ontologically and methodologically, such global relations can be analysed in the same way as international economics. Seeing globalisation as internationalisation thus allows the new to be fully understood in familiar terms (Scholte, 2005). Hence, a distinction is made between on one hand, the theoretical adoption of globalisation as a strategy for entering architectural markets and on the other, the internationalisation which prominent firms have used as a means to enter the Saudi architectural and urban planning market.

Because the dimensions of social space are interrelated, it would seem to be unwise to oppose the global with the local, as has often been done. This dichotomy is as misguided as the old and discredited distinction between the domestic and the international. The local is typically depicted as intimate and immediate, providing security and community, in opposition to the supposedly isolating and distant global extreme, portending violence and danger. On similar assumptions, some critics reject globalisation and demand localisation (Hines, 2003), but it is easy to demonstrate that the two concepts are not mutually exclusive, since very immediate and intimate relationships are possible with geographically and culturally distant people via jet travel, telephone and internet, whereas in contemporary cities, many people do not know their next-door neighbours’ names. The local and the global thus both have enabling and disabling potentials. The two qualities are inseparable in social practice and it is confusing and arbitrary to term one circumstance local and another global.

1.2.2 Urbanisation in Saudi Arabia
Since the discovery of oil and the beginning of its commercial extraction, the KSA has experienced rapid urbanisation, which may be attributed to two main causes: the oil-driven rise in GDP (Al-Angari, 1997; HCDR, 2003) and the political unification of the country. As the population has grown, the urban proportion of the national total rose from
only 21% in 1950 to 58% twenty-five years later, reaching 81% by 2005, and it is expected to reach 86% by 2030 (UN, 2005). The growth in urbanisation rates over these few decades has resulted in great demand for the rapid development of urban structures in terms of housing, as well as commercial and industrial sites and the consequent transit capability. Furthermore, national housing policy and the allocation of land to citizens with freely available interest-free lending has led to a notable growth of urban centres in all provinces of Saudi Arabia. This growth has been most obvious in the major cities, including the capital, Riyadh (Al-Khedheiri, 1998; Al- Hathloul and Mughal, 2004).

Riyadh was founded on the ruins of the ancient city of Hajr Al-Yamamah in the eighteenth century. As early as 1824, it was a significant city and became the capital of the nascent second Saudi state until that state’s collapse in 1891. During the twentieth century, Riyadh underwent a transformation from a traditional Arab mud-brick community with a population of approximately 25,000 to a modern capital city of more than six million people (CDSI, 2010). The urbanisation process in Riyadh during the last 250 years has been characterised by four distinct periods of expansion, as evidenced by Al-Faquir (1992) and HCDR (2003):

- 1750-1900: a period of relatively slow growth punctuated by episodes of conflict;
- 1900-1930: pre-establishment phase of the Kingdom of Saudi Arabia;
- 1930-1970: establishment phase, marked by the initial discovery of oil and the beginning of oil wealth;
- 1970-date: the use of oil wealth to fund the creation of a modern state.

It was in the fourth period, from the 1970s onward, that the Saudi authorities began to develop a regulatory and planning framework, beginning with the Doxiadis master plan of 1968, which affected the growth of Riyadh. Better management with stronger regulation and planning could have restrained this seemingly unplanned urban expansion (Doxiadis, 1970; Al-Hathloul and Nararyanan, 1995; HCDR, 2003). Urban regulation and planning were rendered largely ineffective as a result of the rapidity of construction and the power of the political will of the clients; hence, the urban plans were soon discarded. These
failures in both planning and execution resulted in the emergence of Riyadh’s suburban sprawl.

The MEDSTAR process of addressing the city’s future development within the development environs and of accommodating the growth taking place in the city as a whole commenced in 1996 under the leadership of the ADA, assisted by the Municipality of Riyadh and various local and international consultants. The plan comprised a three-phase strategy for the implementation of a vision for the next half century, broken into two 25-year planning phases with decade-long developmental steps. MEDSTAR’s mission was to regulate the growth of Riyadh to avoid sprawl and to ensure sustainability of urban design throughout the entire municipality.

This section has established the background to the research, setting the context within which the research problem can be stated.

1.3 Problem Statement
Since the early 1960s the government of Saudi Arabia has had cycles of urban development strategies designed to spearhead modernity (High Commission for the Development of Arriyadh, 1997) and has consistently deployed internationally recognised architects and urban planners on all the grand schemes for urban centre development (Doxiadis, 1970). This has shaped the way its urban centre development projects have been implemented, due to the strategies adopted by these international firms in their delivery of projects in the KSA. There has been a general appreciation of these international firms in terms of their expertise and experience in the development process, but some local stakeholders in the Kingdom have had reservations as to the way these firms were mobilised and granted permission to operate in Saudi Arabia.

In addition, Knox and Taylor (2005) assert that international architectural firms have been perceived as business entities whose main strategy is to deploy the concept of globalisation to their advantage by creating strategic global networks that focus on advancing their business services and interests around the world. Another strategy considered by many as detrimental is the use of architectural branding with a view to maximising business potential emanating from the global demand for iconic architecture (Sklair, 2005; Clark and Moonen, 2010). Thus, these firms are perceived to deploy every
tool available to reinvent and revamp each city’s landscape and to present a new image of prosperity and modernity in the global arena.

Since the early 1960s the government of the KSA has adopted various forms of urban development and strategies designed to spearhead development through the deployment of internationally recognised architects and urban planners; the time is therefore ripe for the government to take stock of what it was promised by these international firms and what has been developed, to gain an understanding of the impact this process has had on its urban landscape. Hence, the research problem arises from the government’s strategy to develop new urban centres of demonstrable quality and iconicity while upholding the principle of sustainability (DPZ, 2009; HoK, 2015; HLA, 2008; HLA, 2015).

The mobilisation of international companies as participants in the development of urban centre projects was triggered by government policy announcements through the national development plans (Ministry of Economy and Planning, 2010). From as early 2000, government policy was to institute measures to ensure the application of sustainable practices in respect of its natural resource base, while building the capacity for regeneration and continuity. This initiative appeared in the Sixth National Development Plan (1995-2000) of the Ministry of Economy and Planning (1995). In addition, the Ministry of Rural and Urban Affairs (2005) introduced a planning manual to activate sustainable infrastructure planning and development for urban centres, setting out the implementation in the Kingdom of the UN’s Agenda 21. Since then, emphasis has been placed on efficient and rational resource utilisation, the development and upgrading of human resources, and increasing the contribution of individuals, private firms and institutions to the development process (Ministry of Economy and Planning, 2000).

However, the government has provided no clear roadmap of its strategy for the implementation of sustainable urban centre development, although the expectation is that the architectural firms mobilised will operate with these concepts.

International architectural firms have designed and implemented a myriad of sustainable development systems in their urban centre projects, yet there has been no research to assess the impact of internationalisation on the planning strategies for sustainable urban centres in Saudi Arabia. This research therefore aims to investigate how urban development strategies (regulations and planning codes) have been mobilised by international architectural and planning firms and how these strategies have impacted on
the urban form in the KSA, using Riyadh and Dammam as case studies. The research also takes an exploratory approach to trace how the notion of sustainability has been interpreted, introduced and used to accelerate the process of internationalisation in the Saudi Arabian context.

The next two sections set out the rationale and justification for the research as it seeks to address the problem outlined here.

1.4 Rationale for the Research

This research has been principally inspired by the concept of internationalisation and its impact on Saudi Arabia. There has been a paradigm shift in planning regulations at national and regional levels in the Kingdom over the past decades. Typical of this is the change from the restrictive urban development strategies that prescribed the number of storeys a building could have (mainly between two and six) to one that permitted unlimited storeys. In addition, regulations introduced in 2010 on the planning and development of CBDs in major cities fostered the creation of sustainable urban centres. This new approach to urban planning has had implications for urban form, especially with the government engaging international firms to implement the new policies expressed in the planning regulations. Furthermore, Saudi Arabia is now seen to have been influenced by the process of internationalisation, especially in its urban centres, which has led to the adoption of new architectural styles and the replacement of many older, traditional Arab styles, with the loss of many historic buildings from the Kingdom (Abu-Ghazzez, 1997). This factor may in itself affect national culture and could lead to cultural conflicts that may be exacerbated by the possible importation of planning principles and regulations.

Consequently, this research engages with the internationalisation of urban development and its possible impact on urban development strategies. For instance, Rapoport (2014) and Area (2014) believe that the concept of globalisation has been cardinal in the process of creating sustainable urbanism by providing local real estate services of international standard. This argument is fully supported by Kaika (2010) and Barthel (2010), who believe that global architecture has been instrumental in reinventing the image of towns and cities, with a consequential impact on the social mobilisation drive towards sustainable urban centres. Conversely, Elsheshtawy (2008) opines that globalised architectural and urban planning strategies can have a negative impact on local culture.
and architecture, thus creating an association between globalisation, internationalisation and sustainable urban centre development.

The research examines the impact of the internationalisation of urban planning and urban development strategies in the KSA and how the role of architectural firms in the application of new planning codes might impact upon urban form in its cities. In doing so, it critically analyses the performance of existing planning codes in comparison with proposed planning codes that have been developed with an international dimension.

1.5 Research Justification
Over the years, the government of Saudi Arabia has operated a policy whereby international architectural firms have been awarded contracts to design master plans for ‘global-style’ modernisation of the KSA’s once-quiescent cities. One exemplary development is the King Abdullah Financial District (KAFD), a major construction project sanctioned by the King, which upon completion is expected to cover a total land mass of 3,085,026 m², of which 1,658,117 m² will be used for office accommodation (HLA, 2015; KAFD, 2015).

Considering that international architectural services have been heavily branded under the guise of globalisation and the meta-policies of production, sustainable construction, marketing and consumption of iconic buildings (Ren, 2008), it is difficult to ascertain how global sustainable urban policies were operationalised in the Saudi context. Ren (2008) opines that despite the influence of international architectural services being heavily linked to urban centre development, there have been uneven and remarkable difficulties in evaluating the impact of such services on the process of urban centre development. For instance, within the economic cities sanctioned by King Abdullah, there are buildings and spaces that have attributes of distinctive symbolic and aesthetic significance (Sklair and Gherardi, 2012). However, such buildings would need to be analysed with regard to how they embody sustainability attributes by exploring the perceptions of local stakeholders regarding the internationalisation of their surroundings and evaluating how service delivery, expertise, knowledge and policies have been mobilised by international architectural firms working in Riyadh and Dammam.

Based on a literature search and on interaction with stakeholders in government and private practice, it was concluded that there has been no academic research into the
processes followed in the mobilisation of international firms and foreign policies, nor into the impact of internationalisation on the development of planning codes, the modernisation of urban centres and the approach to sustainability adopted as part of Saudi Arabia’s urban planning and development strategy.

The sustainability agenda for urban centres needs thorough examination to ensure that Saudi cities do not merely become resource efficient and low in carbon emissions, but that they enjoy advanced and enhanced micro-ecosystems responsible for the provision of ecosystem services related to support, provision, regulation and cultural services. Hence, the urban sustainability drive should be designed to improve rather than sustain what is considered a degraded condition. To this end, the research seeks to determine whether international firms have taken advantage of their global competitiveness to market their architectural services to the KSA, or whether they have genuinely designed sustainable urban centres that could holistically address the notion of sustainability in the Kingdom’s urban centres.

1.6 Aim
Within the historical, practical and academic context set out above, this research aims to investigate the impact of international architectural practices in the urban centres of the KSA and to explore how the notion of internationalisation has been mobilised by these firms.

1.6.1 Objectives
To help address the research aim, the following objectives have been identified:

(i) To examine the impact of the internationalisation of urban planning and urban development strategies and to analyse the major national development plans and urban strategies between 1970 and 2010, and their impact on urban transformation in Saudi Arabia.

(ii) To investigate how changes in the planning regulations and codes have affected the form of the cities of Riyadh and Dammam in general, and their urban centres in particular;
To trace how internationalisation has been operationalised through the notion of sustainability, and how it has been introduced, translated and interpreted in the new urban centres of Riyadh and Dammam.

To analyse stakeholders’ perceptions of the sustainability concept promoted through the internationalisation of urban centre developments.

1.7 Research Questions
The following research questions have been developed to address the above aim and objectives:

i. How have the KSA’s urban development policies since 1970 influenced the implementation of urban planning in the Kingdom?

ii. How has the application of urban planning codes been used in the delivery of sustainable urban centres in the Kingdom?

iii. What level of influence have international urban planning codes had on existing codes in Saudi Arabia?

iv. What are the intended and unintended consequences of the KSA’s current policies on the new urban centre projects?

v. How have international firms’ practices been mobilised and what has been their impact on the sustainability drive in urban centres in Saudi cities?

1.8 Scope of the Research
It was considered prudent to confine this research to the cities of Riyadh and Dammam, considering their status as hubs for international business and as benchmarks for urban development in the KSA. Therefore, it would be possible to obtain crucial evidence of the deployment of current planning codes by concentrating on these two cities. Nevertheless, the results of the research could be useful more widely within the KSA and in the Middle East and North Africa (MENA) region.
1.9 Contributions to Knowledge

This research makes the following specific contributions to the knowledge on the internationalisation of architectural and planning practices in the Middle East, the Kingdom of Saudi Arabia, and the international community at large.

The first contribution lies in its examination and advancement of the argument that globally renowned architectural and planning organisations have been using their global influence and networks to respond to the demand for their services at national, regional, and international level. The internationalisation of architectural and planning practices is made possible through the application of the concept of globalisation, which allows for these practices to be tailored to local market conditions with a view to ensuring that the local market can receive high quality designs and plans befitting modern and futuristic urban centres;

The second contribution to knowledge lies in the discovery that international architectural and planning firms are adapting their marketing strategies so as to ensure they can operate in highly conservative markets such as the Kingdom of Saudi Arabia, by creating a balance between stakeholder requirements to attain sustainable urban development, and the provision of the highest standard in architectural design and urban planning. The study has revealed that international architectural and planning firms have been using sustainability to accelerate their capability to enter the Saudi Arabian market.

The third contribution to knowledge by this study is the demonstration that the designs and master plans for urban centres produced by international architectural and planning firms embed high levels of international urban policies; such policies have been mobilised from the international market to local urban centres. The research adds to the literature on policy mobility by arguing that that even if policy mobility has been an inevitable consequence of a globalised movement of architectural and planning practices to the Kingdom of Saudi Arabia, there have been both positive and negative impacts on local urban centres which need detailed evaluation. The Positive impacts are seen, in areas where environmental attributes, land use and iconicity have been achievable; the negative impacts lie in the challenges related to the measurable achievement of social, cultural and economic sustainability of existing urban centres where rental values, transport systems and a way of life have been decimated by the new urban centres;
The fourth contribution to knowledge from this research has been the demonstration that government authorities of the Kingdom of Saudi Arabia have maintained their strategy to urban development by ensuring that they engage international firms who have the capacity to design and implement urban centres that are futuristic at the time, regardless of the origin of such firms, thereby demonstrating their trust of market forces driven by competition within the global architectural and urban planning market.

1.10 Limitations of the Research
The study was limited to developments in two cities, Riyadh and Dammam, because these were considered the most important current urban development activities in the Kingdom. Consequently, this case study approach may introduce the limitation that generalisation of the outcomes to the entire Saudi Arabian architectural industry is not possible. However, the aim of the research was pursued by the analysis of primary data from three sources: face-to-face semi-structured interviews with stakeholders, a questionnaire survey, and a review of government documents, and it could be argued that stakeholders in other cities might well have provided similar opinions since many of the criticisms were related to the lack of attention to the Saudi culture. Likewise, the government documents are likely to reflect a standard philosophy. The belief is, therefore, that the study does not suffer unduly from any limitations.

1.11 Structure of the Thesis
This first chapter has examined the background to the research. The following paragraphs offer a summary of each remaining chapter and introduce the key themes considered in the research.

Chapter Two offers a review of literature on the role of internationalisation and the impact of urban development policy mobility. As a means of developing an understanding of the impact of internationalisation on urban planning and development strategies in Saudi Arabia, the chapter presents a detailed review of literature on the concept of internationalisation of architectural practices in addition to how it has been mobilised by international architectural firms in the development of new urban centres, making particular reference to the cities of Riyadh and Dammam.
Chapter Three reviews the literature on sustainable urban centre development using planning codes. In exploring the subject of sustainability, this chapter undertakes a critical review of how sustainability has been used in creating planning codes and the process by which these codes have influenced the delivery of iconic buildings and their international status, using standardised energy-rating systems.

Chapter Four addresses the methodology and research design. It presents the fundamental assumptions made in the design of the study and provides a detailed commentary on the procedures adopted in obtaining empirical data. Given that very little is understood about the impact of internationalisation on the provision of infrastructure in urban centres in Saudi Arabia, a case study approach was adopted to gain understanding of the factors behind the engagement of international firms to deliver capital projects in the urban centres of Riyadh and Dammam, to explore further the concept of sustainability as seen through the lens of various stakeholders, and to appraise the concept of internationalisation as a driver of policy mobility.

Chapter Five presents findings on the domestic impact of internationalisation. It examines the effects of internationalisation on urban planning and development in the KSA by reviewing national urban policies and analysing the physical development work undertaken by foreign architectural firms in Riyadh and Dammam. Finally, it evaluates local stakeholders’ interpretations of internationalisation.

Chapter Six considers the impact of internationalisation on the Saudi urban planning codes. It provides an overview of these codes and analyses the effects of internationalisation on their application to urban development. Stakeholders’ contributions regarding the contemporary Saudi leadership and the role played by foreign architectural practices and consultants are used to highlight recent changes and the resultant impact on the environment. One finding is that planning codes and sustainable buildings are new concepts in the Saudi building industry which will require time to filter through the system. In addition, while experts’ ideas are welcome, the stakeholders’ view is that local building materials and professionals need to be considered in the delivery of sustainable projects in urban regeneration activity in the country for it to succeed.

Chapter Seven presents findings on the sustainability strategy adopted as a means of accelerating internationalisation. The empirical findings demonstrate that various
components of sustainability have been used as instruments of development through the mechanism of policy travel. Other local stakeholders are found to view spatial planning and the internationalisation of the process in terms of financial and business opportunities. The chapter concludes that sustainability has not been implemented in its totality but has concentrated on energy rating and the certification of projects implemented in the country, while neglecting the sociocultural needs of the host community.

Chapter Eight discusses the findings, draws conclusions, lists the contributions to knowledge of the study and makes recommendations. It focuses on the implications of the way in which internationalisation has been introduced in the KSA and the resultant impact on urban development projects in both Riyadh and Dammam. Key findings are used as a guide in making recommendations on how policymakers should consider the effect of their decisions on the sustainability of the urban environment; another key recommendation concerns how best to go about project implementation while considering the views of stakeholders.
2. CHAPTER TWO: TRACING THE ROLE OF INTERNATIONALISATION AND THE IMPACT OF URBAN DEVELOPMENT POLICY MOBILITY

2.1 Introduction
In their efforts to meet the challenges of globalisation and to make the investment necessary to modernise their infrastructure and productive capacity, various countries have engaged international partners in the orientation and development of their cities.

For years, the KSA has been implementing and developing a strategy of engaging with professionals such as architects in order to enhance its urban development to reach contemporary standards, whilst maintaining its traditional and Islamic forms. The government has participated in the development of planning codes, following which the modernisation of urban centres has been promoted as part of the internationalisation of the country's planning development strategy (Alatni et al., 2012).

As a means of developing an understanding of the impact of internationalisation on urban planning and development strategies in the KSA, this chapter presents a detailed and critical review of literature on the concept of internationalisation, and how it has been introduced and interpreted in the urban centres of Saudi Arabia, making specific reference to the cities of Riyadh and Dammam.

In reviewing the literature, the chapter aims to explore the concept of globalisation and how it has been used as a vehicle for the internationalisation of architectural services. Additionally, it considers the impact of the mobility of urban policies from international sources to other global markets using architecture as the major instrument to achieve this operationally. A critical argument is presented to the effect that international architectural practices have used globalisation as a mechanism to transfer their knowhow and iconic brand of architecture to their international markets, such that these practices are now seen to dominate the local scene. Similarly, the chapter argues that as complex as the issue of urban policy mobility may be, it has influenced economic, political, social and cultural affinity in the urban centres of the KSA. This argument is informed by research findings concerning the ongoing urban development programmes of the King Abdullah Financial District in Riyadh and the Central Business District in Dammam. In both instances, the
process was seen to have shaped the urban landscape away from the traditional settings, resulting from the input of the international firms involved with both projects.

McCann (2011) facilitates an understanding of the concepts of internationalisation and urban development policy mobility, which are key to this research, by distinguishing between three related descriptors. Thus, urban policies are “formally drafted and adopted guidelines and procedures setting out the long-term purposes of and addressing specific problems of governance”; policy models are “general statements of ideal policies, combining elements of more than one policy, or statements of ideal combinations of policies”; and policy knowledge is “expertise or experience-based know-how about policies, policy-making, implementation, and best practices” (McCann, 2011:109).

McCann goes on to describe “the term policy transfer as an umbrella concept referring to the practices of national policymaking elites who ‘import innovatory policy developed elsewhere in the belief that it will be similarly successful in a different context’ and also to the involuntary adoption of new policies as the result of external pressures from supranational institutions” (McCann, 2011:110). This in its totality has a tendency to bring about transformation in the recipient environment, but may also pose the danger of existing policies becoming obsolete or extinct over time if not properly managed. Hence, policy transfer can be an effective method of implementing policy mobility, depending on the actors involved. For instance, if political actors are engaged in the policy transfer process, their routes to political office, i.e. whether they are elected or appointed, could substantially influence their response to policies on transnational corporations (McCann 2011). In the case of Saudi Arabia, the political actors concerned are appointed by the monarch and not elected; therefore, their allegiance is to the monarchy, not to an electorate, which largely explains why public consultation is minimal in the development of policy and the selection of transnational corporations to work in policy execution. Consequently, it is impractical to try to ascertain the level of policy model and knowledge that experts possess, as policy transfer is used as the starting point for policy mobility.

However, international architectural firms have used the concept of globalisation to their advantage by creating strategic global networks whose focus has been to advance their business services and interests around the world. This implies that the geographical dispersal of their architectural offices does not serve as a barrier to the evolutionary trend which shows business interests as being able to flow across international borders; rather,
it creates a cosmopolitan outlook for the business of architecture (Knox and Taylor, 2005).

This chapter explores how globalisation has facilitated transnationalism in architecture. The analysis of the conceptual significance of globalisation in terms of urban policy is illustrated by Beijing’s recent sudden embracing of iconic architecture. A significant lesson can be drawn from that city’s ability to manage its policy dynamics despite the fact that China is characterised by a conservatism which dictates the degree of internationalisation within its borders.

The justification for assessing these various factors with regard to the KSA is that there are many influences at work which could be attributable to the presence of international firms in urban centre development. For instance, the KSA has ancient tourist destinations, is a leading oil exporter, and endeavours to internationalise further through developments in several economic sectors (Alatni et al., 2012). Indeed, some Saudi cities such as Riyadh have become world-leading destinations for business travellers (Saleh, 1998a). Not surprisingly, therefore, the KSA routinely uses world-renowned and/or award-winning architects or architectural firms for the design of its megaprojects (Alatni et al., 2012). Nonetheless, there remains a need to untangle the possible implications of the involvement of both international and national actors in the urban development programmes in the KSA. To gauge the impact of internationalisation and of the Kingdom’s urban centre sustainability drive, key stakeholders’ opinions were therefore elicited in face-to-face interviews and a critical analysis of relevant documentary evidence was undertaken to provide an indication of progress achieved to date, as explained in Chapter four.

2.2 Overview of Internationalisation and Globalisation in Urban Centre Development
Meanwhile, to better understand the impact of the internationalisation of the urban development processes in the KSA, it is necessary to outline the theoretical stance of the existing literature in respect to the emergence of the status quo at the global, national and regional levels.
According to Johnson (2002:427), the concept of globalisation “is more than the international movement of goods and investment”, as it also includes “the flow of ideas from one part of the globe to another”. Hence, both labour and capital flow among countries and corporations at unprecedented rates, spreading international character traits whilst doing so. However, Sassen (2014) argues that internationalisation is not the same as globalisation, although the two concepts interact; globalisation refers to “inter-country relations that do not involve state-to-state relations or flows where national states are directly involved” (ibid:462). Rather, in globalisation it is multinational corporations which engage in activities beyond their national boundaries; states are indirectly involved to the extent that their support for transnationalism enables this. From the urban development perspective, a “global city is neither fully national, nor fully global; it is its own formation, its own type of territory, with its own type of territoriality: the system of authority governing that territory” (Sassen, 2014:467). Sassen explains that ‘territory’ here refers neither to ‘land’ nor ‘terrain’ nor ‘space’: “It is a complex category with embedded logics of empowerment (the state) and claim making – what might be call ‘citizenship’ today. And ‘authority’ is a more complex condition than power, which can be quite elementary” (ibid).

The principles of policy mobility, internationalisation and policy travelling have been under evaluation for the last decade; these concepts, according to Peyroux et al. (2012), originated in North America, where municipalities were allowed to attract private investment to improve the attractiveness of CBDs. The overall aim of policy travelling and of internationalisation is to generate a system that could be used for producing and governing urban space and urbanity without losing the focus on the promotion of business and private commercial interests (ibid). It should be noted that in examining a CBD, it is the space therein that is of interest not only to the municipality, but also to the developers and other stakeholders within a specific location and time period. Therefore, an internationalised response to space utilisation affects not only the socioeconomic but also the political, cultural and environmental interests of stakeholders.

The internationalisation of a firm, or indeed a city, evolves gradually through increasing involvement with, and commitments to, foreign nations, usually on the same continent. Furthermore, internationalised companies and cities gradually become more globalised through geographical and/or functional integration with foreign states (Bernstein and Cashore, 2000; Prange and Verdier, 2011). Companies’ engagement in operations abroad
has helped to accelerate globalisation to the point where Milanovic (2003) opines that there is now a continuous cross-border flow of goods, services, capital, technology, ideas, information, cultures and nations. The convergence of institutions, systems and the like has social, economic, political, cultural, environmental and technological implications, since as globalisation is applied to the international community, it is expected to have varied impacts on nations.

Essentially, globalisation is seen as an interaction between local and national agendas, as a broadening of outlook from self-interest to interconnectedness and as a tendency to promote the free transfer across frontiers of social or economic capital and services. Hence, it is a vehicle through which internationalisation could be implemented; however, there are many factors that influence the uptake of globalised urban planning. When Sassen (2014) refers to ‘territory’ and the ‘logistics of empowerment’, she acknowledges the complex dynamics associated with the process of understanding the layers of authority in urban (or city) development. In this case, authority is equally complex because it could be granted politically, socially, economically and/or culturally. In addition, Sassen (2012) argues that historically, cities have been used as research sites enabling the exploration of society and sociology, where the emphasis has been on investigating the principal social shifts and processes associated with any given time, rather than on the nature of the city. Indeed, the 21st century city has emerged as a strategic site for understanding some of the major new trends reconfiguring the social order; where “major macro-social trends materialise and hence can be constituted as an object of study” (Sassen, 2012:3). However, the strategic interests of cities extend beyond social constructs, to the realisation that the dominant forces of globalisation and advanced information technologies are at play in reconfiguring all the social aspects of cities (Sassen, 2012).

The complexity of urban development should not be underestimated; if the city is global, there tend to be many actors from different ‘worlds’ who meet there, yet “there are no clear rules of engagement” (Sassen, 2010:67). To make a clear distinction between internationalisation and globalisation in the context of the present study, the former refers to a lowering of international barriers with the economic betterment of the urban environment in mind, whereas globalisation is the process of enhancing the global integration of markets and the consideration of a local identity. Furthermore, globalisation concerns the global product development cycle, whereas internationalisation includes the
planning and preparation stages for a product or physical development. According to Venkatesh (2014), space and urbanity are critical factors that need analysing when examining a city, otherwise the major issues confronting society cannot be clearly understood. Hence, internationalisation can be described as a process of the isolation of linguistic and cultural data to facilitate localisation to occur simply and cheaply, while globalisation helps in projecting local and/or regional development or policies around the globe.

This section has clarified the key concepts of globalisation and internationalisation. The next links globalisation with urban policy mobility.

2.3 Globalisation as a Pathway to Urban Policy Mobility
As globalisation unfolds, urban policy mobility and its local implementation have become paradigmatic tools of governance that find seemingly worldwide application. This was made possible mainly because it is seen as supporting and promoting the experience of urban space as a balanced enjoyment of life, work, play and landscape. These elements are viewed as socioeconomically, culturally and politically driven and as tools for the promotion of social relations, ensuring that the degrees of difference between key factors are optimised (Peyroux et al., 2012; Rapoport; 2015).

There are divergent views of the application of globalisation and international architectural practices, in addition to the role played by transnational professionals in the global diffusion of international ideas. These have become a major focus of the study of urban policy mobility. For instance, when viewed through an ‘entrepreneurial city’ lens, urban policy mobility could be likened to the cultural ideology of global consumerism, which, according to Ren (2008), drives the production of flagship architectural projects of a global nature, as evidenced in Beijing prior to 2008. At the heart of the ideology of global urban mobility policy is the integration of nationalism and its perceived economic benefits; a phenomenon which has led politicians and bureaucrats to opt for transnational architectural language as a means to narrate national ambitions (Ren, 2008). In the case of Beijing, political elites were central to the search for global architecture, which could consider local cultural discourse and politics in the production of design (ibid). This line of enquiry has helped to identify and highlight salient characteristics of the city (Clarke, 2012).
2.3.1 Established Pathways to Implementing Urban Mobility Using Globalisation

Outlined below are the major pathways to the implementation of urban mobility via globalisation, as noted by key contributors, such as Peyroux et al. (2012), who recognise the use of the ‘business improvement district’ as a model of sub-municipal governance to secure private capital for enhancing the attractiveness of a city’s central spaces. This subsection also explores the role of global circuits of knowledge and the ways in which the model has been adopted and reshaped in different cities.

Ordinarily, a combination of several urban policy mobility modes could be useful in varied situations under the ‘globalisation’ umbrella. Those who are in favour of adopting urban policy mobility through globalised architectural services believe that such a strategy guarantees a world city image. Many governments have adopted it and opened the design market to Western firms (Shen and Yang, 2011). However, those opposed to urban policy mobility through globalised architectural firms believe the process to be no more than a façade for the continuation of Western dominance over developing nations. The design products of Western firms instil Western culture into local cityscapes, inevitably destroying the local culture embodied in traditional designs, according to Shen and Yang (2011). Their analysis of the development of Beijing shows that in that case, proponents of the globalisation of architectural design services outweighed opponents and the city proceeded to develop urban centres with iconic structures that reflected its world city status.

2.3.1.1 Model One: Urban Policy Mobility and the Entrepreneurial City

The idea of an ‘entrepreneurial city’ provides one model of urban policy mobility; this strategy is globally hegemonic and aligns urban policy with the objectives of inter- and intra-local competitiveness in order to generate economic efficiency for the city (Peyroux et al., 2012). In this model the business side of urban development takes centre stage, since it addresses commercial interests.

It is recognised that in the late 20th century, urban centre development was mainly focused on harnessing consumerism, by offering business services and entertainment (Elsheshtawy, 2008: Sklair, 2010). Local governments have, therefore, increasingly employed the strategy of commissioning flagship architectural projects that could create a positive image, thereby attracting residents, visitors and assorted forms of investment spin-off. As a result, “signature designs from internationally prominent architects have
been especially sought after by local private and public clients in order to put their cities on the map” (Ren, 2008:177). In the field of international architecture, the ongoing drive for these internationally-acclaimed signatures has given rise to the notion that transnational firms add the international touch and reputation to such developments; thus, high profile architectural projects act as branding tools to entice businesses and visitors. In most instances, project developers mobilise international architectural firms by means of tendering and their projects are seen to command media attention and to promote the urban centres to other foreign investors.

In addition to commercial interests, the global application of transnational architectural products are driven by socioeconomic factors, including “the role of consumption in urban economies, the financial imperatives of cultural institutions in the new market economy, and the blurring boundary between low and high culture” (Ren, 2008:177). Ren (2008) characterises the process of globalising Chinese cities, such as Beijing and Shanghai, as a wild frontier for architectural experimentation that has been providing lessons to the international community. This pioneering approach has shown that other countries could learn from the working relationships developed by Chinese institutions, where urban centre development serves mutually inclusive interests, enhancing the creation of an internationally acclaimed image while promoting the commercial interests of investors.

2.3.1.2 Model Two: International Imitation and Learning

‘International imitation and learning’ is an approach whereby new urban development models are taken as best practice, then modified by urban planners, politicians and architects globally to resolve their situational needs (Peyroux et al., 2012). However, where a country has succeeded in imitating global policies on urban development, it is crucial to note that it may not be easy to eradicate the international architectural firms’ practice of copying what others have done as a way of adding flavour to promote their designs. According to Ren (2008a), in the megaproject developments in Beijing, transnational architectural production was heavily reliant on signature designs with a view to branding these projects so that Beijing would be seen as a new global city where modern, high-tech and futuristic designs from international architects could thrive. This reliance arose from the conscious decision of the local political and economic elites to create a transnational urban space to cater for the needs of the transnational capitalist class (ibid). It is the economic and political paradigm of urban policy mobility that
promotes the use of transnational global architects, including the notion that the symbolic capital of architectural design is transformed into other forms of capital (ibid).

2.3.1.3 Model Three: International Organisations’ Ability to Influence, Promote and Facilitate Ideal Urban Development

The third model was influenced by the contribution of international organisations and their representatives, who are influential in promoting the circulation of an ideal urban development model suitable for the local situation (Peyroux et al., 2012). Globally, this strategy is over-subscribed, for example being adopted by private consultants and government agencies. The latter can choose to support the role of international organisations and their representatives as they strive to modernise their urban centres. However, it is arguable that although international organisations might be engaged, they themselves might also be adopting an imitation policy mobility strategy that is embedded within their work for the client, without specifically stating how they have arrived at some of the solutions.

2.3.2 Responding to Sociopolitical and Cultural Forces on Urban Mobility Models

The modernisation of urban centres, through the adoption of both policy models and knowledge, has been influenced by the increasing global acceptance of policies relating to the spatial, social and relational character of urban development, on which the international community has put great emphasis (McCann 2011). McCann argues in favour of policy mobility, stressing the value of the “geographical political economy arguments which analyse the need to understand specific social interaction in terms of wider socio-spatial contexts, in part by maintaining a focus on the dialectics of fixity and flow” (McCann, 2011:107). This albeit narrow argument is sufficient when supporting the simplification of policy mobility, since “mobilities offer a useful rubric under which to operationalise the political economy theory of urban centre development so as to offer the ‘local globalness’ of urban policy transfer” (ibid).

It is therefore arguable that there is a cultural dispersion of the globalised design industry, whereby “the location patterns of the architecture design firms largely follow the hierarchy of the global urban systems, with firm headquarters heavily concentrated in top-tier cities and branch offices in smaller cities and underdeveloped areas” (Shen and Yang, 2011:18). Despite improved communication technology, the globalisation of building design services is predominantly led by firms in advanced economies, while their
subsidiaries in developing countries are involved only in the production of documentation (ibid). Table 2.1 lists major global design practices.

Table 2-1: The twenty largest architecture firms.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Firm</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gensler</td>
<td>US</td>
</tr>
<tr>
<td>2</td>
<td>HOK</td>
<td>US</td>
</tr>
<tr>
<td>3</td>
<td>Nikken Sekkei</td>
<td>Japan</td>
</tr>
<tr>
<td>4</td>
<td>Aedas</td>
<td>UK</td>
</tr>
<tr>
<td>5</td>
<td>Foster &amp; Partners</td>
<td>UK</td>
</tr>
<tr>
<td>6</td>
<td>Skidmore, Owings &amp; Merrill</td>
<td>US</td>
</tr>
<tr>
<td>7</td>
<td>RMJM</td>
<td>UK</td>
</tr>
<tr>
<td>8</td>
<td>HKS</td>
<td>US</td>
</tr>
<tr>
<td>9</td>
<td>P &amp; T Architecture Engineers</td>
<td>China (Hong Kong)</td>
</tr>
<tr>
<td>10</td>
<td>Wood Bagot</td>
<td>Australia</td>
</tr>
<tr>
<td>11</td>
<td>RTKL</td>
<td>US</td>
</tr>
<tr>
<td>12</td>
<td>Perkins Eastman</td>
<td>US</td>
</tr>
<tr>
<td>13</td>
<td>Smith Group</td>
<td>US</td>
</tr>
<tr>
<td>14</td>
<td>Capita Architecture</td>
<td>UK</td>
</tr>
<tr>
<td>15</td>
<td>NBBJ</td>
<td>US</td>
</tr>
<tr>
<td>16</td>
<td>Callison</td>
<td>US</td>
</tr>
<tr>
<td>17</td>
<td>Burt Hill</td>
<td>US</td>
</tr>
<tr>
<td>18</td>
<td>Nihon Sekkei</td>
<td>Japan</td>
</tr>
<tr>
<td>19</td>
<td>Cannon Design</td>
<td>US</td>
</tr>
<tr>
<td>20</td>
<td>Perkins &amp; Will</td>
<td>US</td>
</tr>
</tbody>
</table>

(Source: Ren, 2011).
In addition, the model adopted by sociopolitical and cultural forces tends to be a master plan that offers ‘grand authority’ to new urban policies. In this respect, Ren (2008a) has complained that political and cultural drivers are cardinal to the promotion of a ‘master plan’ approach to the modernisation of urban centres. For instance, the city governments of Beijing and Shanghai were adamant that these cities should become financial centres and that to achieve this goal there was a need to modernise their urban centres (ibid). Hence, these city governments engaged global architectural firms and government institutions to enable the modernisation of their central business districts via multi-functionality, offering finance, insurance, trade, information and commerce (Ren, 2008a). Companies such as Foster and Partners in the United Kingdom (UK), Zaha Hazid in the UK, Johnson Fain and Partners in the United States of America (USA), Albert Speer and Partners from Germany, Riken Yamamoto and Field-shop from Japan, and Peter Davidson of Australia were involved with the Office for Metropolitan Architecture in the design and development of major projects in Beijing. Thus, they were able to demonstrate the diversity of input into the effort to implement transnational urban policy mobility in Beijing. Furthermore, some of these organisations were private firms, some public institutions and others cultural bodies. This reflects the complexity of situating urban designs.

It has also been observed that international architectural practices do not blindly follow and adopt the ‘master plan’ mentality, but are expected “to tailor their proposals to the locality in which they are hired” (McCann, 2011:108). In reality, however, architects have a tendency to transfer ‘best practice’ from elsewhere (McCann 2011). This is an important issue in operating policy mobility in urban centre development; while various strategies will allow the policy to be mobile, international designers are likely to imitate practices that have proven effective or reliable.

When considering the economic theory of policy mobility, productive tension may exist between the fixity and fluidity of capital that is used for situating the design. In addition, fixity highlights “the twin imperatives of capital – to circulate and to be fixed in place – and shows that this tension, and the seesawing bouts of investment and disinvestment in the urban landscape that accompany it, produces cities as dynamic socio-spatial formations” (McCann, 2011:109), whereas mobility “emphasises that cities must be understood as relational nodes, constituted by the flows of capital, immigrants, information, and [the like], that tie them to other distant places” (ibid). Thus, if the capital
for the urban centre development is fixed, it could have a cyclical impact on the urban centre activity, where projects will be viewed as positive and in conformity to the desire of its citizens. Conversely, where the capital is fluid there is a possibility that city developments in one country could entice investors to replicate similar projects elsewhere in the world, leading to the interconnectivity of urban development. Therefore, the operation of policy mobility would depend on the way urban policies, policy models and policy knowledge are understood. However, urban policy mobility need not be insensitive to the social patterns of a city. Social control must be embedded in urban centre developments and this requires a micro-level (e.g. municipal) reconfiguration of government systems and local stakeholder engagement, thereby creating a process that allows the exercise of local power through partnerships and co-operation agreements (Peyroux et al., 2012). The main drive should be to address the provision of connectivity in cities, allowing experts and other stakeholders to develop a system that is open to partnership and learning.

2.3.3 Impact of Globalisation on Urban Development

Shen and Yang (2011) examined the globalisation of building design services in Beijing, concluding that it facilitated the Westernisation and Europeanisation of design work that might otherwise have taken decades to penetrate Chinese suburbs with historical ambiance. Whereas Ren’s (2008, 2008a) argument centres on the commercial impetus behind this phenomenon, Shen and Yang (2011) cite a range of factors accelerating the internationalisation of architectural services, namely the desire for modernisation, the engagement of diplomacy, the desire to develop cultural identity and the drive to gain economic equity. Finding the right balance among these factors has created tension amongst stakeholders (ibid). Further analysis revealed abundant tension over several such factors in Beijing, although some were more influential than others. For instance, in relation to international image, it was argued that there was a drive to create ‘Western style’ modern buildings to serve as top landmarks for the city (ibid). ‘Image’ could be argued to have set the tone and characterised the globalisation and internationalisation of the building design processes.

If the aim is to bring about change on a national scale, the policy mobility strategy could be influenced. Historically, national-scale policy mobility assumed “a particular conceptualisation of the institutional geography of policy transfer – one that elides the
various sites and scales, including the urban, in and through which policies are produced” (McCann, 2011:111). However, because national policy mobility strategies ignore the fact that cities are the central geographical target and institutional laboratories, this may be inadequate for urban centre development; if local economic and institutional conditions are not conducive, policy mobility cannot be implemented effectively (ibid). In addition, policy transfer itself is a misunderstood concept, because it implies an inherent liberalism and the importation of fully-developed, off-the-shelf, tailor-made policies “when in fact the nature of this process is much more complex, selective, and multilateral” (McCann, 2011:111). For policies to be of use to the adopting nation, there must be an appreciation of the issues surrounding them in their place of origin and the circumstances that led to their development. Hence, when policy transfer occurs, it is arguable that the opportunity to influence it may have been missed. It is therefore necessary to understand the formation and implementation of policy mobility and the various tools and techniques that have been deployed for that purpose (ibid).

2.4 Globalisation and the impact on local business - Glocal

The term ‘glocal’ emanated from the truncation of the words ‘global and ‘local’ and their merging to arrive at the business connotation (Danova 2005:154). Since its appearance, the term has been used in the past three to four decades to refer to the fact that local businesses can offer products or services that can win them value, reputation, sales and the like, on a global scale (Svensson, 2001; Strategic Direction, 2013; Nichele, 2015). Essentially, the business world has sought to combine global and local approaches in a bid to “think globally while acting locally” (Jain et al., 2012:522). The glocal concept has gradually developed and been applied in various fields such as governance, urban design, sociology, and management (Jain et al., 2012). However, in the application of the glocal concept, there have been inevitable successes and failures (ibid). For example there was a reported failure by Coca-Cola to fully use glocal as a strategy to improve global performance mainly because the organisation faced many cultural, social, local, and strategic challenges (Strategic Directions, 2006).

In the glocal approach, there is a shift towards the marketing of products and services with an emphasis on ensuring that people can feel justified in increasing their consumption of a product on the grounds that local conditions are exploited; in other words companies ensure that “a global product can fit the local market” (Danova
2005:155). The big challenge to this strategy is how to attract higher consumer demand for such product or service in a hybrid market considering the many factors that could have significant impact on the product or service (ibid).

2.4.1 Global view of local markets
The importance of glocal in terms of business can be expressed either in terms of product or service branding or labelling, competition or market entry. To this effect Svensson (2001:15) argued that organisations are expected to maintain their global business approach while ensuring that they can acknowledge the necessity for local adaptation so as to tailor their activities in a simultaneous manner; hence, fitting within the global mould on a local scene. This implies that local, multinational, and global strategies, and international perspectives are critical to glocal philosophy (ibid). The main thrust of glocal has been that it does not only look at the global business strategy per se but rather it makes an explicit recognition of the importance of adapting business operations to local conditions (Svensson 2001:15). From a global perspective, a glocal approach has the propensity to be misunderstood, since as noted by Nichele (2015), an organisation’s country of origin can have a positive or negative impact on the quality perceptions and evaluation of the product or service. Moreover, the way in which a product or service is packaged significantly influences the local response to it since variables such as culture and language are important in gaining local acceptance of a global product (Nichele, 2015).

2.4.2 Key Business Actions Multi-national Companies
From the business perspective, a global strategy is viewed as a system comprised of steps enabling a business can perform on a global basis by ensuring the existence of comprehensive competitive advantage that exploits the differences between nations (Svensson, 2001). Glocal is, therefore, seen as an effort by the organisation to apply international business strategies in a local market so that it can be as competitive as possible, and outperform other businesses (Tripon, 2015). The promotion of glocal and competitiveness cannot, however, be achieved purely by organisations, since governments are also required to promote economic growth through enterprise, which they do by encouraging sustainable production or low-carbon economies that can be inclusive, that
can create jobs and reduce poverty within communities (Tripon, 2015). This shows that the glocal business concept offers economies of scale in production, distribution, and marketing (Svensson 2001:9). Additionally, the application of the concept can also reduce the costs of doing business, improve quality, and enhance customer preferences, all while combining global resources for local benefit (Svensson 2001:11). However, in all this, there is some reliance on economic creativity, on business being able to have an impact on the social and ecological systems of a city, and on government programmes. Consequently, there are many challenges, and the potential benefits to be gained from operating via a glocal approach are not always achieved (Tripon, 2015; Svensson 2001).

The first and possibly, main challenge is the need to think globally and act locally; this is difficult because of the varied nature of national attributes and cultural differences. There are many occasions when the application of international business strategies can be inappropriate for the local conditions, thereby making the aspiration to be glocal only a pipe dream for many organisations (Strategic Direction, 2013; Strategic Directions, 2011). Another challenge for organisations in this respect is that management is required to undertake many activities that can both fit international strategy and yet be acceptable at the local scene, not an easy task, since many companies have used globalisation as a means to standardise and centralise their products and business services, a strategy which ignores the nuances of the local context. Hence, there has been total failure in the application of the glocal concept (Jain et al, 2012). The example of Coca-Cola, an American carbonated drink firm that moved towards globalisation but failed spectacularly in terms of local performance is a good one (Jain et al., 2012; Strategic Directions 2011; Strategic Directions, 2006). Fortunes began to change for Coca-Cola when the company began its glocal strategy in markets that it believed would be responsive, such as the Chinese market where organisation adapted its product and services to the Chinese local attributes (Strategic Directions, 2006). The language used and the service provided was linked to the local Chinese culture, thereby making the company acceptable in the new local communities (ibid).
2.5 Urban Development and the “glocal” Concept

In urban development, the overarching driver has been the need to optimise the relationships between people, nature, and urban spaces, yet this has proven to be extremely complex because of the difficulties in the implementation processes associated with the transformation of the environment (Asprone and Manfredi, 2015). Consequently, the concept of sustainability has been deployed as a framework to govern the behaviour of actors and entities involved in various processes that consume natural resources, and eventually affect people and society (Asprone and Manfredi 2015:96). In this case, sustainable urban development encompasses the management of actors and their decision-making in the way they utilise both the available natural resources and the environment, and how they manage conflicting dynamics (Asprone and Manfredi, 2015). The complexity of urban centres (or cities), be it from the engineering perspective or the sustainability perspective, has been cardinal to the demand for the application of global strategies in their development (ibid; Parnreiter et al., 2010). For example Asprone and Manfredi (2015:100) demonstrated that global cities are interconnected with other cities; and that intra-city connectivity caters for issues to do with production, the environment, lifelines, infrastructure and communities, to mention but a few (Figure 2-1).

Swyngedouw and Kaïka (2003) have argued that the application of the glocal concept to urban centre developments has been a reality for over two decades. And Asprone and Manfredi (2015) note that governments and city authorities around the world have been working to attract investment through various urban regeneration programmes, with the view of creating sustainable urban centres. However, Swyngedouw and Kaïka (2003:5) also observe that as a city pursues unfettered activities and desires, it has to deal with the powers, dangers, oppression, domination, and exclusion factors that are associated with globalisation as a business concept. This implies that on the one hand, urban centre development could be based on a business model that is driven by the emancipation of stakeholders, yet on the other, it has to acknowledge the reality of disempowerment by other stakeholders (ibid). In respect of such emancipation or disempowerment, sustainable urban development recognises the crucial role played by urban planners, designers, social engineers, and architects, all of whom assume the role of mediator, dealing with social, political, economic, cultural, aesthetic, and religious factors that can influence the harmony of the urban area (Swyngedouw and Kaïka, 2003:5).
2.5.1 Global Cities and their Influence on Global Urban Development Agenda

According to Parnreiter et al. (2010:49), the globalisation of urban centre developments or city circles starts with the concept of ‘value’ and how this is created in one place and then transferred in the form of a global commodity from one place to the other through a complex chain. They argue that the process of transferring value from one place to the other creates uneven relationships between core and periphery activities that are organised, sustained, and controlled by an elite group of stakeholders (ibid). Value can only be transferred if there is a structured governance in place that can promote global production chains and networks (ibid), as was demonstrated by Asprone and Manfredi (2015) in Figure 2-2, meaning that governance – or the authority and power structures of a city - can influence how finance, materials, and human resources are allocated to the
It is, therefore, believed that globalisation begins with the economic needs that can spring from urban city developments supported by the world economy, as has been the case with all global cities over the last decades (ibid). This implies that if a city is not developed, it cannot be within the node of global cities, and would be deprived of the benefits of the global city network that controls the flow of resources, production, human resources as well as the general benefits from the global market (Parnreiter et al., 2010:49).

A good example of the network of global cities has been London, Tokyo, and New York, to mention but a few. Other examples of cities that adopted a glocal approach to development with “globalisation as a business strategy” are Mexico City, and Santiago, both of which, as observed by Parnreiter et al. (2010:51-52), started by (i) integrating their economies with the global economy, (ii) establishing a governance structure that that allowed them to be managed and controlled from the capital cities, and (iii) linking their production capacities by allowing the flows of producer services, capital, information, and the like. These three steps saw a deeper integration of both Mexico City and Santiago with the global economies of, for instance, China, the European Union, and the United States of America (ibid). The end result was a massive development of these two cities into a network of global cities that did not only improve the economic performance of Mexico City and Santiago, but also enabled their annual value of exports to grow, and facilitated a complete change in the structure of the two cities (Parnreiter et al., 2010:52).

2.5.2 Glocal and Urban Development
While the process of creating global cities through globalisation have been taking place, there have been concerns about the destructive consequences on people, livelihoods, communities, and the environment (Swyngedouw and Kaïka, 2003). Indeed, there is a belief that as the wind of globalisation moves to influence urban development, it creates aesthetic, technical and managerial practices that can fragment society because these practices can be contradictory, explosive to the cultural, economic, and political forces within the territory in which they are being applied (Swyngedouw and Kaïka 2003:6). However, the existence of any form of disruption or fragmentation is not necessarily related to the physical element of urban development alone, but rather to the new global conditions which have to be infused with urbanisation. This, in itself creates a differentiation at some level but also causes deep fragmentation because global cities rely
on internationalisation, and globalisation implies the imposition of standardised commodity culture on a new urban centre (ibid; Swyngedouw, 2004).

In addition, Swyngedouw and Kaïka (2003:6) have argued that the manner in which the strategy of globalisation is implemented in global cities has resulted in the creation of tensions between local and regional cultures. This occurs because of the growing imposition of inter and intra-regional solutions that are seen to exacerbate fragmentation, pulverisation and the proliferation of bodily, local, regional, and national identities in many aspects of lives such as production, consumption, and market-driven cultures that could be out of synchronisation with the recipient city (ibid; Swyngedouw, 2004). London provides an example which has undergone various economic, social, and political re-territorialisations under successive government policies because the city is one with vast global networks (Swyngedouw, 2004). Economics, societal issues, political issues, and human-related issues such as immigration, have resulted in fragmentation of the city leading to conclusions that the application of the globalisation concept brings challenges at the local scene (Swyngedouw and Kaïka 2003:10). Some view London as a cosmopolitan city which is globally linked and highly competitive due to the application of the glocal concept, while others believe it to be a ruined city due to the fragmentation of the fabric of the city that is impacted upon negatively in consequence of the application of glocal concept (ibid). Part of the fragmentation of the ‘glocal’ London has resulted from the massive changes in technology, spatial planning, and the disempowerment of many of its stakeholders at the same time as the empowerment of those connected with international capital (Swyngedouw and Kaïka 2003:12). This implies that there is a perception that the process of globalisation, when applied to urban development is being trumpeted by the global elite; and that they are introducing a new world-order of prosperity and growth. This new world order is vilified by others who are negatively affected by the introduction of new technologies, communication, and movements, and by the power or authority commanded by those connected with global sources of capital (Swyngedouw and Kaïka 2003:13). It can be concluded that in the glocal-driven urbanity, there is a high perception of injustice brought about by the fragmentation of the economic, political, social, and cultural terrain.
2.5.3 Globalisation: A Business Concept Applied to Territories

Primarily, the application of globalisation to territories around the world is seen in the way it is linked to the business plans that influence municipality management, government and commerce, with the intention of ensuring a synergistic approach to urban development. Swyngedouw (2004) has observed that globalisation applied to urban development has tremendous political influence such that the political class must strategise on how to implement the urban development process, and assess the impact of globalisation on the local scene. He further argues that invoking globalisation has become a powerful political and economic ideology that can be used to funnel capital and labour relationships from the powerful class to the relative class positions (Swyngedouw 2004:30). In practice, globalisation is a way of guaranteeing that capital for the territories concerned can be harnessed from the international community, meaning that it facilitates the breaking of geographical barriers by creating new boundaries for territories while dismantling old ones (ibid). For countries that have been largely conservative, as is the case with the KSA, the role of political structure in attracting participants in urban centre development is a fundamental issue.

This shows how the concept of glocal has been practised in other parts of the world and how such practice might easily be applied to the KSA with similar outcomes. On one hand, the government could be pushing for investment through the mechanism of globalisation, whilst simultaneously being aware of the reality that such move has the strong potential to fragment society within urban centres (Swyngedouw 2004:39; Pries, 2005). In addition, the political class have powerful influence in the means of setting in motion the branding of the urban centres so that there is the possibility to link such cities to a global network (Paganoni, 2012). As rightly pointed out by Swyngedouw (2004:42), there is an urgent need to consider the position of politics in this discussion, since its presence should not be ignored. Political activity governs the route by which globalisation enters the realm of city development, and the act of engaging stakeholders at the global and local stages has the potential to impact upon the way that the spatial, social, cultural, and economic structures of the city could turn out in the end.

2.5.4 Social, Cultural and Identity Formulation in Glocal Public Spaces

Generally, urban areas have to manage their spaces but the process of balancing all the competing needs for space can be difficult. On one hand, those with powerful political
authority could call upon global capital to formulate strategies for using spaces (Swyngedouw, 2004), but on the other, those interested in protecting the territorial integrity of urban spaces will focus on assessing the impact of tampering with urban spaces, even with global capital (Brenner, 1998). The geography of world capitalism is funnelled through globalisation and the impact of glocal is felt in its influence upon territories as and when the reconfiguration superimposes particular spatial scales in an urban area (Brenner, 1998). However, proponents of the globalisation of urban spaces have realised that influencing the mutation of the strategy to glocal has the potential to coordinate power and authority so as to strive to link the urban spaces to global city networks, and anticipate improved economic fortunes for the city (ibid). To this end, transnational corporations have been seen to use globalisation as a means of capturing capital that can be used in the formulation of global cities, as was the case for London, New York, Tokyo, and Santiago (Brenner 1998:4). In reality, capital has been secured and cities have been transformed, but the resultant fragmentation and the social, cultural, and political fallout has been difficult to manage, thereby creating dysfunctional urban spaces (ibid). Okano and Samson (2010) observe that the impact of globalisation on urban spaces does not only affect their strategic business interests but also fragments the public space, as shown in Figure 2-2. They examined the four dimensions of public space finding the following: (i) that public space is anchored on the nature and memories of a particular space as perceived by locals; (ii) that there is an element of multiple layering within the identity of urban space such that globalisation can exploit the various levels of identities; (iii) that there are public spaces that refuse to have multiple identities by enforcing a singular identity through nationalism, ethnicity or race; and (iv) that there are public spaces that require global governance in order to transcend the nationalist view of space so as to promote global identity.
With this in mind there is evidence of tensions between private and public spaces, and the issue of how space can be defined as having either a singular or multiple identities. A good example has been the singular identity of Matonge, an area where the Congolese people have carved out their identity within Brussels (Swyngedouw and Swyngedouw, 2009).

### 2.5.5 Manifestation of Glocal in Modern Urban Centre Development in the 21st Century

Having evaluated the benefits and challenges of globalisation as a business strategy, it becomes clear that the strategy has become glocal in those areas where there is the belief that international capital with local influence exists. Tripon (2015), for instance, argued that the European Union has embarked on the use of glocal as a concept to promote productivity and socio-ecological development so that people can be empowered. This shows that glocal is still being used as mechanism for empowering people economically as a first option, while considering other factors as secondary. However, glocal is seen to have significant impact on social and cultural beliefs for local people (Swyngedouw and Swyngedouw, 2009), such that the urban space can become difficult to manage by the
authorities because of the natural desire for and by people to have their own identity (Soldatova and Geer, 2013). The application of glocal as a concept is centred on business where the promotion of capital is placed high with a view to understanding the dynamics of localities or local impact and influence, thereby making it possible to analyse the fragmentation it causes in societies.

2.6 The Internationalisation of Architectural Practices

The relationship of globalisation to urban policy mobility having been examined, it is now crucial to ascertain how the concept of globalised architectural services operates at the international level, in order to assess how those services have been internationalised. Initially, it was observed that in the period leading up to and including the 1980s, a dramatic change in culture, economic processes and thinking was witnessed in Western countries including the UK. The post-modern condition was characterised as a human-centred world, where all aspects of economic progress take precedence. In addition, the global open-door trade policy in these countries enabled capital to flow, increased profit margins for many businesses, fostered the mobility of business and caused a global shift of thinking and cultures (Harvey, 1989; McNeill, 2009; Rapoport, 2015).

In order to benefit from a broader study of the impact of internationalisation on other industries, it is worth examining the Uppsala Internationalisation Model (UIM), developed by Johanson and Wiedersheim (1975), which reveals that firms other than those in the construction sector entering international markets also experience an ever-evolving learning curve and a progressive increase in their commitments abroad. The UIM acknowledges the importance of the open-door trade policy, also referred to as the economic model of globalisation. Once established in the market, a firm undergoes a gradual process of internationalisation which requires ‘psychic knowledge’ of the foreign state, including an understanding of its culture, language, politics and industry (Johanson and Vahlne, 1977; 1990).

The complexity of the factors in a foreign state may lead companies to take incremental steps in their exploitation of existing markets, using readily-available threshold capabilities, which they then consolidate (Prange and Verdier, 2011). The process can be slow and profits are often quite low, but this mode of internationalisation is deemed safe because large capital investments are not required. Another advantage of the approach is
that the company makes use of any solid skills and experience that it already possesses before entering unfamiliar territory.

Alternatively, internationalisation can take the form of ‘exploration’, the process by which a company develops innovative plans based upon a solid knowledge base, then becomes involved in clever experimental risk-taking on the international stage and often in the global sphere, which allows the process to be described as value-adding (Baum et al., 2000; Prange and Verdier, 2011). The rationale for this approach is that a company is able to identify innovations, real and/or perceived, which the local market may lack and which only international firms have the capacity to provide. According to Wu (2004), the influence of globalisation in the transplantation of city space is not independently imposed on any city; rather, it is a process that is imagined, pursued and exploited by city authorities because they envisage local growth. The emergence of Western architectural influence on international cityscapes such as that of Beijing is a deliberate policy of developers in an attempt to transplant cityscapes as a way of exploiting globalisation, thereby overcoming the constraints on the local market (ibid).

There is a drive to solicit support from the global development elite so that its prestige can be exploited to sell the development (Wu, 2004). This gives the impression that the transplantation of cityscapes is a way of ‘copying’ the perceived global image of urban centres and ‘pasting’ it onto a target location. In reality, this cannot be achieved without the engagement of architectural firms that have participated in such developments. In a capitalist economy and society in general, master-planned urban centres form part of a distinctive and style-driven demand from consumers, who in this instance are the project initiators; therefore, cityscapes are part of the advanced capitalist societies that signify post-modernism or currency (ibid).

The involvement of transnational organisations in transforming cityscapes is no longer limited to investment but extends to government policy transfer and the contextualisation of the local image, before and after transplanting the cityscape (Wu 2004). In this respect, architectural firms must address the undesirable and distorted features of urban growth such as leapfrog development, shortage of affordable housing, unregulated population growth, scattered settlements, social inequity, traffic jams, long travelling distances, drastic ecological problems and poor infrastructure, all of which often result from internationalisation and which have become political issues (Mandeli, 2008). It is
therefore important to assess the level of internationalisation through the perspective of ‘territory management’ while simultaneously gathering evidence of transnational urban policy mobility and evaluating the influence of regionalism in giving credibility to policy mobility.

2.6.1 Territory Management through Governance

McCann and Ward (2010:175) theorise that:

…the most useful and appropriate approach to understanding contemporary urban governance in the global context is to develop a conceptualisation that is equally sensitive to the role of relational and territorial geographies, of fixity and flow, of global contexts and place-specificities (and vice versa), of structural imperatives and embodied practices, in the production of cities.

This theory demonstrates that there is a constant dynamism in the policy world because policymakers understand that the currency of their policies is determined by the latest trends and ideals. In discovering these trends and ideals, policy actors such as professionals, politicians and consultants act as transfer agents, shuttling policies and knowledge around the world in many ways. These policies travel around the world and diffuse extremely rapidly, whilst actual policymaking is “intensely and fundamentally local, grounded, and territorial” (McCann and Ward, 2010:175); thus, how urban policy is relational is dictated by the “historical-geographical circumstances of that city and its relationship with other regional and national forms of decision-making” (ibid:176). A key reason is that the process through which policies are disembedded and re-embedded into new political, economic and social contexts and relations forms a crucial element of policy transfer (Cook, 2008). Moreover, policies are rarely transferred if they are perceived to be inadequate and/or potentially unsuccessful, so the process of policy transfer should not be seen as light, but rather as a “processual and contingent disembedding, mobilisation and re-embedding of policies” (Cook, 2008:76).

Thus, if copied, those features of a city could better serve another city with possible connected attributes. McCann and Ward (2010:176) note, however, that if the territory in which the policy is to be applied after transfer requires heavy reliance on sociocultural and political-economic theories, such as capitalism and urbanisation, “more analysis is needed on how – through what practices, where, when, and by whom – urban policies are produced in a global-relational context, are transferred and reproduced from place to
place, and are negotiated politically in various locations”. The theories underpinning the explanations of the actual urban policy mobility process are complex, because many factors are at play. However, oversimplification of the process could lead to weaknesses in the eventual implementation of the policy. As a result, McCann and Ward (2010) believe that governments resort to using policy mobility over traditional policy transfer because policy mobility has the capacity to promote inclusiveness in the process, allowing a review of the interests of stakeholders from the onset.

It could therefore be argued that political and economic activities are no longer restricted to any country or continent, as wealth, knowledge and people travel across the globe (Ritzer, 2004; Taşan-Kok, 2007; Johanson and Vahlne, 2009; Salama, 2013). The world’s borders are ever more permeable, leading to the development of global brands, global trade and global culture (Gordon, 1999). This globalisation has drastically changed the economic nature of the world in which we live. The movement of people, wealth and business facilitated by phenomenal technological advances in information, transport and communication has contributed to the process (Held et al., 1999; Harvey, 1990; Held and McGrew, 2007; Ritzer, 2004; Taşan-Kok, 2007; Salama, 2013). These factors have promoted dynamism in urban territory and in how it can be governed. Hence, the governance of urban territory can dictate how internationalisation is implemented.

2.6.2 Evidence of Transnational Urban Policy Mobility

Traditional cities have undergone cycles of development over many years, and as recently as the 1970s, the centres of many great cities in the Middle East, especially their inner cores, were in a state of disrepair and physical decay that could have resulted in social and economic turmoil. However, the 21st century has seen the re-emergence of these cities as the strategic locations of a wide range of activities and dynamics (Sassen, 2009). Urban developers have modelled successful cities to see if they could learn from them. Crot (2010) explored the processes undergone by international urban policies, manifested in the urban planning of countries such as Spain, Brazil and Argentina from 1920s to present, and found that whilst the ‘relocating’ policies were well planned, the policy transfers did not produce the same remarkable results as those internationally acclaimed experiments. Thus, international policy transfer failed to deliver the anticipated results, either through an unresponsive image caused by developments or because the economic, political, social and cultural spin-offs were very limited. Crot (2010) also found that
although some institutions translated policies into design, implementation and circulation of best practices, the results were not as expected. Furthermore, there was a unidirectional influence of policies from multilateral organisations as well as the “dialectical multilateralism that provides the contextual framework for institutional policy transfers” (Crot, 2010:120). The process is seen to have developed and in return enhanced the opportunities for local policymakers to propose further development as a means of addressing issues regarding the impact on local urban development (ibid).

According to Nasr and Volait (2003), Crot (2010) and Sager (2011), urban planning policies and practice have been some of the most widely traded on the world market, creating a new paradigm in urban centre development. However, because of the complexity and variety of the socioeconomic, political and cultural contexts of host localities, urban policies were deemed complex, making the trans-nationalisation of such policies difficult to implement. Observers of urban policies might conclude that policy mobility could produce scenarios where the localisation and implementation of the process was cumbersome. To mitigate the negative effects of policy mobilisation, Crot (2010:121) suggests the use of a detailed review of local conditions with a view to evaluating the “institutional fit between imported solutions and host institutional environments”, confirming the importance of institutions from the policy source as well as locally. Even if international firms are involved, they tend to be engaged at the organisational level, whereas their impact can be at the industrial level. This requires institutions of varying characteristics and purpose, located in different parts of the world, to work synchronically to implement policy mobility. Thus, a focus on institutions allows the reviewing of administrative and legal variables and of the impact on both host and source countries.

Given the high intensity and speed with which concepts travel, it is not possible to pinpoint the impact of policy mobility on urban centre development initiatives, or how professionals practise urban design and management (Tait and Jensen, 2007). However, it is possible to assess how ideas are translated into new spatial settings by considering the importance of actor networks, as actors and their networks have been instrumental in the implementation of policy mobility (ibid). Mostly through invitations to tender, key international stakeholders are drawn into the new environment, bringing with them new policies. This calls for a critical appraisal of the role played by policy transfer agents, of the trans-regional transportation of policies and the resulting change.
2.6.3 Regionalism and its Influence on Urban Modernisation

According to Sassen (2005:13), “the power of global economics has opened national territories to foreign finance, products, ideas, and people”; this has led to interconnectedness between cities through “networks that bind cities into a new kind of imperial order fostered to serve the needs of capital”. The network of cities at regional level is more pronounced, as Ju et al. (2011) emphasise in their study of the planning for Petaling Jaya in Malaysia, where they observed the strong influence of regionalism on town planning. They coin the term ‘contextual modernisation’ to denote the regional influence on town planning, asserting that whilst the base planning system adopted was derived from British town planning principles, a new regional character was also instilled through the use of local technologies and adherence to social conditions. For example, the planning for Kelena Jaya, as shown in Figure 2.3, allocates land for various elements of a neighbourhood. A benchmark to indicate best practice in the planning process would be lacking in the absence of regionalism; this demonstrates that the level of regional development efforts can influence urban modernisation, which can then affect other regional hubs directly or indirectly.

Figure 2-3: Map of Kelena Jaya (Source: Ju et al., 2011:96)
Furthermore, as cities and regions develop, urban design plays a pivotal role in changing their appearance. Lang (2009) argues that the ultimate goal of urban design is to ensure that development has a unified goal; however, in the last four decades, the approach to urban development has been characteristically changed beyond recognition due to the engagement of multinational professional organisations that operate on behalf of their clients. Thus, developers, as well as municipalities, have vested interests in the development process.

Lang (2009:7) asserts that depending on locational factors, most developments have a “degree of homogeneity about them and pay little heed to local climatic conditions, ways of life and aesthetic values”. He attributes this trend largely to the impact of globalisation – a political, economic and cultural phenomenon which has fuelled the engagement of international firms in a supranational society and has resulted in regional networks linking cities (ibid). Lang bases his argument on the claim that the wealthy have exerted undue pressure on urban development, as evidenced by the fact that a small number of architectural firms were responsible for executing a large number of projects as a result of their highly successful record of “fulfilling their function of serving the financial and symbolic ends of international global markets … [w]hile municipal authorities strive for international attention and architects desir[e] international recognition” (Lang, 2009:7).

The conclusion drawn here is centred on the need for a “consumer oriented codification of culture and place” (ibid). Hence, designers have to regard their buildings as products that could be tailor-made, with high quality designs, similar to cars; however, as the agenda for urban development focuses on functional attributes, there is a possibility that they could lose traditional ambience (ibid).

Major international organisations involved in development around the world wish to be linked to the symbolic aesthetic of contemporaneity (Lang, 2009). The key concern here is centred around government officials, municipalities and the capitalist class of the local citizenry, who are equally seen to drive the development for “prestigious, fashionable and modern in appearance projects however inappropriate it may be to local climate, ways of life or aesthetic traditions [such as the] Lujiazui district of Shanghai” (Lang, 2009:8).
Apart from designing high quality buildings, there has been a paradigm shift in architectural practice, whereby urban centres are designed to reflect efficiency and ecological friendliness. According to Lang (2009:14):

…neo-functional urban design offers more than the modernists’ functional model. A functional city is more than one in which transportation links are efficient. It is one that satisfies well enough the full range of needs and aspirations of its stakeholders and is robust enough to undergo change as conditions change. An ecological approach is one that deals with the everyday lives of people and the workings of the biological environment.

The fact that global firms have been involved in the design of prestigious buildings clearly has an impact on the overall urban design, and there must be some means of questioning the impact of such design on the overall efficiency of urban centres as well as on the environmental standing of the developments. In this respect, Lang (2009) has complained that international designers fail to capture the desirable and culturally-acceptable behaviours in particular locations, implying that both current and desired behaviour should be catered for. However, this is extremely difficult because establishing the cultural values of an urban area can be challenging. In addition, it is hard to know how urban designs can manage to connect the people involved with their environment, because of the varied nature of individuals’ perceptions of the environment.

Lang (2009:14) argues that if a city is to create a symbol, the qualities of “urban designs should be considered vital in establishing a sense of belonging to a place and its inhabitants who take pride in it”, as reflected by the Burj Khalifa in Dubai. However, such a symbolic design may have to deal with the aesthetic qualities as well as the other aspects of the design, such as the commercial and technical elements (Lang, 2009). In trying to achieve such designs, emphasis should be placed on ensuring that the design fits within the ‘sense of place’, either through the adoption of policies and guidelines that could allow for future aesthetic effects of the new design, or through general principles that are to useful to the whole process (Lang, 2009:14). Hence, the modernisation of urban centres has focused on the principle of globalisation and international architectural firms have played a vital role in this. However, whilst the engagement of international firms can result in the design and production of a symbolic building of high quality, the building may not necessarily have the innovative attributes needed for an efficient and ecologically viable urban design.
2.7 The Internationalisation of Spatial Urban Centres

The key drivers of the internationalisation of architectural practice in the Middle East in the last three decades have been the utilisation of city spaces and infrastructure development. This section therefore examines the relationship of internationalisation to urban space, before turning to competition for investors in that space and their transformative role. Amin (2002) addresses the impact of globalisation on spatiality planning, which is understood as the way the theory of globalisation relates to the space, position, size and shape of urban centres. Amin argues that when globalisation is considered from the spatiality perspective, the meanings of place and space are linked to world-level forces such as the influence of transnational corporations and banks, or the ideologies of planning at the international level. In addition, there has been an element of global connectivity, which is facilitated through “people, goods, ideas, and information aided by rapid transport and communications technologies” (Amin, 2002:385), which implies that globalisation is a vehicle through which a transformation in the spatial organisation of social relations and transactions has been taking place.

However, critics have said that spaces are being transplanted from one city to another and that this process of transplanting cityscapes using globalisation has not resolved local needs to maintain a good life and good image (Wu, 2004). Moreover, there is no guarantee that international architectural firms will provide good urban centre life, because the concept of ‘good life’ is ill-defined; at best, it is a communist or utopian concept. Local constraints, such as material deprivation in terms of housing consumption and polarised labour markets, are issues likely to impact on the process (ibid). Peck and Theodore (2010) warn that the issue of policy transfer in urban centre development has been oversimplified, because policy transfer does not accommodate the complexity of the processes. The reality is that policies are mobile and that they mutate, mainly because policymaking processes are dynamic and are “conceived in terms of reproduction across and between sites of innovation/emulation, as opposed to perceived inter-jurisdictional replication” (Peck and Theodore, 2010:169). This implies that the process of analysing policy mobility should not be centred on transfer but should critically review the “sociological, anthropological or institutional frames of analysis” which acknowledge the complexity of policy mobility (ibid).
What is seen, therefore, is that global architects do not necessarily address local constraints; they simply authenticate their competitive advantage by mimicking Western design motifs and developing buildings by employing global architects (Wu, 2004). This demonstrates that adopting Western policies through transplanting cityscapes is a socially constructed process whose vision is to create a consumer-driven image of the urban centre. There is, however, variability in the velocity, intensity and impact of these transcontinental or inter-regional flows and networks of activity and interaction, and in the way power is exercised within the global context (Amin, 2002). The power exercised by different players in the spatial flow of ideas between regions can be seen as a function of the social processes, considering the influence of societal norms on the transactional relations, which is extremely significant when it comes to the choices made regarding policy mobility. Thus, globalisation acts as a conduit through which national actors meet, interact and influence each other through mutually constituted connectivity. Moreover, this connectivity has an influence on how a place is conceptualised and used (ibid).

In a process of optimising diffusion and replacing ineffective policies, Peck and Theodore (2010) propose five recurring features of spatial policy mobility:

(i) Mobility is perceived as socially constructed.

It has been argued that policy formulation and transformation follow a socially constructed process where fields of power play a pivotal role in managing the politics in policy mobility that could otherwise not be managed well through policy transfer (Peck and Theodore, 2010). The realisation that social contexts are crucial in policy mobility allows the introduction of other key factors such as political power, cultural views and technical competencies. It provides a wider perspective on mobility that allows connectivity between policy actors and the sources of policies through the engagement of advocates and/or opponents of policy mobility (ibid).

(ii) Policy actors are not conceptualised as lone learners.

In reality, policy actors are “embodied members of epistemic, expert, and practice communities”, and as a result they are “sociologically complex actors with dynamic positions in organisations and political fields, and their identities and professional trajectories are constantly linked with the policies that they espouse” (Peck and Theodore, 2010:170). Thus, there is no clear way in which actors can be separated
from the policies they are working on, because their actions have an impact on their careers or professional lives.

(iii) Mobile policies rarely travel as a complete package.

It is not possible for policies to move as a whole package. Policies are mobilised piecemeal and as a result there is a constant process of policymaking in an environment where there is increased mobility, given that new policies are developed in a comparative frame (Peck and Theodore, 2010).

(iv) The policymaking process is not so simple that it can be emulated and linearly replicated.

The world for which policies have to be developed is becoming increasingly complex, uncertain and unpredictable. Citizens are now better informed, have increasing expectations and are demanding better services tailored to their individual needs. This has generated key policies around social needs such as housing and health, which are now seen as interwoven; they cannot be tackled effectively by individual actors. Hence, each policy needs careful planning. Furthermore, the policymaking process could be replicated only with difficulty, because it is non-linear and could mutate or morph (Peck and Theodore, 2010).

(v) Policies are made in a multidimensional space.

Peck and Theodore (2010) assert that

…the spatiality of policymaking is not flattened into some almost-featureless and inert plane or transaction space, marked only with jurisdictional boundaries, across which transfers occur, but in terms of a three-dimensional mosaic of increasingly reflexive forms of governance, shaped by multi-directional forms of cross-scalar and inter-local policy mobility (ibid:170).

This implies that the mobility of policies takes place where there is an unlimited impact on the spatial elements of cities, such that the impact could relate to many aspects of urban development other than the city architecture. Therefore,
…transplanting cityscapes can be understood as part of globalisation, namely the globalisation of culture where globalisation is frequently understood as an imposed process through which the core transforms the periphery. Such a hegemonic convergence is typically known as ‘Americanisation’ (Wu, 2004:229).

2.7.1 Globally Induced Competition for Investors in Spatial Urban Centres

Similar to the competition faced by international firms, cities must also compete to attract investment by displaying global connectivity as well as a smart corporate, commercial and educational environment capable of meeting this need. In addition, many cities seek to internationalise and market their services or niche areas of expertise to boost the influx of wealth from countries worldwide (Clark and Moonen, 2010). To this end, they seek to hire star architects who will enhance their international image by dramatically modernising the city skyline (McNeill, 2009; Rapoport, 2015). Such clients view these architects as best able to deliver modern, global designs and as having the best chance of achieving the desired results.

Furthermore, modern cities can be conceptualised as networks both of people and of non-human objects including the infrastructure and technological capabilities which permit these cities to function (Amin and Thrift, 2002; Latham, 2003). Alternatively, the city can be treated as a machine, when one takes into account the infrastructure and technical skills required for its functioning. Thus, individuals have come to hold certain expectations of the capabilities of a global city, which include coherent logistical services and transportation (Amin and Thrift, 2002; Latham, 2003).

If their citizens are ill-equipped or too few in number to meet the ever-growing knowledge-related demands of a modern economy, cities must rely upon talented immigrants. An example of such reliance on international professionals would be Dubai, where natives lack the necessary skills to implement robust internationalisation (Clark and Moonen, 2010; Guggenheim and Söderstörm, 2010; Ng and Xu, 2014). Globally, a number of cities, particularly those that came relatively late to internationalisation, such as those in the Gulf States, offer very low income tax rates, helping to attract skilled workers from abroad.
In addition, cities endeavour to provide appropriate centrally-located recreational activities (e.g. museums, international cuisine, and cinemas) to demonstrate their modernity. Many have used construction megaprojects to develop lucrative business centres with global-style architecture, with the aim of enhancing their internationalisation image (Acuto, 2010; Clark and Moonen, 2010; Ponzini, 2011; Ng and Xu, 2014). In line with these trends, architectural investment can be used to re-brand and re-style cities and can help ensure international recognition. Cities can re-brand by hosting huge international events, such as the Beijing 2008 Olympics, thereby ensuring a good public image, displaying modernity and obtaining consistently positive media coverage, as a means of facilitating their internationalisation (Shen and Yang, 2011; Ren, 2008; McCann, 2009). As mentioned, such international recognition is imperative for attracting investors and a skilled foreign workforce. Although architectural investment alone is insufficient to enable internationalisation, it acts as a tool to revamp a city’s image and can make a loud global statement (McCann, 2009; Guggenheim and Söderstörm, 2010; Ng and Xu, 2014; Rapaport, 2014).

2.7.2 Actors Spearheading Urban Transformation

According to Sklair (2005a), transnational capitalists are considered key actors in the production and marketing of iconic buildings and spaces in globalised cities; they understand and maximise the business potential of iconic architecture. Iconic buildings and spaces have two main attributes: they are expected to be famous from the outset, having been designed by renowned architects, and they have special symbolic and/or aesthetic significance (Sklair 2005a). Whether a building looks iconic or not is debatable; it is the name of the designer that plays the crucial role in establishing the level of iconicity. Furthermore, the interpretation of ‘symbolic’ buildings or the symbolism itself could be nurtured not by architects alone, but by influential actors, both individual and institutional, through whom project development is implemented. These actors may be local or transnational, using the vehicle of globalisation to implement their agendas. To this effect, Sklair (2005) observes that as the actors follow their localising or globalising agendas, they tend to introduce social, political, economic and cultural influences in spaces that eventually become global consumers of goods, energy and finances, amongst many other things.

Among such influential actors, Sklair (2005) includes politicians and bureaucrats, who tend to concentrate on administrative powers as well as taking responsibility to decide
who does what, and what gets built where. This is a crucial factor in the process of urban policy mobilisation because the key stakeholders, such as government administrators, may not be competent at the time of decision-making, but their responsibility may dictate the choices for urban development. Actors are also responsible for ensuring that global professionals are engaged to deliver the requirements of the administrative drive (Sklair, 2005). Lastly, the developed process could then attract stakeholders with media attributes to advertise the process. While adherence to such a process does not guarantee a good outcome for the transnational capital investors, it may alleviate uncertainty about urban city development.

Another trend observed is that international construction companies are now actively engaged in the global search for projects. According to Ahmed (2011), the process of internationalisation through global business links has helped international construction companies to work with international architectural firms to deliver iconic projects. For instance, when global architectural firms design signature buildings (McNeill, 2006; Charney, 2007), they tend to rely on experienced builders with international track records to execute the project. Major construction firms specialise not only in the production of large buildings, but also in the major redevelopment of cities (Faulconbridge, 2009). They are able to deliver on megaprojects, thus contributing to the rebranding of cities as modern economic hubs (Sklair, 2006; Ren, 2008). However, it has been observed that the role of these international contractors as actors in the process of internationalisation has not been fully examined in the literature on architectural practice. It could be argued that if there were enough data on the concentration of international construction firms in a particular location and at a particular time, one could assess the importance of the construction sector in driving internationalisation.

2.8 Architecture as an Instrument for the Internationalisation of Cities
The modernisation of urban development is characterised not only by technical-scientific intervention and a singular form of capital accumulation, but also by a combination of certain societal values with local organisational forms and a specific spatiotemporal structure. As previously stated, global-style modern architecture can be used as a tool to reinvent and revamp a city’s landscape and present a new image of prosperity and
modernity in the global arena, aiding the influx of capital investment essential for the successful internationalisation of cities (Clark and Moonen, 2010). The global drive for iconic architecture, renowned amongst professional architects and attractive to tourists, has both socio-cultural and politico-economic aspects which strongly influence design (Sklair, 2005; McNeill, 2009; Rapoport, 2015). It is therefore arguable that international architectural practice is a vehicle to signify power within organisations and among leaders who orchestrate and promote the city’s new image (Kaika, 2010; Acuto, 2010). With the drive for revolution, modernity, iconicity and global displays in mind, world-renowned designers are the preferred choice for moulding cities (Kaika, 2010; Acuto, 2010; Guggenheim and Söderstörm, 2010; Rapoport, 2015). Architects must create designs that suit the clientele profile, with quality and prestige as the basic goals (Faulconbridge, 2009). Two main areas of focus when examining architecture as an instrument for internationalisation are branding and iconicity.

2.8.1 Branding of Architectural Services at the International Level

Ren (2008) argues that international architectural services have been heavily branded under the guise of globalisation and the meta-policies of production, marketing and consumption of iconic buildings. However, despite the influence of transnational architectural services being heavily linked to urban centre development, it is difficult to evaluate their impact on urban centre development (ibid). Thus, the branding of transnational architectural services could be either smooth or erratic in its implementation, and it may ultimately result in negative outcomes, depending on the angle from which it is viewed.

However, Douglas et al. (2001) state the main aim of international architects has been to create a competitive edge by using branding to increase their eventual international market share. Consequently, there has been a strategic use of local, regional and international media to ensure that they could participate in the development of publicised iconic buildings as a means to deliver their competitive business strategy (ibid). Factors such as market dynamics, influenced by socioeconomic, political and consumer mobility and by market infrastructure, are some of the issues that global architectural firms must address (ibid). Whether a firm decides to embrace locally and culturally sensitive designs may depend on its perception of the level of culture required in the design or the process through which it has been appointed (ibid).
The main theme of branding architectural services has been amplified through globalisation; as a result, international firms with the capacity to take advantage of the global demand for iconic buildings could eventually do better. The expansion of global trade and the developments in information and communication technologies have been key motivations for architectural firms to abandon their locational restrictions in business (Douglas et al., 2001). Ultimately, architectural firms have been using globalisation as a means to become involved in international or cross-border projects, either because there has been a market for their services, because they were perceived to have demonstrated their commitment towards environmental management, or because there was a political and cultural need to change their approach to business (Knox and Taylor, 2005).

In addition to the commitment to environmental management demonstrated by these firms, Knox and Taylor (2005) list three other factors as having enabled their engagement in the transnational architectural business: (i) instances when the client has driven the process of engaging international firms to create an internationally-recognisable image (branding); (ii) these firms’ provision of a seamless service because they have no ‘boundary walls’; (iii) these firms’ ability to take advantage of global presence and cement it with local knowhow, thereby translating worldwide services to a local context. The key issue lies in the identification and use of a network of practices that can serve the clients. However, the uptake of transnational jobs commences with the search for business; thereafter, other political, social and cultural factors may be useful in the consolidation of the business positions. Robinson (2011) supports this view by stating that the understanding of city development on the international scene requires engagement with a greater diversity of urban experience. He explains the transformation of cities around the globe in terms of “governmental restructuring” using a “wide range of political processes” and other developmental processes that he collectively labels “neoliberalism” (Robinson, 2011:1087). This implies that as the branding of architectural services takes place, a more liberalised environment is required, where longstanding architectural “beliefs and traditions” can be abandoned (Romanczyk, 2012:127). This challenges urban development theory, because it is difficult to pinpoint the precise factors that one city uses at any point in time. Those in favour of liberalism will likely adopt a myriad of global and local factors, suggesting that neoliberalism cannot be tied to policy mobility (Robinson, 2011).
2.8.2 Iconic Architecture as a Vehicle for Urban Redevelopment

By definition, iconic architecture refers to “buildings and/or spaces that are famous, and that have distinctive symbolic and aesthetic significance” (Sklair and Gherardi, 2012:57). Historically, iconic architecture was “mainly driven by those who controlled state and/or religious institutions”; whereas in the 21st century the “dominant forms of architectural iconicity are increasingly driven by those who own and control the corporate sector” (ibid).

Centrally-located skyscrapers are the signature style of global architecture firms in cities throughout the world (McNeill, 2006; Charney, 2007; Faulconbridge, 2009). A key reason is the increase in the global mobility of urban development policies propagated by the transnational capitalist class (Sklair and Gherardi, 2012). Worldwide, the origins, structure, dynamics and significance of iconicity in architecture have been questioned; for Sklair and Gherardi (2012), the main reason for the increase in such architecture is the influence of the transnational capitalist class on the demand for iconic buildings globally; these capitalists are able to engage other stakeholders to ensure that their demands are met. Thus, policies on iconic architecture are driven by the implementation of globalisation theory in the built environment, where the sociological framework is considered a way of implementing global capitalist interests.

Further, Sklair and Gherardi (2012) consider iconicity to be a recent phenomenon, superseding “monumentality”, which they describe as “a quality in architecture which does not necessarily have to do with size, but with intensity of expression” (ibid:58). However, global trends in business have led iconicity in architecture to become a hegemonic phenomenon at the international level (ibid). The role of international architectural corporations in the globalisation of iconic architectural buildings is now seen as crucial, because the transnational capitalist class uses global firms as it takes advantage of the neoliberalism on the global market. For example, Sklair and Gherardi (2012) argue that developers believe international firms bring them the capability to engage celebrated or large global architectural firms in the construction of these iconic structures, which in turn could transform their fortunes on the local market. As such, the role of iconicity in the branding of architectural services is an important vehicle for policy mobility in urban development.
2.9 Regional Internationalisation and the Kingdom of Saudi Arabia

This section turns to the internationalisation of urban policies as it affects Saudi Arabia and its neighbours in the Gulf region, offering some comparisons with other parts of the world. From the policy mobility perspective, Al-Naim (2008) sees Saudi Arabian society as confusing Western identity with modernisation. The added contextual dimension of the depth of religious feeling within Saudi society results in that society’s resistance to the social change attributable to the modernisation or Westernisation of the physical environment (ibid). Thus, although urban policies can be mobile, society may have core values that it cannot shed as rapidly as the process of urban mobility. The development of the physical environment in urban centres may not be the method by which to achieve the total mobility of urban policies. Al-Naim (2008) adds that cultural values need to play a critical role in the assessment of the internal social mechanism capable of absorbing emerging mobile policies. While these may be seen as providing a sense of continuity with existing architecture, mobile urban policies can create avenues to promote social cohesion and the development of a local architectural identity. According to Haggag (2004), Arabian cities have been on the receiving end of dramatic external interventions and Western influences; the current pattern of urban spaces in these cities results from a combination of factors such as colonisation, cultural imperialism and demand for rapid modernisation. International firms have latched onto these factors as they seek to participate in urban development across the Arab world, spearheading the adoption of international cultures, concepts and planning ideologies (Haggag 2004). Thus, globalisation is but a strategy that has been used in different guises over the years, from temporary planning to urban planning codes.

Haggag (2004) argues that throughout the Gulf region, urban development has been influenced and driven by political, economic, social and environmental factors. Therefore, developers, professionals, contractors, suppliers and financiers have all relied on a set of factors pertinent to their interest in urban centre development. However, a common result has been that the most recent urban developments have diverged from traditional and vernacular architecture. The outcome is conflict between those in favour of vernacular architecture and those who support Western urban forms (ibid).

Also of importance is the role of policy dynamics in linking star architects to projects in the Gulf. The role of ‘star architecture’ in regenerating urban spaces with a view to projecting a positive and communicative image of urban areas has been heavily contested.
Taking economic theory as a driver of urban development, Ponzini (2011) believes that a well-known architect’s name gives a city a competitive advantage in many ways, because the image of the city is created by urban developments that are centred on signature architecture. Ponzini (2011) suggests that developers are biased towards the ‘image’ while neglecting other important factors such as detailed consideration of the urban settings, the size of the city and its role in the global market. Consequently, cities fail to achieve their goals, especially those linked to the economic theory of urban development, as developers do not always make a profit. In the event that the economic theory does not apply, urban centre developments have been propagated by the “significant use of the political and urban criticalities of planning” which could manifest themselves in the way an urban centre “collects branded architecture in a democratic vacuum” (Ponzini, 2011:251). Apart from strong political drivers, cultural attractors have triggered urban development in more recent times, especially due to the “spectacular artefacts and flamboyant performances of star architects” (ibid). Therefore, there is an argument that cultural drives within urban centres encourage the collection of “new pieces of architecture” as if they were “art works, sometimes without taking into account their urban meaning and contextual functions” (Ponzini, 2011:252). In turn, this creates a massive market gap, which may not be filled by local architectural provisions from the ‘reputation perspective’ as against the performance perspective. Even if local firms do have the capacity, their reputations may not satisfy the insatiable demand for the high profile international style of architecture. This has led to instances where renowned international architects are preferred to deliver iconic projects over their local counterparts, who are thus further disadvantaged.

2.9.1 Internationalisation Policy in the KSA

The internationalisation policy of the KSA is clearly evident in the global-style modernisation of its once-quiescent cities. One exemplary development is the major construction project sanctioned by the late King Abdullah bin Abdulaziz Al Saud, the Economic City. This enormous development is predicted to create a million jobs and four million homes. The Saudi government intends to incorporate science parks and knowledge-based technology, as well as health and educational centres, hoping to attract private sector investment (Espirito Santo Research, 2012). Such developments in the KSA are reminiscent of cities in China such as Shezan, which was developed on the site of a number of existing villages (O’Donnell, 2001; Ng and Xu, 2014). The Chinese
government controls economic development in Shezan, which has less than 30% of indigenous residents, having been largely populated with young skilled workers from elsewhere. Although the city has enjoyed economic success, there have been significant issues with increased competition for housing and jobs, as well as serious environmental damage: woodlands, croplands and wetlands have been cut back, whilst air and water are heavily polluted (Ng and Xu, 2014). Thus, it is of great concern that the major redevelopments in the KSA may cause irreversible damage to the environment and stand in the way of internationalisation. In future, places such as Shezan (Economic Vision, 2050) aim to adhere to strict sustainability criteria, to aid internationalisation (Ng and Xu, 2014).

Given to the conservative nature of Saudi society, the degree of internationalisation within its cities cannot go unnoticed. As already mentioned, the KSA is an ancient travel destination and a leading oil exporter, which endeavours to internationalise further through developments in multiple sectors such as education. Riyadh and other cities are world-leading destinations for business travellers (Saleh, 1998a). The KSA routinely uses world-renowned and award-winning architects, or architectural firms, for the design of its megaprojects, and examples of its iconic architecture are seen in the skyscrapers of central Riyadh, which house commercial offices, luxury hotels and malls, as well as the National Commercial Bank. The same applies to Jeddah, which is renowned as the cradle of Islamic banking. All of these factors aid internationalisation (Figure 2.4). There is also a growing number of luxury health resorts and hotels serving a market which is likely to continue growing in the coming years (Espirito Santo Research, 2012).

Being actively involved in international trade with China, the USA, South America, the UK, France and elsewhere, the KSA makes use of modern architecture and international architects to orchestrate the demand for grand designs as a means of communicating its financial stability to the world, with the aim of attracting international investors to base their assets in the country. Key to this drive is the development of the King Abdullah Financial District, which provides an appealing environment for international firms to locate their offices in Riyadh. It is hoped that when completed, the KAFD will project a modern image of the country and become an active and attractive urban space comprising financial institutions, residential and recreational areas, shops, restaurants, hotels, conference centres and sports facilities.
The KSA’s growing internationalisation has been a logical outcome of the discovery of oil, which was accompanied by increased international trade and foreign investments (Al-Hathloul and Mughal, 2004; Al-Hathloul and Edadan, 1995; Saleh, 1998; Saleh, 1998a).
The shift in national fortunes has brought about rapid urbanisation in the Kingdom’s major cities in response to the demand of 21st century urban centres. This process has paved the way for the development of new urban centres in response to Saudi Arabia’s status within the Gulf region. Using its oil wealth, the government has offered loans to potential investors for the development of new commercial centres (Al-Hathloul and Edadan, 1993).

Ponzini observes that an element of competition is evident among the Gulf States and among the constituent emirates of the United Arab Emirates (UAE), including Abu Dhabi and Dubai, to attract tourists with spending power to see their globally famous architectural wonders (Ponzini, 2011). These megaprojects, discussed in the following subsection, are commissioned by the state and orchestrated by international firms, usually American, in the expectation that they will secure long-term international investment and business. The KSA must also present its cities on the international stage as low-risk sites for investment; hence, it has been forced to compete with neighbouring countries and display its financial might by hiring world-renowned architectural firms to implement projects (Alatni et al., 2012). It is hoped that the development of urban centres will aid internationalisation, given their function as high-tech business and communication hubs, enhancing already lucrative links with the rest of the world (Lowry and McCann, 2011).

2.9.2 Internationalisation in the United Arab Emirates

Arabian cities traditionally comprise modest mud brick buildings, with the more iconic minarets of mosques at their heart (El Sheshtawy, 2008). However, in the wake of internationalisation and globalisation, many of these cities have undergone extreme makeovers to help ensure economic viability (Samarai and Qudah, 2007). Abu Dhabi, and particularly Dubai, are world-renowned for architectural megaprojects including skyscrapers, business districts and fabricated islands. With an economy built upon gas and oil reserves, the UAE has sought to diversify its economy by investing in the development of business centres and tourism facilities designed to cope with the global flows that are seen as the signature of any global city. The development of iconic structures in New York and London was in response to the demand for places with the capacity to serve existing global flows (Salama, 2013). In contrast, under the entrepreneurial stance adopted by the governments of the UAE, cities such as Dubai which seek to globalise have made conscious efforts to transform their urban form and create attractive urban hubs in the hope of attracting new global flows (Acuto, 2010).
A successful example of this is the Dubai International Financial Centre, which allows 100% foreign ownership and offers 0% tax rates on income and profits. Using its spectacular architecture, which includes breathtaking luxury hotels and malls, Dubai successfully competes with neighbours such as Turkey for tourists (Elsheshtawy 2008a; Acuto, 2010; Salama, 2013). It is not surprising that Dubai’s airport is now one of the busiest in the world, with tourism being a major source of capital flow and revenue (Salama, 2013). Other major sectors of development include real estate and construction, with extensive global investments coming from Arab billionaires, who since the 2001 attacks have felt less secure about investing in the West (Davis, 2013). Overall, it has been argued that the production of hubs has triggered massive capital flows from across the globe to Dubai. Although the recent global recession has also impinged upon Dubai and brought much of the rampant development to a halt (Acuto, 2010), the development of Dubai over the years has attracted significant numbers of expatriates and the consequent knowledge flow has turned Dubai into a truly global city (Salama, 2013). Thus, using its iconic, internationally designed architectural masterpieces, Dubai has successfully attained international hub status, attracting international business and skilled workers (Clark and Moonen, 2010; Acuto, 2010; Salama, 2013). In addition, despite the economic downturn, Dubai has continued to develop major infrastructural and transportation necessities (Acuto, 2010).

It has been argued that iconic developments and exclusive hubs communicate a sense of identity to residents (Sassen, 1999; Acuto, 2010). Although no specific laws are in place to create social divisions in Dubai, the rapid transformation and development of expensive urban centres have ultimately alienated large portions of society (Elsheshtawy, 2008; Acuto, 2010). Whilst a glitzy new Dubai has been created, the current ‘brand’ can be seen to lack depth, genuine culture and community (Saleh, 2001; Acuto, 2010). The iconicity accomplished is undeniable, with achievements often compared to the ‘Bilbao effect’, but more attention to social issues is urgently required in Dubai if true sustainability is to be achieved (Acuto, 2010). The city has been designed for transient ‘passing trade’ and not permanent residents who belong to communities.

There is a generally accepted notion that for tourists to form attachments with a given city, that city must communicate a particular meaning beyond mere symbolic power (towers, iconicity etc.). For example, Paris is considered the city of light and Milan the centre of fashion (Rykwert, 2000; Acuto, 2010). The rapid developments in Gulf cities
such as Dubai have failed to harness this concept, with consumerism being the only readily observed characteristic. The development of an international reputation as a centre for tourism and art often takes centuries to develop; consequently, the recent influx of visitors to the Gulf may not be sustainable (Ponzini, 2011).

Another of the United Arab Emirates that has invested heavily in urban centre developments as its internationalisation strategy Abu Dhabi, which aims for recognition as a world city and a lucrative destination by 2030. The Emirates, including Abu Dhabi, are also developing business legislation and processes to enhance international investor confidence. Financial investment in Abu Dhabi’s Mustafa Industrial Area has attracted huge sums of international investment and helped create employment in a wide range of industries (Clark and Moonen, 2010). Not surprisingly, Abu Dhabi and Dubai are now home to many international headquarters and global agencies (Wilson, 2010). Both emirates currently accommodate a large number of international skilled workers (50-75%). In contrast to Singapore, the internationalisation strategy for the future includes enhancing the technical skills and knowledge specialism of natives (Clark and Moonen, 2010). Abu Dhabi has also impressed the world by having developed the first city, Masdar City, with zero CO₂ emissions and the ability to generate its own electricity using modern technologies (Lau, 2012). However, it has been argued that only the wealthy can access Masdar City, thereby causing a social divide (Crot, 2013). Furthermore, whilst this development is thought to be a major step towards sustainable living, the true sustainability of Masdar City has also been questioned, given the immensity of its land use (Clark and Moonen, 2010; Ponzini, 2011).

In line with its internationalisation strategy of enhancing tourism, Abu Dhabi has also invested in the development of the Saadiyat islands, which are designed to accommodate a number of iconic buildings designed by world-class architects (Clark and Moonen, 2010), and in the Guggenheim and Louvre museums, designed by award-winning architects Frank Gehry and Jean Nouvel. Other international architects from Japan, the USA and the UK have also contributed to the design of arts and theatre complexes, university campuses and many tourist attractions. Thus, there is extensive evidence that using their financial muscle, the Emirates, in particular Dubai and Abu Dhabi, have employed architecture as part of their strategy for internationalisation (Clark and Moonen, 2010). City branding, image-making and real estate marketing are but a few of the goals of commissioning prestigious international architecture firms for major projects in the
Arab World, such as the Saadiyat Islands (Ponzini, 2011). In an increasingly knowledge-based global economy, cities use architecture to attract global retailers, consumers and skilled workers. Thus, ‘architectural art’ is often believed to be an investment, but in reality, possession of it frequently fails to bring the prosperity envisaged (Ponzini, 2011). The scenario in the Western world is different; political and economic motivations for megaprojects are routinely challenged by the public. However, in the UAE, the absence of democracy and the high degree of consumerism prevents the questioning of globally-designed megaprojects (Ponzini, 2011). Abu Dhabi, with its ultimate goal of increasing the diversity of its economy, has sought designs from international architects. Since 2005, new laws have come into force enhancing the rights of internationals to help attract investment. A major aspect of the 2030 Economic Vision is to diversify the economy with particular attention to tourism (Ponzini, 2011). Considering that the Urban Planning Council in Abu Dhabi is a relatively new organisation whose aim is to facilitate public-private dialogue whilst realising the government’s vision, it has been argued that this organisation lacks any real power and that ultimately, all decisions regarding vision and spending lie with the monarchy (Ponzini, 2011). Evidence suggests that this pursuit of economic diversification has already caused functional and accessible facilities to be replaced by highly exclusive tourism-orientated facilities such as Fantasy Island. In this process of mega-development, lower income businesses and consumers have been pushed out (Elsheshawy, 2008; Ponzini, 2011).

The major developments in Abu Dhabi include the CBD of Al Reem Island, designed to cater for businesses, retail and high-end residential apartments. With the aim of competing with other major tourism destinations, the tourism authority has used its capital to employ star architects and global firms for its luxury developments. In addition, collaboration on art programmes with countries such as France is thought to paint a new picture of modernity, which attracts tourism. The project was based upon a very “rosy analysis of the potential market” of successful cases such as Bilbao, leading to the belief that within the next five years Abu Dhabi can expect over a million visitors (Ponzini, 2011:256). Thus, the use of star architects and the development of spectacular desert dwellings with luxury tourism and art targets tourists with spending power. In contrast to other countries where numerous actors are involved in major urban developments, the actors with power in the UAE are very limited. Hence, most of the decisions regarding urban designs in Abu Dhabi have the inputs of Western consultants. Overall, the major
developments in Abu Dhabi aim to increase the value of the desert area and create the first opportunity to generate income from rent and tourism (Ponzini, 2011). Ultimately, this may cause a hike in land and rent prices, evident in other parts of the world, and lead to the spiralling of social problems (Ng and Xu, 2014; Soh and Yuen, 2011).

2.9.3 Projecting the Desired Image through Careful City Marketing

‘City marketing’, ‘civic boosting’ and ‘urban branding’ are just a few of the terms used to denote actions taken to promote and/or rebrand a city and to improve its competitiveness and performance as an outstandingly safe environment in which to travel, study, work, live and most importantly invest (McCann, 2009; Ashworth and Kavaratzis, 2009; Gulsrud et al., 2013). Entrepreneurial cities achieve this by hosting large international events such as the Olympics, by the marketing of heritage; in particular, iconic constructions are the means by which cities gain global attention (Kavaratzis, 2004; Riza et al., 2012; Gulsrud et al., 2013) (Figure 2.5).

Figure 2-5: Built form of cities as a marketing tool. Top left: Singapore, National Geographic website; Top right: Beijing, China Tourism website; Bottom left: King Abdullah Financial District website; Bottom right: Riyadh City (Source: HCDR, 2015).

The construction of outstanding buildings and cities is usually achieved through coalitions of central governments and public business actors whose aim is to reshape their cities in
order to attract more investment and to generate more income (Harvey, 1989; McCann, 2009; Acuto, 2010). Such coalitions usually require close relationships to be developed between politicians who desire to reap more tax and a second group, ‘rentiers’, encompassing all those who seek to make profit through construction, while the new urban form is further utilised to prudently manage the city’s image via websites, literature and the media (McCann, 2009). Such urban branding is a product of globalisation and a means by which cities display a particular part of themselves to the world, referred to as the ‘front stage’, while concealing the ‘backstage’, which includes places of danger, poverty and social injustice (McCann, 2009; Zhang and Zhao, 2009). City branding is aided further through incentives such as low tax, low cost of living, recreational activity and good schools (Ward, 2000; McCann, 2009).

The dissemination of information through channels such as media and professional conferences helps attract the desired group of people, such as tourists and investors. The use of familiar slogans or phrases such as “I love New York”, “Uniquely Singapore” and “Great Olympics – New Beijing” is another major aspect of city branding. Dubai, in its quest to embellish its image as a futuristic city where all is possible, has used the slogan “Dubai … where the future begins”, and the KSA is using this medium to promote the KAFD developments with the slogan: “Building the future for this generation and the next” (Ren, 2008; McCann, 2009; Clark and Moonen, 2010; KAFD, 2013).

While iconic buildings shape the skyline of cities, they also contribute to the overall environment, thus affecting the quality of life and experience of both residents and tourists (Jencks, 2005; Riza et al., 2012). In this regard, a city brand consists of a wide number of factors including culture, economy, iconicity, social coherence and environment. The city’s identity then becomes abstract, with subjective perceptions of the city based on experience and expectations, while its brand and identity can be coupled together to form an overall image of the city which in turn contributes to the quality of life of individuals (Riza et al., 2012). Buildings, which form part of a city’s identity, have the capacity to impinge upon people’s quality of life. Whilst many have applauded the re-branding capabilities of buildings, it has been argued that world-renowned architectural creations such as the Guggenheim Museum in Bilbao have contributed negatively to the quality of life, as they fail to merge well with the surrounding environment, despite the economic and social benefits such buildings can help achieve (Plaza, 2000; Riza et al., 2012). Similarly, the gherkin-like appearance of the Norman Foster tower in London is
criticised not only for its stark contrast to its surroundings, but also for its perceived similarity to the Agbar Tower, weakening its unique identity and the quality of life of city dwellers (Riza et al., 2012; Kaika, 2010).

Gulsrud et al. (2013) argue that creating an environmentally friendly city with green spaces can be seen as another marketing tool capable of promoting the quality of life, which a city can offer to its current and prospective residents. Nonetheless, few cities choose to advertise their green spaces, even though such advertising has the potential to strengthen their image; instead, they tend to concentrate on consumerist facilities and knowledge-based services (Middleton, 2009; Gulsrud et al., 2013). In reality, ‘green brand creation’ can be extended to include the promotion of sustainable developments which have low or zero carbon footprints, excellent recycling and generally eco-friendly facilities (Khan, 2006; Beatley, 2011; Gulsrud et al., 2013). It has been noted that the economic visions of many aspiring global cities have all incorporated the sustainability concept into their branding (Gulsrud et al., 2013; Ng and Xu, 2014).

2.9.4 Business Improvement Districts as a City Marketing Tool

The concept of Business Improvement Districts (BIDs) was originally developed in Toronto and later spread to the USA (Ratcliffe and Flanagan, 2004; Blackwell, 2005; Hogg et al., 2003). Since 1984, this concept has been global, with variations of the initial model adapted to suit the requirements of those cities that choose to adopt it. The establishment of a BID requires collaboration between a number of corporate actors to take responsibility for the management and governance of a particular region within a city (Peyroux et al., 2012). Financial contribution is usually required to facilitate this alliance between businesses and other actors, to ensure the adequate delivery of services, such as cleaning and security. Evidence has shown that BIDs can increase the values of properties and reduce crime within their borders (Meltzer, 2012) and there is often a degree of self-governance, which can lead to fines or expulsion from the district if the laws are broken (McCann, 2009; Meltzer, 2012; Peyroux et al., 2012). Whilst businessmen, elites and governments are attracted by the economic and social benefits that BIDs achieve, socialists often have concerns about the exclusive nature of such districts, as they are seen as reincarnations of special districts. Furthermore, many critics have argued that BIDs can often interfere with or contradict existing rules and regulations (Peyroux et al., 2012). Nonetheless, BIDs are perceived as powerful marketing tools and their presence in cities helps to project a particular image to the world of the safe, clean and secure environment.
they can offer (Meltzer, 2012; Peyroux et al., 2012), which can be attributed to the self-marketing of businesses within.

2.9.5 Saudi Arabia’s Internationalisation Approach: New Urban Planning Trends

The previous two subsections have considered internationalisation from a broad global perspective; this last subsection of section 2.7 returns the focus to Saudi Arabia. A number of ongoing mega developments in the KSA, such as the KAFD, are reminiscent of the BID concept developed in the West. The KAFD is one of the KSA’s most prominent developments, home to an array of government organisations, financial institutions and public facilities. It is said to contribute positively to the economic vision for the future (KAFD, 2015). The adoption of phenomenal Western-style architecture in arid deserts via these megaprojects is designed to display a new modern image of the KSA (El Sheshtawy, 2008; Ourouussoff, 2010; Alatni et al., 2012). Indeed, the aim of the government is to project a better urban image in the global arena, while delicately balancing the strict religious demands of many with the creation of slightly more ‘liberal zones’ which are better suited to attracting international investment, as well as native young professionals.

Buildings and services within the KSA are usually designed to promote gender segregation, whereas these new economic zones will be fortified with gates and security, to help contain and conceal the more liberal behaviour allowed within (Ourouussoff, 2010). Economic zones such as King Abdullah Economic City (Figure 2.6) are advertised as catering for every possible need, and are being used as tools for internationalisation and a means to attract a wide array of investment (Oxford Business Group, 2013). Although these developments in the KSA are government-operated, they are reminiscent of BIDs because their governance is disparate and often incompatible with the laws and regulations followed in other Saudi cities. Furthermore, these zones use architecture to brand themselves, and are being advertised as safe, clean, modern and lucrative sites for investment (Oxford Business Group, 2013; Ourouussoff, 2010; Peyroux et al., 2012; SAGIA, 2015). However, in reality, these developments are likely to be highly exclusive and socially at odds with what occurs beyond their gates, as witnessed in other BIDs located in many parts of the world (Ourouussoff, 2010; Meltzer, 2012; Peyroux et al., 2012). Ultimately, each of these mega-hubs will attract capital by catering for every
possible need, and can only compete in the global arena by ensuring that each zone is highly specialised in a particular industry (SAGIA, 2015).

![Image of economic cities in the KSA]

Figure 2-6: Economic cities in the KSA. Left: King Abdullah economic city in Rabigh. Right: Prince AbdulAziz Bin Musaid economic city in Hail. Note that each development has a slogan, as discussed in section 2.7.3 (Source: SAGIA, 2015).

### 2.10 Policy Mobility

Although notions of urban planning are historically mobile, the process of globalisation has increased the rate and spread of all ideas including those relating to urban planning (McNeill, 2009; Guggenheim and Söderstörm, 2010; Rapoport; 2015). Historically, colonisation was a key driving force behind the spread of urban policy ideas (King, 1990; 1990a). A classic example is Cairo, where the policies and architectural styles of French, Ottoman and British colonisation is evident in the building forms, followed by a return to Arabian architecture. With the passage of time, Cairo is now seen to display American features in its more recent architectural developments, resulting from its close political relationship with the USA (Abaza, 2001; Guggenheim and Söderstörm, 2010). Thus, it is inaccurate to assume that the spread of ideas is entirely new, as cultural flows have always existed (Gulsrud et al., 2013). In recent years, identity politics have emerged, including political debates regarding the loss of culture in the East due to the adoption of American urban policies and conversely, the appropriateness of mosques in the Western World (Ferrari, 2008; Guggenheim and Söderstörm, 2010).
Cronin and Hetherington (2008) and Guggenheim and Söderstöm (2010) opine that the creation of an enabling environment will encourage competition, in turn creating an exciting urban landscape with a series of landmark buildings, which governments hope will trigger the ‘Bilbao effect’ in their cities as they subscribe to the global style. Furthermore, the circulation of population by migration exposes people from geographically distant locations to new ideas about urban and building form, which can be transferred to their own environments upon their return. For example, the development of bungalows in England is an architectural idea taken from India. Similarly, the development of Chinatowns and the popularity of ethnic cuisines in the West result from migration (Guggenheim and Söderstöm, 2010). In the wake of globalisation, the circulation of ideas has reached a phenomenal pace, with media-generated images perpetuating the globalisation process further (Castells, 1996; Guggenheim and Söderstöm, 2010). Classic examples of the transfer of urban policy are the waterfront regeneration projects seen in Melbourne, which are translations of such practices in many US cities including New York and Boston (Dovey, 2005; Tait and Jenson, 2007). Whilst many argue that policy mobility in the age of globalisation creates urban replicas (Barber, 2001), for others globalisation produces similarities between cities, whilst maintaining their distinct identities (Sassen, 1999; Robinson, 2006). Traditionally, cities adhered to their appearance, in part due to the limited resources available within the vicinity. However, the increased availability and access to a wider array of materials and other resources has caused cities to step away from traditional local materials, which has changed their overall appearance (Guggenheim and Söderstöm, 2010). The mobility of skilled, globally-recognised architects has also helped to spread European design ideas. Intriguingly, this was the case during the colonial era, when French architects, for example, would try out their architectural ideas in Morocco before taking them back to France (Rabinow, 1999; Guggenheim and Söderstöm, 2010). Today, architects continue to be highly mobile both during training and even more so when they become successful, which further enhances policy mobility (Rabinow and Rose, 2006).

### 2.10.1 Policy Mobility and Knowledge Transfer

The phenomenon of globalisation has led to the rapid spread of standardised images, products and cultures across the world (Harvey, 1990; Ritzer, 2004; Crot, 2013; Salama, 2013). This standardisation can be extended to the visual appearance of buildings across global cities, where it emerges for example in malls, banks and supermarkets (Held and
McGrew, 2007; Salama, 2013). Furthermore, globalisation is postulated to have influenced society by increasing class separation and social divide (Taşan-Kok and Weesep, 2007). By contrast, globalisation creates standardised buildings along with cultural norms of consumption, which go hand in hand (Lowe and Wrigley, 1996; Taşan-Kok, 2007). In established and emerging global cities there has been an increase in the appearance of financial centres and the often commercial urban property market, which is seen by all actors as an asset to attract investment (Taşan-Kok and Weesep, 2007). Globally, investors who seek to finance low-risk ventures often opt for the property market, quite frequently in distant places. Nonetheless, it would be wrong to ignore the influence of the existing local property market on urban redevelopments, for example through current policies, practices and investors.

Globalisation, although not the underlying cause of change to cities, has facilitated the process by enhancing global capital flow. Repeated urban re-development often coincides with increased exposure to global networks, providing evidence that globalisation and changes to urban form co-evolve (Taşan-Kok and Weesep, 2007). Looking beyond the outward appearance of globalising cities clarifies the unique interpretation of urban policy and urban change in each city. These are heavily influenced by the position of each city in the global economy, since this in itself determines how each city responds to global influence (Taşan-Kok and Weesep, 2007). Further, it has been argued that the similarities between urban forms has created ‘non-places’, a direct consequence of the actors involved and their economic initiatives. Even so, it is important to consider the demand side (usually government and businesses) of urban development projects (Ritzer, 2004; Taşan-Kok and Weesep, 2007), considering that local policies help to shape the global force for contemporary change. Interestingly, further evidence suggests a multidirectional spread of ideas as well a culture-specific interpretation of what neoliberalism means in a city- and country-specific manner (Chant and Mellwaine, 2009; Crot, 2010; Robinson, 2011; Soh and Yuen, 2011). For instance, the interpretation of urban neoliberalism in China is considered to be heavily influenced by the existing culture, and the ambitions of the population at large, as well as the politics of the state (Taşan-Kok and Weesep, 2007; Robinson, 2011).

The initial decision to adopt a particular international policy can stem from the ‘idealised’ nation(s) being deemed a good fit with the adopting nation (Chant and Mellwaine, 2009; Crot, 2010), or it may be orchestrated by the agenda of actors, albeit without
consideration of local issues (Crot, 2010). Hence, the interpretation of ideas is influenced by the array of actors, including the government, investors, institutions and organisations, and the local and global relationships amongst them (Taşan-Kok and Weesep, 2007). Whilst the government seeks to ensure a balance of local welfare with economic growth and competition to secure political position, private companies simply prioritise their financial gain. Governance involves calculated co-ordination between actors within networks, whilst keeping the general population content with its decisions. Although global forces heavily influence central government, the increased tendency to decentralise financial and planning decisions drastically changes the application of incoming policies (Taşan-Kok and Weesep, 2007).

Accordingly, although ideas travel, they are often changed dramatically to suit the country that chooses to adopt them. Key factors in the interpretation of neoliberal policies are the political and financial structure of a given country. Thus, the form of such policies will be determined by the existence of democracy rather than dictatorship, or centralised as opposed to decentralised control of resources, for example. Government control of assets will create better welfare, whilst privatisation—a policy heavily adopted in poorer countries where rapid decentralisation has created local governments that are unable to manage or fund economies—can influence policy interpretation (Taşan-Kok and Weesep, 2007). The global relationships amongst politicians and businesses are highly complex and interwoven, with policy in one city often influencing another. Other factors affecting policy circuits include competition with neighbours, advice from star and global architects, and engagement among cities (McNeill, 2008; Robinson, 2011). It has been suggested that the marketisation strategies adopted by countries such as China ensure that the government’s position is legitimised (Wu, 2010; Robinson, 2011; Chiu, 2012). This involves transformations in the mindset of government leaders and their level of tolerance, when the market is out of control or where the change needed is behind market development, resulting in unplanned urban growth. Governments often have ambitions to expand whilst seeking to ensure that local economies remain intact. This expansion tends to be in a form that will generate taxation revenue and support the creation of new jobs (Robinson, 2011).

In reality, all ideas, including those relating to urban policy, develop within a particular context as a result of a particular problem (Tait and Jenson, 2007). Callon (1986) developed actor-network theory, which has subsequently been applied to many fields
including planning (Tait and Jenson, 2007). The theory states that the stability of a concept in one place makes it an attractive option to adopt in a new setting. The term ‘actor’ denotes any human or non-human entity (e.g. buildings) that can change relations, whilst ‘network’ refers to the changeable relations between actors and objects. The effects or actions of these actors leads to the direct ‘translation’ of ideas into new contexts and places (ibid). Here, the concept of translation does not merely mean the replication of ideas but rather that they can change, be embedded or adapt following their importation to a new setting (ibid). Interestingly, key players within the commercial property industry include the retailers who invest in such developments. These retailers usually have very specific standard designs of logistical importance, which they choose to transfer to new locations. Nonetheless, the interior design of buildings is often culturally relevant to the new location (Taşan-Kok, 2007; Taşan-Kok and Weesep, 2007) in the sense that as international developers arrive, they often shift their focus from the project in question to the surrounding regions. The private sector works alongside other actors to make financial gains, as together they sanction and fund such projects. As mentioned earlier, whilst the government has political objectives, which include ensuring the internationalisation of their cities, investors seek to create the opportunity to make profits (Taşan-Kok and Weesep, 2007).

Turkey is an example of a country that uses a very centrally driven sequential approach, utilising internal funds and skills to achieve the redevelopment of its cities, while in other countries, cities such as Budapest and Warsaw have routinely relied upon international actors including investors and developers (Taşan-Kok, 2007). A fascinating strategy adopted by some actors has been to reformulate their roles within the property market and to attract new sources of investment. Those property developers with true innovative ability have financial power, as well as access to international markets (Taşan-Kok, 2007); since the year 2000, there have been some profound role changes within the property market. For example, builders have become developers, while investors and banks have become property developers. Major global organisations such as the International Monetary Fund and the World Bank are also key players in the mobilisation of policy models from the industrialised to developing countries (Crot, 2013). Other key actors include accountancy and insurance firms, international real-estate developers and retailers. Taşan-Kok (2007) notes the highly complex interplay between these actors in the property market, each group having its own priorities by which it seeks to make
profits. In particular, retailers entering the property market often keep the development, investment and management all in their own hands.

Firms seek to establish relations with governments that are able to sanction such projects, whilst retailers seek to internationalise and globalise further, thereby frequently contributing to urban mega-developments (Taşan-Kok, 2007). Although urban change is inevitable and demanded by consumers and governments, local knowledge is often needlessly pushed aside in favour of global firms (ibid). Ideas develop in particular contexts as a consequence of a specific problem. The translation procedure requires that an urban problem in a new setting be rethought in the context of the model being proposed, usually due to the hidden agenda of the proposer. The next stage, which is quite delicate and political in nature, requires the disembedding of actors from current networks to allow their potential recruitment into new proposals for urban development (Tait and Jenson, 2007). Finally, ‘enrolment’ and ‘mobilisation’, which respectively describe contact and communication with actors, lead to the co-ordination of the actor-network and the translation of ideas (Tait and Jenson, 2007). The complex and political nature of actor relations can often cause the partial or complete failure of translation. The distant spread of ideas also depends upon ‘intermediaries’, a term that describes documents, plans, books and professional models which can be accessed by many globally (Callon, 1986; Tait and Jenson, 2007). In the process of translating ideas from one location to another, the ‘space’ to be developed is seen by actors as a ‘black box’, currently void and ready to be filled (Madanipour, 1996). This view pays no regard to the current inhabitants, objects or spaces surrounding the development (Tait and Jenson, 2007). The propagation of urban development ideas is heavily reliant on the notion that spaces are uniform and that a working model can be readily transferred from one space to another (ibid). Another important factor in the mobility of urban development ideas is the ability of actors to convincingly predict the future success of a city should a foreign ‘working model’ be adopted (Madanipour, 1996a).

The implementation of global policy models involves a large number of local and international actors and is a result of discontent with current policies. Nations observe the success of others and bring in their policies from abroad, dismantling them then integrating them into current policies. The entire process of adopting international policies can be extensive and in some cases based on current trends and notions of sustainability (Cook, 2008). Local policymakers often network at large international
meetings, a fact that inadvertently leads to new networks being formed with experts in urban policy ‘best practice’. In addition, professional policy agencies are essential to international policy mobilisation through widespread ‘advertising’ of accomplishments at conferences and workshops and in relevant publications (McCann, 2011).

The media also present Western urban policy as best practice and this endorsement influences the decisions of elites and the expectancies of lay people. As elites seek to adopt international policies to boost internationalisation and economic success, there is an internal pressure to adapt foreign policies on urban development to suit local needs. Nevertheless, when prestigious international companies become involved in policy, it can be very difficult to raise local issues and perspectives. Sustainability is often used to aid urban policy transfer (Temenos and McCann, 2012) and is viewed as an influential political tool, because it idealises best practice policies in one part of the world for others to admire.

The environmental impact of urban design is a key sustainability factor considered by importers of foreign policy (Faulconbridge, 2013), who aspire to ‘green’ policies. However, there is often a stark contrast in climate from the country originating the policy to the destination country. Thus, what is environmentally green in the UK or USA may be an environmental burden in hot, arid habitats like the Gulf.

2.10.2 Instances of Policy Mobility and Knowledge Transfer
The major office building development of Canary Wharf in London provides an example of policy mobility, adopting models from the USA. Critics have argued that its design failed to consider local social and geographical issues. In addition, its failure as a new financial centre is thought to stem from its being perceived by UK companies as foreign territory (Turkie, 1997; Hinrley and Malone, 2013). An instance of travelling urban development models, mentioned in section 2.7.4 as a city marketing tool, is the BID, imported from Canada to American cities such as New York to help compete with the more successful suburbs (Lloyd et al., 2003; Tait and Jenson, 2007). BIDs are self-taxing territories, with distinct legislation, relating to a vast range of tasks and financial development. They are established when major urban stakeholders form alliances (Blackwell, 2005; Tait and Jenson, 2007) to operate them with legal approval from the relevant government.
The reality is that many, especially the poor, tend to feel excluded by the activity of the wealthy in BIDs, as the homeless and street artists are forced off the streets (Kahn, 2006) to make way for the realisation of project. The BID model was transmitted from the USA to the UK under the influence of international elites and external advertisements of its success (Cook, 2008). BIDs were marketed within the UK as sustainable developments that would boost struggling economies, and the decision to formulate supporting legislation was taken by the UK government in April 2001. British policymakers have frequently turned to the USA for inspiration in the past 30 years, particularly in the area of urban policy; this phenomenon has been facilitated by a common language, shared ideology and strong personal political relations. Whilst many have had some concerns about the success of adopting such models in the UK (Tait and Jenson, 2007), city councils claim that BIDs have been a complete success. Key to this is an understanding that the mobilisation of policies from one place to another often assumes that the social or financial problems of the two locations are directly comparable, but this is not necessarily so. Ideas such as BIDS are presented on the global market at specialist conferences, on the internet, and by the media, which ultimately leads to the world aiming to adopt what is deemed to be ‘best practice’ (Peyroux et al., 2012; McCann, 2011).

Another example of international policy transfer is the adoption of sustainability models in Whistler, a mountain ski resort in Vancouver with high seasonal dependency on tourism. Whistler’s government and communities were increasingly concerned about the negative impact of the holiday industry on the local environment, which would subsequently impinge upon the tourism-driven economy. The municipality wished to preserve its unique surroundings to sustain the high-end tourist market. In response, the government developed a plan, dubbed a ‘sustainability fix’, by importing best practice models of sustainability from foreign companies (Temenos and McCann, 2012). The model fostered in Whistler was the product of the ‘Natural Step’, which included extensive educational programmes and engagement with many key actors including environmental groups and local businesses, while the entire community was involved in monitoring its progress and celebrating its success annually (Temenos and McCann, 2012). Due to the inclusive nature of the policy reform in Whistler, adoption of the external codes was successful. All actor-networks seem to have been carefully thought out, with consideration for the economy, environment, and community.
Brussels is an example of redevelopment based on policy mobility, which was initiated nearly 60 years ago. Urban development triggered actions that resulted in the city becoming a political and financial centre of Europe, home to many economic and political headquarters. During this process, many existing residential areas were replaced with high-rise office buildings (Doucet, 2007; Romańczyk, 2012). The demolition of historic buildings and lack of consideration for the locals led to widespread protests and the development of the term ‘Brusselisation’, describing the process of wholesale replacement of culturally-rich architecture with distasteful bland tower blocks (Collins and Kearns, 2008; Romańczyk, 2012). This capitalist drive was due to the underlying actor-network comprising partnerships between real estate developers and corrupt politicians (Doucet, 2007; Romańczyk, 2012). The resultant developments created sharp disparities between the traditional and redeveloped regions, with such contrasts still apparent today (Romańczyk, 2012). The rapid development, poor planning and capitalist priorities without consideration for the effects of these changes on the population are all thought to have contributed to the poor aesthetic outcome within the confines of the city. Aside from aesthetic appearance, the rapid urban regeneration created disparities among communities; the poor were relocated to the outer city areas and the inequality was worsened by the economic crisis. In reality, while urban development policies (influenced by the USA) were eventually introduced, these ensured the centralisation of major decisions and safeguarded the interests of developers rather than the public (Doucet, 2007; Romańczyk, 2012). The international presence was thought to have influenced urban development as actors—particularly governments—sought to internationalise, by ensuring the maintenance of international status whilst allowing the growth of revenue and jobs created by expatriates (Romańczyk, 2012).

2.11 Summary
It is evident from the literature reviewed above that the overall phenomenon of economic-centred globalisation has been driving internationalisation for international architectural firms. Whilst internationalisation is thought to benefit some economic aspects of cities, there are concerns, especially around influences on the development of cities (Sassen, 2010). Internationalisation can be said to be synonymous with commercialisation, which if not properly managed will cause a loss of cultural identity and heavily marketed products, as highlighted by Knight (2007). The complexity of urban policy mobility and
city development is such that it impacts on the spatial planning and governance of the city (Sassen, 2010). In the view of El-Nachar and Salama (2007), the architecture of cities has recently transitioned at high speed due partly to the influence of governance systems in the policy recipient nations and partly to that of the international architectural firms. Other literature has shown that the commissioning of a global firm is a key indicator that at least the elites of a city are seeking cutting-edge global style as a means of enhancing internationalisation and global activity (Faulconbridge, 2009). Global architects use the knowledge of their multinational workforce, as well as that of local architects, to enrich their understanding of the client’s needs. For instance, even if the exterior of the building is global in appearance, they implement client priorities on lighting, use of space and amenities in order to make the interior culturally relevant to the needs of the users (King, 2004; Faulconbridge, 2009). A related insight concerns the array of readily accessible materials that has led to the forsaking of traditional materials in many parts of the world, including the Gulf states, where for instance, mud bricks have been abandoned in favour of reinforced concrete (Cronin, 2006).

Advances in transport, information and communication technology have indirectly contributed to the adoption of global architecture as the need for complex transport systems has increased the demand for taller buildings, while software tools such as computer aided design have enabled designs that were impossible using traditional methods (Tombesi, 2001). Glistening high-rise commercial office buildings are now common features within globalised cities and are reported to be a magnet for foreign direct investment (Sklair, 2006; Guggenheim and Söderstöm, 2010; Ng and Xu, 2014). Consequently, towering constructions have emerged as central to the iconic architecture of capitalist globalisation (Ahmed, 2011).

Global architecture produced by internationally recognised firms has been utilised as a political tool to market cities and countries at large. Furthermore, internationalisation has created a demand for architectural icons that have local or international significance in such countries (Sklair, 2006a).

In conclusion, international architectural firms are found to have made impacts at regional level, where there has been a notable influence on policy mobility to those regions. The common approach has been the engagement of international firms to facilitate the spatial
planning of new urban centres, reinforcing the argument that internationalisation has been fuelled by the globalisation of the architectural market.

Following this review of literature on internationalisation and policy mobility, the next chapter turns to the use of planning codes in the sustainable development of urban centres.

2.11.1 The Notion of Internationalisation
After reviewing the literature on internationalisation and policy mobility, it is essential to emphasise that in this study, internationalisation is taken to imply the process introduced by international organisations, be they profit or non-profit making (Sassen, 2014; Peyroux et al., 2012), as they have taken advantage of the business opportunities in urban planning for Saudi Arabia’s cities of Dammam and Riyadh. These organisations have realised the need to apply global forces in the local contexts of Saudi Arabia’s cities, and have taken the opportunity to participate in urban planning strategies and the development of environmentally sustainable urban centres in the Kingdom.

2.11.2 The Notion of Globalisation
In referring to globalisation, the study interprets the term as an internationally-driven business strategy that seeks to connect business opportunities to those who have the capacity, capital, and knowledge to offer products or services to markets other than their own (Sassen, 2010; Bernstein and Cashore, 2000; Prange and Verdier, 2011). This notion is taken from the understanding that governments around the world have promoted commercial integration for various industries; hence, the same business strategy has been allowed in Saudi Arabia in order to provide international participation in urban planning. Globalisation in urban planning for Saudi Arabia can thus be seen as a glocal issue which international organisations use to win local support as they operationalise their urban plans and designs.

The next chapter turns to the use of planning codes in the sustainable development of urban centres. It uses the notions of internationalisation and globalisation in addressing the issue of how sustainability has been implemented in urban development.
3. CHAPTER THREE: SUSTAINABLE URBAN CENTRE DEVELOPMENT USING PLANNING CODES

3.1 Introduction
According to Chiocchio et al. (2011), when the United Nations’ Brundtland Commission warned in 1987 of the need to optimise and preserve natural resources for future generations, it was clear that the operation of the global construction industry was unsustainable in its present form, given its over-consumption of energy and primary resources, which had resulted in high levels of waste and environmental contamination. Indeed, since the late 1980s, there has been great pressure upon design professionals to produce buildings that cost less to manage and maintain, and to adopt sustainable development in their design and construction practices (Sev, 2009; Chiocchio et al, 2011). Clearly, the operationalisation of sustainable development demands the optimal use of resources during construction processes, as well as the establishment of low operational costs of energy and maintenance. Progress towards these essential elements of sustainability depends on the tripartite interrelationship between environment, economy and society, which are the pillars upon which sustainability rests. The industry contributes significantly to the emission of greenhouse gases as a result of the high energy consumption during raw material extraction, transportation, construction, operation, maintenance and demolition, making it essential to consider economic, social and environmental issues during each phase of every construction project for these to be viewed as truly sustainable.

However, it is wrong to presume that sustainable development is the only prime mover of urban centre development; business prospects and the drive for profitability are other very important factors. Sustainability is sometimes used as a buzzword to cement existing business ties. Temenos and McCann (2012:1389), for instance, use the term ‘sustainability fix’ when arguing that local authorities around the world have implemented urban policy mobility by allowing developments that can accommodate a profit-making business model while endeavouring to protect the environment. A case in point, mentioned in Chapter 2 (section 2.8.2), is that of the resort of Whistler in Canada, where this model of sustainable urban development was pioneered, thereby involving the politics inherent in balancing economic and environmental commitments. Temenos and McCann (2012) observe that since that time, the urban policy model has become mobile.
and is now implemented within several international communities. Whistler’s self-image as an environmentally responsible, collaboratively planned and growth-managed municipality has helped to fuel this global drive to achieve more environmental, social and economic sustainability in urban environments (Gill and Williams, 2011; Temenos and McCann, 2012). The implementation process associated with this model is underpinned by the belief that when local and extra-local resources are assembled, the imported policy model can be used to clearly define elements of the problems and legitimatise specific policy solutions (Temenos and McCann, 2012). However, the way in which the politics of the municipality are engaged in the process of legitimising policy mobility through the sustainability fix can be contentious (ibid). Within the framework of the sustainability fix, local politics impact upon the urban planning codes; hence, there can be no simple political theory to explain the involvement of technical as well as political leadership by the government or the municipality. In this context, municipal leaders have to demonstrate that they can balance divergent forces relating to political, economic, social, cultural and environmental factors by integrating them with the environmental goals of the governance framework, in other words, the planning codes (While et al., 2009; Gill and Williams, 2011; Temenos and McCann, 2012).

The construction industry is seen as the greatest contributor to total carbon emissions; thus, high rise buildings are considered a vernacular for sustainability (Wood 2007; Gibbs and O’Neil, 2015), because a concentration of high density towers reduces transportation costs and curtails urban spread. However, tall buildings have a high energy demand as well as impacting on the urban realm, which makes them environmental misfits with effectively poor sustainability credentials (Wood, 2007; Jin et al., 2013; Lotfabadi, 2014; Gibbs and O’Neil, 2015). This is especially so where the developers of such buildings neglect sustainability in favour of functional efficiency (Lotfabadi, 2014). As a result, mobile policies are seen as political and practical resources that could be used to address pressing environmental and economic concerns, thereby negatively influencing the inter-local circulation and mutation. Hence, “the adoption of policies offers insights into the way that certain policy models, or ‘best practices’, act as both practical and political resources for municipal policy actors” (Temenos and McCann, 2012:1392).

Developers worldwide have continued to create tall buildings using the same standard approach that has been used for many years (Wood, 2007). Indeed, there is no evidence that developers should change the outlook for their tall buildings in order to meet or
surpass a performance criterion for sustainability. Hence, shapes and sizes are typically similar to those of buildings in developed urban centres in the West. Wood (2007) asserts that environmental consciousness regarding tall buildings began in 1950, when they began to emerge and when Frank Lloyd Wright, for instance, argued that the “tall building did not belong in the city at all, but was most appropriate as a free-standing sculptural element in a predominantly low-rise (suburban or rural) landscape” (ibid:403). This proposal was “borne out of a desire to reduce suburban sprawl and loss of green land by concentrating higher numbers of people on smaller plots of land within towers” (ibid:401). Whilst this rationale for developing towers was not considered vital in terms of creating sustainable tall buildings, such developments have in fact been copied in many urban centres around the world.

Regardless of the type of urban centre development policy adopted, there is an overwhelming bias in the way energy rating techniques have been used as the mainstay of sustainable urban development (Alkışer et al., 2009; Boussaa, 2010; Sklair, 2006). A simulation study by Roderick et al. (2009) found that energy performance results and energy ratings can be strongly dependent on the assessment scheme used. Hence, energy rating systems, for example, have been deployed in the assessment of the level of carbon dioxide emissions (Lemaitre, 2012; Lee, 2012). However, the actual implementation of sustainability is undertaken through the urban centre planning codes (Crot, 2010; Acuto, 2010).

Decision-makers have promoted internationalisation as means of attracting global talents to contribute to the provision of relevant urban development and of marketing the concept of sustainable urban centres. International firms have tended to respond by presenting themselves as partners able to deliver iconic projects and to project a sustainable image of a city. Chapter two having considered efforts made by cities towards internationalisation and their embracing of policy mobility as means to advance their urban form, this chapter turns to sustainability. It offers a critical review of how sustainability has been used in creating planning codes and the process by which these codes have influenced construction, especially where iconic buildings are internationally assessed as sustainable through the use of energy rating systems. In addition, it considers how the application of building assessment standards are employed to promote the sustainability of individual projects. The chapter concludes that the operationalisation of sustainability has indeed
been driven scientifically, but only to a certain extent, and that its major effect has been as a marketing tool, used by developers as a unique selling point for their building projects.

3.2 Conservation and Sustainability for Urban Centre Development
The literature indicates that the concert of conservation is intricately interwoven with sustainability in many ways (Resources, Conservation and Recycling, 2015); therefore, this section has aimed to explore how urban areas or cities metabolise resources, leaving, among other things, carbon footprints and neglected neighbourhoods. Poor conservation measures can be linked to poor implementation processes for sustainable urban development.

3.2.1 City Metabolism: The Need for Conservation
According to Li et al. (2016), sustainable urban centre development is likened to the optimal use of economic, social, and environmental resources without impacting negatively upon future generations. Hence, factors like pollution, congestion, and waste management are cardinal to the application of the sustainability concept to urban development. Sustainability cannot be maximised in the absence of conservation, and this must, therefore be viewed from the perspective of how materials are used, how to prevent the depletion of materials, and how to minimise pollution, all of which have implications for waste management. Li et al. (2016) argue that there is a circular city metabolism that takes in food, energy, goods, and people (as input variables), and uses them, simultaneously causing environmental disturbances. The input variables are used within the urban systems, with some being recycled and others not (ibid). If well managed, the process produces an output in terms of people, money, products, and reduced pollution. There is constant dynamism in the city metabolism such that countries with mega-cities have found it difficult to operate them sustainability and conserve resources.

3.2.2 Carbon Footprint: Highest Factor on Sustainability Agenda
Penga et al. (2015) observe that from the natural resource viewpoint, sustainability can be evaluated in terms of the carbon footprint, which has emerged as an extremely important issue that includes the ecological impact of the developments in a city. However, authorities are tasked to assess and balance the cost of implementing sustainability at city
level through the consumption of natural capital flows and the benefit accrued to the social wellbeing of residents. To enable such assessment, cities need to develop gradually, and that implies that certain elements may need to be conserved while others are eliminated from the city landscape. It can, therefore, be argued that conservation when applied to urban development is seen from three angles: firstly, from the way the resources are consumed as the city is developing; secondly, from the way existing facilities can be looked after, and thirdly, from the way recycling can be implemented (Resources, Conservation and Recycling, 2015). The main issue for conservation emanates from the virtual “cannibalisation” of resources necessary for urban development; this has been exacerbated by globalisation and industrialisation in various regions; hence, there has been a drive to ensure that decision makers in the planning process for urban centres can implement, among other things, sustainable development strategies to minimise cannibalism of resources” (Resources, Conservation and Recycling 2015:329). Moreover, even if conservation can be addressed in many ways, the sourcing of all resources should be optimised to ensure the promotion of green sourcing, and that stakeholders such as government, municipalities, developers, and financiers are able to effectively source products and processes that can be reused, recycled, disassembled, and or possess less embodied energy (ibid).

Prior to the implementation of a sustainable urban centre, it is crucial to assess the way in which sustainability can be measured so that the success rate can be established (Martos et al., 2016). The rationale for this argument has been the science which supposes that cities make a significant contribution to greenhouse gases – as high as 80% of the global gas emissions (ibid). This implies that urban centre expansion requires robust sustainability criteria that include, among other things, sustainable transport systems, integration of modern technology in the city to make it smart, a strategy for energy conservation for buildings within the urban area, integration of renewable energy sources, social benefit management systems, waste management, and the authorisation mechanism for how to achieve these targets (Martos et al., 2016). It is probably unrealistic to anticipate that all these elements of sustainable urban development could be considered for Saudi Arabian cities; however, any approach that is adopted would have to be auditable with regard to how it serves the local environment, conserves resources, and how well it promotes sustainability for now and the future.
3.2.3 Existing Neighbourhoods
Chelleri et al. (2015) argue that when a city undergoes urban development, it should ensure that the threats to local resources can be managed, and that there is resilience and sustainable management of the urban areas, infrastructure, and space. Their argument was based on the development of Mexico City, which was cited as an example of how the concept of globalisation has been applied to the local situation (see section 2.4). They further argued that as a globally-networked city, Mexico City experienced issues concerning space because the authorities applied the glocal concept, and fragmentation ensued which has brought serious pressure on the city’s resilience (Chelleri et al. 2015). In respect of its conservation of services, Mexico City faces challenges because of the rapidly-changing requirements and conflicts on urban space among the local people and the multinational companies using it for production (ibid). Therefore, from the production perspective, conservation of the services is vital to ensure that the economic integrity of the city is sustained, yet from the spatial viewpoint, it becomes a huge challenge for the authorities to redevelop spaces and transition the city to their future vision. The policies and implementation of the process must consider sustainability, conservation, and the resilience of many provisions from the city (Chelleri et al., 2015).

3.2.4 Conservation of Historical Facilities: Arab Culture and Built Facilities
Hotimah et al. (2015) note that the built environment tends to embody areas of interest to the public such that communities around them may need to conserve as they develop themselves. Conservation, in this regard, only becomes sustainable if there is wider recognition of these areas of interest to the public within a particular setting, and without such acknowledgement, urban environment expansion programmes can be a threat to urban heritage (ibid). Therefore, the preservation of existing areas of interest to the public represents a fundamental requirement for conservation so that future generations can enjoy the value of the areas that are conserved (Hotimah et al., 2015). In the case of the KSA, the interest in conserving the existing facilities could emanate from the need to preserve older buildings that have links with Arab architecture or that have acted as the social cultural conduit of the lifestyle of the Saudi people. Hence, it can be presumed that conservation goes beyond the built environment per se, and extends into the realm of how society conducts its affairs in the preservation of its culture, social dynamics, and way of life.
3.2.5 Triple Bottom Line Approach
Mori and Christodoulou (2012) have observed that the categorisation of cities varies between regions, but that the number of people living in city-like conditions everywhere is set to increase over the years, thereby highlighting the significance of urban areas to social, economic, and environmental sustainability. The implication of this prediction is that cities must conserve resources so that future generations are not deprived of their ability to survive, and this requires a triple bottom line approach to sustainable living (ibid). In this, the fundamental way of looking at sustainable urban development starts by addressing the poor record of environmental conservation due to the many external factors, accepting simultaneously, that most environmental problems have local origins (Mori and Christodoulou, 2012). This implies that local activities in urban centre development can be measured with sustainability in mind to ensure that stipulated levels of conservation can be implemented. The triple bottom line approach covers environmental, economic, and social dimensions of sustainability, bearing in mind at the same time the need to establish a system that can address other elements of sustainability such as reduction in cannibalism of natural resources, and the destruction of existing cultural heritage.

Theoretically, it is possible to apply conservation strategies and achieve sustainability, yet in reality, a city must deal with the boundary, territorial, political, cultural factors, social issues and authority-based factors in ensuring that spatial entities can be managed adequately (Mori and Christodoulou, 2012). In this effort, the focus should be on determining how the planning codes can systematise the sustainable measurement process that can facilitate a triple bottom line approach, and in such respect, there are many benchmarks, making it difficult to appreciate which are appropriate, and what has the potential to be measured. In reality, therefore, the promises for the application of sustainability tend to be vague because of the complexity of city sustainability (Mori and Christodoulou, 2012). Amongst the many factors that influence city sustainability, the social and cultural ones are some of the least explored (Missimer et al., 2016). The fragmentation caused by economic interests, political power, and social disintegration in local areas creates a battlefield in which sustainable urban centres have to develop (Swyngedouw 2004; Pries, 2005).
3.2.6 Sustainability and Differentiation
While the drive for sustainability is prevalent in many urban centre development documents around the world, there is less focus on the need by those undertaking those projects to differentiate their developments from others (Nishant et al., 2016). For example, developers are increasingly adopting the concept of sustainability in their sourcing of materials, yet their desire to develop products that could make them different from others results in complex trade-offs between options, such as how to manage supply chains to assess the environmental impact of company operations (ibid). However, it is known that success in implementing sustainability and conservation in cities is largely dependent on awareness and attitudes (Olive, 2014).

3.3 Urban Conservation and Sustainability
Shwartz (2014) approaches urban conservation and sustainability from the perspective of an emerging sustainability-centred paradigm. This addresses the rapid expansion of urban landscapes in place of natural environments, as a result of which almost half of the world’s population has a limited experience of nature. Not surprisingly, concerns in this regard are increasingly expressed by professionals and other stakeholders, keen to discover how best to design sustainable cities capable of reducing existing detrimental impacts and providing multiple benefits to people and the environment.

However, the concept of sustainability as it applies to the construction industry is both ambiguous in definition and inconsistent in operationalisation. Thus, Connelly (2007) comments that the concept is applied differently to urban centres and to the buildings in them. High rise buildings, already noted as perceived to reduce carbon emissions prior to their construction, are seen not to address the climate change challenge when finished, thereby generating negativity towards tall buildings; their high energy demands and output of anthropogenic CO₂ impact unfavourably on the urban realm and negate their sustainability credentials (Wood, 2007; Alrashed and Asif, 2014; Gibbs and O’Neil, 2015). Hence, due to the recent trend of cities wanting high rise buildings to adorn their skies, historical cities, especially in the Arabian Gulf and North Africa, now face a paradoxical challenge where the drive for modernisation is viewed as extreme, while the need to maintain historical features is often linked to overcrowding, dilapidation and disrepair. Boussaa (2010) observes that this has created tension between the push for
modernisation and the conservation of historical elements of urban centres, but that such tension is often ignored.

Crot (2010) notes that sustainability is linked to the governance systems in force and that where leadership is autocratic, policies are easily introduced and accorded legitimacy. On the other hand, if the governance system is democratic, it is possible for stakeholders to be included in the pursuit of environmental sustainability. Clearly, while sustainability can be interpreted as a technical approach to reduce the carbon footprint of an industry, it can also be a vehicle for political battles between governments and/or regulators and the reality on ground (El-Razaz, 2010). Such an influence cannot easily be ignored, regardless of the place where political pressure is applied. According to Blok (2012), social theories of transnational mobility have been instrumental in the operationalisation of sustainability under the guise of ‘green building’. Professional urban planning practitioners from world-leading cities have assisted in the transformation of the KSA’s urbanscape, making creative contributions deemed useful, especially in material use and the implementation of low-carbon building (Blok 2012; Alrashed and Asif, 2014). Since the oil boom began, Saudi Arabia’s infrastructure has developed rapidly, resulting in the Kingdom being perceived, regionally and worldwide, as having one of the most active construction markets globally. As explained in Chapter 4, this thesis takes the KAFD currently under construction in Riyadh as a case study typical of this development. The goal of this $100 billion master-planned city is to provide one million jobs for the rapidly growing, youthful population and to diversify the Saudi economy away from the oil industry (Altani et al., 2012; Moser et al., 2013).

3.4 Models of Sustainability
The World Commission on Environment and Development (WCED, 1987) views sustainable development as a process where the needs of the present can be met “without compromising the ability of future generations to meet their own needs”. This definition emphasises the careful deployment of resources (Bhatasara, 2010), but does not prescribe how this is to be achieved (Redclift, 2005), thus implying that each industry must develop demonstrable ways of achieving sustainability (Connelly, 2007). In the built environment, the emphasis of architects, urban developers and planners is on enhancing quality of life and ecological issues, with environmental protection given priority (UK Environment Act 1995; Selman and Parker, 1999; Boussaa, 2010). This implies that sustainability per se
deals not only with environmental factors, but also with political, social, economic and cultural issues applying to a given industry in a particular country. Over the years, a group of professionals specialising in the implementation of sustainable development and the local environment has emerged, leading to the mobility of sustainable development practice from place to place within the international community (Connelly, 2007; Elgert and Krueger, 2012; Boussaa, 2014). The following subsections consider models of sustainability and their implementation.

3.4.1 Sustainability as a Key Factor in Urban Centre Transformation

Generally, the implementation of sustainable development in the built environment has had four major threads: (i) protecting natural resources; (ii) optimising land use; (iii) reducing energy consumption and reversing the overreliance on fossil fuels; (iv) reducing emissions through pollution and waste management (Ahmed, 2011; Alrashed and Asif, 2014). As demonstrated by Coppola et al. (2014), part of the new millennium challenge of sustainable development will be seen in urban areas, where the majority of the world’s population resides. To prevent any negative social and environmental impacts of uncontrolled growth, spatial planners need to contend with the issue of a new cultural and scientific approach to urban challenges. This will require countries to devise realistic implementation plans that can genuinely influence sustainable practice among professionals. Moreover, it will demand the adoption of a wider perspective, in which sustainability in urban centre development processes begins with the engagement of stakeholders such as architects, urban planners, local authorities, elected government representatives and property owners (Zavadskas et al., 2004). Each stakeholder may have a unique view of ‘sustainability’; for instance, government officials are more interested in political perspectives, while others may view sustainability from economic, technological and environmental angles, amongst others (Fekade, 2000; Anderson et al., 2003; Zavadskas et al., 2004).

For this research, the principles of social and environmental design are seen as crucial to how sustainability is operationalised in urban development; these principles promote the use of natural resources for construction, careful land use, protection of the environment through the use of renewable energy and minimisation of pollution, as stressed by the Town and Country Planning Association (TCPA) (2007) and Ahmed (2011). From this perspective, sustainability concerns not only ‘urban centre-wide’ initiatives but also how individual buildings are designed, constructed and inhabited (Connelly, 2007; Coppola et
al., 2014). In addition, there is a need to evaluate the role of international firms in facilitating the policy mobility relating to urban centre development.

3.4.2 Adoption of Sustainable Urban Centre Development

According to King (2004), architects worldwide have fundamentally changed their traditional approaches to design and have been implementing, marketing and recreating culturally and environmentally sensitive buildings. However, the implementation of sustainability in urban centre development has varied in its impact on communities. Even when the public has apparently voiced its opinion, the ultimate result is fragmented urban space and movement away from initial public demands, consequent upon the absence of regulation or the relaxation of rules when the policy is implemented (Taşan-Kok, 2007).

When conflict arises between property development actors and society, those with the power to express their interests (such as investors) are often more likely to have their opinions heard by policymakers (Moser et al., 2013; Skogheim and Atkinson, 2013). Nonetheless, increased public participation is seen as creating a sense of pride in society, promoting democratic processes and the making of evidence-based decisions (Skogheim and Atkinson, 2013). For example, when the Norwegian ex-industrial cities of Narvik and Odda sought to create new industries, they devised public participation projects, the result of which was a divide between those aspiring to create a cultural sector and those with the financial power to generate jobs through economy-driven industries. Thus, despite the Norwegian government’s initial efforts to include public opinion, those with the financial power to generate immediate benefit ultimately won (Skogheim and Atkinson, 2013).

Public opposition to urban developments, in the form of protests and petitions, is often unsuccessful and requires long-term commitment and energy on the part of those involved, with generally no change achieved. For example, the Oslo Barcode project failed to consider public opinion until decisions and contracts between actors had already been agreed. This contrasts with the case of the Swedish harbour development, where the public were involved in the planning process before decisions were made (Strömberg, 2008; Moser et al., 2013), which architects and other professionals condemned as a waste of time and money. Moreover, communication from the government and feedback to the public regarding the proposals was also scarce, with final planning decisions made behind closed doors (Moser et al., 2013; Forester, 1989; Michels and Graaf, 2010). Indeed, when
public opinion is elicited, it is seldom utilised, with no public representative ever being genuinely involved in deliberation or decision-making (Moser et al., 2013).

A number of developments in England, where public participation was considered from the start, have proven to be time-consuming and costly (Skogheim and Atkinson, 2013). In addition, public participation initiated from the top can be plagued with conflicts between the various social groups, due to different ideas about the desired outcome (Skogheim and Atkinson, 2013).

Under an autocratic government, public opinion may be captured in the model of sustainability adopted, but communication channels between the public and government are commonly absent, while there may be limited means to measure public opinion on the implementation of sustainability as it relates to spaces. In the KSA, most planning policy decisions are arrived at with no request or room for stakeholder opinion, thereby creating unnecessary tension among the general public, as decisions are taken on their behalf without consultation. Principally, the municipalities prepare and approve plans at an increasing pace; and given its highly traditional and centralised political structure, the Saudi government has been reluctant to move away from traditional power relations and outdated urban planning models, which may hinder real public participation in urban development.

3.4.3 Energy Certification of Buildings as a Vehicle for Sustainability Implementation

Energy certification, which assesses both the building and its environmental impact, is a more advanced way of demonstrating energy performance than building labelling. According to Zhao and Lam (2012), it has revolutionised the implementation of sustainability around the world. Seinre et al. (2014) note that the current paradigm of sustainability assessment considers sustainable building as standing on three pillars: the environmental, social and economic impacts. Hence, there has long been discussion of how best to improve construction practices to minimise long-term environmental impact (Ding, 2008; Alyami and Rezgui, 2012; Lee, 2012; Seinre et al., 2014). Initiatives such as the creation of the Leadership in Energy and Environmental Design (LEED) rating system have led to the introduction of effective standards for measuring the energy efficiency of a building (ibid). The main characteristic of these schemes is that designers benchmark the performance of energy rating systems to determine the best one for their design (Lee, 2012; Alyami and Rezgui, 2012; Seinre et al., 2014).
Over the last twenty years there has been an increase in the number of environmental assessment schemes for buildings (Lee, 2012). The British Research Establishment Environmental Assessment Method (BREEAM), developed in the UK, has created a firm foundation for best practice in sustainable design and is deemed effective in measuring and describing the environmental performance of buildings globally. LEED, designed in the United States, is a voluntary certification programme that was developed with the aid of consensus stakeholders to provide a simple inclusive framework for building performance measurement and assessment (Zimmerman and Kilbert, 2007; BREEAM, 2011; Alyami and Rezgui, 2012). Both schemes are internationally recognised methods for evaluating the environmental impact of buildings (Lee, 2012; BREEAM, 2011; LEED, 2013; Xiaoping et al., 2009). Other assessment codes, which have not been adopted internationally, include the Building Environmental Methods plus (BEAM plus) developed in Hong Kong, and the Evaluation Standard for Green Building (ESGB) from China (Chen and Lee, 2013; Xiaoping et al., 2009). The appearance of several different assessment schemes responds to the concerns raised by several commentators, such as Ding (2008), Alyami and Rezgui (2012) and Seinre et al. (2014), that a one-fits-all scheme would be difficult to apply in all settings, considering the differing geographical, social and economic perspectives that must be taken into account when implementing a policy of this nature in a new setting. Attempts to apply an existing foreign scheme are likely to be hindered by factors including local climate, geographical characteristics, potential for energy renewal gain, available materials and techniques, public awareness, government policy and regulations (Alyami and Rezgui, 2012). Hence, the definition of building performance is subjective. For instance, a developer or owner may wish to have a building that performs well from a financial viewpoint, whereas the occupants are more concerned with matters of indoor air quality, comfort, health and safety (Ding, 2008; Lee, 2012).

To conclude this section, Tsai and Chang (2012) observe that as members of the construction industry worldwide have sought ways to implement sustainability in their projects, energy certification has thus far been one of the major indicators of sustainability, but it is not the sole method. The next section turns to the use of urban planning codes, their value in urban transformation and the role of international firms in their adoption.
3.5 Application of Urban Planning Codes to Urban Centre Development

Concern for environmental sustainability and more recently for climate change and resource depletion have inspired new ideas and approaches in urban planning. At the turn of the century, the notion of sustainable development began to require that environmental issues be addressed at the same time as economic and social ones, and urban planning was viewed as having a central role in achieving this (Watson, 2009). Now that sustainability has been defined within the urban development context, several countries have chosen to adopt international environmental assessment codes for buildings as their strategy for international policy adoption in respect of their urban development schemes. These codes are designed to create greener buildings, thus contributing to environmental sustainability (Lee and Burnett, 2008; Lee, 2012). This implies that urban planning codes that incorporate sustainability can lead to the creation of a green, liveable environment which contributes to overall global image and can attract or antagonise internationalisation (Connelly, 2007; Lee and Burnett, 2008; Crot, 2010; Acuto, 2010; Romańczyk, 2012; Lee, 2012; Alatni et al., 2012; Lemaitre, 2012; Gulsrud et al., 2013).

While this may be the case, there also exist threats to realising this ambition, among which is the bureaucracy inherent in planning and funding, which may hinder the process or reduce its efficiency. The quality of life in urban centres cannot, moreover, be gauged by the greenness of their design alone; other factors such as community cohesion and levels of economic activity will also play their part.

Among environmental and energy concerns, there has recently been considerable interest in the concept of sustainable habitats. The main drivers for the promotion of sustainable urban environments are related to ecology, energy, health and the desire to improve individual quality of life. However, these considerations are not reflected in buildings in the KSA, which are heavily dependent on electricity to run their air conditioning. Taleb and Sharples (2011) note the poor building design in the KSA results in air conditioning and refrigeration accounting for almost 80% of household electricity consumption. One effect of internationalisation which has contributed to these heavy consumption levels has been the departure from traditional building design, which utilised locally-sourced vernacular materials such as limestone, coral, stone and wood. These traditional buildings were constructed with thicker walls and roofs for thermal efficiency, while techniques such as wind towers, courtyards, fountains and mashrabiyas were employed for cooling
and daylighting. The thinner walls and roofs of modern buildings, constructed from reinforced concrete, lead to an overdependence on energy-expensive air-conditioning systems to cool them (Alrashed and Asif, 2014).

Watson (2009) observes that climate change and sustainability have become the most debated environmental issues and that the urban environment is an increasingly important factor in this debate, raising hopes that urban planning can become a mechanism for changing urban impacts on the environment for the better. Zhao and Lam (2012) conclude that the implementation of sustainability through planning codes has three major objectives: to maximise energy efficiency, to achieve the careful use of water, and to obtain environmentally friendly design whilst maintaining high quality and comfort for users of buildings. This is manifested in the political drive to ‘save the planet’, preventing further environmental and economic harm to the lives of generations to come, and has encouraged the widespread use of the building assessment criteria mentioned above, especially favouring the adoption of LEED to measure building performance and sustainability (Lemaitre, 2012; Lee, 2012). The fact that 40% of total energy consumption and greenhouse emissions are related to the construction of buildings, and that in some countries people spend 85% of their lives in buildings, has led to a major drive for ‘green’, sustainable buildings (Watson, 2009; Bernstein, 2010; Alyami and Rezgui, 2012; Lemaitre, 2012). Once planning codes have been adopted, the focus turns to how green a building is according to the particular measurement criteria adopted, given that each assessment scheme has its own emphasis on certain factors to suit its country or culture of origin (Lee, 2012).

Those building environmental assessment schemes that have emerged have been evaluated and benchmarked around what each is capable of delivering. For instance, BREEAM adopts a credit scoring regime, where credits are awarded in each domain according to pre-set performance or feature-specific criteria. Hence, the scheme could be used to assess a new building, the extension of an existing building or a combination of newly-built and refurbished parts of an existing one (BREEAM, 2011; Lee, 2012, 2013). Other assessment schemes use default criteria to compare the performance of the building under assessment and have different parameters to aid their application in a variety of climate zones (Lee, 2012; BREEAM, 2011). In particular, LEED and ESGB have a wide variety of parameters for use in different climates. BREEAM is best suited to heated buildings, whilst BEAM Plus is most suited to buildings cooled using air conditioning
(Lee, 2012; LEED, 2013). Each system has its own priorities and default levels; for example, Asian schemes have higher default building occupancy, whilst LEED pays particular attention to water chillers.

BEAM Plus provides guidance in planning, building and creating sustainable buildings and is organised into five environmental categories: site aspect, water use, energy use, materials and indoor environmental quality, plus the additional category of innovation and additions (Chen and Lee, 2013; Wong and Kuan, 2014). Of importance to BEAM Plus are ‘trade-offs’, special mitigating circumstances which warrant the use of a less green method whilst ensuring maximum efficiency. An example would be countries which have strict laws on the use of water, forcing buildings to use the less green air-cooled conditioning systems, rather than water-based coolers. However, whilst some assessment codes do account for this, most do not. Moreover, although this may not be a problem for inland assessment, local laws and practices hinder the international use of these codes. LEED, the most internationally used, is rigid and makes little allowance for trade-offs. Although LEED users can apply for extra credits, it is conceivable that some countries in which LEED is used lack the means and skills to so implement this refinement (Lee, 2012; Chen and Lee, 2013; Wong and Kuan, 2014).

A newly-emerging global building assessment and certification scheme is the German Sustainable Building Council’s quality label (DGNB), which addresses all aspects of sustainability: environmental, economic, sociocultural, functional. Taking account of technology, processes and site, it aims to reduce the costs of energy consumption, while improving both the longevity and liveability of the building. In general, the DGNB system has been designed to enhance investment probability, not only by improving building quality and performance, but also by its consideration of socio-cultural factors and the functionality of the building (Hamedani and Huber, 2012; Lemaitre, 2012).

To mitigate the impacts of various activities in the construction sector, significant changes are needed in how buildings are designed, built and operated. Experts in the industry must therefore find ways to minimise materials waste, prevent environmental damage and maximise energy efficiency (Tsai and Chang, 2012). However, in many countries, and particularly in the developing world, the ideal embodied in this aim is not met, as the knowledge and tools to apply models of sustainability to designs and developments are simply not available (ibid). Therefore, international firms are recruited to facilitate...
knowledge transfer and the development of local codes (Deringer et al., 2004). Typically, building codes are mandatory in industrialised countries, whereas in developing countries compliance tends to be voluntary, in recognition of the lack of infrastructure, knowledge, training and sometimes, the ethos for energy efficiency compliance (Deringer et al., 2004; Ding, 2008; Alyami and Rezgui, 2012; Lee, 2012; Chen and Lee, 2013; Wong and Kuan, 2014). Many projects have failed to reach the standards of sustainability set, despite international donors sponsoring building projects in developing countries to develop and/or implement international codes with that aim (Deringer et al. 2004). In any case, governments typically conduct energy code development, whilst a large number of stakeholders and those with expertise in construction form advisory panels to help identify the best course of action.

3.5.1 Urban Transformation through the Application of Planning Codes

Historically, urban planning codes have been a crucial instrument in transforming urban centres. For instance, the transformation of Brussels, which started as early as 1962 and continued until the late 1970s, was unique in the strength of demand for more office space created by the expansion of European institutions. Political, cultural, social and economic factors exposed the urban planning policies in force as technically weak. Mismanagement of these policies, most of which were copied from other countries such as the USA, was blamed for the resulting problems (Romanczyk, 2012, 2015).

The use of planning codes to influence urban planning was also seen in the KSA as early as the 1960s, when the government enlisted Constantinos Doxiadis as a consultant, then came to the fore in the 1970s with the implementation of a series of development plans (El-Nchar and Salama, 2007; Mandeli, 2008). The example of Jeddah illustrates the challenges facing public authorities in the KSA when planning for balanced urban growth; in the event, little success came from the drive for an array of urban development plans aimed at regulating city growth and mitigating the adverse impacts of urbanisation in the city.

In the neighbouring UAE, Dubai adopted a deliberate policy of ‘vertical landscaping’ to accelerate the development of urban areas, using what Wilson (2010) argues was a top-down approach to urbanism involving over 30 years of high-level political influence and resulting in the accelerated development of city centre skyscrapers. Elsheshtawy (2008a) has also noted Dubai’s exemplification of modern urban conditions through the luxurious
commercial character of its skyscrapers, which demonstrate the emphasis on exclusive developments within the Emirate. This can only be achieved if the urban planning codes are designed to facilitate such a process. Moreover, Elgert and Krueger (2012) suggest that for planning codes to make a significant contribution towards sustainable urban development, a perfect integration of power and knowledge must occur. This power is clearly exerted by government, but the knowledge may be obtained from whatever source is deemed suitable at the time of development.

Based on this, analysts perceived urban growth as relatively positive, because government development policies were able to achieve a largely first-rate infrastructure and raise urban standards of living within a short period. However, strong sentiment against the phenomenon of urban growth has arisen and it is regarded as highly undesirable, with development policies being considered self-defeating because resources are not allocated in a socially desirable manner (Garba, 2004; Saleh, 2001). Internationally, problems have arisen from the distorted nature of urbanisation, according to Mandeli (2008), and have become central political issues in developing countries. These problems include leapfrog development, the proliferation of scattered settlements, unregulated population growth, a shortage of affordable housing, insufficiently funded public services, increasing social differences, overlong commuting times, traffic congestion and severe ecological problems. In response to these challenges and to concerns over urban growth, innovative planning approaches such as the idea of ‘smart growth policies’ and ‘new urbanism planning criteria’ have been employed in Europe and the USA to encourage compact development, thus mitigating the more excessive impacts of urban growth.

3.5.2 The Role of International Firms in Policy Mobility and the Adoption of Local Planning Codes
Mahgoub (2004) draws attention to the trend towards globalisation, which has for some years been a topic of discussion among both intellectuals and the general public. While some view it as a malevolent tendency to impose dehumanisation and economic determination, others consider it a multifaceted phenomenon creating challenges and offering new opportunities.

The current phenomenon of global branded architects taking over city architectures around the world, as an aspect of globalisation, is controversial when viewed from the urban, cultural, economic, social, and political perspectives. Hence, the emergence and implementation of globalised architectural practice continues to be much debated, with
cities such as Beijing, Sydney, Tokyo, Abu Dhabi, Dubai, London and Riyadh affected substantially by the phenomenon (Mahgoub, 2004; McNeill, 2006; Faulconbridge, 2009; Ponzini, 2011; Rapoport, 2015). A strong argument arising from this is that global architects and their firms are only called in for the development of tall iconic buildings so that cities can attain ‘world city’ status. This has encouraged stakeholder involvement and persuaded advocates of world city status to consider embedding local context in the designs as a way of recognising both local conditions and human differences. In addition, this approach is seen as for a way of ensuring the retention of national identity, whilst fostering an emerging identity that is more global and international (Mahgoub, 2004; Faulconbridge, 2009; Sklair and Gherardi, 2012; Rapoport; 2015).

The concepts of policy mobility, internationalisation and policy travelling have been under evaluation for the last decade. Originating in Canada and the USA, they have allowed municipalities to attract private investment to improve the attractiveness of CBDs. The overall aim of policy travelling and internationalisation is to generalise a system for producing and governing urban space and urbanity without losing focus on the promotion of business and private commercial interests (Peyroux et al., 2012; Rapoport, 2015). While this may be the focus of these concepts, Mahgoub (2004) argues that it is wise to call for an alternative understanding of what global architecture can deliver, which means being willing to address essential local needs, to reserve and respect diversity and to accommodate distinct philosophies of space, people and their interactions with and within their environment.

Therefore, applying the social control embedded in urban centre developments requires a reconfiguration of micro-level government systems such as municipalities and local stakeholder engagement, so that power can be exercised locally through partnerships and co-operation agreements, thus reducing the tension between the forces of globalisation and localisation which tends to create a clash of styles in the urban environment (Satler, 1999; Mahgoub, 2004; Peyroux et al., 2012). In addition, global architects are known to strive for the introduction of standards and codes when they design cities by focusing on the economic geography that relates to the governance of transnational corporations and the global production networks they develop, as well as the urban and cultural geography that relates to the social production of architecture. This results in the belief that global architects are driven by a myriad of forces which determine the results of their work (Faulconbridge, 2009; McNeill, 2009; Rapoport; 2015).
Faulconbridge (2009) adds that buildings designed by global architectural firms can be analysed from two perspectives, the first being design-side regulation, where architectural firms have a tendency to adapt international regulations or planning codes in order to facilitate their work. The second perspective, that of consumption-side regulation, involves analysing the behavioural response of the intended inhabitants of the buildings who imbue its design with local meaning. Examining the interweaving of design and consumption implies that international architectural firms could genuinely consider that they deliver global rather than local buildings; in reality, their work can lead to the creation of a more distinctive local identity than may have been intended in the first place (ibid). Hence, global architects face a challenge in including global design in their buildings, while designing to local taste is extremely complex because it involves consideration of the cultural, economic, social and political context of the site (ibid).

The design of iconic buildings has become an obsession for architects in developed and emerging markets, and property developers now acknowledge the euphoria that arises when global architects are involved in promoting development. Likewise, political leaders wonder at the instrumental role played by architecture as the vanguard of urban re-imaging, according to Charney (2007). Most global architects respond to a need when producing a design, believing that each international client commissioning a design is looking for an approach which is different from the ones they are accustomed to in the locality; therefore, even though specific to the location, their work is not necessarily ‘contextual’ (Faulconbridge, 2009). Peyroux et al. (2012) observe that urban policy mobilities and their local embeddedness have become paradigmatic tools of governance that find seemingly worldwide application as globalisation unfolds, mainly because they ambitiously promote, among other things, the experience of consuming urban space as a balance between “life, work, play and landscape” (ibid:115). Not only are these elements socioeconomically, culturally or politically driven, they are treated as tools for the promotion of social relations by ensuring the optimisation of differences between the key factors (Lippert and Suleiman, 2012; Peyroux et al., 2012). The first urban policy mobility approach takes the form of an ‘entrepreneurial city’, a strategy that is said to be hegemonic around the world, because it aligns urban policy with the objectives of inter- and intra-local competitiveness in order to generate economic efficiency for the city. However, there has been a realisation that the entrepreneurial city approach to urban policy mobility raises unique challenges for each location due to varying geographical
contexts; thus, each situation has to reorient the urban policies towards the resolution of their unique circumstances (Satler, 1999; Mahgoub, 2004; Sklair and Gherardi, 2011; Peyroux et al., 2012).

Urban policy mobility can also be seen as having an international imitation approach and learning processes embedded within it, whereby new urban development models are taken as best practice, which is then modified and reinjected into the global circulation of concepts that urban planners, politicians and architects use to meet their situational needs (Peck and Theodore, 2010; Peyroux et al., 2012). Moreover, even if a country could imitate global policies on urban development, there is no way of stopping the international architectural firms from copying what others may have done so that they can add their own flavour to situate the designs.

Peyroux et al. (2012) also argue that through its use by international organisations and their representatives, the urban policy mobility approach is instrumental in promoting and facilitating the circulation of an ideal urban development model suitable for the local situation. This strategy is oversubscribed around the globe by private consultants, government agencies and the like. Governments could choose to support the role of international organisations and their representatives as they strive to modernise their urban centres. It can be argued that as much as international organisations could be engaged, they could also adopt an imitation policy mobility strategy and embed it within their work for the client without specifically stating how they have arrived at some of the solutions.

There is also a serious influence of globalisation in the way policies on urban planning codes are formulated. According to Wu (2004), the influence of globalisation in the transplantation of city space is not independently imposed on any city; rather, it is a process that is imagined, pursued and exploited by city authorities because they envisage local growth. The stamp of Western architectural firms on international cityscapes, such as that of Beijing, is a conscious action instigated by developers as they try to transplant cityscapes by exploiting globalisation, thereby overcoming the constraints on the local market. Hence, there is a need to solicit support from the global development elite so that the image they bring can be promoted as a selling point of the development. As noted in Chapter 2 (section 2.4), transplanting a cityscape is thus regarded as ‘pasting’ a global image of an urban centre onto a new location, which requires the engagement of the
participating architectural firms. Consequently, once policies are released they will mutate and acclimatise in diverse ways, the outcome being that in a capitalist economy and society, there is a consumer demand for master-planned urban centres. From this perspective, cityscapes are understood as constituents of advanced capitalist societies, signifying class and contemporaneity (Wu, 2004; McCann and Ward, 2010; Peck and Theodore, 2010).

It was further argued in section 2.4 that transnational organisations are involved in transferring cityscapes in terms not only of investment but also of government policy transfer, as well as the contextualisation of the local image. The transplantation of cityscapes can therefore be understood as a facet of globalisation, namely the globalisation of culture, which is frequently appreciated as an imposed process through which the core transforms the periphery. But the process of transplanting cityscapes using globalisation has not resolved the local constraints of the demand for a good life and good image (Wu, 2004). There is no guarantee that international architectural firms could lead to a good life in urban centres, because the concept of the good life is an ill defined utopian one. Local constraints, such as material deprivation in terms of housing consumption and polarised labour markets, are not necessarily addressed by global architects, who are said to simply authenticate the competitive advantage of new urban centres by mimicking Western design motifs (Wu, 2004). Hence, the adoption of Western policies through the transplanting of cityscape is a socially-construction process whose vision is to create a consumer-driven image of the urban centre.

3.5.3 Evidence of International Firms’ Policy Mobility and Application of Planning Codes
Policies in general are seen to be constantly moving, and new forms of policymaking and mobility are drawing attention across disciplines, involving the critical retracing of the policy debate, the tracking of policy networks, and various forms of transnational, cross-scalar and relational comparativism (Peck and Theodore, 2010). The concept of national identity has been ignored by international firms and gone unapplied to Saudi Arabian architecture; with modernisation has come architecture to which local people cannot easily relate, resulting in a change to their existing identities and the use of various social mechanisms of adaptation to change (Al-Naim, 2008; Mandeli, 2008).

As reported in Chapter 2 (section 2.5), Amin (2002) considers how the theory of globalisation can be related to the space, position, size and shape of urban centres,
suggesting that the meanings of place and space are influenced by transnational business and financial interests and by the international ideologies of planning. Hence, globalisation has transformed the spatial organisation of social relations and transactions (Amin, 2002; Mahgoub, 2004). However, there is variance in the velocity, intensity and impact of these transcontinental or interregional flows and networks of activity and in the way power is exercised within the global context. Different players are involved in this use of power in the spatial flow of ideas between regions, arising as a function of the social processes that can influence societal norms in respect of the transactional relations, and the presence of different actors is extremely significant to the choices made regarding policy mobility. Therefore, globalisation acts as a conduit whereby national actors meet, interact and influence each other through mutually-constituted connectivity. This connectivity has an influence on how space is conceptualised and used, either as locale or non-locale (Amin, 2002).

Whilst the debate for and against tall buildings continues, these constructions continue to be developed worldwide using the standard approach that has been adopted over the years. Undoubtedly, such icons can be seen as sources of national pride and cultural identity, reflecting economic prosperity, but there are nonetheless challenges to their integration with the urban fabric of the city (Mahgoub, 2004; Wood, 2007; Charney, 2007; Mahgoub and Abbara, 2012). However, there is no empirical evidence that developers have been persuaded to change their predisposition for tall buildings in order to meet or surpass performance criteria for sustainability. Consequently, a mixture of shapes and sizes is seen among buildings in developed urban centres, such as those in the West. In Arabian cities, there have been dramatic external inventions and Western influences due to a combination of factors, such as colonisation, cultural imperialism and the demand for rapid modernisation, resulting in the current pattern of urban spaces (Haggag, 2004; Mahgoub and Abbara, 2012).

Cook (2008) suggests that the process through which policies are disembedded and re-embedded into new political, economic and social contexts forms a crucial element of policy transfer. Policies that are perceived to be inadequate or potentially unsuccessful are rarely transferred, suggesting that policy transfer should be seen as a “processual and contingent disembedding, mobilisation and re-embedding of policies” (Cook, 2008:776). However, Kristensen and Roseland (2012) argue that if policy mobility were to be applied to sustainable urban development, the conceptual complexity of sustainability would
make its implementation extremely difficult. As a result, institutions assigned to implement sustainable development have not only been learning and networking, but also taking up long-term planning as a way of building institutional capacity for implementation. The mobilisation of sustainability in urban development could therefore be attributed to the process of engaging with the appropriate professionals at local and international level.

This section has reviewed examples of the application of planning codes in many countries. The next turns once more to the specific case of Saudi Arabia.

### 3.5.4 Justification for Energy Certification in Urban Centre Development

The inclusion of LEED and BREEAM here illustrates the point raised in Section 3.2.2, where the literature explains that organisations have been rushing to demonstrate the implementation of sustainable construction in isolated ways, such as certification for buildings as a way of establishing that they have measured sustainable development on their project. Such an approach confirms the embedded complexity of implementing city sustainability, as argued by Li et al., (2016) and Martos et al., (2016). Adopting energy certification can, therefore, be seen more as a way for organisations to avoid operational misdemeanours than as a deliberate, strategic action aimed at adopting a holistic approach to implementing sustainable urban centre development. This implies that while LEED and BREEAM are not exactly wrong as energy certification techniques, they may not be an ideal way to demonstrate that urban planning has included elements of environmental sustainability. This element would need to be assessed for this research so as to establish the ways in which environmental sustainability has been measured in the KSA.

### 3.6 The Adoption of International Planning Codes in the KSA

The evolution of planning in the KSA can be divided into two periods. The first began in the 1930s and culminated in the early 1970s, with urban centres witnessing gradual development and the institutionalisation of varied land use. Since then, there has been a holistic approach, whereby socioeconomic objectives and policies at national level have been consciously interfaced with those at regional and local levels (Al-But’hie and Saleh, 2002; Rahman, 2003; Mandeli, 2008). A large influx of foreign professionals has also contributed to urbanisation and the shaping of the country’s present labour force. With
this trend of expatriate intervention, urban areas have been allowed to expand rapidly without due consideration of traditional urban structure and morphology (Al-But’hie and Saleh, 2002).

An evident feature of globalisation in this process has been the intercontinental dissemination of architectural ideologies, typified by the development of iconic grand construction projects. In keeping with the globalisation theme, the designs and ideas do not originate locally, but can be traced back to global firms elsewhere. Nonetheless, these grand urban designs are commissioned by the clients, usually government bodies (Sklair, 2006). The KSA government has ensured the development and expansion of modern urban centres by designing new urban planning codes and engaging internationally recognised planners, designers and architects to work alongside local experts on sustainable urban centres and to ensure the orderly expansion of Saudi cities (Al-Naim, 2008; Al-But’hie and Saleh, 2002; Rahman, 2003; Mandeli, 2008; Alatni et al., 2012).

Globally, Islamic cities have a rich history in architecture and urban planning which has gradually evolved over the centuries. Over the years, however, the traditional codes of conduct associated with such historical development have inadvertently and purposely diverged as a consequence of urban growth and modernisation, diluting the traditional nature of Islamic cities (Saleh, 1998a; Al-But’hie and Saleh, 2002; Rahman, 2003). As already observed, the KSA government has been keen to acquire international expertise to develop urban planning codes, whilst simultaneously endeavouring to maintain Islamic traditions (Al-Hemaidi, 2001; AlQahtany et al., 2014). The strict cultural and religious values inherent in those traditions require developers to achieve a delicate balance between satisfying the desire of some members of the government and elites to modernise on one hand and respecting cultural norms on the other (Saleh, 2001a; AlQahtany et al., 2014).

Today, the stark contrast between tradition and modernity in urban planning and architecture is readily apparent in most Saudi cities (Figure 3.1). In the particular case of Riyadh, the use of international planning codes over the last 50 years is clearly evident, demonstrated by Doxiadis in 1968, SCET in 1980 and HCDR in the 1990s (Saleh, 1998b; Mandeli, 2008).
Many Saudi cities have a history of adopting international planning and building regulations to guide their transformation. Their progressive expansion over the last few decades has relied upon international planning codes, in the hope that they would better achieve modernity using available materials and techniques (Saleh, 1998a; Saleh, 2001; Al-But’hie and Saleh, 2002; Al Said, 2003; Mandeli, 2008, Alatni, et al., 2012). As noted previously, modern aesthetics and functioning of a building are essential to assist the internationalisation of cities, which is an important economic consideration of many governments. Nonetheless, many academics are of the view that the uncontrolled regeneration of Saudi cities has led to an unsatisfactory amalgamation of tradition and modernity. A key driving force behind the rapid adoption of modern international architecture is thought to be the economic success of the KSA following the discovery of oil (Saleh, 1998a; Al Said, 2003; Garba, 2004; Mandeli, 2008; Alatni et al., 2012), which has encouraged international architects, urban planners and other internal stakeholders to brand and market the new urban creations as sustainable urban centres.

In Riyadh, a key player in the development of urban centres and business districts has been the Riyadh Investment Company (RIC, 2013). Following a close study of international urban planning codes, the RIC hosted a competition among world-class
international firms to design urban development master plans (HLA, 2008; RIC, 2009). Henning Larsen Architects (HLA), having submitted a design with the appropriate sustainability focus, was selected to develop the master plan for the KAFD (HLA, 2013). This was later revised by the international firm Shankland Cox Architects.

As well as their use in the KAFD, international firms were selected to design many parts of the new urban district of Riyadh. It was envisaged that the KAFD design would be a global example of sustainable urban development. The increased international involvement following the discovery of oil undoubtedly promoted increased exposure and networking with those responsible for the marketing and drivers of policy mobility. Hence, it was assumed that urban policy could be transferred to new settings deemed to be blank canvases (McCann, 2011). In addition, by internationalising its cities, the KSA has brought pressure to adopt building designs incorporating sustainable monitoring codes developed by international partners (Lee, 2012; Alyami and Rezgui, 2012; Seinre et al., 2014). The KSA’s strategy for propagating sustainability is further examined below.

### 3.7 Sustainability Propagation Strategy in the KSA

Sustainability and sustainable development are widely embraced as desirable goals, involving the consideration of social, economic and environmental concerns relating to all development activities. This encourages cities to attain sustainable development and has long been enshrined in the UN’s Agenda 21 and Local Agenda 21 (LA21) programmes directed towards cities and other municipal areas (Alshuwaikhat and Aina, 2006). The drive has been for global awareness and institutionalised recognition of environmental issues such as greenhouse gas emissions, the depletion of natural resources and the loss of biodiversity, all of which serve as reasons to call for more sustainable land use practices (Al-Shihri, 2013).

The KSA’s Ninth Developmental Plan adopted certain objectives that include the enhancement of the role of the private sector in socioeconomic and environmental development of the Kingdom, the expansion of the domains of local and foreign private investments, and the encouragement of public private partnership as a tool to promote the sustainability concept in the country (MoEP, 2010; Al-Shihri, 2013). The application of international planning codes for sustainable development has been a technical tool for the attainment of sustainability requirements within the KSA, and the role of international
firms has been to set out the master plan that embeds sustainability and to implement urban policies requested by the government (Alshuwaikhat and Aina, 2006; Ben-Joseph, 2009; Al-Shihri, 2013; HLA, 2013).

International architectural firms often take up global business opportunities by helping to establish international and local practices, creating the opportunity to work with governments that are willing to accept their services on iconic projects. The approach allows large international firms to use professionals from the global market and to receive diverse media coverage (Skair, 2005). The global effort to reduce harmful emissions is of particular relevance to cities, where buildings can emit as much as 70% of total carbon dioxide, and global firms have the reputable knowledge base to influence and propagate concepts such as green design, sustainability and innovative futuristic projects (Alshuwaikhat and Aina, 2006; Faulconbridge, 2012; Al-Shihri, 2013; AlQahtany et al., 2014; Rapoport, 2015). The KSA has used international expertise to develop and market urban centres as high-tech communication hubs, where secure financial offices can be located (Mahgoub, 2004; Ponzini, 2013; Glen and McCann, 2011; Espirito Santo Research, 2012). In addition, there are global demands for architectural icons that have local and international significance. Some have described the drive for iconic status and the consequent iconic developments as having socio-cultural and politico-economic roots, and have argued that engaging international firms can help to achieve objectives (Skair, 2005; Ponzini, 2013; Glen and McCann, 2011).

Whilst sustainability was the marketing tool which encouraged the KSA’s engagement with international firms such as HLA in the development of the KAFD and similar projects, it is now appreciated that sustainability is very difficult to achieve in practice (Alshuwaikhat and Aina, 2006; Zhao and Lam, 2012; HLA, 2013). As already noted, a number of building assessment codes such as LEED have been developed to enhance the sustainability and efficiency of buildings and are claimed to be applicable globally. Given the particularly high CO₂ emissions in the Gulf nations compared to other parts of the world, there is a desperate need for building and efficiency coding to be considered in all future development as avenue way of reducing the negative impacts of these emissions on the environment. To this end, several assessment codes developed in the West have been used in the KSA, but many have argued that these are inappropriate (Alyami and Rezgui, 2012; AlQahtany et al., 2014). For example, the Middle East/Gulf BREEAM, a modification of the original British code, has been utilised in the KSA, but it treats
pollution of watercourses as an important factor despite the fact that watercourses are rare in the KSA and that pollution from sandstorms is a much more important issue. Another side of the argument is that sustainability is perceived as being extremely difficult to incorporate into the design stage; hence, it is not surprising that many buildings, having been awarded LEED or BREEAM ratings when built, were later found to have major sustainability issues (Alyami and Rezgui, 2012; AlQahtany et al., 2014). The recently developed spiral model is a step towards the development of assessment codes directly relevant to the KSA. This model considers the various environmental factors raised by the leading international assessment codes, as well as economic factors, and incorporates a detailed list of assessment criteria appropriate for the KSA (Alyami and Rezgui, 2012).

Educational institutions and professional organisations also influence the propagation of ideas and are seen in the KSA to have contributed to the implementation of government policy on internationalisation, as they play a leading role in providing education related to the preferred mode of development. In light of this, many international educators and Western-governed higher education institutions within the KSA are considered another likely source of influence on the perception of successful modern urban development policy for which the KSA should strive. Furthermore, the government’s political and financial support of international study and world-class Western universities has changed the mind-set of Saudi youth such that they now value iconic ‘world cities’ and want them in their own country.

3.8 Sustainability as a Vehicle for Internationalisation in the KSA
Like other countries seeking to develop world cities capable of attracting international investment and business, the KSA government is seen as using this strategy to provide long-term financial security through the development of sustainable iconic buildings. Thus, the marketing strategy adopted by international firms has been to concentrate on the sustainable nature of their designs (Alshuwaikhat and Aina, 2006; HLA, 2013; AlQahtany et al., 2014; Rapoport, 2015). However, the standards adopted are not necessarily transferable to the KSA. Specialised judgement is required to reach a decision on the extent to which international codes are applicable to the Kingdom, if at all (Alyami and Rezgui, 2012; AlQahtany et al., 2014). Furthermore, there is no guarantee that the high level of sustainability rating achieved by certain projects through the application of these
international certification standards is of any relevance to the functioning of the buildings once they have been built and occupied for some time. Indeed, there are many examples of buildings that have been advertised as having reached an excellent LEED or BREEAM rating at their design stage, only to reveal major problems once they have been occupied (Alyami and Rezgui, 2012). Despite the focus on environmental factors, there has been a failure to guarantee environmental sustainability in practice.

The certification methods are primarily focused on environmental issues, rather than on economic or social benefit (Connolly, 2007; Alyami and Rezgui, 2012) and the juxtaposition of buildings achieving a high rating score on the already doubtful use of LEED or BREEAM does not necessarily translate into sustainable buildings and certainly not into sustainable urban form (Alyami and Rezgui, 2012; Lee, 2012).

In the GCC countries, several projects have been promoted using this means; thus the development of Masdar City in Abu Dhabi was marketed as a sustainable model on the global stage (Clark and Moonen, 2010; Rapoport, 2015). However, given that the true sustainability of Masdar City has been questioned, it remains to be seen whether the internationally developed sustainable designs implemented in the KSA will stand the test of time (Crot, 2013; Rapoport, 2015). Interestingly, Dubai’s large-scale urban developments have been criticised by architectural experts as ‘models of unsustainability’ (Hadjri, 2005), since the notion of sustainability being promoted relies too heavily on Western-developed building codes which are considered incompatible with the Gulf climate (Alyami and Rezgui, 2012; Lee, 2012). This sustainability drive has also failed to consider excessive land use and the effect of such developments on communities and society.

In line with the KSA government’s objective to produce sustainable urban centres, international firms have worked hard to create green designs (Alyami and Rezgui, 2012). Theoretically, the adoption of international codes and designs should enhance sustainability and efficiency at the local level and thus promote the concept of internationalisation, despite the many questions concerning the relevance of applying such codes in the KSA (Alyami and Rezgui, 2012; Ishii et al., 2010). However, given the large number of issues surrounding compliance, once international firms have completed their projects and departed the host countries, especially developing ones, the failure to transmit the requisite knowledge to local people can make these projects difficult to
operate sustainably. Indeed, it is highly likely that the hasty importation of international codes will prove problematic in the long term (Saleh, 1998a; Deringer et al. 2004; Ponzini; 2011; Faulconbridge, 2009; Rapoport, 2015). Hence, several policy commentators are of the opinion that local public participation should form an essential aspect of the long-term sustainability of a project (Powell, 2012; Temenos and McCann, 2012; Moser et al., 2013). Using countries including Ireland, Argentina and China as examples, it has been argued that public participation in urban decisions creates a sense of pride and community, increasing the probability of public compliance with sustainability initiatives (Crot, 2010; Powell, 2012).

Accordingly, the fact that developers have failed to elicit Saudi public opinion is of great concern. Furthermore, other commentators warn that the examples of Singapore and certain cities in China indicate that the creation of enclosed economic zones will exacerbate social divides. The concentration of rapid urban development in small areas creates zones of unaffordability that are inaccessible to most, further contributing to social division (Ng and Xu, 2014; Soh and Yuen, 2011). Another major consideration for the KSA is the local culture and negligence of historic architecture, considered an important factor in the enhancement of quality of life and community identity (Plaza, 2000; Jencks, 2005; Riza, et al 2012; AlQahtany et al., 2014). Ng and Xu (2014) consider the case of Guangzhou, a 2,000 year-old city in China with a rich heritage. They report that its recent development has caused the destruction of many historic sites, which is deemed to have damaged its potential for tourism and the quality of life of its inhabitants. In the current Chinese economic vision, historic buildings have been placed under protection and maintained, as it has been realised that such artefacts are symbols of the pride and character of cities and that they aid internationalisation, in particular of the tourism sector (ibid). The example of Guangzhou, an economically successful city where quality of life and liveability are poor, is sufficient evidence for the KSA to pay close attention to cultural and social issues as well as environmental ones, to ensure that urban development is truly sustainable.

### 3.9 Summary
The strong worldwide trend towards urbanisation is accompanied by growing concern for the sustainability of urban areas. In response to strengthening demand for practical means
of improving sustainability, several strategies are beginning to emerge. Cities across the world now adopt an international architectural language when implementing sustainable urban centre development, in order to demonstrate that they are mindful of protecting the natural environment. At the same time, they employ world-renowned architectural firms to produce architectural wonders which can compete with the spectacular landscapes of other great cities, while maintaining sustainability credentials such as the achievement of energy rating status. The concept of environmental sustainability, born of the need to prevent further planetary damage, is used as a strategy and marketing tool to guarantee the ultimate objectives of the wealthy. In this process, the ‘green agenda’ of environmental sustainability, the ‘brown agenda’ of social inclusion and in some instances the ‘red agenda’ of economic success are frequently compromised. Many Arabian cities have embarked upon a journey of rebranding through the involvement of Western firms, using sustainability as a marketing tool to sanction such developments and to attract international investment. However, the climatic, cultural and economic disparities between Western and Arab states may impede the sustainability of these projects and consequently the internationalisation of Arabian cities and industries. Sustainability therefore forms part of the branding strategy of transnational architectural services, which incorporates the development and marketing of iconic buildings (Ren, 2008). Douglas et al. (2001) maintain that the main aim of international brands of architecture has been to create a competitive edge by using branding to increase international market share. Essentially, this means that international architectural firms grasp any element of success, be it in iconicity, sustainability or aesthetics, in order to remain competitive. Thus, they use their geographical dispersal to their advantage (Knox and Taylor, 2005) by ensuring that they implement systems such as the LEED or BREEAM energy rating standards to stay ahead of the international competition.

This chapter and the preceding one have reviewed the relevant literature in detail. Chapter four, which follows, concludes the first part of the thesis and sets the scene for the fieldwork chapters by outlining the methodology adopted.
4. CHAPTER FOUR: METHODOLOGY AND RESEARCH DESIGN

4.1 Introduction

This chapter explains in detail the fundamental assumptions made by the researcher in designing the study and provides a comprehensive account of the way in which the data were obtained. The overall methodology and the specific methods adopted were chosen in order to provide a deep understanding of the topic, in particular the impact of the internationalisation of urban development processes which the Saudi Government has used in its promotion of sustainable urban centres.

The research engages both foreign and local discourse concerning the internationalisation of planning strategies for urban centres in Saudi cities, with a specific focus on how sustainability in urban planning has been implemented in Riyadh and Dammam, two of the largest cities in the KSA. Given that very little is understood about the impact of internationalisation on the provision of infrastructure in urban centres in Saudi Arabia, a case study approach is adopted as a means of investigating the factors behind the employment of international firms in the delivery of capital projects in the urban centres of Riyadh and Dammam. This approach, presenting tangible case studies of live projects, allows the concept of sustainability to be seen from the perspectives of various stakeholders and furthers the appreciation of internationalisation as a driver of policy mobility.

4.2 Research Paradigm and Approach

The two most prominent social research paradigms are interpretivism and positivism, which can loosely be perceived as representing opposite philosophies. Hence, it is important to distinguish between them before introducing the approach and methods adopted here. Positivism assumes that the social world is external to the observer and that its attributes can be objectively measured, whereas interpretivism considers it to be socially constructed and consequently amenable to only subjective forms of measurement (Easterby-Smith et al., 2012). Interpretivism allows a researcher to focus on what people “individually and collectively” think and feel, how they communicate their thoughts
verbally or otherwise, and it does not force researchers to look for answers which they believe should be the outcome of their study (ibid:24). Because people have different experiences, the researcher’s interaction with them during the research process adds the advantages of flexibility and validity to a study (Creswell, 2007).

The topics of internationalisation and sustainability in urban construction, which form the focus of this study, can be understood and implemented differently according to varying experiences, beliefs, religion and culture. Therefore, within the context of the KSA, it is essential to examine stakeholders’ perspectives using the critical variant of the interpretivist paradigm, to further understanding of a variety of views.

This study takes a deductive approach, because there are many theories about urban centres and how sustainability has been implemented worldwide over several decades, which are cardinal to the anchoring of the research. Hence, there is already a body of existing theory surrounding the research problem, which is centred on the application of sustainability in urban centre development projects, in terms not only of the physical infrastructure but also of the urban planning codes. All research methods and data collection techniques are aligned towards deductive reasoning, such that the existing theories are used as a framework to gather data from the respondents and then to determine whether the feelings and opinions expressed are truly the result of the internationalisation of urban centres and the attempts to achieve sustainability embedded within that process. Moreover, in the collection and analysis of the data, attention is paid to the use of the deductive approach as a means of ensuring observable consistency in the manner in which the data were collected and analysed.

4.2.1 Qualitative Case-Study Methodology

The topics of internationalisation and sustainability in urban construction are tangible ones which can be observed and researched by eliciting the opinions of those whose lives are touched by them in whatever way. The application of a qualitative methodology makes it easier to obtain deep personal and contextual information from individuals.

One particular method embraced by qualitative methodology is the case study. Voss et al. (2002) assert that researchers can secure data from various sources and in various ways when conducting case studies, such that the outcomes could be descriptive, illustrative of a particular point, or experimental. Yin (2014) presents a similar argument in favour of case studies, pointing to their potential to pursue descriptive, explanatory and/or
exploratory approaches. At the same time, Yin (2014) argues for the value of case studies as a means of gathering preliminary information about who could be used for interviews or questionnaire administration. Finally, Naoum (2007) cites one beneficial outcome of the case study approach as being that it makes it possible to find ways to resolve complex research problems because the variables can easily be identified when analysing the case.

Since urban centre developments in the KSA are ongoing, the case study approach offers an opportunity to examine the lifecycle of the buildings in existence in order to establish the impact of decisions made thus far, then to compare such impacts with the predictions of the theories reported in the literature. It was therefore considered appropriate to adopt the case study technique to gather a range of primary and secondary information, thereby allowing for the triangulation of the data collected via observation, documentary analysis, questionnaire survey and interviews. The selection of cases is important, since they must provide clear examples of the phenomenon under scrutiny. The next subsection justifies the choice of the urban centres of Riyadh and Dammam, and two particular developments within them, as case studies in the present research.

4.2.1.1 Case Studies: Riyadh and Dammam

The cities of Riyadh and Dammam were chosen because of the significant number of development projects recently implemented in their urban centres. Indeed, the two specific case studies featured in this research—the development of the King Abdullah Financial District in Riyadh and of the CBD of Dammam—are self-selecting, because they were the only megaprojects under construction in KSA during the course of the study. Had there been others, it would have been possible to include them.

In addition to their size, the KAFD and CBD projects were chosen to reflect the impact of contemporary developments in the KSA’s urban centres and because at the time they shared a number of features, these being that they had both received full planning permission were proceeding rapidly and nearing completion, and were located in major cities currently undergoing major changes to their urban centres which were considered likely to continue in the near future. Hence, the developments in both Riyadh and Dammam had substantial involvement from well-established international planning and design firms. Further, the developments in both cities were being promoted by the municipalities’ websites as sustainable projects and thus as representative of strategic thinking in respect of new urban centres in KSA; from this perspective, they will
inevitably stand as models of urban development elsewhere in the Kingdom. Finally, both projects featured varied use of land with higher density levels than previous developments in the region; policymakers appear to consider these projects innovative, so it is likely that they will be regarded as trailblazers and be emulated in other cities such as Jeddah, Tabok and Hail.

This makes these ideal subjects through which to investigate the three main themes of this research: urban development, internationalisation and sustainability. Therefore, the case studies selected were expected to yield valuable data concerning the impact of the internationalisation of urban planning and urban development strategies in the KSA. The following subsections offer more detailed justification of the selection of each case.

4.2.1.2 The KAFD as a Case Study
There are several salient features of the KAFD in Riyadh which make it a suitable case study, not least of which is the fact that it is a large international project that highlights international influence in urban construction, making it an important example of the phenomenon being investigated, likely to provide rich data of value to the overall research effort. This huge development covers an area of 1.6 million square metres and is orchestrated by a single developer, the Riyadh Investment Company, a subsidiary of the governmental Public Pension Agency (PPA). Henning Larsen Architects was the winner of the international competition to develop and design the entire site, and no new or strict regulations were imposed upon the design brief, thereby allowing HLA to develop its own codes and to set new regulations. Shankland Cox, whose role was to review planning options and to highlight improvements to the logistics of parking, security and traffic, revised the intricate development plan. The KAFD is a truly international project (see figure 4-1), involving more than 12 overseas firms in the design of 40 new buildings. The new regulations adopted for King Fahd Road, relating to heights and floor area ratios, apply to the KAFD development, which was promoted as sustainable by the architects, as indicated on their website:

During the building phase, Henning Larsen Architects act as consultants, ensuring that the proposed scheme achieves a standard that will be seen as a world-class example of sustainable development (Henninglarsen, 2011).
4.2.1.3 Dammam CBD as a Case Study

Similar to the KAFD in Riyadh, the CBD of Dammam, in the Eastern Province of the KSA, is undergoing major urban development with an international influence. In addition to features similar to those applying to Riyadh, this development is driven by a new urban planning code, which makes it an interesting case for this study.

The Municipality of Dammam hired Duany Plater-Zyberk (DPZ), who created the Smart Code in the USA, to develop the CBD in Dammam and to create a new code and regulations to be imposed on all developments within the CBD. The site in Dammam is much larger than that of the KAFD in Riyadh, covering 10 million square metres. The role of DPZ was to contribute to structural planning for the CBD, and as a central responsibility it delivered guidelines to ensure the successful implementation of plans. It did this by ensuring detailed planning for all logistical issues likely to arise. Specifically, there was preparation of land use, zoning regulations, evaluation of existing roads and pedestrian facilities. There was also an analysis of multimodal activity, and recommendations for public transport and open space networks design. Similar to the development in Riyadh, DPZ made recommendations for ensuring the project’s sustainability. In autumn 2009, a comprehensive training programme on the code of conduct for the planning department was held in Dammam. The elaborate plan designed by DPZ included nine zones for the site. Of the three plans for implementation presented, the constituency selected the one deemed most appropriate. Detailed planning of the project, which included the development and calibration of the Smart Code for the Dammam District Structure Plan, continued in the United States. It is intended that the
density for the site be of T6 classification, with coding including details of building characteristics such as height.

### 4.3 Data Collection Tools

Given its focus on interpretivism, the study uses three qualitative tools of data collection, namely interviews, questionnaires (consisting of open questions) and document analysis. The following subsections justify the use of each tool.

#### 4.3.1 The Use of Interviews

Kumar (2014) believes that the interview has the capacity to explore issues that cannot be included in any form of questionnaire, while Dawson (2002) comments that interviews allow for a deeper examination of research questions than can be obtained via other methods. Certainly, the one-to-one discussion between researcher and participant can help to operationalise the concepts involved, as questions concerning the very issues being explored can be asked directly of the participants, and their understanding confirmed through the interview dialogue. In this study, the interview protocols were designed to elicit detailed discussion of the concepts of urban centre internationalisation and sustainability.

In order to exploit the advantages of interviews, they must be well planned and decisions made about the structure and the level of contribution/intervention made by the researcher (Robson, 2002; Gilbert, 2001). For this study, the interview was considered the most credible way of ensuring that detailed information and opinions could be elicited from practitioners and other stakeholders working on the development projects concerned. It was thus important to decide how to operationalise the interview process with the different stakeholder groups; as Dawson (2002) points out, careful planning is required in this matter. In the event, the researcher clearly identified the various professionals who were engaged in the development of the two urban centres (members of governmental/regulatory bodies, academics, local stakeholders, real estate developers, investors and finance providers). The researcher himself had time constraints and was prepared for the
inevitable challenges to be encountered in the Saudi environment, where research is still in its infancy, individuals are often reluctant to participate and scheduled appointments are constantly changing. Nonetheless, the interview method was chosen as the best means of acquiring detailed data on the social, cultural, political and religious factors affecting the two projects.

The interview protocol for professional stakeholders comprised five sections. The interviews were semistructured, as this type of encounter allows the researcher to add more questions when and if needed. As to the non-professional stakeholders, the aim was to keep their interviews simple, short and to the point. To this end, their protocol was in two parts, addressing their beliefs, observations and experiences related to the environment and the ongoing urban growth in their respective regions. Both protocols are reproduced in the appendix.

4.3.2 The Use of a Survey
As already indicated, whilst the survey is traditionally seen as a quantitative instrument, there is evidence to demonstrate that such a technique is equally valuable in a qualitative study such as this one, where it can provide support for data obtained from interviews, especially where the emphasis is on seeking understanding of underlying reasons, opinions and/or motivations (Naoum, 2007). The reason for conducting a survey, according to Sounderpandian (2008), lies in the realisation that it is prohibitively expensive to ask questions of all the people who could be asked (the population \( N \)); instead, a selected representative sample \( n \) of the whole population can be involved in a survey. Depending on the design, the researcher can formulate questions in such a way that respondents can provide adequate data which could be useful to reach conclusions or to provide answers to the research questions (Fraenkel et al., 2012). The most important requirement, according to Dawson (2002), is to ensure that questions can be prepared in advance and trialled, so that the data obtained from the survey is useful in reaching unambiguous conclusions and/or the complexity of the data analysis can be reduced as far as possible. Furthermore, questions should be constructed to get the maximum out of the process, and this implies attention to flexibility, bearing in mind that questions can be closed or open, allowing respondents to answer freely and to say as much as they wish (Dawson, 2002; 2007). In the case of this research, the survey method was implemented through a questionnaire (see Appendix) designed to support the pursuit of the study’s aims, objectives and research questions. The survey instrument, like the interview
schedule, was designed to address the key concepts associated with the study, i.e. urban centre internationalisation and sustainability.

This strategy had a number advantages, specifically those noted by Kumar (1999), who identifies three main attributes of a survey that make it an attractive option to researchers. Firstly, the survey offers an economical way to collect primary data; secondly, it allows respondents to remain anonymous; thirdly, the researcher has the chance to review and standardise questions before they are actually presented to respondents to ensure that they focus on the real intent of the research (see also Dawson, 2002). In the Saudi context, these benefits are significant, since travel in the country is not always easy because of the climate, and because individuals generally want to safeguard their privacy.

However, it is important to acknowledge that there are always challenges in the use of a questionnaire survey; in this case, two of the shortcomings highlighted by Kumar (2014) were evident. Firstly, a great deal of travelling had to be undertaken to obtain permission to recruit participants from the industry. Secondly, a number of incomplete questionnaires were returned, perhaps because respondents were unclear about certain issues or perhaps because they were unwilling to reveal certain types of information (Kumar, 2014). However, since challenges were anticipated in the data collection, the researcher was proactive in offering alternatives for those who had no time to complete the questionnaire. For instance, it was possible to deliver the questionnaires in person to the administrative offices of the participating organisations, or via email. This facility was advantageous in increasing the response rate as well as in obtaining commitment from the responding organisations to return completed questionnaires to the researcher.

4.3.3 Secondary Data
According to Bowen (2009), document analysis involves a detailed examination of documents in order to establish the meaning behind decisions made in the past. This implies that documents (often official ones) become sources of interpretative analysis for those interested in the social world (Collis and Hussey, 2009). The documents reviewed in this study include those specifying government policy on new urban centres in the case of Riyadh, sourced from High Commission for the Development of Riyadh (HCDR), and the new planning regulations and codes for Dammam obtained from DPZ. The secondary data analysed also included site observations, photographic records and sketches of areas under transformation at different times.
The document analysis was conducted in three parts. Firstly, the concept of sustainability was traced in policy documents and planning codes related to the case studies. The aim was to determine how the concept of sustainability had been introduced, translated and interpreted in the new urban centres of Riyadh and Dammam. This included examination of the transmission of policy adjustments through urban planning codes, traced from the government’s policy documents through to their implementation by the architectural firms in the development of these centres.

The second stage investigated how changes in the planning regulations and codes affected the form of the two cities and their urban centres in particular. Some key sources for documents analysed at this stage were:

- Doxiadis, 1968 (Riyadh)
- SCET, 1980 (Riyadh)
- HCDR, 1990 to present (Riyadh)
- HLA for KAFD, 2008 (Riyadh)
- Candeliz Metra, 1976 (Dammam)
- CH2M HILL, 1980 (Dammam)
- Abdul Hadi & Al Mo’aibed Engineering Consulting, 2004-present (Dammam)
- DPZ for CBD (Dammam)

These documents provided a clear picture of the planning frameworks and regulations operative in Riyadh and Dammam, and an appreciation of the transformation of the cities in terms of urban planning and design. The analysis facilitated the comparison of subsequent frameworks adopted by the designers with the existing one.

The third step was to review national urban development policy documents for Saudi Arabia, including the nine Development Plans and Urban Strategies from 1970 to 2010. The aim was to have a general view of their development over time and at each stage of development, enabling an appraisal of government thinking on urban development during the period considered. This longitudinal view of urban development plans in the KSA provided a record of the leading role of internationalisation at national and regional levels. The analysis offered a critical appraisal of urban policies and identified the thinking behind the policies formulated and introduced during each successive period up
to the start of the Government’s drive towards internationalisation and sustainability in all projects, which transformed the urban shape of the KSA to reflect modernity.

4.4 Sampling and Participants

In line with qualitative methods and the case study approach, a purposeful sampling strategy was deemed suitable in order to select participants with the experience and knowledge to provide in-depth information and opinions about the internationalisation of urban planning and sustainability of urban centres in the KSA. This sampling method is common in qualitative case-study research to identify and select information-rich participants/stakeholders, especially when there are limited resources available from which to collect the desired data, making it critical to recruit such participants, who are often characterised by their knowledge and experience with the phenomenon under investigation (Cresswell and Plano Clark, 2011). The researcher carefully chose participants who possessed experience in urban construction and were aware of the influence of internationalisation in this sector. Purposeful sampling must be based on the availability of participants, their willingness to participate and their ability to communicate and articulate their knowledge and experience, as emphasised by Berbard (2002). Overall, the aim of this sampling method is to ensure maximum efficiency and validity (Morse and Niehaus, 2009). In this study, participants were selected according to their convenience and opportunity, both of which are considered purposeful strategies. However, during the interviews several participants directed the researcher to interview others who might also be helpful; hence, snowball sampling (which is in itself a type of purposeful sampling) was also used.

In order to elicit the views of key stakeholders with various forms of interest in the projects and to establish their level of engagement with these, it was first necessary to identify them. As both projects were conceived and commissioned by the Saudi government, stakeholders were selected from online directories of relevant government ministries, departments and agencies, as well as from private companies, the real estate industry, academia, end users and shop keepers (Tables 4.1 and 4.2). In addition, the researcher’s personal contacts offered suggestions for other stakeholders to be considered for inclusion in the study. It was considered important to ensure a wide degree of
variation across informant firms, government officials and the public (Table 4.3), in terms of the level of internationalisation, in order to assess the impact of internationalisation more broadly.

This process allowed the researcher to study the impacts of internationalisation from the perspective of firms’ international experience, while taking account of local stakeholders’ views of how the internationalisation brought about by these firms had transformed the urban centres, of the resultant impact on the distribution of infrastructures, and of the promotion of internationalisation through the lens of sustainability in the projects handled by these firms. Key decision-makers were interviewed in order to identify significant features of the planning policy development strategy and the impact of internationalisation through the provision of urban infrastructure in the Kingdom. To strengthen the validity of the study, a questionnaire was designed and distributed to selected stakeholders to gather their views on the projects. Finally, secondary data were sourced from international firms and government bodies, to supplement the interview and questionnaire data.
<table>
<thead>
<tr>
<th>Organisation</th>
<th>Involvement in the development</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Governmental and Regulatory Bodies</strong></td>
<td>Administration of municipalities throughout the KSA, planning of cities and towns, development of infrastructure. The following persons were interviewed for this study:</td>
</tr>
<tr>
<td>Ministry of Municipalities and Rural Affairs</td>
<td>☐ Deputy Minister of Town Planning</td>
</tr>
<tr>
<td>High Commission for Development of Riyadh (HCDR)</td>
<td>☐ Assistant Departmental Minister of Municipal Affairs</td>
</tr>
<tr>
<td></td>
<td>Responsible for the socioeconomic, cultural and environmental development of the Saudi capital. The HCDR is charged with the planning and improvement of the standard of urban services and facilities provided for city residents. The following persons were interviewed:</td>
</tr>
<tr>
<td></td>
<td>☐ Director of Urban Planning</td>
</tr>
<tr>
<td></td>
<td>☐ Director of Future Studies</td>
</tr>
<tr>
<td><strong>International Companies</strong></td>
<td>Henning Larsen Architects Master plan consultants for the KAFD</td>
</tr>
<tr>
<td></td>
<td>HOK and Omranion Designers of Capital Market Authority headquarters in the KAFD</td>
</tr>
<tr>
<td>Saudi Bin Laden Group (SBLG)</td>
<td>SBLG, established in 1931, is a leading construction and civil engineering concern with active contracts in the KAFD.</td>
</tr>
<tr>
<td><strong>Real Estate Developers</strong></td>
<td>Riyadh Investment Company (RIC) Sole developer for the KAFD, RIC is a wholly-owned subsidiary of the Saudi Public Pension Agency which develops and controls all PPA investments in real estate, including new project developments.</td>
</tr>
<tr>
<td><strong>Investors and Finance Lenders</strong></td>
<td>The Real Estate Development Fund (REDF) REDF is a governmental entity that provides loans to both individuals and organisations for private or commercial real estate programmes.</td>
</tr>
<tr>
<td>General Organization for Social Insurance (GOSI)</td>
<td>GOSI administers the KSA’s national insurance scheme. It invests assets and pays allowances and compensation to individuals and families within the scheme. It is the main investor in Olaya Towers, a mega-high-rise mixed use project in Riyadh.</td>
</tr>
<tr>
<td>PPA</td>
<td>The PPA provides social protection and insurance coverage to civil and military officers working in the public sector. It is the main financier and developer behind the KAFD.</td>
</tr>
<tr>
<td><strong>Academic</strong></td>
<td>King Saud University (KSU) Founded in 1957, KSU is the largest public university in the KSA. Its College of Architecture and Planning is among the oldest in the country. Academics from the departments of Urban Planning and Architecture participated in this research.</td>
</tr>
<tr>
<td><strong>Others</strong></td>
<td>Individual businesses/individuals Businesses located in the corridor of the ongoing development were invited to participate.</td>
</tr>
</tbody>
</table>
### Table 4-2: Research Sample for the Dammam Case Study

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Involvement in the development</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Governmental and Regulatory Bodies</strong></td>
<td></td>
</tr>
</tbody>
</table>
| Ministry of Municipalities and Rural Affairs | Administration of municipalities throughout the KSA, planning of cities and towns, development of infrastructure. The following persons were invited to participate in this research:  
☐ Deputy Minister of Town Planning  
☐ Assistant Departmental Minister of Municipal Affairs |
| Urban Planning Department of the Eastern Province | The Department controls planning approvals for Dammam City. The following were invited to participate in this study:  
☐ General Director of the Department of Urban Planning  
☐ Director of Mega Projects in Eastern Province |
| **International Companies** | |
| Ismail Construction Co. | Construction of villas and high rise buildings in Eastern Province, Dammam and Riyadh |
| Duany Plater-Zyberk (DPZ) | DPZ produced the Miami Smart Code and was contracted to design and develop the Dammam CBD. |
| **Real Estate Developers** | |
| Aloula Development Company (ADC) | ADC is a major real estate development organisation, active throughout the KSA and owning projects in all major cities. It is a major stakeholder in several projects in the CBD. |
| Sumou Real Estate Company | Another real estate developer with projects all over the KSA, it holds contracts for several housing development projects in the CBD. |
| **Academic** | |
| King Fahd University of Petroleum and Minerals (KFUPM) | The largest science university in the Eastern Province, KFUPM has strong departments of Architecture and of City and Regional Planning. Academics from these departments participated in interviews and the questionnaire survey. |
| Dammam University | Another public university. Academics from its departments of Urban Planning and of Architecture were invited to participate in the study. |
| **Others** | |
| Individual businesses/individuals | Shopkeepers (end users), small business proprietors, landowners and residents directly affected (positively or negatively) by the urban developments in Dammam. |

### 4.4.1 Interview and Questionnaire Samples

The researcher conducted semi-structured interviews comprising a series of open-ended questions with the 71 people listed in Table 4.3, drawn from the organisations and groups listed in Tables 4.1 and 4.2. A questionnaire survey was also distributed among a larger sample to elicit further information around the research theme. A total of 283 valid questionnaire responses were obtained from the survey.
Table 4-3: Breakdown of Stakeholders Interviewed

<table>
<thead>
<tr>
<th>Participants</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional designers and planners</td>
<td>23</td>
</tr>
<tr>
<td>Shopkeepers (Others)</td>
<td>19</td>
</tr>
<tr>
<td>Civil servants</td>
<td>18</td>
</tr>
<tr>
<td>Academics</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
</tr>
</tbody>
</table>

4.5 Data Collection Procedures

4.5.1 Interview procedure
Before each interview, the researcher assured the interviewee of confidentiality and guaranteed his anonymity. Each interviewee was given a brief description of the research project, with key terms (internationalisation, sustainability etc.) being clearly defined in the context of the research theme. The main theme was the impact of internationalisation on urban planning and urban centres. Other questions concerned how the process had helped to enhance the international competitiveness of Saudi urban centres. More specifically, interviewees were asked how the notion of sustainability was instrumentalised and mobilised, and their views on policy mobility and knowledge transfer were elicited.

Those who argued that the ongoing transformation of urban centres lacked sustainability credentials, as promoted by the international firms operating there, were asked what factors restricted the attainment of sustainability by these projects. Their knowledge of the application of international planning codes and of sustainability drives in the urban centres was also explored. In addition, stakeholders were asked some more general questions about the impact of the current planning regulations on the delivery of sustainable urban centre projects, and were invited to highlight other factors that had any impact on the expansion of urban centres. The interviews were held during July to September 2012 and each lasted between 45 and 90 minutes. They were all conducted in Arabic and digitally recorded. The recordings were subsequently transcribed and translated into English.
It emerged in several interviews that the individuals concerned were keen to assist the researcher by proffering the names of other professionals who they believed would be happy to be interviewed. Thus, the snowballing technique was used to expand the sample of interviewees. The only problems associated with the interview exercise were concerned with arrangements, since many appointments were cancelled by participants, requiring the researcher to rearrange them or to look for substitute interviewees.

4.5.2 Survey procedure
Before the questionnaire survey was administered to the full sample, a pilot study was conducted, in which an initial draft of the questionnaire was sent to 60 email addresses at relevant ministries, departments and other organisations involved with the Dammam and Riyadh projects. A window of two weeks was set for the collection of responses. Thirty questionnaires (50%) were returned, of which 19 had been completed. Data gathered from this exercise were used to adjust the questions before the final version was adopted for the full survey.

To achieve a wider distribution, the questionnaire was distributed via three methods: by email, by post and by hand. The URL of a web-based version was sent by email to staff members of government bodies, international companies, estate management firms etc; copies were distributed by post where only the postal addresses of individuals and organisations were available; and physical distribution was used to widen stakeholder coverage where neither email nor postal addresses were available. A total of 283 valid questionnaire responses were obtained from the survey.

4.6 Data Analysis
All interview transcripts and documents were subjected to thematic analysis. The researcher transcribed all interviews, read each in great detail and made notes and memos for each of the interviews, referring to the main ideas and opinions that served an understanding of the research problem. Once all interviews were read and notes made for each, the researcher looked at the overall themes and the common ideas that participants had mentioned in relation to internationalisation and sustainability. Similar ideas and opinions were grouped together to form themes directly related to the topic. This
technique of manual qualitative data analysis is in keeping with the instructions provided by Guest (2012).

Microsoft Excel 2010 was used to present the questionnaire data in a more meaningful way, allowing descriptive information and a simpler interpretation of the data. Measures of central tendency were employed to describe the central position of the frequency distribution of each group of responses, based on the questions asked. The results are presented in chapters 5, 6 and 7, using graphs and tables for ease of understanding.

4.7 Summary

This chapter has considered the most appropriate philosophical approach to take in conducting research on sustainable urban centre development, which is an extremely wide issue that requires a particular philosophical underpinning if the desired data are to be secured. After discussing the possible options in this respect, interpretivism and a qualitative case-study methodology based on deductive reasoning were chosen as the way forward. Three research methods, namely interviews, a questionnaire survey and document analysis, were identified as suitable for adoption in the two case studies, of urban developments in Riyadh and Dammam. The sampling was seen to be purposeful, to involve individuals who were believed capable of providing information and opinions of relevance to the study. From the information presented in this chapter, it can be concluded that the research design, with its abundant opportunity for triangulation of data, was rigorous and capable of producing valid and reliable results (Fellows and Liu, 2008).

The first four chapters of this thesis have set out the background to the study, reviewed the relevant literature and outlined the methodology adopted. Chapter five, which follows, begins the reporting and analysis of the data collected in the field.
5. CHAPTER FIVE: THE INTERNATIONALISATION OF RIYADH AND DAMMAM: MECHANISMS, MOBILISATION AND ASSESSMENT

5.1 Introduction

This chapter considers the internationalisation of Riyadh and Dammam that has resulted from their rapid urbanisation and development during the last fifteen years. It begins by considering the KSA’s existing urban policies, the internationalisation ethos and its impact on the Kingdom’s physical urban development drive. It does this by discussing international architectural practices and urban development within the Kingdom, using Riyadh and Dammam as case studies to investigate the influence of internationalisation within its urban centres. This discussion is operationalised by exploring the assessments of various local stakeholders (architects, planners and members of the public) of the internationalisation of their surroundings. Finally, the effects of internationalisation on the urban environment and on the architectural, social and cultural character of the two cities are further assessed by analysing empirical data from interviews and structured questionnaires, and by reviewing secondary data sourced from governmental bodies and international firms operating in the KSA. Since all of these stakeholders have direct dealings with the internationalisation process, it was believed that their perceptions of how the process was mobilised and implemented would be of direct value to the study.

In examining the influence of the internationalisation of urban planning and urban development strategies in the KSA, the chapter adopts a chronological approach, charting how the notion of internationalisation has been mobilised by the government and assessing the contribution made by international architectural practices working in the Kingdom to facilitate the process. It explores the mechanisms behind the process of internationalisation in order to arrive at an understanding of the salient factors used to promote the concept in the Kingdom.

The first dimension considered concerns the regime and urban policies of the government and how these have influenced urban development through knowledge transfer brought about by the engagement of foreign firms. The second refers to the prestige associated
with iconicity and governmentality with the modernisation of the planning process in new urban centre developments, while assessing their sources of inspiration in contemporary urban centres in the Arab and Western worlds. The third dimension of the process of internationalisation concerns its implementation and the associated material importation. Hence, the chapter provides an assessment of the impact of these mechanisms on the new urban centres of the KSA, using Riyadh and Dammam as case studies, and the image of internationalisation established amongst local stakeholders. In doing so, it addresses matters pertaining to the physical planning and development of urban sites, the economy, policymaking, knowledge transfer, the working of international firms and sustainability issues.

5.2 Internationalisation Trends in Urban Development in the KSA

International influence on urban planning and the architecture of the KSA dates back to the 1950s when major oil deposits were discovered in the Kingdom. This discovery resulted in the development of new towns like Dammam, Al-Khobar, Dhahran and Ras Tanura under the patronage of the Arab American Oil Company (ARAMCO). Historical data reveals that at that time, there were few trained architects and construction professionals in the Kingdom; hence, ARAMCO employed its own architects to cover these shortages of skilled professionals. The architects imported by ARAMCO were among the early pacesetters in the introduction of the international influence on urban planning witnessed in the country. Indeed, Interviewee 39, responsible for urban planning in Dammam, emphasised the influence of ARAMCO on the internationalisation observed in the country. Figures 5.1-5.3 provide pictorial overviews of the early urban developments in Dhahran, Al-Khobar and Abqaiq.

The resultant built environment was reminiscent of a typical American development, with a gridiron street plan facing cardinal orientations, as shown Figure 5.2, an aerial view of Al-Khobar. This gridiron layout has been promoted in the KSA over time, as indicated in the Candilis Report of 1976 and the Ministry of Municipal and Rural Affairs (MoMRA) 10th Report of Dammam (2007). Le Corbusier’s signature street-naming pattern of numbering avenues and providing streets with name signs was incorporated in these developments (Al-Hathlool, 1981). Square lots and setbacks were created, ensuring the
development of villa-type houses with gardens (Figure 5.3). This strategy had a considerable impact on the ARAMCO communities in the eastern coastal belt, especially on Dammam and Al-Khobar. The introduction and accelerated construction of villa-type houses made for a more favourable and attractive housing typology when compared with the local courtyard-type houses.

Figure 5-1: Aerial View of Dhahran in the late 1950s (Source: ARAMCO Handbook, 1950)
A report entitled *Diplomatic Quarter, Planning and Projects Centre*, by the High Commission for the Development of Riyadh (HCDR, 1998), states that in 1953, the government decided to relocate the capital city from Makkah to Riyadh. Consequently, the Ministry of Finance initiated the Al-Malaz Project to provide housing for government employees. Commenting on the developments resulting from this project, Al-Hathloul (1981) refers to the *Comprehensive Strategic Plan for Riyadh 1997*, also formulated by the HCDR, and notes that the physical pattern of Al-Malaz adopted a gridiron plan.
(Figure 5.4), with street hierarchy, rectangular blocks and large lots that in most cases were square. This layout is seen as a further development of the gridiron plan contained in the Doxiadis Master Plan of 1968. Thoroughfares were observed as being 30 metres in width, main streets 20 metres, and secondary or access streets 10 or 15 metres. A 60-metre boulevard divided the project into two parts. Most blocks were 100 x 50 metres. The typical lot size was 25 x 25 metres, but some blocks included a variety of widths, from 25 metres to 50 metres. The depth of 25 metres, however, remained constant in almost all blocks (Al-Hathloul, 1981).

The Doxiadis Report of 1968 shows that the development of modern apartment buildings in the central region of the country began in the 1950s. The mid-1950s saw the introduction of the gridiron street pattern and detached villa-type dwelling that came with a new design and organisation concept, coupled with major changes in construction techniques and types of building materials used in construction. There was then a decade of transformation in the pattern of apartment living, especially in Riyadh. According to Bahammam (1998), this transformation was the outcome of two factors: the influx, from other areas of the Kingdom and from surrounding countries, of people who preferred an apartment building to the traditional house; and the three apartment buildings included in the Saudi housing, which were rented to government employees. These two factors enhanced the image of the apartment building as an appropriate residence for Saudis (Figure 5.5); thus, the pattern was established and the process of erecting apartment buildings prospered.

These changes were initiated by the housing introduced by ARAMCO in the Eastern province at the beginning of oil exploration and later by the Al-Malaz project introduced by the Ministry of Finance in 1953 (Al-Hathloul, 1981; Bahammam 1998). The various processes concerning the emergence of zoning regulations in the late 1930s and early 1940s, and the introduction of villa-type and multi-storey buildings in the 1950s and 1960s, culminated in the formulation of planning rules that were applied uniformly throughout the country. These were issued in the form of circulars by the Office of the Deputy Ministry of Interior for Municipalities to all municipal and town planning offices in the country.
Comparing this newly-introduced planning pattern with the traditional layouts of Al-Diraiah, Riyadh’s oldest neighbourhood, it becomes obvious that new values in the
conception of space had been introduced. The pattern comprises a very low density planning scheme, about one-fifth of the density of a traditional settlement. In addition, the layout boasts a large land mass assigned to streets three times the size of the traditional plan. Another deviation away from the traditional pattern is that half of the area was reserved for private lots, whereas 75% or more of the surrounding land in the traditional settlements was deemed to be occupied. However, there was no provision in the new planning pattern for semi-private space, which is considered an essential element of traditional Saudi environments. Hence, the impact of Al-Malaz on Riyadh was very easily seen: it became a city by itself, sometimes referred to as the New Riyadh, as mentioned in the Doxiadis Report on the conditions existing in 1968. However, a report by HCDR (2003) highlights something that was not envisioned at the time of the city’s inception, being the impact it would later have on the pattern of physical development not only in Riyadh but also in the rest of the country. Al-Malaz introduced new patterns and new types of dwelling. Both the grid street pattern and the villa as the new house type became models for the new physical development that occurred in the 1960s and 1970s in every city and town of Saudi Arabia.

An interviewee observed that the Doxiadis Plan had changed the urban form and generated low-density areas, since the old Riyadh layout density was 200-300 persons per hectare, whereas the new area plan considered 30-100 as the norm, according to the 1970 report by Doxiadis.² The next section analyses the responses of a number of others concerning such changes.

5.3 The Impact of Physical Development and Planning of Urban Centres

The change from traditional building designs to an unfamiliar and more formal building practice in the Kingdom saw greater involvement of professionals and the formulation of more planning rules. Hence, architects, engineers, contractors and municipal officials replaced the traditional master builders. Based on the data gathered, it was evident that rapid growth had been witnessed around urban development projects, with many high-

² Interviewee 30.
profile projects having been initiated and implemented during the last 15 years in the KSA. These changes were accompanied by certain challenges, as this local stakeholder reported in his interview:

We witnessed the first construction boom in the late seventies, when a fund for real-estate development was put in place to assist people with building. At that time, the city unexpectedly and rapidly developed along with the international consulting plan Doxiadis, but the development exceeded the urban scope. The Doxiadis system is considered a flexible system that assists in the expansion of the city, but it depends on the superblock system of 2 km by 2 km, which could be divided.³

In the light of the shortcomings of the Doxiadis Plan, the MEDSTAR report was commissioned, and this revealed that the first master plan was revised and updated in 1976 by SCET International and completed in 1978, when an area of 850 km² was assigned for development until 1990, in order to accommodate 1.6 million people. The superblock 2 x 2 grid plan was operational in the new area, but in reality the master plan that proposed this pattern was never authorised. The main streets were classified as commercial streets, and the sub-divisions within them assigned for commercial or mixed use (HCDR, 2003).

In another response, an official at the Municipality of Dammam favoured horizontal expansion, saying:

Yes, the horizontal expansion was necessary. In 1975, Saudi policy required this rapid development, because the urban infrastructure was so old. At that time, a very important question was asked: do we remove the old structure or develop a new city? The Ministry of Housing started to assist the MoMRA and executed a common project called Urgent Housing, and selected Dammam, Khobar, where they built the residential towers at the entrance of Dammam City. On the other hand, old areas were still available.⁴

This finding was previously highlighted by Candilis (1976), who mentions that with the acceptance of the international planning culture, so too came the horizontal expansion of

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³ Interviewee 23.

⁴ Interviewee 39.
the city. However, this strategy brought with it some adverse effects, as noted here by an official of Mega Projects in Eastern Province, Municipality of Dammam:

*The last ten or fifteen years have witnessed a boom around infrastructure development compared to the construction boom of the seventies and early eighties. I believe that we are currently witnessing a boom, particularly in the last five or ten years. This great boom has certainly come with its own peculiar problems. Cities have begun to expand tremendously and this growth is outstripping the provision of services and infrastructure.*

The KSA government reemphasised the horizontal expansion of these cities as a priority in its Ninth Development Plan, while taking into consideration economic, social, administrative and other factors, especially high land prices near city centres, which stimulate expansion at the periphery, and regulations restricting vertical growth, which reduce the efficiency of exploitation of flat areas within urban boundaries. These factors, along with the escalation of city populations, increased the pressure on public services and infrastructure in major cities.

Another interviewee mentioned some of the same problems and lent his voice to the criticism of the Doxiadis Plan of 1970:

*The Doxiadis plan had some defects. It encouraged horizontal expansion, which we are still suffering the effects of. It abandoned the system of ancient quarters or the Islamic pattern, which relied on privacy and networking gradients, depending widely on cars instead.*

In addition, the reports by Doxiadis in 1968 and HCDR in 2003 revealed an overreliance on city streets as commercial arteries, which resulted in horizontal expansion. However, the greatest constraint to the implementation of the plan was seen in the Saudi people’s rejection of the towers and open areas. The residential towers in Dammam and Khobar were shunned by citizens and remained empty until 1990, when Kuwaiti citizens who had

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1 Interviewee 40.
2 Interviewee 23.
3 Interviewee 39.
fled their country when it was invaded by Iraq were given asylum in Saudi Arabia and housed in them. It was much later that the local citizens began to accept these towers.

As reported by Doxiadis in 1970, it was later discovered that business within the urban centre had historically operated in the centre of Riyadh, around Al-Bathaa, but that later the urban centre was moved to King Fahd Road, which subsequently transformed into the new commercial artery of the city. This relocation of Riyadh’s downtown away from Al-Bathaa to King Fahd Road resulted in the emergence of slums occupied by labourers and low-income people in the old commercial centre of the city. The existence of such slums was seen as inappropriate, although this situation was precisely as designed and influenced by Doxiadis. Indeed, Candiulis (1976) sees it as inevitable, given the classification adopted by Doxiadis in their proposals for the improvement and beautification of major cities elsewhere in the eastern region.

5.4 International Architectural Practices in the KSA

In the late 1960s, the government of Saudi Arabia felt the need to control and direct growth in urban areas. Riyadh, the capital, was the fastest-growing city in the country, and the most important one from the government’s viewpoint; hence, it was the first to attract the attention of the authorities. Consequently, in 1968, Doxiadis Associates undertook the task of planning the capital, which was considered as a milestone in the history of urban planning in Saudi Arabia. The process represented the first formal attempt to study and analyse the existing conditions of the city of Riyadh, and the first recognition of the need for planned development of the city as a whole. The final master plan was submitted in 1971 and approved and sanctioned by the Council of Ministers in the same year (Doxiadis, 1970; HCDR, 1997). The plan assumed a linear development along a spine extending in a north-south direction, contrary to the traditional east-west development corridor. Half of the proposed land area of 300 km² was allocated for

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8 Interviewee 39.

9 Interviewee 39.

10 Interviewee 44, 46.

11 Interviewee 31
residential purposes in order to accommodate 760,000 people up to 1985 AD and 1.4 million people in 2000 AD. Blocks of 2 km x 2 km were proposed as the basic planning unit for the city, covering all the planned sections (HCDR, 2003). The Doxiadis Master Plan for Riyadh introduced the ‘super grid’ at the city level (Figure 5.6) and used the grid pattern in its proposals for the Action Area Studies. It institutionalised the grid as the most desirable pattern to be followed in the planning of Riyadh as well as in other cities in the country. Additionally, it preserved the trend of large lot sizes, further developed the setback requirements introduced in Al-Malaz, and proposed independent houses similar to the villa typology as the preferred dwelling type. As a whole, the plan institutionalised a new physical environment for the city of Riyadh, which was rather different from the traditional type (Figure 5.7) in terms of density, scale and pattern (Doxiadis, 1970).

Figure 5-6: Proposed Doxiadis Master Plan of 300 km$^2$ that saw the introduction of a ‘super grid’ at the city level (Source: Doxiadis, Riyadh Master Plan, 1971)
The Doxiadis concept for Riyadh was based on the theory of ekistics, which makes two fundamental assumptions:

(1) The optimum-size city is a myth. However, any city can be divided into physical units of optimum size, and these may be used as a basis for planning that envisions an optimum number of people in a community. (Doxiadis, 1970:13)
Our cities are growing organisms. They need a development policy leading to a development program, which is expressed, in space, by physical development plans, but they also need economic, social, political, administrative, technological, and aesthetic programs. (Doxiadis, 1970:13)

The design entailed a conscious effort to encourage a close relationship between neighbours. The idea of a super-grid having a basic module that can be replicated with the growth of the city was fundamental to the urban plans developed by Doxiadis, as can be seen from his other contemporary designs, such as for Baghdad, where a similar plan was designed in 1958 (Figure 5.8), and Islamabad in 1960 (Figure 5.9).

![Figure 5-8: Master Plan of Baghdad, 1958 (Source: Doxiadis Associates, Progress of the Housing Program, 1959)](image)
At the same time, the Doxiadis Plan was more focused on policymaking, as documented in the Master Plan Report by Candilis in 1976, rather than on rapid population increase. Consequently, the French firm SCET International was appointed by the HCDR (2003) to revise the Master Plan for Riyadh. By 1976, SCET International was commissioned to implement the city plan and to more than double the area from 300 km$^2$ to 850 km$^2$. Despite the lack of official approval for the SCET Plan, the planning contained within it has been widely used, because it had 2 km x 2 km blocks with main streets assigned for commercial development as well as mixed use development (HCDR, 2003), as evidenced in Figures 5.10 and 5.11.

Figure 5-9: Master Plan of Islamabad (Source: Capital Development Authority, Islamabad website)
Figure 5-10: SCET 1978 Revision to the Doxiadis Master Plan (Source: SCET, 1978).
Considering the brief history outlined above, the HCDR (2003) report demonstrated that the development of the master plans from the 1970s until the 1990s relied heavily on the initial efforts of Doxiadis Associates, and that the key emphasis was to develop in a systematic way to ensure that the urban centres were commercially viable. Analysis of Figures 5.10 and 5.11 reveals that aside from the adoption of 2 x 2 block allocations in the plans, city growth was affected by the strategic location of the major projects, which were sometimes integrated in the city fabric in an unsuitable manner. The proposed development of Wadi Hanifa as a green belt area, in order to integrate the park system at the city level, was not fully implemented; nor was the proposed development of the old airport site as a key park for the city.

To sustain this systematic urban developmental approach, the government was required to devise a sustainable strategy of engaging international firms as a mean of complementing and/or enhancing the capabilities of the local professionals, an approach which has now
become more visible across developing countries, where governments have actively sought international assistance with experience in handling urban development projects, thus creating facilitating the mobility of urban policies from region to region. Indeed, the KSA government’s strategy for internationalisation has been to pursue extensive urban rejuvenation with the assistance of international firms.

Table 5.1 provides details of projects handled by international firms operating in the Saudi architectural and planning market since 1970, from which it is clear that the activity of international firms in the Kingdom has grown steadily over this period; since 2010 they have handled more than 95 projects, most being megaprojects. The 1980s saw another twist in the internationalisation process within Riyadh, when action taken by the Saudi government allowed foreign embassies to be constructed by international firms from their home countries, on the basis that this would represent knowledge transfer and be part of their marketing strategy. For example, the Danish embassy was designed and constructed by HLA in 1988 and the Japanese embassy was constructed in 1985 by a Japanese firm, Tange Associates. Considering the amount of work undertaken by these architectural firms, as shown in Table 5.1, it is not surprising to see the influence of foreign architectural styles in urban development projects in the Kingdom, a concern that was raised by many interviewees from the various stakeholder groups. Furthermore, to many, it is not simply style which is now influenced, but also the types of building material being promoted, as the foreign firms introduced cement, glass, steel and concrete to the country’s building industry and imported modern construction techniques primarily based on the concept of standardised industrial designs similar to industrial mass production in Western countries. This was in response to the limited (or lack of) availability of these materials locally, as indicated in the Doxiadis Report of 1968.
Table 5-1: The operations of international firms in the Saudi architectural and planning market from 1970 to date

<table>
<thead>
<tr>
<th>International Firm</th>
<th>Time Frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Henning Larsen Architects</td>
<td>2</td>
</tr>
<tr>
<td>Moriya and Teshima Planners Ltd.</td>
<td>1</td>
</tr>
<tr>
<td>Skidmore, Owings and Merrill (SOM)</td>
<td>3</td>
</tr>
<tr>
<td>Behnisch</td>
<td>1</td>
</tr>
<tr>
<td>Gensler</td>
<td>5</td>
</tr>
<tr>
<td>Calision</td>
<td>4</td>
</tr>
<tr>
<td>Foster and Partners</td>
<td>1</td>
</tr>
<tr>
<td>Will Bruder</td>
<td>1</td>
</tr>
<tr>
<td>Perkin and Will</td>
<td>1</td>
</tr>
<tr>
<td>RMJM</td>
<td>2</td>
</tr>
<tr>
<td>RTKL</td>
<td>4</td>
</tr>
<tr>
<td>Adrin Smith</td>
<td>3</td>
</tr>
<tr>
<td>Lucin Largrance</td>
<td>2</td>
</tr>
<tr>
<td>FXFOWELE</td>
<td>1</td>
</tr>
<tr>
<td>HOK</td>
<td>1</td>
</tr>
<tr>
<td>Goettsch Partners</td>
<td>3</td>
</tr>
<tr>
<td>KLING STUBBINS</td>
<td>2</td>
</tr>
<tr>
<td>LAB Architecture Studio</td>
<td>2</td>
</tr>
<tr>
<td>DPZ</td>
<td>1</td>
</tr>
<tr>
<td>Zaha Hadid Architects</td>
<td>2</td>
</tr>
<tr>
<td>Aecom</td>
<td>1</td>
</tr>
<tr>
<td>DP Architecture</td>
<td>1</td>
</tr>
<tr>
<td>SAMOO</td>
<td>1</td>
</tr>
<tr>
<td>Stantec</td>
<td>1</td>
</tr>
<tr>
<td>P&amp;T Architecture</td>
<td>1</td>
</tr>
<tr>
<td>Lucio Barbera</td>
<td>1</td>
</tr>
<tr>
<td>Tange Associates</td>
<td>3</td>
</tr>
<tr>
<td>Doxiadis Associates</td>
<td>1</td>
</tr>
<tr>
<td>CH2M Hill</td>
<td>1</td>
</tr>
<tr>
<td>Noor</td>
<td>2</td>
</tr>
<tr>
<td>Snohetta</td>
<td>3</td>
</tr>
<tr>
<td>Gerber Architekten</td>
<td>1</td>
</tr>
<tr>
<td>Studio Schiattarella</td>
<td>1</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

(Source: Compiled by Author from data available on each firm’s website)

The entire process created the required platform to ease the propagation of other imported systems of building control, and building legislation. Primarily, foreign workers implemented all these practices, while local people made little contribution to shaping the new urban centres in Riyadh, Dammam and other parts of the KSA. These new practices
significantly affected the operation of administration, physical planning and the issuance of building permits. The introduction and development of modern infrastructure led to a rapid transformation of these urban centres, as the old dense town model with its clearly delineated boundaries was replaced by an ever-expanding agglomeration of peripheries and outskirts.

Another influence exerted by foreign firms in the urban centre is evident, especially around the inland and coastal topography, in the administration of land-use decisions. An assessment of wind direction led to the establishment of industrial areas in the south which were accompanied by substandard residential areas featuring badly maintained workers’ camps and other accommodation for poor people. On the other hand, the more salubrious sides of towns with large land areas were transformed into suburbs, predominantly for the local population and upper-income expatriate groups. Airports soon developed into important regional and global hubs; therefore, business and administrative premises quickly lined up along main roads, which linked them to old centres and new facilities. Because of limited accessibility by vehicles to old core centres, those centres gradually lost their function and attraction as main commercial districts, and were soon abandoned by local residents and entrepreneurs. Businesses and high-end markets were also gradually replaced by multipurpose commercial developments sprouting along newly built airport roads, as documented in the Doxiadis Report of 1970. The first shopping malls were built along the urban periphery; thanks to their attractive, modern air-conditioned environments and accessibility along main roads, they have become not only new marketplaces but also the most significant and widely-used public leisure spaces.

The concept of internationalisation adopted for this study is based on the definition proposed by Erdil (2012) as the outcomes of firms’ actions to establish a relationship with the host country by strengthening their network position. It is important to establish how the KSA government’s policy of internationalisation has impacted upon policy mobility from the international and regional hubs, and upon knowledge transfer. Several documents around urban planning codes such as those by DPZ, Doxiadis, and HLA have all indicated the existence of conscious policy by the government to engage their services in the design of the Kingdom’s Master Plan at one time. This has seen the number of international firms mobilised increase from 6 in 1970 to 96 as at 2010 (Figure 5.12) in
response to the desire of municipal authorities to engage international companies with a high degree of experience in delivering megaprojects,\textsuperscript{12} thus providing more evidence of international firms’ engagement in planning and policy development in the Kingdom. This trend raised concerns amongst local stakeholders, especially in connection with the fact that most technical aspects of project execution have been performed by foreign experts with little or no room allowed for local professionals to contribute and thereby learn from the projects. The data presented in Figure 5.12 offer a further demonstration of how vital the Doxiadis Master Plan actually was in setting the scene for the development of urban areas. All recent physical development has been modelled on this plan, with its attention to zoning, indicating that it created a key shift in Saudi Arabia’s urban development process.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure5_12.png}
\caption{Number of projects executed by international firms between 1970 and 2010 (Source: Compiled by the Author from the data available from each firm’s website)}
\end{figure}

Notwithstanding the concerns mentioned above, three-quarters of respondents believed that international firms and their design drive for sustainable urban centres had had a positive or very positive impact on the built environment, while only 10\% perceived it to be negative or very negative (Figure 5:13).

\textsuperscript{12} Interviewee 11.
Several stakeholders believed that Saudi Arabian architects were enamoured with North American planning and that this had impacted negatively upon Saudi cities, as seen in the unfavourable outcomes of the internationalisation drive in the country. These stakeholders emphasised international firms’ negative effect on the cityscape, claiming that they had created a disproportionate mix in the urban environment, simultaneously ignoring social needs, identity and culture. Other interviewees argued that these firms had imported Western modes of development into Saudi Arabia that stakeholders now consider unsustainable and unaffordable for most cities. Overall, the impact has not been positive.13

To sum up the concern of many, another interviewee drew attention to this disappointing trend in these words:

*The country may continue to experience negative impacts on the urban form and local Saudi culture and identity, as the urban transformation model championed by these firms is replicated all over the world by these international firms, and might over time cost dearly in their maintenance.*14

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13 Interviewees 13, 22, 31, 45.

14 Interviewee 42.
While this may reflect the feelings of many stakeholders, it is worth mentioning that the government’s motivation was to respond to the activities of neighbouring countries and to place the Kingdom strategically as a global hub capable of undertaking 21st century urban centre transformation with the potential of attracting blue chip industries to the country. However, several stakeholders complained that taking a top-down approach had not helped to address the perceived need to incorporate Arabic-Islamic traditions into the development of urban planning codes in the Kingdom. Moreover, the trend was viewed as a poor use of internationalisation to positively influence the enhancement of urban forms that could be uniquely ‘Arabic’ and at the same time be highly sustainable in terms of the overall urban form. On the whole, the lack of knowledge of local culture among Western firms operating in Saudi Arabia and the lack of collaboration between Saudi and foreign architects were perceived as weaknesses requiring a reformulation of policy.

This section has dealt in a general way with the operation of international architectural practices in the KSA. The next turns to the specific cases of Riyadh and Dammam.

5.5 Riyadh and Dammam as Case Studies for Understanding Internationalisation in the KSA

Although the origin of the city of Riyadh can be traced back to 1824, it was only in the second half of the last century that the city embarked on the road to modernisation. It is fair to say that in this process, it has attempted to preserve its original identity, but this has been difficult to achieve, due to the enormous expectations on it to deliver as a 21st century capital city. However, one can argue that the story of Riyadh’s urban development represents the general process of urbanisation in Saudi Arabia in the 20th century, whereas Dammam is a prototypical example of an Eastern province industrial city developed as a result of the oil boom.

The fast growth in both cities has strongly affected their current shapes, resulting in concerns about the distribution of public facilities, public service institutions, urban density and economic activities. In addition, the need to take account of the future growth of the cities has led the government to create a number of sub-centres capable of supporting the current city centres through the redistribution of economic activities,
administration and services to new residential areas of the city. The following pages discuss planning and development, dealing first with Riyadh, then with Dammam.

### 5.5.1 Planning and Development of Riyadh

Up to the end of the 1960s, there was no comprehensive development plan for Riyadh; instead, what city development did occur resulted from spontaneous decisions made on a case-by-case basis (HCDR, 2003). With the recognition of the need to establish some sort of control over the urban development process, the planning authorities resolved to prepare some land sub-division plans for the city, of which the most outstanding was the Almalaz plan.

The resultant development pattern of Riyadh city was characterised by unicentral and horizontal expansion (Figure 5.14). A report by the HCDR (2009) affirmed that the fast pace of growth witnessed in Riyadh in recent decades had greatly affected the city’s current shape by influencing the spatial distribution of public facilities, public service institutions, urban density and economic activities. The report also indicated that the construction of ministries with related public facilities and services had contributed to the agglomeration of institutions in the city centre.

Subsections 5.5.1.1-4 address in turn the modernisation of Riyadh, its transformation, the impact of internationalisation and the specific example of the KAFD.
5.5.1.1 The Modernisation of Riyadh

Some modernisation was introduced as early as the 1930s to provide electricity, water closets and a drainage system, while other signs of modernisation were evident by 1939, with the arrival of cars and telephones in Riyadh. Doxiadis (1970) reports that the first government institutions to be established there were the Ministry of Finance in 1932, the Ministry of Defence in 1944 and the Ministry of Interior in 1951, while a core for the municipalities was established in 1937, the first airport was built in 1942 and a railway line connecting Riyadh with the eastern coast was inaugurated in 1951.

Urban growth was strongly influenced by the economic expansion due to the oil boom after World War II. Oil income for the country grew from US$10.4 million in 1946 to US$210.7 million in 1952, which encouraged the extension of urban and architectural activities outside the city wall. From 1944, the city wall started gradually falling apart because of the urbanisation and expansion outside the old city, and the government initiated the first organised planning when it divided the Manfuha district into residential lots of 8 m by 8 m with a street width not less than 8 m. This was because of the introduction of the automobile and the need for wider streets.
Records of events show that few changes occurred in Riyadh in the 1930s and 1940s. However, an indication of social change was apparent in the suburbs constructed at that time, since as Facey (1992) reports, it was during this time that new neighbourhoods in the city were first classified according to economic and social status. That said, the construction methods and styles remained completely traditional.

Analysis of the 1968 Doxiadis report reveals that while urban and architectural activities during the 1930s and 1940s were concentrated in the Eastern Province, due to oil and industrial activities, Riyadh (with the exception of its new governmental district, Al Murabba’a) remained distanced from any major urban change. However, the city at that time was preparing itself as an administrative centre with the development of Al Murabba’a, causing a shift away from traditional building developments to modern concrete buildings, which began in the late 1940s.

5.5.1.2 Review of Riyadh’s Transformation Process
On the death of King Abdulaziz in 1953, his son Saud succeeded him as ruler; with this change came a significant shift in the urban transformation process within Riyadh, as the new king decided to modernise the city. He built the royal residential district known as Annasriyyah in 1957, introducing reinforced concrete to Riyadh for the first time (Abercrombie, 1966). In the same year, the first asphalted road was laid, linking Annasriyyah to the existing city. The conflict between new and old in the minds of local people became an important issue in Riyadh because the city was facing radical physical and social change. This was manifested in the construction of the Al-Malaz neighbourhood, which was completed in the late 1950s (Doxiadis, 1968).

With the construction of Al-Malaz, a new era for Riyadh began. The process of modernisation was accelerated by demolition of much of the historic core, involving the removal of the old palace, mosque and surrounding buildings. The introduction of large construction companies to the city began with the American company, Bechtel, which constructed the airport terminal (Elsheshtawy, 2008). King Saud’s most important decision that transformed the city was to transfer government institutions and agencies from Jeddah and Makkah to Riyadh. This was viewed as an opportunity for Riyadh to become the city of institutional buildings, as the government started to construct buildings

15 Interviewee 44.
and residential neighbourhoods to accommodate the relocated agencies and their employees (Doxiadis, 1970).

King Saud opened Riyadh to modernisation and during the first year of his reign (1953), he began to build the Alhamra Palace in southern Al Murabb’a, which he moved into in 1957. Meanwhile, in 1953, he moved his residence to the new concrete Annasriyyah Palace. He also implemented administrative reforms following the establishment of the Council of Ministers in 1954. The 1950s can thus be seen as a turning point in the urban history of Riyadh, with new ministry buildings designed by the Egyptian architect, Sayyed Kurayem, being constructed along the Airport Road and the new Al-Malaz neighbourhood being sponsored by the Ministry of Finance. This new neighbourhood, as mentioned earlier, ushered in a new house type: the villa.

These developments created cultural discord among Riyadh residents, which resulted in a major conflict between old and new building typology, effectively splitting Riyadh into new and old districts, mirroring their residents’ attitudes (Al-Hathloul, 1981). In 1957, King Saud University was established. These changes paralleled a significant increase in population, from 106,000 in 1955 to 300,000 in 1968 (ibid).

With its newfound status, Riyadh became attractive to many Saudis, who migrated to the city from other regions, and new neighbourhoods appeared. It was expected that the population of Riyadh would grow and that urban activities would expand. The impact on the city became clear and the need for housing and infrastructure encouraged the government to rethink the urban planning of the city and to initiate major steps to regulate its growth.

Due to the increasing numbers of migrants into Riyadh from other cities in the Kingdom in search of work, urban development responded abruptly to any need that arose, as typified by the 1960s urban expansion. This encouraged the government to hold an international competition in 1968 as a way of attracting competent city planners to design a fitting plan for the city. Doxiadis Associates of Athens won the competition and started their survey immediately. Their plan influenced the urban morphology of Riyadh and reinforced the north-south axis of the city, which still characterises its urban identity.

16 Interviewee 46.
With completion of the plan in 1971 and its approval by the Council of Ministers in 1973, Riyadh became a huge construction site financed by the oil boom.\textsuperscript{17} As early as 1977, Riyadh’s physical extent had exceeded 700 km\textsuperscript{2} (Mubarak, 1992), although the Doxiadis blueprint had planned for only 300 km\textsuperscript{2}. As a result of this unanticipated growth, the MOMRA ordered a revision of the Doxiadis Master Plan in 1982 and awarded the contract to the French consultancy firm SCET (HCDR, 2003). The completed plan was not approved officially, but its principles were applied both to the area covered by the plan and to new areas outside it. The planning network for 2 x 2 blocks was maintained, the main streets were classified as commercial streets and the sub-divisions along these streets were assigned for commercial or mixed use. The city’s growth was affected by the strategic location of the major projects which were sometimes integrated within the city’s fabric in an unsuitable manner.

The key change arising from these strategies, which the foreign embassies adopted, was concerned with relaxation of the height restrictions, after the Saudi Arabian government granted planning and building permission for the first high-rise building, designed by Foster and Partners and constructed in 1997. The exceptional permission to build the first tower in Riyadh marked a far-reaching departure from the maximum six-storey regulation in the country, to a situation where the tower now reached 44 storeys. This was seen as an opportunity to establish the views of local people and the market about the radical switch in planning policy; the response received created the momentum needed for the granting of planning approvals for other similar structures. Among the first structures to emerge as a result, in 1998 and 1999 respectively, were the Al Faisaliah Complex, designed by Foster and Partners, and the Kingdom Tower in Riyadh, designed by Aecom. Both of these developments received exceptional planning permission, outside the regular administrative protocol (HCDR, 1994: 2007). They marked the development of commercial arteries in the area and the provision of iconic landmark status for the city.\textsuperscript{18}

An official at the MOMRA Planning Department provided additional insight into the major influences behind the shift in urban planning from the 1980s onward, commenting on the start of the dispersal of the city. Gradually, as Riyadh spread further out, less effort

\textsuperscript{17} Interviewee 43.

\textsuperscript{18} Interviewees 12,14,67.
was made by the government to prevent the city’s old (main) downtown area from deteriorating and turning into slums. The result was a shift in commercial focus away from the downtown area of Bat’ha to Olayya (Figure 5.15) and King Fahd Road. Aside from the commercial impact, local citizens experienced a sudden emergence of slums in their neighbourhood and a sharp drop in the value of their properties, as most of the major companies relocated to the new commercial district. The old city centre subsequently became a place of residence for labourers and people on low incomes, as high-rise developments were favoured in the interests of attracting investment.19

Figure 5-15: The Olayya-Bat’ha Corridor - a commercial artery (Source: Perkinswill website)

5.5.1.3 Impact of Internationalisation on Riyadh - Urban Transformation
Further to the ongoing transformation noted earlier, in response to a study by Perkinswill, the HCDR approved in 2007 revised zoning regulations for the central spine area, bounded by Olayya Street on the east and King Fahd Road on the west and covering approximately 8.7 km² (21 km x 300 m). The objective was to establish new architectural standards in the central spine area, seen as representing a natural extension of the city centre. These new standards provided high flexibility in dealing with building heights, such that the desires of investors to develop distinctive buildings and projects could be met. Using such high urban and architectural standards is believed to add real urban and economic value to the city.

A review of the HCDR (2003) report reveals that the need for the development of the capital led the government to devise the Metropolitan Development Strategy for Riyadh, which serves as a framework and guidelines for city planning and as a tool for the

19 Interviewees 44, 46.
evaluation and selection of future urban development alternatives for the city. Part of the vision for Riyadh, based on the strategic plan proposed by HCDR for 2004-2030 (Figure 5.16), is that the city should be designed to reflect the actual role of the Kingdom’s capital, taking into consideration its religious importance as well as its status as a leading international and local centre for political, cultural and historic functions. One of the objectives listed in the plan is that the city should be seen as an international location for international, Islamic and regional political and economic organisations, and as a centre for national administrative and economic organisations and corporations (HCDR, 2003).20

20 Interviewee 68.
Figure 5-16: Metropolitan sub-centres, activity spines and the spatial conceptual relationships with the areas they serve (Source: HCDR, MEDSTAR comprehensive report, 2003).

The official report (HCDR, 2003) further reveals that Riyadh’s Metropolitan Structure Plan, with its irregular, low-density urban spread and a superimposed grid in all development areas and urban development areas, extends far to the north of King Khalid International Airport, where it occupies all the land to the west. To help with its transformation, tall office towers and commercial buildings, including hotels, apartments and high class retail stores, were built in the central spine of the city as a way of conferring on it a distinctive look and serving as city landmarks (Figure 5.17).
Figure 5-17: Urban Development of Riyadh 1971 to 2030 (proposed) (Source: HCDR)

The fast growth witnessed in Riyadh in recent decades has had a significant impact on its present shape in respect of the distribution of public facilities, service institutions, urban density and economic activities (Figures 5.17-5.19). This was among the key submissions made by the HCDR (2009) in its study of Riyadh Metropolitan Sub-centres. It was also evident that the economic boom experienced by some of the city’s quarters had contributed to the present shape of the city as a unicentral urban environment, housing institutions and major traffic corridors (HCDR, 2003; MoEP, 2010). One interviewee expressed the stakeholder view of rapid internationalisation in this comment:

\[\text{During the 15 years up to the year 2008, there was no development or urban expansion like what is presently happening. For the population growth, it was great that there was significant urban development in terms of road projects and other infrastructure provision during the last five years. But KAFD, being the largest project in recent times, will for sure change the city's economic and physical landscape.}^{21}\]

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\textsuperscript{21} Interviewee 14.
Figure 5-18: Proposed Expansion of Riyadh by 2030 (Source: HCDR)

Figure 5-19: Central Commercial Spine of Riyadh – Proposal to reform the city’s image and building heights (Source: HCDR)
The development of the financial district is a major part of the government campaign to attract foreign interest in the Kingdom through its liberal, free-market economic policy, which allows for a move beyond the limitations of industrial parks and free zones to an integrated free-market environment for both foreign and local business operations. Indeed, the overall development mirrors that of other new cities in the Middle East, where new financial districts are created as part of a broad international circulation of urban policy and aesthetics (Elsheshtawy, 2008; Moser et al., 2015). The master plan can be seen to have been shaped by a complex combination of sources emanating from the ‘modern’ era, precipitating an accelerated transfer of Western ideas around the world.

5.5.1.4 KAFD as an Example of Major Projects Executed by International Firms in Later Years
As indicated in the report of the HCDR (2009), the future growth of the city has been a source of major planning concern, as it was projected that the city’s population would reach 7.2 million by 2025. Hence, there is a need for urgent effort to create a number of sub-centres that will support the current city centre by redistributing its economic activities and its administrative and residential services. In response to the demand for an iconic city, the internationalisation of Riyadh has been approached multidimensionally, with several projects being commissioned and executed that have helped the realisation of new buildings befitting the new status of the city. The King Abdullah Financial District is an example of just such a recent major construction project. Several stakeholders confirmed the assessment of the HCDR (2009) that the KAFD is the most ambitious urban centre project initiated by the Saudi government to date. Its master plan covers an area of 1.6 million m² and its new buildings total more than three million m² of floor space. The aim is to build the leading financial centre in the Middle East, while providing an attractive working environment for the growing workforce in the financial sector. The project, when completed, will include a wide mix of office, residential, educational, sports and cultural facilities of different types and densities. The approach was consciously adopted to appeal to various stakeholders and to meet a broad range of demands.

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22 Interviewees 1, 17, 23, and 44.

In addition, Henning Larsen Architects have promised to strive to ensure that the proposed scheme achieves a standard that will be seen as an excellent example of sustainable development. Another stakeholder perceived this to be part of the selling point used by HLA to win the contract, since these architects promised to deliver an iconic but sustainable project reflecting Saudi Arabia’s economic strength.\textsuperscript{24} HLA has proudly declared that the design of the KAFD was undertaken according to “the requirements of one of the world’s most recognised green building certification systems, LEED”\textsuperscript{25} and that the master plan, as well as several distinctive buildings and plazas in the district, have already been pre-certified for LEED. When completed, the KAFD will become the world’s largest green development project and the first LEED-certified district worldwide.

The revised design manual guidelines as produced by HLA in 2008 revealed the vision of the KAFD project as being to create a unified impressive identity in which there is a harmonious interplay among the building types, and where the specific geographic conditions in the city are catered for. The plan allocates 42% of the area to private use and 58% to public use. This move is seen as supportive of the effort to effect a shift in land use planning in the city and the country at large, as the development will include residential provision in the form of high-rise towers and low-density residential developments in close proximity to the financial core (Figure 5.20).

\textsuperscript{24} Interviewee 1.

\textsuperscript{25} Henning Larsen Architects. 2010. King Abdullah Financial District. Submission for Green dot Award.
While HLA prides itself on what it is capable of delivering, another stakeholder expressed a different opinion of the project, as not properly planned from inception. Consequently, the company has had to seek help from another company (Hill International) in the management of the operations to ensure timely delivery and compliance with the Master Plan. The master plan aimed to secure an integrated sustainable approach in which the urban areas, landscape features and infrastructure all serve as opportunities to combine high quality living with low resource usage.

The first phase of the KAFD started in 2010 and is expected to be completed in 2016. Currently, HLA is working in collaboration with Foster and Partners, Gensler, Buro Happold, Møller and Grønborg, Geoffrey Barnett Associates, HOK, SOM and Zoha

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26 Interviewee 4.

Hadid. The other actors involved in the KAFD are: the Riyadh Investment Company (RIC) as the client, with Hill International providing project management services, the Saudi Bin Laden Group (SBG) as the contractor responsible for delivery of the project, and the design management team (Figure 5.21).

![Flow diagram of stakeholders and their roles in the development of KAFD](Source: RIC, 2012)

5.5.2 Planning and Development of Dammam
The preceding pages have given details of the planning and development of Riyadh; this section turns to Dammam, which has undergone a total metamorphosis since the 1920s, when it was a fishing settlement occupied by members of the Al-Dawaser tribe.\(^{28}\) In 1947, after the discovery of oil, ARAMCO laid out a plan for Dammam and by 1952 the city had become the provincial capital of the Eastern Province of the Kingdom. ARAMCO

engineers, in collaboration with Dammam Municipality, then developed a thoroughfare plan for Dammam based on the gridiron pattern.

In reviewing the city’s physical plan, the Candilis Report of 1976 revealed the city to be facing structural problems associated with its rapid growth, which had given rise to a confused and complicated system of land use; the concentration of services in the central zone caused traffic congestion there; and the change in economic, social and technical factors meant the need for a more flexible urban fabric. Dammam’s development and urban sprawl from 1956 to 2004 are depicted in Figures 5.22-5.24, and the street layout for the same period appears in Figures 5.25-5.27.

Figure 5-22: Urban Sprawl of Dammam, 1956 (Source: Municipality of Dammam)
Figure 5-23: Urban Sprawl of Dammam, 1980 (Source: Municipality of Dammam)

Figure 5-24: Urban Sprawl of Dammam, 2004 (Source: Municipality of Dammam)
Figure 5-25: Street layout of Dammam, 1970 (Source: Author’s drawing)

Figure 5-26: Street layout of Dammam, 1985 (Source: Author’s drawing)
Analysis of the master plan for Dammam as contained in Candilis (1976) reveals that the plan was not to develop the city as a self-sufficient town but as an urban pole of a metropolis to include Khobar, Dhahran and the land between the three towns. The development of the metropolis was to be carried out in the short and medium terms within the four urban poles, with Dammam as the immediate pole considered. The strategy, according to CH2M Hill (1980), was to develop each urban area towards the adjoining urban area while deliberately directing each development to stretch to form Dammam city as a metropolitan area through the functional integration of these urban areas. However, due to the long timeframe it now takes for projects to be completed, the area has witnessed rapid change and this has now required the project to rely on other procedures and mechanisms in order to achieve its declared goal. Hence, a one-way road system and gridiron pattern as introduced by the Doxiadis layout have been encouraged in the city, along with the development of commercial streets.29

In response to these challenges, the new plan adopted for Dammam shows the city to be laid out in a compact, walkable and mixed-use manner, with the aim of providing a

29 Interviewees 2, 39.
sustainable and liveable community, as indicated by DPZ (2009). All blocks have direct street access on at least two sides, which was considered necessary given the allowable development potential of each parcel. Most blocks also include some pedestrian-only cross-block streets and paths to facilitate movement through the site. As part of Dammam’s urban development drive by the Eastern Province Municipality, the General Planning Requirements and Constraints (MoMRA, 2005) relating to structural layouts propose that business centres should provide greater commercial and service facilities such as malls, business premises, banks and hotels of all types, while major investment should be made in services such as larger hospitals, private universities and institutes to cater for all the needs and activities of society.

5.5.3 Modernisation Drivers for the CBD Development in Dammam

This final subsection of the section introducing the case studies of Riyadh and Dammam examines drivers for the CBD development. Positioned within Dammam’s city limits, the CBD development site is located 26 km east of King Fahd International Airport and 13 km west of the city’s downtown core. This optimal location allows the development to serve those who currently work in the city’s downtown and to attract international business firms, their employees and families (Figures 5.28-5.29). On the site’s west side, a shopping mall is planned, which will help connect Bawwabat Al Sharq to a larger urban context and further establish its location as the city’s next increment of development.
Figure 5-28: Part of the CBD for the Municipality of Dammam (Source: DPZ, 2010)
Figure 5-29: Analysis of Dammam CBD - Straight avenue (top) vs. segmented (bottom) (Source: DPZ, 2010)

According to the project plan report (DPZ, 2010), the development plan is for a sustainable CBD of mixed use, providing for a walkable community, and consisting of a robust programme of residential, commercial, retail and civic buildings measuring 10 million square metres. Several advantages are mentioned within the Development Plan from a transportation viewpoint, which include economic, social and environmental benefits. The economic benefits are seen to lie in the reduced dependency on personal vehicles, since most daily needs are planned for and accessible within a reasonable
walking distance. Socially, the plan takes into consideration the need to allow for existing social networks to continue without hindrance, through the provision of plazas, squares, gardens and playgrounds. The environmental benefits are seen in reduced air and land pollution resulting from fewer vehicles on the road and lower carbon emissions.

Interviewee 29 commented on the type of development witnessed in Dammam:

*The type of development seen and built in Dammam was a direct result of the zoning code adopted and the form is inadvertently championed. Before the new code was written, the old code precluded a variety of different lot sizes within the downtown, severely restricting the lot coverage, and specifying only one kind of setback, all resulting in basically one type of form and development in the CBD. It is believed that the old code has created missed opportunities for many developers and investors alike. Specifically, the minimum allowable lot size was 10,000 square metres, which was unnecessarily large, and the permitted lot coverage for downtown buildings was much too low, fifty percent maximum. Consequently, this created a lot of unnecessary wasted space. Great cities value their land and are made up of different lot sizes, and downtowns particularly have allowable lot coverage in excess of 80%, compared to the 50% limit in Dammam. We were very pleased to work with the Planning Department, who allowed us to propose a code that allowed for different settings within the downtown in order to attract a much wider variety of developers and builders and create a richer more vibrant environment. The code is now parametric, offering a range of choices for plot sizes, lot coverage, setbacks and FARs. As a result, the new code now allows for a greater variety of downtown buildings.*

Another interviewee expressed this view of the current trends in Dammam:

*The main changes that have taken place are as a result of the large urban boom, especially during the last six years concerning the towers projects, due to the desire for a sudden qualitative leap in heights in the country, allowing buildings to now reach 50 stories. Most of these towers were approved on the main highways of the city, and became an orientation for both the government and investors. Buildings are seen as indicators for the economy. The key factor that has determined the type of development in Dammam is the very high demand for iconic buildings and modern cities by neighbouring countries. Saudi Arabia does not want to be left out, considering the benefits such projects have

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30 Interviewee 13.
brought about in cities outside the country, and the national economy is generally very strong. There is also liquidity, so investors are encouraged to develop towers and projects just like those in Dubai. Other factors that promoted this action include the need to respond to the country’s increased population.\textsuperscript{31}

Based on the responses of the stakeholders interviewed, it can be said that the design of the CBD envisioned a self-sustained and unique urban project capable of providing the necessary development capacity and related infrastructure in a form resonant of Saudi Arabian urban and architectural traditions, while providing for all the conveniences of modern living. The goals were to transform the site into a memorable place that would serve as a natural extension of Dammam, and to create a compact and dense plan with an urban structure based on a series of civic spaces to unite the neighbourhoods.

The core principles contained within the plan (DPZ, 2010), in respect of both the social and environmental benefits to be accrued from the project, result from careful consideration of the city’s physical and organisational characteristics. This has included the provision of workplaces in every neighbourhood, the provision of a central gathering place identified as the civic heart of the community, and careful distribution of land-use types within the neighbourhood to foster a lively and vibrant street life.

While modern high tech planning and high-rise buildings are gradually being accepted as elements of a modern city lifestyle, as a result of which both public and private institutions are encouraged to hire international firms in the construction of these housing types, what emerges from this overall process is that internationalisation serves as a key driver of the engagement and participation of these firms. The fact that such commercial interests constitute the prime motivation diminishes the potential for internationalisation to positively enhance urban forms that can be said to be uniquely Arab and sustainable at the level of overall urban form and not just at the individual building level.

Interviewee 24 gave a response which reflected this sentiment:

\begin{quote}
Dammam CBD is inappropriate and larger than what is actually required. FAR is new in the region, and it’s not available in New York. Even though it is a joint venture with DPZ to plan the whole site and use their experience in CBDs and smart code implementation, we believe
\end{quote}

\textsuperscript{31} Interviewee 26.
that the site and buildings heights are overestimated, but these are the requirements of the client, the Municipality of Dammam.

5.6 Assessment of the Internationalisation Mechanisms of Riyadh and Dammam

The previous section having examined Riyadh and Dammam in detail as case studies of internationalisation, this section assesses the particular internationalisation mechanisms applied there. After a historical introduction, its four subsections analyse the impact of policymaking, of knowledge transfer, of the demand for iconicity and of international firms.

Al-Malaz was a product of the internationalisation of urban development and is considered to be a milestone in the history of urban development in Riyadh, because it brought a new lifestyle to the city and did indeed change local people’s perceptions of the meaning of home. Moreover, it became evident that the government had been considering Al-Malaz as a modern model that should be repeated elsewhere in the Kingdom. The new type of housing introduced in Al-Malaz, the villa, was developed in the 1950s when the ARAMCO Home Ownership Programme forced people in the Eastern Province to submit a design for their houses in order to qualify for a loan (Lebkicher et al., 1960). People relied on ARAMCO architects and engineers to design their houses, due to the shortage of architects in Saudi Arabia at that time. To accelerate the process, ARAMCO architects and engineers developed several design alternatives for their employees to choose from. The key finding from the process was that all designs produced by the architects were influenced by foreign culture and style; hence, the project was nicknamed ‘the international Mediterranean detached house’ (HCDR, 1997; Al-Hathloul and Anis-ur-Rahmaam, 1985).

The urban concepts implemented in Riyadh were similar to those in Dammam. Nevertheless, there was an initial difference between the two experiences. In the case of Annasriyyah and Al-Malaz in Riyadh, the entire project, including planning, design and

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32 Interviewee 23.
33 Interviewee 39.
construction, was completed by government agencies. People who occupied the residential units were given no opportunity to express an opinion about their houses.

Exposure to this new image was still limited to government and ARAMCO employees, many of whom had experienced different cultures, either because they were not natives of Saudi Arabia or because they had studied abroad. However, these two major changes in Riyadh raised questions about the meaning of the home.

The increasingly obvious contrast between old and new, and a general sense that their identity was under threat resulting from the continuous sudden urban change, raised a series of issues among residents and other stakeholders. Questions began to be asked: Should they preserve their own traditional identity or adapt to change? Should they stick with what they knew or make use of new concepts and technology? Certainly, people are usually more enthusiastic about experiencing the new, especially if it is associated with a distinguished social class, such as government employees, who are perceived as a highly educated elite in an illiterate society (Alangari, 1996).

Similar to the situation in the Eastern region, many people living in the traditional areas of Riyadh kept their traditional buildings and remained in their traditional houses until the late 1960s. The impact of the new designs was very clear, but society was not yet ready to undergo major social and physical changes. Nevertheless, people in traditional areas did make a few changes to accommodate the image represented by the new houses in Al-Malaz.

The rapid urban development of Riyadh and Dammam can be explained in terms of economies of scale, external economies and the existence of infrastructural and terminal facilities. As compared to national urbanisation policies, the regional set of policies, for example in the Riyadh region, constitute a strategy of decentralised physical development in order to achieve the overall long-range goal of decentralised concentration. This new status was further stressed by the interviewee from the Riyadh Investment Company:

The country depends on international firms to create a new look considering that the financial centre is a new trend in Saudi Arabia,

34 Interviewees 23, 27, 40.

35 Interviewee 23.
which gains the attention of public and government. Hence, the need for high quality in all fields and phases, and international firms have successfully implemented great projects in other international cities like Tokyo, Shanghai, London, New York and Dubai. Such firms have rich experience, while relying on local manpower and firms with less or no experience in handling similar projects will impact on the quality of the finished work and will not reflect the ambition set by the government of a modern city.  

Likewise, at the local level, the urbanisation policies may be quite different and are highly space-specific. At this level, the long-range national goal, based on ‘efficiency-welfare’ socio-economic measures and a ‘decentralised concentration’ physical development strategy, will only serve as a guiding principle and cannot be applied to all functional areas, because of their different locational and threshold requirements and the varying nature of functional linkages and compatibilities. The urbanisation policies at the local level will, therefore, have to be spelt out specifically for each functional area in the context of both socioeconomic measures and physical development strategies.

5.6.1 The Impact of Policymaking on Urban Development Projects

The KSA has a crucial role in activating and developing co-operation projects to deal seriously with the challenges of globalisation and the concomitant formation of strong regional blocs. Part of the government’s strategy is to ensure that it continues with its efforts to support the common march of the Arab Gulf countries towards the highest possible levels of economic integration, via the GCC. To this end, it has formulated plans to encourage foreign direct investment and foreign participation in building and construction activities (MoEP, 2010). Hence, the initiation of policymaking has been a direct outcome of the involvement of international firms. Interviewees who worked for the municipalities of Riyadh and Dammam observed that the development of new planning codes by the international design firms employed by the government had influenced the way local firms operate, making them better able to compete for future projects. These firms were now either responding by establishing partnerships with international firms or expanding their expertise by attracting local talents trained abroad and locally, with the expertise required to project the image and ability of the firms.

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36 Interviewee 1.
37 Interviewee 41.
Major changes to the planning code and regulations resulting from the internationalisation process have found their way into the planning regulations pertaining to building heights and the provision of sufficient areas for car parking, as well as regulations regarding multi-unit dwellings, small land and social economy. Similarly, they are evident in the process of classification of buildings in categories according to their competition impact, as well in the formation of commercial streets and the provision of guidance towards sustainable construction, all featured in the development policy of the KSA.

Under the Ninth Development Plan, the total number of building permits for all facilities increased at an average annual rate of 10.8%, compared with 4.3% under the Seventh Development Plan. Notably, the largest average annual growth rate, at 47.7%, was in permits granted for social and government service facilities, followed by non-residential facilities, large industrial and commercial facilities (13.2%), educational and health facilities, and mosques (12.1%), all of which was made possible by the improved state budget for the Development Plan. Permits for residential and small commercial facilities, accounting for 89.1% of total permits, rose by an average annual rate of 10.3% over the first four years of the Eighth Development Plan (Table 5.2), compared with an annual average growth rate of 3.9% under the Seventh Development Plan. The distribution of permits among regions in 2008 reveals that shares ranged between 29.6% and 0.9% (MoEP, 2010).

38 Interviewee 28.
39 Interviewee 7.
40 Interviewee 3.
41 Interviewee 41.
Table 5-2: Evolution of Number of Building Permits by Category of Facility, Eighth Development Plan

<table>
<thead>
<tr>
<th>Activity</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>Average annual growth rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small residential or commercial</td>
<td>34136</td>
<td>39803</td>
<td>49266</td>
<td>47941</td>
<td>50489</td>
<td>10.3</td>
</tr>
<tr>
<td>Larger industrial or commercial</td>
<td>2133</td>
<td>3043</td>
<td>3494</td>
<td>3088</td>
<td>3499</td>
<td>13.2</td>
</tr>
<tr>
<td>Educational, health facilities and mosques</td>
<td>1137</td>
<td>1456</td>
<td>1883</td>
<td>1915</td>
<td>1798</td>
<td>12.1</td>
</tr>
<tr>
<td>Social and government services</td>
<td>179</td>
<td>419</td>
<td>726</td>
<td>827</td>
<td>851</td>
<td>47.7</td>
</tr>
<tr>
<td>Total number of building permits</td>
<td>37585</td>
<td>44721</td>
<td>55369</td>
<td>53771</td>
<td>56637</td>
<td>10.8</td>
</tr>
<tr>
<td>Share of residential or small commercial in total permit (%)</td>
<td>90.8</td>
<td>89.0</td>
<td>89.0</td>
<td>89.2</td>
<td>89.1</td>
<td>-</td>
</tr>
</tbody>
</table>

(*) Up to the end of the fourth year of the Eighth Development Plan.
Source: Government of KSA Ninth Development Plan

The Ninth Development Plan reiterates the number of permits issued in Riyadh, amounting to 29.6% of the total issued in the Kingdom (Table 5.3). This was considered exceptionally high in comparison to other parts of the Kingdom, illustrating the government’s strategy of initiating the development of Riyadh as an as iconic city comparable to other major cities in the region and worldwide. Figure 5.30 provides a direct comparison of the permits issued in Riyadh, Makkah and the Eastern province, showing the escalating difference between the capital and elsewhere in the last 15 years.

Table 5-3: Building Permits by Region in the Kingdom of Saudi Arabia

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of Permits</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riyadh</td>
<td>16741</td>
<td>29.6</td>
</tr>
<tr>
<td>Makkah</td>
<td>8554</td>
<td>15.1</td>
</tr>
<tr>
<td>Madinah</td>
<td>5001</td>
<td>8.8</td>
</tr>
<tr>
<td>Qasim</td>
<td>5092</td>
<td>9.0</td>
</tr>
<tr>
<td>Eastern Region</td>
<td>8577</td>
<td>15.1</td>
</tr>
<tr>
<td>Asir</td>
<td>3073</td>
<td>5.4</td>
</tr>
<tr>
<td>Tabuk</td>
<td>1555</td>
<td>2.7</td>
</tr>
<tr>
<td>Hail</td>
<td>2238</td>
<td>4.0</td>
</tr>
<tr>
<td>Northern Borders</td>
<td>935</td>
<td>1.7</td>
</tr>
<tr>
<td>Jazan</td>
<td>1015</td>
<td>1.8</td>
</tr>
<tr>
<td>Najran</td>
<td>1328</td>
<td>2.3</td>
</tr>
<tr>
<td>Baha</td>
<td>490</td>
<td>0.9</td>
</tr>
<tr>
<td>Jawf</td>
<td>2038</td>
<td>3.6</td>
</tr>
<tr>
<td>Total</td>
<td>56637</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Government of KSA, Ninth Development Plan

194
The comparison presented in Figure 5.30 indicates on gradual rise in permits issued between 1987 and 2013 in the major cities, with Riyadh having the largest number (>30,000) of building permits granted at the end of 2013.

5.6.2 Impact of Knowledge Transfer on the Internationalisation of KSA Cities
An important factor behind the appreciation of the process of internationalisation, as well as criticism of it, is the influence of the educated Arab classes, who not only bring with them strong inspirations from abroad, but also critically compare the outcomes at home with similar scenarios elsewhere in the world. One of the academics interviewed referred to this issue:

*There are about 600,000 Saudi students on scholarships at various tertiary institutions all over the world. They have witnessed international experiments and advanced cities. When they return, they tend to transfer the technological ideas they encountered abroad. Part of the experimentation is clamour for sustainable urban city developments and the erection of towers like those they have seen in cities such as New York, Paris, London and Tokyo. In my opinion, it is possible to gain the benefit from their international experience, especially as it relates to the concept of sustainability and the*
application of this concept and standards in Saudi Arabia, while taking into account local environmental and social factors.\textsuperscript{42}

The survey data gathered to establish the impact of knowledge on the internationalisation process revealed that 30\% of the respondents had received their education in the KSA, 14\% were trained elsewhere within the Middle East and North Africa, 21\% in the USA or Canada, 19\% in Europe and 16\% in other parts of the world, including South America and Australia (Figure 5.31). This shows that the sample was well mixed in terms of educational background. It also reflects the multi-cultural composition of the professions plying their trade in the KSA, which in itself impacts upon the internationalisation drive in the country.

Saudi nationals bringing a range of cultural experience back to the KSA after their training is extremely desirable, but in practice, the local firms who recruit these individuals upon their return are not usually involved in many aspects of the construction process; for instance, they tend to be absent from price negotiations, design and development activities, being confined to project delivery. One respondent rightly warned that this situation was likely to make future independence from international firms impossible.\textsuperscript{43} Under these conditions, local consultants are generally reduced to the role of agent or broker; thus, their practical input is limited.

\textsuperscript{42} Interviewee 33.

\textsuperscript{43} Interviewee 31.
Another view of how knowledge transfer affects internationalisation was offered by an interviewee who argued that the involvement of expatriates in the ongoing transformation of urban infrastructure brings about an exchange of ideas and experience, and fosters the development of skills previously lacking in local counterparts. This person cited the case of Dubai, which was not advanced in the 1970s and 1980s but which is now extremely advanced in its urban development; he attributed this to the city’s engagement of expatriates in its transformation. He added that not only is Dubai now considered an advanced city in comparison to others in the GCC countries, but it also has a new urban style reflective of the modernity of ideas that gives rise to iconic projects and towers, as part of a conscious effort to attract long-term investment to the city.

To further understand the drive towards a new city for Riyadh, the researcher examined a study initiated by the HCDR in 1999 as a way of appreciating the operations of other cities, such as Vienna, Paris, Washington DC and Brasilia, and how best to improve and update the strategic plan for Riyadh. Key to this action was the conscious selection of cities with different cultures, ways of life and environments, which it was hoped would provide insight into how best to manage the envisioned physical improvement of the cityscape. The next section addresses the importance of the iconic status of such cities.

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44 Interviewees 7, 24, 39, 43.

45 Interviewee 2.
5.6.3 Iconicity and Governmentality
A prime reason for the construction of internationalised urban centres was the prestige associated with other iconic cities around the world generally, and particularly in the Gulf region, as revealed in the following interview response:

*The KA F D is considered one of the largest and most important projects that reflects the strong Saudi economy. We hired an international consulting firm (Hill International) to assist us in the management of the project and tender submission. In addition, to help us to control the international firms and meet the international standards and our vision of a modern image.*

Two other stakeholders expressed their thoughts on the demand for iconicity by the city:

*One of the largest projects executed around the region is the KA F D, which will change the city’s economic form and strengths. It is the government’s intention to build a new urban centre that will compete with global cities like Dubai in attracting many foreign investments.*

Countries around are developing and competing in technology and physical development, so Saudi Arabia cannot be silent, hence the country must do something. A project like KA F D is a great project from thought to action. It is hoped when completed it will deliver just like other commercial centres in Paris, London and Manhattan. In addition, the government adopted the idea of creating new urban centres to become one of the 21st century modern cities around the world; the nearest example is Dubai, which made a good progress to be a modern city and attract international investors.

Considering the vast volume of building permits and projects ongoing in Riyadh, the HCDR is proud of its new developments, announcing in its magazine: “The project to be developed shall represent a distinguished constructional and architectural addition to the city” (HCDR, 2007:19).

An official at HOK, who designed the Capital Market Authority Tower, the tallest building in the KA F D, best explained the implications of the government’s intention in this context:

46 Interviewee 1.

47 Interviewees 14, 43.

48 Interviewee 26.
The government’s intention is to build new urban centres that compete with global cities.\textsuperscript{49}

A comparison of a view of downtown Dammam with one of New York (Figure 5.32) illustrates the internationalisation effect on Dammam CBD, as affirmed in a study of the existing urban centres by the Municipality of Dammam in 2007.

Figure 5-32: Downtown Dammam (above) and New York (below) (Source: Municipality of Dammam, 2012)

The zoning regulations for Riyadh (HCDR, 2007) clearly make substantial provision for the development of an iconic city by allowing planning relaxations such as:

- Improvement of the architectural standards in the central spine area, as it represents a natural extension of the Capital City Centre.
- Providing high flexibility in dealing with the building heights in a manner that meets the desires of the investors in setting up distinctive

\textsuperscript{49} Interviewee 14.
buildings and projects with high urban and architectural standards that add real urban and economic values to the city.

This view was reiterated by an official at Ismail and Company, a construction business in Dammam:

*The government’s support for large projects like the King Abdullah Financial District, economic cities and Saudi universities is evident from the current urban development projects, for example KAFD, Princess Norah University in Riyadh and the CBD in Dammam.*

The key finding echoed by many interviewees was the scenic inspiration derived from the development of Dubai as an iconic city and the belief that this had been the catalyst for the government’s conscious drive to internationalise its cities as a way of keeping pace with its neighbours in the region. Similarly, contemporary international cities like Shanghai, New York and Tokyo had served in this way to motivate the government in planning urban centres, as an official at the RIC observed:

*The Governor of Monetary Authority initially suggested the idea. The report of the economic feasibility study gave the necessary reassurance and it was decided that internationalisation of the cities should be considered and each project that was granted a permit for implementation has strong support from the government. These projects reflect the development of the capital. Instructions were clear. The government wants a financial centre like New York, Shanghai and Tokyo.*

As a result of the importance attached to the KAFD project, the plans were not presented to the MoMRA or the HCDR for approval but rather were approved at the highest level of governance.

While the cities referred to above were seen to offer a forward-looking contemporaneity, there were also perceived to be problems associated with each phase of the project, as noted by Interviewee 31:

50 Interviewee 26.

51 Interviewees 1, 2, 19, 24, 26, 33, 41, 44.

52 Interviewee 1.

53 Interviewees 46, 66, 68.
If the city is poorly planned, it cannot compete in the economic field. For example, it is assumed that the centre of any major city should be able to accommodate at least three conferences on the same day, as is the case in Chicago or New York. However, in Riyadh, one cannot make these meetings happen because of land use problems, and the idea of mixed use has not been solved fully. Take the case of King Fahd Road, which is a highway but has high density mixed land use on both sides.\textsuperscript{34}

The same interviewee went on to indicate that many concepts that were alien to the local communities, for instance the mixed use of buildings, remained heavily criticised:

The application of the mixed-use concept was considered inappropriate in Riyadh. We can understand the idea of a street with mixed use in Europe, where you can walk along a street with commercial shops on both sides and residential units above them and most of such streets are in the centre. However, for us, there was lack of conscious planning in the process. This has created great concern, especially as it has a negative impact on the people’s culture and beliefs and in general the climate. Therefore, the objective of mixed use as considered initially was never achieved.\textsuperscript{35}

However, skyscrapers are actively encouraged via legislative amendments whereby it is now possible to increase building heights without increasing the construction area, and the number of floors permitted has increased to 30 (HCDR, 1994).

An important factor is the resistance of Saudis to Western influences, noted four decades ago by Dalley (1976:166):

A matter of great concern to the Saudis is the influence of foreigners on the morals and social habits of the people … The Saudis are probably quite right in not wanting to be influenced by our ways, but it is difficult to see how it can be avoided if they are insistent on paying for hundreds of years of ‘development’ in decades.

Thus, the issue of identity arose because of the association between the two processes of modernisation and Westernisation. It is argued here that the need for identity in Riyadh was widely associated with the threat perceived by individuals resulting from the rapid changes that traditional Saudi society had experienced earlier. This trend towards modernity not surprisingly influenced Riyadh’s urbanisation, characterised by a

\textsuperscript{34} Interviewee 31.

\textsuperscript{35} Ibid.
construction boom and a rapid expansion of the city. In addition, whilst the people of Riyadh undoubtedly welcomed the physical changes to their city, it is still possible to argue that many were not ready to adopt a Western lifestyle, which they considered to be a major deviation from their ways of living, interacting and connecting with the local environment and which they therefore perceived as threatening the existing traditional Arab lifestyle.

Raising his concerns about the drive towards Westernisation underway in Saudi cities was Interviewee 55, a private business owner:

At present our view of the impact of international firms on our cities is negative. Their activities have the potential to make the urban area disproportionate with a mixture of various forms of activities, and in addition these new cities are seen as being replicated everywhere, leading to lost identity in such places. Saudi Arabia has no urban planning regulations such as in the UK. Currently, there is a project to adjust the development regulations. In the near future, there will be a balance in development activities.36

The call for local professional participation in the ongoing urban-wide transformation projects was not supported by the questionnaire responses, which revealed that 36% of respondents neither agreed nor disagreed that the government of Saudi Arabia should use local designers and urban planners instead of international firms and planners in the execution of the projects. Almost the same number (35%) either disagreed or strongly disagreed, while slightly fewer (29%) agreed or strongly agreed that this should be the case (Figure 5.33).

36 Interviewees 42, 45.
5.6.4 The Impact of International Firms in Reshaping Saudi Urban Centres

In the context of the influence of iconic foreign cities, which the previous section discussed, the role played by international firms since 1970 cannot be ignored in the current development of the urban centres in the KSA. Today, there are more than 12 international firms working on projects in the KAFD alone. This favouring of international firms over local companies has been the government’s preference, according to one academic interviewee:

*The Saudi government and private sector depend on famous international firms because of their reputation. When you have the money and have an open budget you will find the best firm internationally that is well known and has the best practice. However, the government does not impose strong conditions on consideration for the local environment. As a result, many of these international firms do not understand the Saudi environment. Hence, in the design phase, they employ Arab engineers to overcome their lack of knowledge of local customs and traditions.*

The overall perception was that the government’s policy of engaging international firms showed a lack of confidence in local professionals, especially in terms of planning and development. However, empirical studies have found that local experts employed by

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57 Interviewee 27.
government institutions to monitor the planning implemented by international firms are inadequately experienced and qualified, as judged by their work output. An official at Omranion justified reliance on international firms:

We rely on international firms as operators because they have the experience and knowledge in this field. There is a mixture of international and local employees, which constitutes 27 different nationalities. Ten percent of them are Americans and Europeans. Relying on international firms is seen as positive. For us, our office gains great experience in the field of tower building through cooperation with such international offices. This process has become a means of attracting investors, because investors trust your work if you have an international partner.58

Nonetheless, as illustrated by the Ninth Development Plan, the government and its agencies see the local construction industry as lagging behind its counterparts in other countries. The Plan states:

The large supply of foreign labour has made companies reluctant to adopt capital-intensive production methods. Moreover, the predominance of small, unclassified construction companies, which rely almost entirely on manual labour, lowers aggregate productivity indicators and consequently the competitiveness of the sector.

The involvement of locals in the construction projects being undertaken in the Kingdom’s new urban centres (as of 2008) is illustrated in Table 5.4, which shows that only 10% of the total manpower came from the national workforce at that time.

Table 5-4: Employment and Value Added in the Construction Sector - Eighth Development Plan

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>Average annual growth rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment (thousand workers)*</td>
<td>737.5</td>
<td>798.2</td>
<td>836.9</td>
<td>793.6</td>
<td>745.8</td>
<td>0.3</td>
</tr>
<tr>
<td>Ratio of Saudis (%)</td>
<td>8.4</td>
<td>9.3</td>
<td>9.3</td>
<td>9.8</td>
<td>10.0</td>
<td>-</td>
</tr>
<tr>
<td>Value added (SR billion as constant prices of 1999)</td>
<td>48.52</td>
<td>50.83</td>
<td>54.56</td>
<td>56.8</td>
<td>58.7</td>
<td>4.9</td>
</tr>
</tbody>
</table>

*Results of manpower survey (first cycle), up to end of fourth year of the Eight Development Plan

Source: Government of KSA Ninth Development Plan

58 Interviewee 15.
However, according to one interviewee, an academic and real estate expert, a major reason for the preference for international firms was the lack of professional expertise amongst local firms. These were at a severe disadvantage because of the government administrative systems prohibiting academics, who are equally qualified, from operating their private offices and practices.\(^{59}\) Hence, there are two groups: one comprising highly qualified academics who do not practise in the market and the other consisting of architects qualified only to BArch level, but who nonetheless dominate local practices and engage in joint ventures with international firms, with their limited knowledge and expertise.\(^{60}\)

As to the impact of these international firms on urban form, respondents to the questionnaire survey indicated a general perception that this had been positive. Figure 5.34 shows that respondents felt positive about the influence of international firms on urban form, seeing them as striving to produce quality and durable buildings and associated typologies based on international building standards.\(^{61}\) Simultaneously, their presence is believed to increase the challenge and competition in the implementation of projects in the country.

Figure 5-34: Perception of the impact of international firms on urban form (Source: Data from questionnaire survey)

\(^{59}\) Interviewee 31.

\(^{60}\) Ibid.

\(^{61}\) Interviewee 3.
International firms are also seen to cater for the modern trends and market demands, as identified by an interviewee from the Somu Real Estate Company, Dammam:

*The international firms have a positive impact on urban development and investment because they reflect the modernity which the market is now demanding.*

Similarly, an interviewee from the Aloula Real Estate Company said:

*The effect that international expertise is beginning to have on the design of sustainable urban centres is very positive, because it transfers international ideas and experiences with high quality and accuracy for sustainable centres, as in the case of DPZ and HOK. Take Dubai as an example. It is considered an advanced city compared to the rest of the GCC.*

A third interviewee, from the Bin Laden Group, concurred:

*International firms have a positive impact because they export to us their experiences. Look at Dubai, how it has become an advanced city in urban form, as it includes international style projects and modern towers.*

Conversely, some perceived an overreliance on international firms in developing the country’s major projects, as exemplified by this response from a DPZ employee:

*In my opinion, international firms have unwisely imported Western modes of development into Saudi Arabia that are now proven unsustainable and unaffordable for most cities. Overall, the impact has been quite negative, with master plans drawn for entire new cities that are simply not resilient in the long term, and ones that ignore the lessons of two centuries of development. Planning is one field that surprisingly does not look back to history, to what has succeeded and what has failed. We have repeated the same failed experiments again and again. However, more and more firms are now actively trying to move away from the old conventional way of planning and return to a more traditional method of planning, rooted in success. It is critically important to study the physical layout of cities that are beloved by many, economically successful, cherished and protected, visited often*

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62 Interviewee 5.

63 Interviewee 7.

64 Interviewee 11.
and that have withstood the test of time, being flexible enough to adapt to our changing and evolving lifestyles.65

Thus, over-dependency on international firms was seen to have a clear negative impact on local firms, because while Saudi law favours collaboration between local and foreign firms, one aim being to achieve knowledge transfer, in practice the local consultant merely acts as an agent or broker, required to complete paperwork without undertaking any real practical role. This view was shared by an academic expert, who said:

Yes, there are partnerships between international firms and some local offices, and Saudi offices do gain experience from these partnerships. Unfortunately, the Saudi office always plays the role of broker for the great projects. They obtain 25% percent of the project, but the international office is completely responsible for the project. It is supposed to be full partnership, a type of exchange of experience, but this does not usually happen. This was made possible by the submission contain in the Official Law governing the operations of international firms in the country, which states that the international firm cannot operate locally unless through a Saudi office. Therefore, the Saudi office works as a broker with a percentage of 10-25%.66

The concern raised by some respondents was that once the international dimension becomes fully entrenched in the urban development process, it will be difficult to reverse, as it will be deeply rooted within Saudi culture for generations. Survey respondents were given the opportunity to state explicitly their perceptions of the influence of internationalisation on urban development. Regarding urban amenities that are in line with Saudi culture, 43% of respondents felt that internationalisation had had a moderate impact, whilst an equal number perceived a low or very low effect from the process. Those who considered the process as bringing weak benefits in terms of the desired amenities identified a lack of clear collaboration between the firms and government regulatory bodies as a major concern in the urbanisation process. In addition, 14% of respondents thought that amenities so far in place were in accordance with Saudi culture (Figure 5.35).

65 Interviewee 13.

66 Interviewee 27.
A majority of respondents, totalling 55% of those who participated in the study, were of the view that international firms had influenced infrastructure facilities highly or very highly (Figure 5.36). A further 20% felt there had been some moderate influence, whilst 24% considered it to have been low or negligible.

With the perceived degree of influence of international firms established, survey participants were asked about the nature of its impact. Their responses identified a number of benefits, the most prominent being the introduction of better organisation and cutting-edge technical approaches to the urban development process. Although indicated otherwise in response to a number of different survey questions, respondents stated that internationalisation had resulted in a high level of knowledge transfer, experience and
expertise exchanged between local firms and international counterparts. Another benefit mentioned was the approach to design and development, incorporating aspects of sustainability. Judging from the responses, sustainability was seen as a novel concept for the country. Hence, the use of international firms has increased the likelihood that local firms will adopt the concept and incorporate it in their future practice, based on the experience gained from the synergistic relationships developed during their participation in the execution of projects.

Nonetheless, some respondents considered that the benefits had been minimal, in that few local firms and developers had competed for the prime land areas or for the most prestigious developments. This meant largely that local involvement was very limited in many ways. Interviewees from the municipality and government bodies explained that the vision for rapid development could not be met by local Saudi firms, because of their lack of exposure to the way sustainable urban developments are implemented. Therefore, the policy to engage international firms (HLA and DPZ) to design the Master Plan was mainly driven by the realisation that local firms had not been exposed to complex projects. However, their participation has been limited over the years due to their lack of expertise. Clearly, expertise comes with experience and involvement, which means that if local firms are not allowed to become involved in the process, they will continue to struggle to acquire the expertise required to take part in future projects. To address this closed cycle, the Ninth Development Plan sets out steps to enhance the local labour force:

Raising the currently low labour productivity in the sector to internationally accepted levels, through expansion of investment in modern high-tech equipment and tools, is an important challenge to the efforts aimed at enhancing competitiveness of the national economy. In view of the impact of wages on productivity, technological development of the sector is a prerequisite for providing Saudis with rewarding-wage job opportunities.

Despite the numerous employment opportunities that could be provided by this sector in the engineering, technical and semi-skilled fields, participation of Saudi manpower in the sector is relatively low. It is estimated under the Eighth Development Plan at less than 10%. Hence the importance of enhancing efficiency of education and training, particularly technical and industrial.
5.7 Perceptions of Local Stakeholders of the Internationalisation of Riyadh and Dammam

The rapid growth in urban development projects has seen many high-profile construction projects initiated and implemented during the last 15 years in the KSA. These stand as symbols of a strong economy among many other economies in less robust shape. Indeed, while the 21st century has witnessed a great economic depression throughout the world, especially in the West, the KSA has remained largely unaffected. Investment has been slow in other countries because of the financial meltdown, but the Saudi government has invested strongly in real estate and urban development, as an official of RIC, the investment arm of the Public Pension Agency, explained:

During the last 15 years, there has been a strong trend of investment in the real estate in the country, as it’s risk-free when liquidity is provided. PPA opted for real-estate investment, in response to the government’s instructions to invest locally in order to assist and accelerate the development works. ... The Kingdom was not affected by the international economic crisis, so the real-estate sector was never affected, and the Saudi economy is still generally considered stable and safe.\textsuperscript{67}

The KAFD project was awarded at a total cost of about US$12 million, of which the PPA invested 10%, making this one of the largest and most important projects of the RIC, reflecting the strong Saudi economy.\textsuperscript{68}

A key driver of the initiation and award of the project was the desire of the Saudi government for the KAFD to be an international financial centre to match the standards of other international centres, designed by firms with global reputations in meeting standards, and its desire to achieve the country’s vision of securing a modern image.\textsuperscript{69}

Hence, the government issued clear instructions for fulfilling the project’s vision: the participation of international firms with prestige and successful experience of similar

\textsuperscript{67} Interviewee 1.

\textsuperscript{68} Ibid.

\textsuperscript{69} Interviewees 1, 5.
megaprojects worldwide. Consequently, the international offices of HOK, Foster, HLA, Gensler & Som and others were all invited to participate in the execution of the project.\textsuperscript{70} However, prior to the commencement of the development strategies for new urban centres in Riyadh and Dammam, academics argued that there was a need for detailed examination of the impact that the new urban centre developments would have on the existing buildings and associated facilities in the CBDs.\textsuperscript{71} They warned that the coordination of the urban centre development strategy did not fully examine the likely impact on the current facilities and their businesses. In reality, the new urban centres in Riyadh and Dammam have had some negative impact on existing infrastructure facilities as well as existing buildings in the CBDs.\textsuperscript{72} For instance, the rental values of buildings on King Fahd Road have dropped sharply from their levels before the new urban centre developments began.\textsuperscript{73} Another example is that the rental occupancy of some existing buildings has fallen heavily since the new urban centre buildings were put on the market.\textsuperscript{74} These negative impacts are likely to be exacerbated by the time the KAFD is completed, with an anticipated total area of 2,853,738 m\textsuperscript{2} to be leased, comprising office space, residential apartments, hotels, business areas and retail shops, among other uses (KAFD, 2015).

5.8 Conclusion

Newly developed cities around the world have been challenged with establishing networks through the addition of a new dimension of complexity to urban development.

In the context of the new urban centres of Riyadh and Dammam, the provision of infrastructure and services has facilitated the expansion of international trade networks, and the concentration of international companies and their headquarters within these centres is now viewed to have transformed the two cities into global control centres, challenging the state and its political boundaries. However, according to stakeholders,

\textsuperscript{70} Interviewee 11.

\textsuperscript{71} Interviewees 20, 25, 27,32, 42.

\textsuperscript{72} Interviewees 47,51,56,61,62.

\textsuperscript{73} Interviewees 64,65.

\textsuperscript{74} Interviewees 60, 63, 65.
that transformation has brought about unwelcome changes in urban living standards, due to a lack of clear and comprehensive planning strategies.

One of the major obstacles facing these new urban centres is the fact that many precincts of the advanced producer service sector are centralised in existing global cities and monopolised by them. Hence, the KSA government has no option but to privatise and decentralise its urban development by allowing state-owned land to be developed by foreign investors and their developers. Furthermore, that process is accompanied by the relaxation of financial regulations and restrictions regarding building permits so that construction growth can be accelerated and facilitated. The strategy, as adjudged by many stakeholders, is accompanied by the risk of upsetting the balance between the short-term interests of speculators and long-term governmental plans to achieve sustainable urban consolidation. Thus, the major challenge faced is to develop a built environment that integrates all the aspects of the liveable and sustainable urban centre capable of attracting long-term investment. This high-quality built environment is crucial to enabling an urban centre to evolve and develop with a view to becoming an international service centre. The resultant impact of the process is the gradual transformation of the vernacular urbanism, based on collective spatial practice, into centralised planning by a technocratic administration, and finally into privatised and decentralised forms of governance. This outcome is now slowly precipitating increasing conflicts between social classes in both cities in the Kingdom.

Today, these emerging urban centres in the KSA are exposed to the intense influence of global trends within urban development and as a result, many traditional particularities rooted in the country’s urban history and socio-cultural contexts are turning into peripheral and isolated elements about which stakeholders have raised concerns. Thus, the conflict between rapid urban development, which seeks to integrate historical and traditional contexts, and the continual import and impact of globalised morphologies is leading to clear demarcations in urban evolution, making this tension one of the key characteristics of these emerging urban centres.

This chapter has analysed the mechanisms of the internationalisation of Riyadh and Dammam, its mobilisation and the assessment of various stakeholder views on the ongoing urban transformation of the two cities. Additionally, it has highlighted what has
taken place so far and the resultant impact. The next chapter turns to the impact of internationalisation on Saudi Arabia’s urban planning codes.
6. CHAPTER SIX: THE IMPACT OF INTERNATIONALISATION ON THE URBAN PLANNING CODES OF THE KSA

6.1 Introduction

The aim of this chapter is to provide an overview of the urban planning codes used in the KSA, analysing the influence on them of internationalisation and of the sustainability approach adopted by firms in the delivery of local projects. In order to undertake this analysis, stakeholders’ opinions of contemporary Saudi leadership and the role played by foreign architectural practices and consultants are used to illuminate the changes and their environmental effects. The chapter also seeks an understanding of how the planning codes and the sustainability drive have been used as instruments for spatial organisation. The overarching argument of this chapter is that the engagement of international firms in the urban centre development has resulting in a devolved approach to urban planning codes at municipal level. The chapter further argues that international architectural and planning firms have been shaping the new urban planning codes and regulations. Finally, it considers the influence of international planning firms on the morphology of the new urban centres that have emerged through the application of these planning codes.


The path towards attaining sustainability and the process by which international professionals were mobilised, creating the present state of urban development in Saudi Arabia, can be traced back to the early 1960s, with the laying of new roads, the introduction of a modern educational system, improvements to health care, the expansion of agriculture and the construction of factories. Although the economy depended largely on oil revenues, Saudi leaders resolved to fundamentally improve the country’s economic structure by diversifying away from oil into other fields. Naturally, the achievement of such an economic transformation required deliberate planning and careful implementation of a development programme with clearly defined objectives. The quest for economic development and growth started in earnest with the introduction of the First Development
Plan in 1970 (Figure 6.1), which began a series of five-year plans that have endured to the present time. The first phase of this process was the establishment of an infrastructure that could support a modern economic base. This ended in 1975 when the next phase was introduced, concentrating on the development of the human resources considered necessary to bring about the planned economic transformation.

Figure 6-1: Timeline for KSA urban development plans (1970 to date) (Source: Author’s drawing)

The establishment of the Kingdom’s physical infrastructure was approached in stages during the execution of the first three development plans. During these fifteen years, while the infrastructure was taking shape, the government launched a major initiative to expand the country’s industrial base and embarked upon two separate but parallel courses of activity, one to expand the country’s oil industry and the other to establish a modern non-oil industrial sector. In addition to optimising revenues from Saudi oil production, the modern oil industry played an equally important role in the development of the non-oil industrial sector by providing the raw materials and feedstock required to facilitate this growth. By 1985, with most of the physical infrastructure in place, attention was shifting to diversifying economic sources, and the fourth (1985-89), fifth (1990-94), sixth (1995-99) and seventh (2000-04) plans focused on strengthening the growing private sector participation in the development process and on increasing the efficiency of the industrial sector (Alshahrani and Alsadiq, 2014; Joyce, 2015). The Eighth Development Plan (2005-09) revealed an interest in increasing the foreign presence in the ongoing developmental process as well as diversifying national investment and developing human resources.

It was the Sixth Development Plan (MoEP, 1995) that addressed the issue of spatial planning, essentially with a view to providing the municipal infrastructure needed to underpin regional and municipal development. Within this plan, the government set out a
strategic platform for the regional development of urban centres based on the realisation that most infrastructure developments are concentrated on CBDs (ibid). There was also a desire to ensure that government services would be provided to towns and village clusters, because improving the adequacy of service provision to rural areas would reduce migration to the cities. Up to this point, planning codes were not given much consideration in the developmental plans, as evidenced by the 1972 Doxiadis Associates urban development strategy for Riyadh and the Candilis (1976) urban strategy for the Eastern Province.

However, the Seventh Development Plan did take a long-term view of economic growth and diversification as the bedrock of developmental planning in Saudi Arabia (MoEP, 2000). The plan brought about the conscious alignment of government policy to ensure that spatial planning was conducted in respect of major urban centres and even in villages, since the quality of infrastructure and availability of facilities and services were considered critical to the economic development of the Kingdom (MoEP, 2000).

It is important to be aware of this evolution, which shows that there has been strategic planning for Saudi Arabian urban development over the last 40 years, even if its implementation seems to have lagged behind that of other regional hubs. For instance, a rapid urban development programme has been in place in the UAE for the past two decades, with international firms being used on a larger scale than in Saudi Arabia. Nonetheless, whilst the KSA could be said to have been influenced by such developments, there is a longstanding strategy of appointing international firms in the KSA, evidenced by the development planning detailed in Chapter 5. This leads to the argument that policy mobility in Saudi Arabia did not emanate from regional events but rather from the international idea of sustainable economic development based on the informed decisions of the architects engaged by the government.

While the Seventh Development Plan sought to manage internal migration through the regional development of infrastructure, it also addressed the environment and the protection of bio-diversity by applying national and international standards. Hence, standardisation of the development process, as well as the development of regional urban centres, was identified as cardinal to the KSA (MoEP, 2000). As a result, the government prepared its version of Agenda 21 for the entire Kingdom, approved by His Majesty the King. It also studied the unified code for environmental assessment and the general
environmental code of the GCC, both of which were approved by the Ministerial Committee for the Environment. A co-operation agreement between the Kingdom and neighbouring countries was also drafted in respect of the conservation of cloven-hoofed animals resettled in the Arabian Peninsula.

Between the years 2000 and 2010, there was no evidence that the development plans had resulted in specific planning codes that could be used as essential documentation for urban centre development. However, the Ninth Development Plan (MoEP, 2010) does highlight specific information relating to the building and construction process. This Plan is largely strategic in that it indicates policies that could expand the marketing of the construction sector to regional players and investors, while promoting the domestic production of building materials and the engagement of local contractors in the business of construction. By 2010, it was clear that local contractors were under-represented in the market, a direct outcome of the influence exerted by the internationalisation of the urban planning process in the KSA.

At policy level, the Ninth Development Plan (MoEP, 2010) encourages foreign direct investment as well as the participation of foreign companies in building and construction activities. It also promotes the application of Saudi building codes to help improve quality and standards in the building process (ibid). Analysis of the document indicates that the policy was designed to act principally as a guide, leaving the various municipalities at liberty to implement specific elements according to their circumstances. This arrangement makes it difficult for the Ninth Development Plan to recommend a specific foreign investor or player within the construction industry, meaning that designers, urban planners and contractors are all free to participate in the construction business.

The Ninth Development Plan (MoEP, 2010) is clear in issuing a mandate to the municipalities to expand their urban and regional centres. Additionally, it makes reference to economic activities, noting that these have had a significant influence on the horizontal and vertical growth of Saudi cities and that the existing approach to urban development has impacted negatively on the efficiency of land use and the provision of infrastructure to the people. Consequently, the Plan emphasises the need for the development of planning codes to address, among other things, procedures for the strict application of urban boundary and land use regulations. Plan also encourages the vertical development of cities, embracing the provision of services such as water and sanitation,
an integrated modern public transport system in major cities and suburbs, and the development of radical solutions for vacant land within cities to ensure its optimal utilisation. Essentially, the strategy aims to reduce the horizontal expansion of large cities through a more effective distribution of economic and services facilities (MoEP, 2010a).

The main targets of the Ninth Plan include the creation of 60 new municipalities in various regions, raising the proportion of recycled waste to 75%, developing municipal revenues to cover about 60% of operating expenses, instituting regulations governing municipal councils and their formation, establishing 40 urban centres, and applying and periodically updating the Saudi Building Code (MoEP, 2010a). While the Plan thus sets clear strategy and targets, it fails to address the engagement of international firms, mentioning only the need to promote foreign direct investment. However, at the municipality level, the involvement of international firms in the implementation of the development plans is quite clear. The level of influence exerted by these firms is most obvious in relation to urban planning codes and to the provision of certain specific aspects of urban development in Saudi Arabia: urban amenities in line with Saudi culture, business facilities, housing and infrastructure. These provisions are considered in turn later in the chapter, in section 6.6. Meanwhile, sections 6.3, 6.4 and 6.5 address details of urban planning codes nationally and particularly in Riyadh and Dammam.

### 6.3 Attributes of Planning Codes in Riyadh and their Impact on Building Control

In order to analyse the urban planning codes in Saudi Arabia and explore their various attributes, it was necessary to consult the documents available at regional and national levels. This section analyses the documentation relating to Riyadh.

The High Commission for the Development of Riyadh has responsibility for the implementation of building controls for Riyadh city and the peripheral areas (HCDR, 1994). Amendment 29/07/1414 H covers the northern side of the Round Road, Eastern Olaya Street, Southern Al-Muather Street and Western King Fahd Road, an area of roughly 3,300,000 m², 11.3 km long and 300 m wide. The building controls demarcate
internal streets and public services, ruling that buildings may occupy 53% of the total area (Table 6.1).

Table 6-1: Typical building controls for Riyadh

<table>
<thead>
<tr>
<th>Part</th>
<th>No. of floors</th>
<th>Floor area ratio</th>
<th>Land coverage ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>6.50</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>4.25</td>
<td>75</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>3.25</td>
<td>75</td>
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<tr>
<td>4</td>
<td>7</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>5.25</td>
<td>75</td>
</tr>
</tbody>
</table>

Source: High Commission for the Development of Riyadh, 1994

Table 6.1 exemplifies the data needed by developers when commissioning designs, listing the number of floors, floor area and total land coverage of buildings. It further shows how in general terms, the layout of Riyadh city is divided into five segments, each having its own building system based on location. However, due to the pressure of the economic boom experienced by the Kingdom, the planning process in place had to be revised to remove height restrictions on buildings, thus improving land use.

The new system of urban planning codes (regulations) thus marks a clear departure from the old, allowing developers to double the floor area for structures based on the two following classification methods:

**First classification method. This is to be applied in a three-stage process:**

Class 1: With an area from 600 m² to less than 5,000 m².
Class 2: With an area from 5,000 m² to less than 15,000 m².
Class 3: With an area of 15,000 m² and more.

**Second classification method. The Building System shall be applied to the three classes as follows:**

Class 1: The system approved in general layout shall be applied to this class.
Class 2: This allows the multiplication of floors in all parts of the region, regardless of the number of floors allowed by approved systems, which supports the development of specific projects in a manner that is not affected by networks of public facilities. Building should not exceed the limits of built areas and the percentage of coverage allowed in the Approved System, to avoid affecting networks of public facilities and traffic.
Class 3: This allows the height of established buildings to be increased above the limits permitted by the Approved System, but on the following terms and conditions:

- The project to be developed shall represent a notable constructional and architectural addition to the city.
- The built areas and land coverage percentages do not exceed those permitted by the Approved System, to ensure that networks of public facilities and traffic are not affected.
- The maximum number of floors is limited to thirty.
- It is necessary to obtain the approval of the Civil Defence and Aviation Authority for the required height.

The implication of these modifications for the region was that owners of land with an area of 15,000 m² and more could develop buildings up to 30 floors, as long as they did not increase the construction size decided for the land lot as per the Approved System. The owner of each such land lot was given three alternatives to build on the land, as follows.

First Alternative: Application of the Approved System as per the general layout, in which case the owner must abide by the following:

- Coverage area for the ground floor, mezzanine and first floor shall be 100%.
- Coverage area for repeated floors shall be 50%.
- The building shall be set back four metres from the kerbside to provide a walkway.
- The first floor shall be the roof of such walkways, which shall not extend to the sides of the building adjacent to neighbouring buildings. Repeated floors shall be set back by at least three metres from adjacent buildings and by four metres from the street.
- The modulus/coefficient of the building area is 6.5; in other words, the total building area equals the land area multiplied by the building area coefficient (e.g. 15,000 x 6.5 = 97,500 m²).

Second Alternative: Number of permitted floors increased to 20; hence, the following matters must be considered:

- The total permitted area of the building is the same as per the Approved System (e.g. 97,500 m²).
- The land coverage ratio shall be minimised because of the building’s increased height, without increasing its area.

**Third Alternative:** Rising to 30 floors:

- The total building area shall remain as it is in the Approved System (e.g. 97,500 m²).
- The coverage ratio shall be less than in the first and second alternatives because the height of buildings is to be increased without increasing their total area.

Key drivers for the differences among the alternatives available have been the economic performance and investment needs of the KSA (Al Zoom, 2006). However, the planning codes actually became a tool for urban centre development in Riyadh in May 2009, when King Abdullah bin Abdul Aziz Al Saud announced the creation of the KAFD. This was envisaged to be the Middle East’s first financial district on a scale, and of regulatory and technological standards, to match the major global financial centres (Al Zoom, 2006). Among the terms of reference for the KAFD were that the development was to comprise of buildings designed to meet the existing and growing demand for Type A office accommodation and that it was to be located north of Riyadh. The site covered by the project totalled 1.6 million square metres and the development was to have floor space of over three million square metres when completed. In addition to its excellent office space and housing, the KAFD design was to incorporate the Financial Academy and recreational facilities (Al Zoom, 2006). The decision to require Type A office buildings was the result of a need for high quality and international reputation, both embedded in a sustainable construction process (MoMRA, 2005a).

While the call for a sustainable process was perceived as an advance in urban design, the planning codes were not specific about the level of sustainability or the various elements of sustainability required within the urban development process. For instance, there were no specific codes in the plan to cover local economic, human or environmental factors. What they did refer to were the technological attributes required to achieve the status of high environmental ratings.
6.4 Planning Codes as an Instrument for Spatial Organisation

Planning codes can be viewed primarily as instruments for spatial organisation in all the major urban centres of the KSA. Higher Saudi officials actively claim that:

All buildings are sustainable because they are executed according to the Saudi Codes and regulations.75

International firms have made attempts to incorporate into their designs some significant social and cultural factors, such as individual privacy, social identity and interaction between people, especially gender segregation. It has been observed that international firms have been assigned devolved responsibilities to develop and coordinate new urban planning codes at municipal level.76 For instance, documents produced by international firms incorporate elements of social and cultural consideration by demarcating vast land areas. To buttress these further, planning codes have been applied to various projects such as the KAFD, with the master plan for the district prepared by HLA (2008:16) including all elements of the planning codes, from circulation to materials specification, lighting to rooftops.

According to the questionnaire survey, almost half of respondents (46%) agreed or strongly agreed that international firms working on urban centre development were responsive to local cultural and social needs, as stated in their planning approval documents (Figure 7.2). A further 76 respondents (27%) neither agreed nor disagreed with the statement, while the same number disagreed more or less strongly with it.

75 Interviewee 38.

76 Interviewees 66,68.
Figure 6-2: International design firms are responsive to social and cultural needs

This show clearly that respondents believed in general that international firms had the capacity to deal with the social and cultural needs related to the urban centre development but that a significant minority did not perceive these firms to have lived up to their promise to meet these needs. However, most of the academics\textsuperscript{77} opined that international firms were merely implementing international ideas rather than traditional ones, reflecting a perception of urban development biased towards Western forms and based on prestige, rather than on Islamic principles and local traditions. The implication drawn from these interviews is that although documents state that the social and cultural needs of society have been considered in the planning codes, this does not appear to be the case in reality.

In this context, cities and towns are now rewriting their codes, infilling their downtowns and ridding themselves of ‘business as usual’ practices that allowed rampant development to occur unchecked. More and more cities around the world are adopting form-based codes and writing sustainability regulations and guidelines designed to promote growth with efficiency and beauty. Cities in the West are seen as competing with each other economically, appealing to the ‘creative class’ and younger people who are explicitly environmental in attitude. This situation is gradually becoming the norm in the KSA too;

\textsuperscript{77} Interviewee 20,21,27,32,42
for example, DPZ formulated a form-based code practice (DPZ 2010:8) for CBD Dammam, which:

(1) emphasises the form of a structure rather than its use (commercial, industrial, residential, etc.) and density;

(2) applies smart growth principles, focusing on a mix of housing, on commercial and retail uses, on transit and pedestrian-oriented communities and on preserving open space;

(3) completely overhauls conventional zoning regulations with components that encourage transportation and mixed-use walkable communities.

This code is seen to have promoted economic development in many cities and as indicated, form-based codes have been adopted in all major global cities, including Abu Dhabi, Paris, New York, Baltimore, Denver, Miami, Philadelphia and Washington (DPZ 2010). Similar to all these codes, HLA’s guidelines for the KAFD (HLA, 2008:5) state that:

Each new building should contribute to the vision by focusing on architectural excellence and innovation in design with an integrated sustainable approach throughout the process of planning, realisation, detailing and construction.

These examples clearly show that the new urban centres are conceived with the concept of iconicity in mind above any other and that all planning revolves around this. Stakeholders were well aware of this motivation, as indicated by this interviewee:

*The type of development seen and built in Dammam was a direct result of the zoning code as introduced and developed by international firms and the form it inadvertently championed. Before the new code was written, the old code precluded a variety of different lot sizes within the downtown, severely restricted the lot coverage, and specified only one kind of setback, all resulting in basically only one type of form and development in the CBD.*

At the same time, some interviewees perceived the rapid rate of expansion and change as destructive, since the codes had been introduced hurriedly and were not appropriate:

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78 Interviewee 9.
Unfortunately, KSA cities have developed at a very rapid rate over the past 30 years, so they have imported the worst planning techniques that the rest of the world was also using during these past three decades. Contributing to this problem, many Saudi architects and planners are being educated abroad where education on smart growth is sadly lacking in most universities. They are bringing these ideas to Saudi Arabia and designing cities and towns with little respect for the rich heritage of courtyard housing and traditional planning.79

The general feeling among stakeholders was that if the challenges posed by the ongoing urban centre development were to be managed, then adequate reference must be made to the full range of social, cultural, economic, political and environmental issues in all planning and construction decisions. In addition, proper management and co-ordination of land use controls and infrastructure investment strategies must be considered in order to be able to respond effectively to the growing infrastructure demands. Another common perception emerging during interviews with participants from various stakeholder groups was of a lack of evidence of a shared vision in respect of the cities of Riyadh and Dammam.

In addition, their responses indicated that stakeholders generally recognised that all future urban development policies should include the monitoring of urban growth and the development of indicators to assess the appropriateness of the management of urban developments. This recommendation comes from an understanding that while the urban planning process has witnessed considerable improvement based on the objectives of the incremental urban development plan in the Kingdom within the last decade, there has nonetheless been very little progress on monitoring and evaluation, which are seen as integral to the process. Hence, there was a strong call for prompt review and regular updating of the planning codes which should implicitly represent a good mechanism for monitoring and evaluating urban plans.

79 Interviewee 13.
6.5 Implications of International Planning Firms in the Formation of Planning Codes

At the turn of the century, city and regional planning in Saudi Arabia was greatly influenced by British and American concepts and approaches. However, this international influence on the development of Saudi cities has brought a tension between the globalisation and localisation processes, and the dichotomy between the cultural forces currently shaping the urban environment has resulted in a chaotic urban form, lacking identity and any sense of place (Pacetti et al., 2012). This dichotomy signals the absence of any cohesion between traditional designs and those based on international paradigms. In addition, the urban planning regulations and codes are formulated to respond to the overall urban design paradigm most suited to the city in question. For instance, the need for better transport networks around cities and the demand for modern urban facilities have resulted in a shift from limited storey heights for buildings to more liberal height restrictions.

As stated earlier, the most up-to-date documentation that has captured the application of the urban planning codes is that prepared by Henning Larsen Architects (2008) for the development of the KAFD. This documentation reveals that the process was carefully planned and implemented to articulate the modernisation of the district. However, one interviewee who worked for an international consultancy firm and claimed to have been actively involved in the documentation of the planning code asserted that its realisation could not yet be verified:

*I have not seen the new urban centre recently so I am unaware of the newest projects. However, we did write the code for the CBD so we are partial to it of course and very hopeful that it will yield a better public realm/environment and better buildings on private lots, thereby increasing the economic value of the sustainable CBD. Fundamentally, building sustainably will translate into healthier, happier and more liveable communities. With this in mind we set out to produce what we deemed a sustainable code providing for mixed use and increased density. However, the Municipality should have thought in regional terms and must make sure the code will be followed.*

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80 Interviewee 9.
As already highlighted, the key to the approach adopted by HLA (2008) was the adoption of a master plan which aimed to unify urban traditions with those of the modern metropolis while providing open space and a distinct skyline with a new landmark. The sustainability aspect of the project, despite efforts made by the firm to maintain standards at each phase of the development, was adjudged to be weak, because of an evident shift away from the traditional Arab urban centre. The holistic approach was believed to be lacking, although it was strongly preferred to segmented sectoral interventions if urban centres were to act as transformational international agents, able to energise the whole country. This would require effective management.

When asked whether there were any strategies implemented in the Dammam CBD to address sustainability issues, another interviewee said:

*I hope there are, but I am not aware of any, except for the new code which encourages proper placement of buildings within an improved public realm.*

Similarly, an interviewee from a local real estate company, when questioned about the role of the American Office in the development of the CBD, replied:

*This country (USA) is also dealing with a large demographic shift that will significantly impact upon development over the next thirty plus years. As an architect and planner, I am deeply saddened to see that Saudi Arabia and a lot of the Middle East has forgotten its traditional building and planning techniques despite the fact that the rest of the world such Spain, Europe, South America and North America has happily imported it. We are trying to reintroduce Saudi Arabia to these standards again, remind us of how wisely we once built. i.e. the true courtyard house with thick thermal walls and punched openings. For some reason, Saudi Arabian architects are enamoured with North American planning and this has negatively impacted our cities, in my humble opinion.*

An academic expert in real estate also expressed concerns regarding the planning code:

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81 Interviewee 19.

82 Interviewee 6.

83 Interviewee 31
When entering some international sites, they always mention that they are sustainable projects, as in KAFD, the American Office DPZ that designed in Dammam and Jeddah, and executed smart codes in America. I mention these offices as examples of sustainability. It is normal for every designer to consider its own project as the best one.

Dammam had a similar approach to Riyadh in terms of its urban development, with major influence from Candilis (1976), CH2M Hill (1980) and recently, DPZ (2010), who created a new code and regulations for the CBD similar to the Miami Smart Code. The design was geared towards a more traditional Saudi urban architectural vernacular, but with the use of modern materials, continuing to preserve the human scale of the project. The blocks and streets of the Business Oasis were laid out to maximise connectivity within the site while allowing for as many connections as possible to the existing and future street grid of greater Dammam. This was seen by the planners as of great importance, since the anticipated density of this site warranted the provision of a connected urban street network. However, the design was rejected by the municipality of Dammam on the grounds of lack of implementation experience (Alatni et al, 2012).

6.6 Morphology of New Urban Centres as a Result of Planning Codes

In times past, responsibility for running the built environment traditionally fell on the residents. In the agricultural mode of production, Islamic values and cultural convictions, as well as socioeconomic factors, played decisive roles in ordering and shaping the built environment. However, since the rise of the new nation-state, urban commentators such Garba (2004) and Mubarak (2004) have observed that the management of cities in Saudi Arabia has rested increasingly in the hands of organisations run by technocrats and civil servants representing the monarchic state. The Kingdom’s government has assumed the dominant position in underwriting the urban growth of Saudi cities; hence, urban management is heavily controlled by the central government in the form of simple and unified physical urban planning practices adopted by the central urban planning authority in the capital, as affirmed by Mubarak (2004). As such, the municipalities of both Riyadh and Dammam, which derive their financing and authority from the MoMRA, remain under the Ministry’s substantial control. Consequently, Riyadh’s urban development is administered by an unwieldy and enlarged bureaucratic municipal organisation. The
municipal authority’s role is to prepare and approve the sub-divisions which many believe are continually increasing in consequence of the minor modifications to the road network prepared by the Doxiadis consultancy and approved by the Council of Ministers in 1973.

The MEDSTAR (HCDR, 2003) analysis of the present state of Riyadh city showed the city to be faced with a number of environmental challenges, the most important being the negative impacts on national resources and their deteriorating quality due to the fast-moving development and land sub-divisions that have occurred within the city without any regard for morphology or topography. These challenges have been exacerbated by the increasing demand for services, by urban sprawl and by a lack of proper coordination, both among the various agencies managing the city’s growth and between local agencies and the central government. Interviewee 7 expressed concern about these challenges and the changes made to planning codes and regulations, arguing that these have had a major socioeconomic impact, creating multi-unit development, small land allocation and increased car parking, with less land mass away from the 50 m² to 30 m² allocation and design. These concerns were corroborated by Interviewee 28:

*The major changes to the planning code and regulation are in heights and increase of car parking areas.*

Interview responses indicate the absence of any clear delineation of the roles of the various agencies involved in managing urban growth in Saudi Arabia. The system is described as being characterised by operational independence and fragmented participation in development activities. An objective observation of this reveals the impact of the developmental approach adopted, underlining the need to improve urban growth management in order to cope with the long-term challenges of growth.

Development planning was formalised as an approach to addressing the city’s problems. However, the city expanded by leap-frog development, thereby increasing the cost of providing services and reducing their efficiency. Riyadh’s growth at this time was characterised by a random expansion of sub-division, dispersion of services and facilities to sparsely populated areas, and a lack of co-ordination between service agencies.

As the city is experiencing development, so too are the laws and regulations that govern urban developmental activities repackaged to respond to the demand that comes with these changes. In this respect, it could be said that government will need to increase the
efficiency of land use distribution in the city, especially in regard to the provision of housing, workplaces, services and other urban amenities.

Interviewee 13 observed that commercial interests are key drivers of the engagement of international firms in the ongoing urban development:

Saudi Arabians need a real choice of living. Given the choice, many will continue to choose to live in auto-oriented subdivisions. And they should be allowed to. However, many are now actively asking for a viable, more sustainable alternative and they also should have that right. Currently, few zoning codes allow for this type of community living. The first imperative is to level the playing field and incentivise smart growth and development. At the city level, there are three levels of available tools: design, management and policy. All three should be utilised to affect change in the most positive manner. 

Many interviewees considered the approach taken to urban growth outdated, inappropriate and above all, ineffective, in cities experiencing economic growth and change, under the pressures of globalisation. An academic said:

Building codes are not applied and not appropriate to the desert environment. We do not use our best energy resource, which is solar energy. 

Another stakeholder, Interviewee 11, bemoaned the state of building regulations in the country:

There are no regulations or building codes concerning sustainability, but it is the desire of the owners and investors that international firms operating in the country adopt and apply sustainability criteria in their buildings, considering the high budget cost allocated to implementing the project.

As construction progresses in both Riyadh and Dammam, questions arise concerning the future, bearing in mind that the success of these new urban designs will be measured against the state’s many claims about their economic and social benefits for the Saudi people. Such questions call for an overall review of how building codes have been and

84 Interviewee 27.
continue to be introduced and what support is required at each level for sustainable construction and the demonstration of the relationship of materials used in construction with the various codes and standards.

Another major anxiety expressed by many interviewees was the lack of clarity concerning the possibility that the KAFD and the Dammam CBD might become socially separated from the rest of the country, as has been witnessed in China, where the establishment of Special Economic Zones means that there are two policies in operation in the same country. Hence, both Saudi projects could be considered pilot projects in terms of size, type, infrastructure, advanced urban planning concepts introduced and environmental quality; there are lessons to be learned from the KAFD and CBD projects about the future direction of the KSA.

The desire of international firms to promote sustainable cities through the application of urban planning codes has been a key driver that has attracted the attention of decision-makers in Saudi Arabia and has resulted in the Saudi government issuing an open invitation to these international firms to compete for contracts of various magnitudes in the KAFD.85 The outcome has been that all major construction projects are now handled by these firms. According to the interviewees, while the planning codes and regulations may well have been developed with good intent, they have not been fully implemented and the production of the sustainable buildings as promoted by these firms is still awaited.

Figure 6.3 shows questionnaire survey responses indicating no overall preference for the engagement of local rather than international firms in the delivery of major projects.

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85 Interviewees 3,5,11,23,27,29,30,42
Figure 6-3: The Saudi Government should engage local designers as opposed to international firms

Many who did prefer local firms to be engaged held this opinion because they believed that local firms were better placed to design sustainable urban centres and that foreign planning codes are not ideal for implementation in an Islamic context such as that of Saudi Arabia. Many were also of the opinion that there were indeed sufficient local experts capable of handling projects of the magnitude being offered to international firms and that had these companies been commissioned, local attributes would have been evident in urban centre designs. Such reasoning is natural, considering that respondents would want to see their own culture reflected in various projects.

Realistically, however, the potential to achieve local engagement on a wider scale is questionable, due to restrictions on experience, the lack of industrial exposure to the international scene and the absence of any global reputation. As an alternative, some participants suggested that it would be preferable for the government to have required a blend of local and international expertise when allocating the design work, as a means of enhancing knowledge transfer from internationally-recognised firms to local ones. That said, some respondents confirmed their belief that international firms offer a much higher level of quality and performance because they bring a better delivery system for iconic projects that can usually perform better than the delivery systems found in the Gulf region.
It can be inferred from the arguments presented above that the morphology of urban centre development in the KSA has been strongly influenced by international policy, as international firms have been engaged since the 1960s. This influence has continued to the twenty-first century, sustained through the perception that international experience has been vital for the development of urban centres around the world. However, there is no guarantee of quality, iconicity or sustainability resulting from the use of international firms. To achieve these aims, it is necessary to ensure that their work is operationalised through the implementation of sustainable urban planning codes that require all developers to adhere to the same rules.

The four subsections that follow analyse stakeholders’ responses concerning the influence of foreign firms in relation to urban amenities in line with Saudi culture, to business facilities, to housing and to infrastructure.

### 6.6.1 Urban amenities

When asked to assess the influence of international firms through the provision of amenities in urban centres, 121 respondents (43%) felt that internationalisation was having a moderate impact on the urban development project and the same number considered this impact to be low or very low, while only 18% saw it as high or very high (Figure 6.4). This is a small proportion when one considers the amenities that are being developed. There are no significant changes in the way amenities are viewed even after the introduction of planning codes.

![Figure 6-4: Level of influence of international firms on urban amenities](image-url)
This response concerning amenities was based on many respondents’ complaints about the lack of collaboration between designers and national or local authorities in ensuring the maintenance of the general lifestyle of Saudis, by the inclusion of the amenities considered. It is expected that the provision of urban centre amenities might serve as an indicator of urban centre development, but Saudi culture involves an outdoor lifestyle, requiring public facilities such as parks. The lack of provision of these was a source of disappointment and concern.

6.6.2 Business Facilities

The design of the KAFD and the CBD did make provision for facilities and services such as modern office space, shops, transportation networks etc, in an effort to attract various forms and sizes of businesses to the area. This influence of international firms on the present business facilities, and those proposed in the urban centres, was considered significant by questionnaire respondents. Figure 6.5 shows that 86% assessed this influence as moderate, high or very high, while only 14% thought it low or very low.

![Score chart showing influence of international firms on business facilities]

Figure 6-5: Level of influence of international firms on business facilities

However, although these facilities did attract businesses to the areas concerned, many felt that projects on the King Fahd Road, which was said to be a commercial artery before the
completion of the KAFD, were now being negatively affected, due to the relocation of existing companies and offices away from the area⁸⁶.

6.6.3 Housing

There was a strong perception that internationalisation had influenced the typology and delivery of housing in the areas under study⁸⁷. The deviation from the traditional Arab form of housing construction in both Riyadh and Dammam, and indeed elsewhere, was considered unsuitable for the majority of Saudis and appropriate only for individuals accustomed to living in apartments, not for families used to high levels of privacy at home⁸⁸. The vertical building design did not afford the preservation of family privacy and had an unwanted effects on outdoor chores, which are only possible in houses with open courtyards. Around 70% of questionnaire respondents felt that international firms had had a strong (32%) or moderate (39%) influence on housing by importing foreign planning codes in their housing designs, especially in their promotion of apartments so as to maximise space (Figure 6.6).

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Figure 6-6: Level of influence of international firms on housing facilities

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⁸⁶ Interviewees 56,58,59,61,62

⁸⁷ Interviewee 25

⁸⁸ Interviewees 20,21,32,42
Another apparent influence was the provision of mixed housing types within one area. This was seen as a deliberate decision taken to introduce variation in building densities such that developments could cater for an appropriate mix of different building types for the community. As reported in their documentation, HLA (2008) and DPZ (2010) took great care to assign density allocations in a non-uniform manner throughout their sites. This strategy provided a wide range of housing choices and workplaces, closely integrated within the various neighbourhoods, giving these a balanced mix of facilities including shops, workplaces, schools, recreation and dwellings of all types. The optimal size of a neighbourhood is not determined by population, but by an area about 400 metres from centre to edge.

6.6.4 Infrastructure

As to infrastructure, Figure 6.7 shows that more than half (55%) of respondents believed that international firms exerted a strong influence on the provision of general infrastructure in the areas concerned, while less than a quarter perceived it as weak. Some stakeholders saw this influence as negative, because of the current inability of the infrastructure to satisfy urban centre growth, with the result that roads were congested, and urban centres crowded. In addition, some business owners and shopkeepers\(^\text{89}\) believed that they had lost customers, as their premises and the area generally had become less attractive, coming second to the newer areas of the CBD, which they could not afford to move into because of the high rents.

Conversely, others saw the level of infrastructure as a positive indicator of the way urban centre land use had been improved through the ability to build more modern buildings, thus bringing a fashionable appearance to the CBD and attracting upper-end customers\(^\text{90}\). Such a scenario could only be achieved with the involvement of internationally-experienced building professionals at both the design and development stages. Moreover, the local authorities needed support from international firms to facilitate the development of urban centres in Dammam. Thus, the design by DPZ (2008) envisions a self-sustained and dynamic urban community which achieves the necessary development capacity and related infrastructure in the form of great urbanism that is rooted in the urban and

\(^{89}\) Interviewees 58, 63, 48, 49, 53

\(^{90}\) Interviewee 55, 59
architectural traditions of Saudi Arabia, while providing for all the conveniences of modern living. Likewise, as affirmed in the master plan for the KAFD (HLA, 2008), the full range of utilities is provided to meet with the challenges which the megaproject will pose to the environment and community as a whole.

Figure 6-7: Level of influence of international firms on infrastructure facilities

6.6.5 Urban regulations
In respect of the impact of current planning regulations on the urban centres, respondents indicated a high level of awareness of the changes occurring to their facilities. Planning regulations have been linked to: (i) the setback of buildings, land use, height of buildings; (ii) the need for housing for every commercial building; (iii) the requirement for building approval; (iv) demand and supply of energy and water; (v) the restrictions of building requirements for the CBD and strategies to deal with the increasing population density in the city; and (vi) increased awareness of smart codes and the need for sustainability of building consumption in general. However, respondents did not feel that international firms had actually been successful in the implementation of planning codes; hence, their influence on the overall planning codes was considered weak to moderate, as the trend line in Figure 6.8 shows. Currently, there is a perception of a shift in the delivery of buildings and infrastructure provision away from traditional ways of living.
The perceived inadequacy of international firms’ contribution to urban centre planning regulations was mainly linked to the lack of practical elements that could guide the implementation of sustainable urban centre development. There was a perception of confusion and lack of detail around the implementation process, leading respondents to see the main theme of sustainability as inadequately covered in the current urban planning codes, making it difficult to implement. As a result, respondents felt that if it were possible to review the codes they should be made more explicit. Environmental concerns remain largely unaddressed because there is too much rhetoric and insufficient action from the implementers; yet these problems might be rectified if a review were to take place.

Another factor cited as making a comprehensive review of all planning codes desirable was the lack of consultation with the public, most decisions in the initial phases of planning as in the KSA are taken by governmental bodies, involving only a few people. Respondents also noted that the current urban planning codes are of Western origin and that too little chance was provided for them to be adapted as necessary to Saudi conditions and social requirements. Finally, many respondents argued that the involvement of government officials in planning tended to create inertia and that it would be better for the process to be driven by Saudi professionals instead.
Table 6.2 demonstrates the gradual shift of planning codes away from the prescriptive and inflexible nature of the Doxiadis codes, which required the ground floor of each building to house a commercial facility, for example (Interviewee 29). However, if too much flexibility is present, as is the case with the current urban planning codes, some of the specific elements of design could remain arbitrary.

Table 6-2: Typical Regulations for Buildings in the Central Spine, Riyadh

<table>
<thead>
<tr>
<th>Permitted land uses</th>
<th>- Residential/ offices/ commercial on King Fahd Rd and Olayya Street</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum depth</td>
<td>- 100 m on King Fahd road</td>
</tr>
<tr>
<td></td>
<td>- 100 m on Olayya street</td>
</tr>
<tr>
<td></td>
<td>- 100 m in the middle strip</td>
</tr>
<tr>
<td>Maximum land coverage</td>
<td>- 35%</td>
</tr>
<tr>
<td>Floor area ratio</td>
<td>- 5.75 for land overlooking King Fahd Road.</td>
</tr>
<tr>
<td></td>
<td>- 5.75 for land overlooking Olayya street.</td>
</tr>
<tr>
<td></td>
<td>- 3.00 for land in the middle strip</td>
</tr>
<tr>
<td></td>
<td>- Space assigned for mechanical or energy equipment is not included in this ratio</td>
</tr>
<tr>
<td>Minimum setback</td>
<td>From main streets:</td>
</tr>
<tr>
<td></td>
<td>- King Fahd Road: Four metres in case of not providing parking area on the road; eight metres in case of providing parking area on King Fahd Road</td>
</tr>
<tr>
<td></td>
<td>- Olayya Street: Six metres</td>
</tr>
<tr>
<td></td>
<td>From the secondary roads:</td>
</tr>
<tr>
<td></td>
<td>- One fifth of the street width, minimum of three metres provided no parking lots</td>
</tr>
<tr>
<td></td>
<td>- Eight metres in the case of providing parking area along the surrounding streets at 40, 60 and 90 degrees</td>
</tr>
<tr>
<td></td>
<td>- Five metres in the case of providing longitudinal parking space on the surrounding streets</td>
</tr>
<tr>
<td></td>
<td>From neighbours: three metres</td>
</tr>
</tbody>
</table>

HLA served as consultants and implemented the policy of one parking space for every 25 square metres of net usable space of office land. Their proposal made provision for one parking space for each residential unit covering a total land area of 180 m² with all other land uses being subject to car parking lot requirements according to land use and development codes stated in volumes 9-13 dealing with land uses. Hence, the master plan was used as a tool for guiding the zonal developments that were to be implemented by various design firms.
6.7 Conclusion

From the evidence obtained, it has become clear that the Saudi government’s principal motivation for appointing international firms to develop its urban planning codes was borne out of the desire to promote sustainability within its urban centres and in particular, the cities of Riyadh and Dammam considered in this study. This strategy has resulted in the devolution of key decision-making to international firms and municipalities, which in turn have significantly shaped the planning codes and regulations at municipal level through their various contributions.

Empirical evidence emerging from this study shows that the planning codes developed as a result of these contributions are incapable of delivering the Saudi government’s stated aim. The key setback is identified as the lack of genuine understanding by local players, and new international players of how to apply these codes. It is concluded, therefore, that for the planning codes and the effort to achieve sustainable buildings to be properly understood and integrated, time is required.

Furthermore, the data considered in the study reveals that international firms operating in the Kingdom have assumed a shift in their role through their design of plans, their relationships with local designers, and the way in which policy formulation and development is now conducted. Undoubtedly, the principles underpinning their operations, have evolved during the period under review. This strengthening role of international firms clearly demonstrates a strong Western influence on urban development in the KSA, with no adequate consideration of the cultural context of the citizens within the urban centres involved. To many observers this is a genuine problem, leading to the replacement of local professionals in the fields of architecture, urban planning, and sustainability by their international counterparts. Simultaneously, there exists a vacuum in respect of how the new planning codes are to be implemented and promoted among the local professionals in the building industry. However, whilst some respondents certainly believed the changes in urban centres to be against the interests of the general public, others considered the new planning codes to have had positive impacts on urban centres, despite the problems of transportation, traffic congestion, and poor levels of privacy created by their introduction in both cities.

Historically, the engagement of international firms to develop urban planning codes has remained a consistent government strategy since 1970. Nonetheless, the development and
implementation of these foreign planning codes in the Kingdom must be approached with caution since whilst they may be appropriate in their countries of origin, they are not believed to be so by many stakeholders who argue that the cultural and environmental differences in the KSA make them unsuitable. Hence, there is a need for a more close analysis of these codes before any further implementation.

Chapter seven presents the analysis of the field data. It does this in the context of sustainability being used to promote urban centres in the Kingdom, and the resultant impact of their implementation as identified by various stakeholders.
7. CHAPTER SEVEN: SUSTAINABILITY AS A MEANS OF ACCELERATING INTERNATIONALISATION

7.1 Introduction

The notion of sustainability explored in Chapter Three focused on the holistic way in which the development of infrastructure and other facilities has been packaged as a means of introducing urban change, and on the balance between people, planet and the benefits accrued from urban development projects. This was considered possible through the creation of an economic growth pattern in which resource utilisation aims to meet human needs while preserving the environment both for the present and future generations. All facets of urban development (workplace, residential areas, recreational areas, shops/malls, restaurants, hotels, sporting facilities and other related infrastructure) are included in this concept of sustainability. In the case of Saudi Arabia, the aim of developing sustainable urban centres cannot be mobilised by its national capabilities alone, but requires a large international contribution, as discussed in Chapter Two. Its achievement is largely dependent on sound policy implementation, industrial preparedness and the recognition that the approach can be non-standardised and unique to the industry concerned (Sharifi and Murayama, 2014). The HCDR Report (2003:7) on the future of Riyadh emphasises the need to consider strategy:

If the current development procedures and policies remain without change and growth continues as forecasted following the trends without guidance, environmental deterioration will continue and the city will face difficulties in developing into a sustainable city. In addition, the continuation of the current development policies if unguided will lead to continued loss of the open spaces and degradation of these important services for both population and businesses. In conclusion, … the city is facing a major deficiency in public facilities.

Clearly, if the current development policies are continued, the outcome will be detrimental to the quality of life of the Saudi population.

This chapter demonstrates that sustainable urban city developments in Riyadh and Dammam were operationalised and mobilised by international and local firms within the Saudi construction industries. In addition, it considers how the internationalisation of the
concept of sustainability has been utilised in the transformation of these two new urban centres, exploring the emergence of sustainability as a means of accelerating the internationalisation of the various urban projects concerned. The main anticipated outcome of a sustainable urban centre is a series of positive effects on the social, economic, environmental and political fabric of society (Baker et al., 1997; Campbell, 1996). This chapter seeks to determine whether such outcomes are evident.

The empirical evidence gathered for this study shows that the mobilisation and instrumentation of internationalisation began with the international firms demonstrating that they possessed a clear appreciation of the principles of sustainability in the building and urban planning arena, and of how such principles can be applied to urban centre development (HLA, 2008; Barkemeyer, 2014). Additionally, these firms made a definite strategic response to the KSA government’s policy of internationalisation, claiming to be able to implement sustainability in their delivery. However, both interviewees and questionnaire respondents expressed concern about the application of sustainable practices in the ongoing projects in Riyadh and Dammam, and in the Kingdom generally. In essence, there was a strong perception among these stakeholders that the current industrial practices of sustainable construction in urban centre developments are impacting unfavourably not only on the building fabric but also on the economic, social, cultural and environmental performance of the cities and their inhabitants. The main arguments have been around how the concept of sustainability was approached in the delivery of infrastructure in the cities, how natural resources are used in construction, the use of passive energy methods and the need to adhere to social and environmental ethics throughout the project lifecycle. These concerns, among others, challenge the assertion by the international firms that their urban development projects in Riyadh and Dammam are characterised by sustainability. In reality, there has been no holistic approach to sustainability in any of the projects so far completed in either city, yet the firms responsible continue to advertise their finished products as being sustainable.

The strategy adopted to operationalise the concept of sustainability as promoted by these international planning and architectural firms is to discover how they have used their technical and business acumen to strategically procure projects that have been developed under the umbrella of sustainability. There is also an appraisal of the projects awarded international certification standards and used as the main thread for objectifying
sustainable urban development at the expense of a wider view of sustainability in developing urban centres in the Kingdom.

The chapter also examines how various components of sustainability have been used as instruments of development by assessing how policy travels through investment attraction, and via the commercial dimension evident in Riyadh and Dammam. Furthermore, it assesses stakeholders’ views on space utilisation and spatial planning, and considers internationalisation in terms of financial, technical, trade and business opportunities. Also covered is how internationalisation has facilitated the convergence of institutions, cutting across social, economic, political, cultural, environmental and technological fronts by allowing firms established in one country to do business in other countries. Considering the high complexity of urban development in Saudi Arabia, it was seen as important to determine how experienced actors in the construction industry may have been engaged and recruited from the global market.

Another critical issue considered here is how sustainability has been used as a vehicle to promote nationalism and national economic benefits, as policies are moved from the international to the local market. Hence, it is important to examine how sustainability has been marshalled through policy mobility and to evaluate the influence of international firms, legitimised by the belief of Saudi Arabia’s decision-makers that these firms ‘know better’ and offer the best solutions. This belief has been held for four decades, since Doxiadis and Candilis. The final issue to be explored via primary data is the opening of the construction market to the world and what this has meant for international architectural firms who have marketed their services to various clients in the KSA.

The chapter concludes that sustainability has not been implemented in its totality. The concentration has been on energy rating and certification of projects implemented. This method provides ‘evidence’ that the urban developments in Riyadh and Dammam are considered sustainable, but deeper analysis of the primary data shows certain flaws in the attempted measurement of sustainability in these projects. Hence, whilst the policy of engaging international firms cannot be questioned, the general perception within the industry is that the policy of engaging designers is biased towards international firms, which have made only superficial attempts to implement sustainable urban development in Riyadh and Dammam.
7.2 Sustainability as a Marketing Tool to Promote the Internationalisation Agenda

As an approach and practice, sustainability is complex in itself, while the sustainability of cities is viewed as an even more complex phenomenon, requiring interdisciplinary research in fields from engineering to sociology and environmental psychology, involving ideological discourses relevant to environmentalism. The work of architects, urban designers and urban planners intersects many disciplines, especially with regard to the shaping of physical environments based on guidelines and policies for present and future societies, and the physical environment of cities that accommodate them. A considerable number of qualities are required for the development of sustainable urban growth, and these pose a particular challenge in the case of emerging urban centres like Riyadh and Dammam.

In this context, many interviewees rightly noted that sustainability had been used as an active marketing tool and as a means to accelerate internationalisation by many foreign practices seeking to acquire projects in the KSA. However, owing to different climatic conditions and the availability of different building materials and natural resources, the interpretation of sustainable practices in the KSA differs widely from that of the West. Hence, there is a strong view among Saudi companies, municipalities and governmental agencies that marketing is more important to international firms than their actual implementation of these sustainable urban centres. On the other hand, academics interviewed as part of the empirical study opined that international firms do consider the concept of sustainability in their work. As the owners of Saudi projects lack any sustainability awareness, however, international firms pay little attention to this, leaving the owners unable to handle crises that arise once such facilities are operational.

According to the Ninth Development Plan, over the first four years of the Eighth Development Plan, imports of building materials increased at an average annual rate of 14.7%, while exports grew at a higher average annual rate of 16.9%. This constitutes 24.2% of total trade in 2008, up from 22.9% in 2004 (Table 7.1). Neighbouring countries and other Middle Eastern and North African states are the main destinations for Saudi exports of basic building materials, especially cement.

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91 Interviewees 25, 29, 31.
Table 7-1: Imports and Exports of Building Material

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>Average Growth Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imports</td>
<td>3153.0</td>
<td>3566.0</td>
<td>3794.0</td>
<td>4147.0</td>
<td>5461</td>
<td>14.7</td>
</tr>
<tr>
<td>Exports</td>
<td>934.0</td>
<td>1080.0</td>
<td>1236.0</td>
<td>1474.0</td>
<td>1742</td>
<td>16.9</td>
</tr>
<tr>
<td>Total trade</td>
<td>4087.0</td>
<td>4646.0</td>
<td>5030.0</td>
<td>5621.0</td>
<td>7203</td>
<td>15.2</td>
</tr>
<tr>
<td>Share of export in total trade (%)</td>
<td>22.9</td>
<td>23.2</td>
<td>24.6</td>
<td>26.2</td>
<td>24.2</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Up to the end of the fourth year of the Eight Development Plan; in current prices
Source: Central Department of Statistics and Information (Saudi Arabia)

The basic building materials industry expanded with the growth of the sector. For example, over the period 2004–2008, domestic cement production increased at an average annual rate of 3.7%, reaching a total of 29.4 million tons in 2008 (Figure 7.1), produced by eight factories. To keep pace with growth in demand, 37 new factories were licensed in 2007 across the Kingdom, raising estimated total cement production capacity to about 40 million tons in 2009. Meanwhile, to meet demand for other building materials, more firms relied on imports, contrary to the widespread belief in sustainability as the bedrock of their operation. About 80% of building materials were thus imported, from Europe and America, partly in order to comply with standards and design specifications.92

Figure 7-1: Cement Production – (Source: CDSI, 2010)

92 Interviewee 40.
According to one of the academic experts:

The Municipalities do not have the ability and the experience to assess the process of sustainability. However, assessment is now the responsibility of the companies that market the project as a sustainable urban centre. What I want to know is how the project is sustainable. Unfortunately, if the owner of the project has no clear understanding of the sustainability concept, then the international firms will market the term without proper assessment and measurable indicators that should be requested from the owner. The result is that such projects are going to be all about marketing. ... To have a LEED certification, [and quote me on this] doesn’t mean you have a sustainable community. And this is a problem.93

The comments of interviewee 42 tally with the arguments propounded by Deringer et al. (2004), Alyami and Rezgui (2012) and Lee (2012), to the effect that sustainability cannot be assessed by taking a reductionist approach based on instruments such as LEED or BREEAM. In other words, sustainability needs a holistic approach in order to incorporate as many elements as possible. Therefore, it can be argued that in general, there is no provision for sustainability in Saudi cities and districts.94 However, there is a need for sustainable urban centres, as explained by an employee of the Bin Laden Company, the constructor undertaking the KAFD project, which will change the city’s economic form and strengths.95

Of the urban development projects in Saudi Arabia that could be considered sustainable, the KAFD is considered the largest single project ever handled in the country. Our company is presently handling 30 lots, all of them are planned to be towers, and some lots include two towers each. The concept is also applied within the project of Princess Norah University.96

A conflicting opinion was offered by an interviewee from the Aloula Real Estate Company working on the CBD in Dammam:

93 Interviewee 42.

94 Interviewee 43.

95 Interviewee 14.

96 Interviewee 10.
Most current projects are in land development only, because they are short-term, less-cost, and more-profit projects.\(^{97}\)

A senior official of Mega Projects in the Eastern Province (Municipality of Dammam) saw this as a critical situation:

Even as municipalities nowadays, unfortunately, we don’t keep up with or regulate the urban expansion. This is our important concern about sustainability. Perhaps this is a somewhat a sensitive word. However, there is a strong real estate capital within the Kingdom which manages, directs and controls city development, especially in recent years.\(^{98}\)

While the interviewees highlighted the need for projects to be designed “using the present natural resources without squandering them, in order to maintain them for future generations”,\(^{99}\) and deemed this achievable,\(^{100}\) they highlighted several obstacles to the implementation of this strategy. The first was a lack of experience among local professionals,\(^{101}\) requiring many foreign firms to be engaged.\(^{102}\)

Another was the failure to learn from experience elsewhere, according to one interviewee:

Saudi Arabia must learn from the mistakes of the past and present made by the United States and other countries over the past 50 years when we develop our suburbs in a sprawling manner, resulting in excessive land use, separated uses and automobile dependency. We are gradually shifting towards this model and more and more cities and suburbs are realising they can no longer afford to develop in this unsustainable manner when resources and services are stretched too thinly.\(^{103}\)

Interviewees and questionnaire respondents also noted that whilst it had been government policy from 1970 onwards to engage reputable international firms to plan urban development schemes, the planning regulations during that period had imposed counterproductive restrictions upon zonal development. By the year 2000, recognising the

\(^{97}\) Interviewee 18.

\(^{98}\) Interviewee 40.

\(^{99}\) Interviewee 4.

\(^{100}\) Interviewee 5.

\(^{101}\) Ibid.

\(^{102}\) Ibid.

\(^{103}\) Interviewee 9.
need to allow developers greater freedom, the government had removed restrictions within the existing zones on the number of storeys that could be constructed, so developers had been engaging international firms to improve the chances of attaining the level of quality desired.

Further analysis of interview and questionnaire data points to there having been a heavy reliance on international firms to plan and develop urban areas, one reason for this dependency being that local firms lacked experience of handling such projects and therefore had no reputation for project delivery. However, there has been greater collaboration between local and international firms since 2010, with a sharp increase in the number of local architectural and planning firms working in the country, demonstrating that internationalisation has been fundamental to urban development. Nonetheless, the impact of this increased level of internationalisation on urban form and lifestyles has not been fully examined.

The Eighth Development Plan espoused the objective of developing an institutional and organisational framework for the building and construction sector, and adopted implementation policies including: setting up and applying the Saudi Building Code, applying environmental and safety standards, and adopting professional licensing. However, implementation has not proceeded at the level envisaged and desired. Hence, it was deemed necessary in the Ninth Development Plan to reinforce development processes and enhance stability in contracting, especially under conditions of rapid fluctuation in the price of major inputs such as cement and iron, by linking the cost of these inputs in various construction contracts to appropriate benchmark indicators.

7.3 The Mobilisation of Sustainability for Urban Centre Projects in Riyadh and Dammam

The mobilisation of international companies as participants in the development of urban centre projects was triggered by government policy announcements through the national development plans (MoEP, 2010). Since 2000, the government has considered the development of policy aimed to institute measures around the application of sustainable practices in respect to its natural resource base, and build the capacity for regeneration and continuity. This initiative appeared in the Sixth National Development plan (1995-
2000) of the Ministry of Economy and Planning (MoEP) (1995). Through the Ministerial Committee for the Environment, the Kingdom has identified its future development priorities at the national level within the context and understanding of sustainable development. MoMRA (2005a) introduced a planning manual for the activation of sustainable development in infrastructure planning. Specifically, this shows how to apply and measure environmental elements in the planning processes. Stakeholders raised concerns about delayed implementation, noting that the manual had not yet been developed into policy or regulations and that most government officials consequently failed to refer to it in the discharge of their duty. Other interviewees asserted that there were no regulations or building codes emphasising sustainability in Saudi Arabia.

These priorities as set by the government are included in Agenda 21: Kingdom of Saudi Arabia, which addresses various development sectors in the Kingdom on the premise that the environment is the common denominator that links all sectors of development. It emphasises efficient and rational resource utilisation, the development and upgrading of human resources, and increasing the contribution of individuals, private firms and institutions to the development process (MoEP, 2000). The Kingdom’s approach, integrating environmental and development objectives with their related activities, is based on Islamic Sharia principles, which direct the individual to conserve and protect natural resources and to be wise and rational in developing the natural environment for the benefit of present and future generations. Thus, the modern concept of sustainable development in the Kingdom partly reflects this Islamic view of the relationship between man and the natural environment (HCDR, 2003). However, the HCDR and MOMRA have failed to develop this concept in urban centre projects, transferring this responsibility to international firms and giving them full authority to implement the projects awarded with little or no monitoring. Key to this transfer of power are the experience and reputation of these international firms and their ability to replicate these in their approach to new urban centre development. However, it is readily seen that the trend in modern cities worldwide is towards high rise buildings, irrespective of differences in climate,

104 Interviewees 11,24,28.

105 Interviewees 21,25,32,42.

106 Interviewees 20,21,32.
culture and identity. Some interviewees concluded that the intention of decision-makers and developers in the KSA has been to portray the image of these cities through iconic buildings rather than the sustainability of projects.

Successive development plans have emphasised the need for the development and protection of the environment, aiming to reconcile the requirements of sustainable development by upgrading the Kingdom’s macroeconomic, financial and spatial indicators. To achieve these sets of goals, a National Strategy for Health and Environment was adopted by the Council of Ministers (Resolution No. 292 of 2008), covering a number of basic issues that include air quality, potable water, coastal areas, solid waste, hazardous waste and safe use of chemicals. In response to environmental problems arising partly from the regeneration and transformation of Riyadh, Dammam and other settlements, the Government’s development strategy included several vehicles aimed at improving environmental indicators over the next two decades. These include the adoption of clean manufacturing and environment-friendly transport, while balancing natural resources with the objectives of development, through the conservation of natural resources and the rationalisation of their utilisation to achieve long-term economic and social objectives.

The Ninth Development Plan for 2010-2014 (MoEP, 2010), highlights the strategic role of environmental management, encouraging various developmental sectors to participate effectively in environmental activities, and the development of institutional and technical capacities of the parties concerned. Its objectives include accelerating development and consolidating its sustainability, achieving balanced development among regions, and continuous improvement of living standards and the quality of life of citizens. This involves maintaining environmental safety, preventing and reducing pollution, providing a healthy and clean environment, and developing national environmental capacities.

International architectural and planning consultants responded by presenting themselves as technically, financially and commercially capable partners in the development process envisioned by the government. Hence, they mobilised themselves in response to government policy on reshaping urban areas. Another factor facilitating their dominance

107 Interviewees 23, 25, 27, 30, 42.

108 Interviewees 1, 3, 4.
was the government bias towards international firms, as seen from the appointment of Doxiadis and Candilis (Elsheshtawy, 2008; Alatni et al, 2012). For over five decades, the government has engaged international firms in the planning of urban areas. These firms have used open trade policies linked to globalisation to facilitate the convergence of institutions, cutting across social, economic, political, cultural, environmental and technological fronts in order to take up consulting opportunities.

7.3.1 Responses of International and Local Architects and Urban Planners

The initial response by international and local architectural and planning firms was to create teams among themselves based on commercial interests in the development of sustainable urban centres. Some Western firms had already established branches in Dubai to facilitate their entry to the Middle East market, helped greatly by the established pattern of globalisation. Consequently, the principles of globalisation examined in Chapter Two were critical in the Saudi Arabian situation, despite the mobilisation being in the form of the Westernisation and Europeanisation of the architectural and planning services. This was similar to the way international firms responded to Beijing’s urban centre transformation, because the government’s deliberate policy was to promote the engagement of private sector actors in their planning and development.

Interviewees argued that in project implementation, there was no genuine co-operation between international firms and local stakeholders with knowledge of the environment and culture. Rather, the international firms operated to their own standards in order to maximise profit and reduce time spent. This was perceived by many as not helping to achieve the desired sustainability level for each project, due to lack of consideration of certain societal norms, a situation which could have been avoided by adequate consultation with local stakeholders. Interviewee 17 commented:

*A mixture of professionals was used to ensure that local professionals could learn from their international counterparts and to guide against making mistakes as in the case of the Western world, where planners have been developing cities in a spiral way, resulting in overdependence on automobiles for transporting inhabitants.*

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109 Interviewee 25,30,31,42
This argument tallies with the reference by Interviewee 9 to the problems of spiral development, when he noted that Saudi Arabian cities had been developed “with the same mistake that the West has made over the last 50 years – spiral development”. As a result of these strategies, he argued that there had been unsustainable land use, over-commitment of economic resources in the development of infrastructure and an increase in fatal accidents due to unsustainable transport networks.110

Interviewees argued that international firms were mobilised through a business model where the gap in technical competence at the local level and the demand for high competencies in the delivery of projects by the government naturally encouraged the international market. Hence, the mobilisation of international firms on urban centre projects is the outcome of government policies that promote the participation of internationally experienced firms in the process of sustainable urban development. This mobilisation has been facilitated by global business links at the local, regional and international level. This model embodies evidence of a desire to achieve unique responses to nationalism as well as national economic benefits, even though these responses are required from international actors. The implication is that international firms were given the chance to transfer their expertise to the KSA.

However, other stakeholders asserted that the Kingdom had a history of over-reliance on international firms in urban planning and architecture, as happened with Doxiadis. Stakeholders saw this over-reliance on international firms as affecting the development of local companies negatively, with a failure to acknowledge and address the disparities between social practices found in Saudi Arabia.111 Many cited the difficulties faced by these firms in attempting to make practices imported from other parts of the world appropriate for Saudi needs.

Underlying the argument advanced by these stakeholders appeared to be a belief that companies with origins outside the Kingdom did not have the knowledge of the local environment necessary to deliver government policy; nor were they seen as capable of safeguarding the interests of society by maintaining the local culture and lifestyle. Major criticism of government policy as expressed in the National Development plans centered

110 Interviewee 9.

111 Interviewees 10, 11.
on the practice of appointing companies seen as having expertise in sustainable design and planning, and in adherence to global standards, without specifically requiring them to address prevailing Saudi cultural and contextual factors.\footnote{112 Interviewees 25, 28, 30, 31, 45.}

Nonetheless, local companies have been involved in the whole process, either as contractors or planners, and they partner international companies as a way of safeguarding the culture of the land. In the case of projects funded by government or by government-backed institutions, the policy has been to appoint internationally recognised designers such as Foster and Partners, HLA, Gensler, Callison, FXFOWLE, Perkins & Will, and RMJM Global Network.\footnote{113 Interviewee 1.} These companies have used government policy to their advantage because they were mobilised for their international reputation as well as local connections in order to respond to business opportunities offered by the KSA. However, it is essential to examine the instruments of choice that have been used as a means of gaining entrance to the Saudi urban centre development projects from their international bases of operation.

The importance of sustainability to international firms of architects and planners has been clearly established. The next section examines the instruments that they have used to promote their image of sustainability. It considers stakeholders’ appraisal of these instruments, their assessment of the firms’ influence and the rationale for the engagement of international firms.

### 7.4 Instruments of Sustainability Adopted by International Architectural and Planning Firms

Technical knowledge, past experience, business links and proposals for optimal space utilisation are key strategies used by international architectural and planning organisations operating in the KSA to promote their sustainability drives. HLA, for example, carefully applied its master plan expertise to merge Saudi urban tradition with modern urban centre design in Riyadh through the provision of open space and a unique skyline with a new
outstanding landmark.\textsuperscript{114} Dammam is witnessing a similar transformation by DPZ, which has created a new planning code and regulation for its CBD. International companies and their local counterparts have been aiming to promote a new heritage, creative relationship, sense of place and regional identity, setting local distinctiveness as an objective that is intimately tied to achieving other sustainable objectives established by the country. Distinctiveness is concerned with the preservation and enhancement of what is special about places in order that these can be viewed as constructs of often-unique geographic, physical and environmental characteristics, combined with unique cultural circumstances manifested in a settlement’s original form and purpose, and in subsequent human interventions over time. The result is an environment of distinctive character in building design, space composition, and mixed use and spatial layouts, which once altered can rarely be restored.

To ensure sustainability, the precautionary principle should be applied and careful consideration given to identifying what is special, to resist ubiquitous pressures for homogenisation, while ensuring that new development across all scales respects and enhances the best of what already exists, creating new places with distinctive characters of their own. This was echoed by another stakeholder:

\textit{A sustainable project should be seen as one that is developed using the growth of the neighbourhood as a structural element. It should be seen to bring balance between land conservation and smart manageable growth. Most importantly, for sustainability to be effective, it should be tackled at all different levels of planning, each warranting different solutions that could be significantly meaningful. While much attention has been paid to addressing the greening of buildings, very little attention has been paid to addressing larger patterns of development that arguably impact people’s lives to a greater degree.}\textsuperscript{115}

Urban greening, open space, biotic support and the notion of the symbiotic town have been fundamental principles across the different spatial scales in meeting the challenge of maintaining environmental diversity within the projects completed so far in the Kingdom. Landscape planning and design are often the forgotten dimensions of the urban environment, treated as afterthoughts or purely visual concerns, to reduce the impact of ugly buildings or acres of parking, for example. However, fundamental approaches to

\textsuperscript{114} Interviewees 3, 34.

\textsuperscript{115} Interviewee 9.
landscape planning have long been advocated which treat urban areas as part of a wider ecosystem, so the form of the human-made environment is dictated by the need to exist alongside the biotic environment of fauna, flora and space for them to flourish.

Environmental literacy, local autonomy, consultation and participation have been evident even though the outcomes have negatively affected some urban centre dwellers. Prior to the twentieth century, development of the built environment was slow and incremental, with most lives centred on local areas and using local resources, both human and natural. With increasing internationalisation and greater ease of communication and travel, however, patterns of living and development processes have assumed a new dimension in the Kingdom. Some of the results are unsustainable, due to the loss of identity with the pace of development, the homogenisation of urban and building types, forms and styles, and the increasing distances that populations need to travel to cater for everyday needs.116

Although the pattern of life is difficult to change in the short term, planning has an important role to play in providing choice for more self-sufficient modes of living in the future. This may include physical measures such as providing cycle routes to encourage greater self-sufficiency in travel, connecting to broadband internet to allow homeworking, or simply allowing space for local food production in less dense urban areas. It also encompasses physical relationships between home, work and leisure facilities and amenities, and the need for the economic and social infrastructure to be sufficient to meet local needs. More fundamentally, it requires key stakeholders and local populations to be more actively involved in developing a vision for their locality. Participation (going beyond consultation) therefore represents a key tenet of self-sufficiency, as it does for sustainable development (New Economics Foundation, 1998). It extends to the notion that in a democratic society the actions of the few should not impact adversely on the amenities enjoyed by the many. This implies that development should be environmentally benign, or that recompense be made locally to redress the balance.

7.4.1 Appraisal of Instruments and Mechanisms used by International Firms towards the Delivery of Sustainable Urban Centres

International firms have devised means of adopting international instruments and mechanisms such as LEED and BREEAM, in the implementation of their sustainable designs. While acknowledging key drivers for sustainable urban projects that include resident participation, compliance with the environment and Saudi living, and respect for national culture, various stakeholders debated the rationale for firms operating in the country using LEED standards to promote sustainability, with many arguing against their application to projects in the country because certain prevailing local environmental factors would prevent them ensuring sustainability. Nonetheless, the KAFD is being promoted as sustainable, due to the application of LEED standards (HLA, 2008).

That said, there was an understanding that sustainability is not merely a short-term procedure which primarily involves addressing social and welfare needs,

... by offering the population their social rights in terms of entertainment and living space at a reasonable cost ... Hence, the sustainability drive should start with national planning, for it to permeate the regional planning and local urban design. Key concerns that need addressing range from district planning, municipal regulations and individual attitude, which as it stands are approached wrongly, in addition to the lack of consideration of topography. These are the problems. Thus, we must start from the top.

In respect of the concept and application of sustainability, Alyami et al. (2013) found that many professionals in the KSA had been using LEED, BREEAM or the Sustainable Building Tool (SBTool), amongst many other initiatives, as practical ways of measuring the level of sustainability attained by a development. However, to deal realistically with local challenges, other countries have established local versions of these standards. These nations have used the existing tools to benchmark what was locally designed, thus achieving a practical means of measuring sustainability in construction projects (Lee and Burnett, 2008; Lee, 2012).

117 Interviewees 3, 4, 10, 14, 15, 16, 17, 22, 25, 29, 34, 36, 43.

118 Interviewee 1

119 Interviewee 40.
When asked whether international firms engaged in Saudi construction projects adhered to existing sustainability criteria, 72% of questionnaire respondents said that they were not sure (Figure 7.2). This wide margin of uncertainty was expected considering that local stakeholders were minimally involved in the development of the KAFD and the Dammam CBD, leading to the conclusion that the public may have had no clear insight into what transpired at each stage of these projects’ development.

![Figure 7-2: Stakeholders’ responses concerning adherence to sustainability criteria by international firms handling projects in Saudi Arabia.](image)

This finding clearly demonstrates the absence of public information regarding the sustainability criteria adopted in the projects. Most interviewees did not feel there was a clear set of criteria for measuring the level of sustainability, except for those embodied in LEED. Those who believed that there was compliance listed the use of global standards such as LEED and BREEAM in line with the local environment as the measure they used. These respondents also argued that there had been very good use of spaces and materials in the project development and that both projects had been designed to possess a unique style according to the approved criteria. Other factors supporting the argument for sustainability adherence were the involvement of internationally-recognised designers at the design stage, leading to the award of LEED for the projects. This finding is consistent
with reports in the literature on sustainability referring to the application of internationally recognised yardsticks for sustainable building performance.\textsuperscript{120}

Figure 7.3 illustrates the significant finding that 50\% of survey respondents believed that international firms were better able to deliver sustainable urban centres, whilst only 27\% thought local firms were better suited to the task, despite the negativity associated with employing international firms. The key factors cited by interviewees who favoured the use of local firms were the cultural and geographical distance preventing foreign firms from properly conceptualising buildings for the Islamic environment.

![Bar chart showing perceptions of international firms delivering robust sustainable urban centres](chart.png)

**Figure 7-3: Perceptions of whether international firms are more able to deliver robust sustainable urban centres than local designers**

Specifically, they observed that these firms had no physical presence anywhere in the Kingdom, resulting in poor understanding of local socioeconomic and environmental issues and an inevitable insensitivity to the Islamic culture and lifestyle.\textsuperscript{121} However, these firms were seen to use every available strategy to extend their local knowledge. For instance, DPZ (2010) proposed to incorporate traditional and modern architecture in its development of urban centres, as shown in Figure 7.4.

\textsuperscript{120} Question 5a: Do you think international firms deliver a more robust sustainable urban centre than local designers in Saudi Arabia?

\textsuperscript{121} Interviewees 25, 28, 29, 30, 31, 42, 45.
Figure 7-4: The traditional and modern way of developing urban centres: the case of Dammam (Source: DPZ, 2010)

The overall psychic distance prompted some interviewees\textsuperscript{122} to oppose the firms’ drive for sustainability in projects in Saudi Arabia, as they believed that too much emphasis was placed on economic benefit, to the detriment of societal and cultural values and of the environment. One interviewee said:

\begin{quote}
What is seen as sustainable in the USA and Europe is not necessarily considered to be sustainable in Saudi Arabia. ... Our problem as a nation is that we market the concept of sustainability without operationalising the term, and its outright understanding. Currently, the belief is that every great project under construction is sustainable, but when evaluating the project, one will find that it is only sustainable theoretically and lacks any future plan.\textsuperscript{123}
\end{quote}

One of the academics interviewed believed that the supreme aim for both international and local firms had been to benefit from available resources, without any thought of how to serve current residents and future generations:

\begin{quote}
Sustainability is not properly implemented in Saudi Arabia. For example, average water use is 278 litres per person per day, which is the highest in the world, despite the fact that our environment is a desert. The Building Code also is not applied and is seen as not appropriate for the desert environment. We do not use our best energy resource, which is solar energy.\textsuperscript{124}
\end{quote}

\textsuperscript{122} Interviewee 9, 19, 22, 23, 25, 29, 34, 37, 42.

\textsuperscript{123} Interviewee 42

\textsuperscript{124} Interviewee 27.
Many academics perceived the notion of sustainability to be merely a game with terms like ‘smart cities’ and ‘iconicity’ which are now being promoted in every project planned in the cities. Interviewee 29 summed this up:

*The Riyadh Knowledge Corridor project depends on the Smart City that plans to make use of all available technology on projects on one axis, and be supported in its infrastructure to fulfil the future city needs and towers built up on the axis of Prince Turki Al-Awal Road.*

In addition, the government communication channels were not seen as stringent in respect of the applicability of standardised criteria, as noted by Interviewee 1, referring to the ongoing KAFD project:

*The government wants it to be an international financial centre that competes with other international centres. Therefore, bidding competition by international firms was made, and a Danish company (HLA) was selected to design the Master Plan, and in its implementation considered sustainability aspects. The project guideline envisaged that upon completion 20% of the light source for the entire project would come from solar energy. However, the project is seen as not able to realise its true potential of using solar panels in the buildings, but the trial was successful and obtained the LEED certificates.*

In the same vein, Interviewee 24 added that what is viewed as sustainable at the trial stage should not be assumed to be sustainable during the implementation phase, and that standards should be adhered to throughout:

*Unfortunately, the government of Saudi Arabia does not have regulations that can be used to develop a sustainable urban centre, and the problems of urban development exist in regulations. Hence, it will be safe to add that one does not expect that real-estate companies will apply sustainability without regulations and rules made by the government. Because we considered the short-term financial benefit, the country invested money and expected to gain the benefit of sustainability, which in a real sense cannot be guaranteed. As a nation we should be seen to be drawing up a careful long-term plan that will be seen to have long-term sustainable benefit.*\(^{125}\)

While urging caution and maintenance of sustainability standards at each stage of the project, one stakeholder affirmed that there were no standards or regulations in the Kingdom in respect of sustainability and physical development planning:

\(^{125}\) Interviewee 24.
There are no regulations or building codes concerning sustainability so far in place. However, the responsibility lies with the client and investors’ desires to make such request for these firms to adopt and apply the concept of sustainability in the constructions. Nevertheless, the key setback is the high cost of making sure that these standards are really incorporated into the project design from its onset.\textsuperscript{126}

While stakeholders expressed differing opinions concerning the operationalisation of the sustainability concept in physical development plans, HLA (2008) affirmed its commitment for the KAFD project to become a sustainable mixed community that incorporates new spatial qualities in the district and combines high quality living with low use of resources when completed. The goal is to reduce the total energy consumption of the project by 50% compared to average energy consumption in the city of Riyadh (HLA, 2008). However, some interviewees stated that this target was far from being achieved.\textsuperscript{127}

As a means of demonstrating international firms’ compliance with sustainability standards, another stakeholder said:

\textit{From the first project implemented by the international firm, LEED was considered especially as it affects energy use. Although the adoption of sustainability increases the cost of the project, in the long term the client will benefit. The first project in Riyadh that adopted the energy storing system was Al-Tawanya Towers, where they are using thermal energy. At night, the building stores its energy and then uses it at peak times, so they minimise the pressure on electricity. Al-Mamlakah Tower uses the same system. But most of the clients do not want us to use it, to minimise the cost of the project.}\textsuperscript{128}

Many foreign companies also believed that they were unable to reach the level of meeting binding sustainability regulations, but they acknowledged efforts to encourage them to do so. Part of the problem was that clients would try to cut costs by using cheaper alternatives. However, one interviewee emphasised the need for regulation:

\textit{LEED application in projects in Saudi Arabia is difficult, owing to the lack of co-operation from relevant regulatory organisations who do not monitor agreed standard implementation in every project. To make headway, issues related to water and energy should be seen as priority}

\textsuperscript{126} Interviewee 11.

\textsuperscript{127} Interviewee 11, 14, 16.

\textsuperscript{128} Interviewee 15.
and regulations should be enforced as a way of safeguarding the sustainable use of these non-renewable resources.129

By contrast, client organisations of international firms designing and planning urban centres held positive views about the instrumentation for sustainability. They were sure that they would be presented with iconic designs representing good quality for the capital invested if they contracted internationally renowned companies for their implementation. When questioned about the impact of internationally designed sustainable urban centres, three-quarters of respondents agreed that there had been a positive or very positive impact on the built environment by the design of sustainable projects (Figure 7.5). A relatively small proportion were either indifferent or felt that the impact to date had been negative.

![Figure 7-5: Perceived impact of international expertise on the design for sustainable urban centres](image)

Despite the negative perceptions regarding the sociocultural and religious insensitivity of international experts, respondents believed that foreign firms were necessary for the delivery of the projects. Indeed, the policy of engaging international firms to achieve sustainability is deemed essential by the Saudi government, despite the arguments around the validity and vision of iconic structures built by these international firms and their embedding within the local community.

129 Interviewee 25.
Furthermore, there was an overriding belief that the engagement of international firms at the expense of local designers required a major overhaul to allow local firms to engage fairly with the process. Some participants argued that this would mean countering the view that international firms possess better organisational skills, practical knowledge and expertise in sustainability requirements, which allowed them to assure clients that their expertise would be valuable at the design stage. Another concern raised related to the under-use of local building materials, which many believed could meet the LEED certification standard better than similar products that were being sourced from abroad. Indeed, many interviewees expressed their displeasure that project clients RIC had failed to consider the use of local materials. Conversely, international firms were able to convince clients to accept their designs by demonstrating that the technologies to be used had been successfully applied elsewhere.

These arguments are supported by many examples of buildings which have been advertised as having reached an excellent LEED or BREEAM rating at their design stage only for major problems to arise once they have been occupied (Alyami and Rezgui, 2012). For instance, Crot (2013) asserts that the Masdar project in Abu Dhabi had a “grandiose aspiration of becoming the world’s first truly sustainable city” (ibid:11), but turned out to include fake designs for sustainable transport, energy sources, water sources and waste water treatment solutions. The demand for iconic designs that can achieve specific sustainability attributes as defined through LEED and BREEAM certification can be met, because such tools focus on environmental factors only; but they do not guarantee environmental sustainability in practice. Furthermore, the juxtaposition of buildings achieving a high rating score on the already doubtful use of LEED or BREEAM in such contexts does not necessarily translate into sustainable buildings, and certainly not into urban form (Alyami and Rezgui, 2012; Lee, 2012).

When survey respondents were asked about adherence to local requirements, approximately half replied that international firms adhered to their own standards rather than local ones, while only a fifth disagreed (Figure 7.6).

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130 Interviewee 23,27,30,31,33
This finding further demonstrates that international firms are appreciated by their clients, who perceive their previous experience and international exposure as an added advantage. Some stakeholders felt that client firms did not wait for the country’s policymakers to issue operational instructions before commencing work, thus confirming that the operationalisation of urban centre developments is largely dictated by these multinational companies. Ultimately, these companies must remain profitable, and as their representatives indicated in the study, they receive economic benefits from sustainable urban centre projects; if these are held up, their investments could be in jeopardy.

### 7.4.2 Influence of International Firms on the Application of Instrumentation and Mobilisation of Sustainability

Many stakeholders, including Interviewee 11, also affirmed that if local firms were involved in the ongoing development of urban sites and could guarantee speed of delivery and profitability, then they would also be considered as capable of constructing sustainable buildings. This argument was based on the assumption that local firms possess the appropriate local environmental and cultural knowledge to promote sustainability that will suit the needs of its citizens. However, such views offer no guidance as to how sustainable urban centre development should advance.

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131 Interviewee 7.

132 Interviewee 10.
At the same time, many questionnaire respondents believed that whilst international firms were able to deliver new directions regarding the pattern of urbanisation, these directions were not necessarily consistent with the social and cultural context of the KSA. For example, Interviewee 13 noted that developments created by overseas firms were adequate for most amenities; however, the religious and cultural requirements of the citizen had been overlooked. Thus, not a single new mosque was included in the development, meaning that during Ramadan, workers had to create prayer-rooms within their workplaces. This emphasises the need for sustainability to be conceived of at the national, municipal and neighbourhood levels, and where possible at block and building levels, since each stratum has different responsibilities and purposes, depending on their scale, as reaffirmed in the HCDR report (2003). The fundamental ethos should be to provide healthier, happier and liveable communities.

Undoubtedly, the KSA needs to develop sustainable urban centres, and as a DPZ interviewee noted:

*Developments in Saudi Arabia has not yielded a beautiful and pleasing environment, nor walkable streets. If that is a choice now worth making, we cannot make decisions in the “business as usual” model that created these problems to begin with. We have to actively work to change the rules and regulations that have created your physical environment that is mostly devoid of high quality public spaces.*

A distinction worth making is that international firms are seen as having a more significant influence on sustainability in the private sector than the public sector. It has become a trend for the MoMRA to build towers in Riyadh or other Saudi cities, taking examples from neighbouring countries to nourish the aspiration for global city status. For example, the KAFD is considered a very attractive developmental project which can compete with other countries, providing great economic support. Comparisons with Dubai and Qatar, for example, drive these strategies.

*Countries around us are competing in technology and development, so we cannot be seen as not responding to this challenge. We must do something. The KAFD is a great project from thought to action.*

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133 Interviewee 13

134 Interviewee 43
Examples can be seen in Paris, having five or six centres and other similar centres of commerce in London and Manhattan.\textsuperscript{135}

However, several stakeholders observed that the use of glass facades for all buildings, as in the case of the KAFD (Figure 7.7), does not present a full sustainability picture. Other considerations regarding transport networks need to be addressed, as transport problems are likely to flow from the operations of the entire site.

Figure 7-7: The Capital Market Authority Tower in KAFD with its glass-covered façade (source: www.HOK.com)

In addition, many interviewees questioned the usability of these towers; history and experience show that Saudi people do not like to live in towers, and it remains to be seen exactly how useful they will be.\textsuperscript{136} Others were more positive:

\begin{quote}
In years to come, Saudi citizens will prefer this type of residence. And in comparison to other countries, the towers on King Fahd Road are not very high. 25 to 35 floors is not much compared to skyscrapers in China for example.\textsuperscript{137}
\end{quote}

\begin{flushright}
\textsuperscript{135} Interviewee 43
\textsuperscript{136} Interviewees 8, 25, 30, 33, 39.
\textsuperscript{137} Interviewee 43.
\end{flushright}
Another criticism of the application of sustainable instruments related to the CBD in Dammam, designed by DPZ, was the failure to consider overall sustainability guidelines, as this interviewee remarked:

A gazette for the project is in existence, but it was not taken seriously at the implementation stage. Many see it as just another publication. There are several publications and booklets from the MoMRA on sustainable planning and implementation. Key to this is the booklet entitled Sustainable Planning that handles standards and considerations to be taken in developing the city, urban design and the building in order to conserve the concept of sustainability. This for many was never applied as many believed it is not obligatory and not seen as a regulation. Hence, it is safe to add that they are only educational booklets available at the Ministry office.\(^{138}\)

The belief is that DPZ used the concept of a sustainable project in the bidding process but not in realising the design, since its sustainability claims are highly subjective and do not encompass an adequate utilisation of natural resources, as another interviewee explained:

With what is seen on the ground many are not sure of the true meaning of sustainability, as these firms have used sustainability as a marketing tool to sell their expertise. To be fair, the country’s professionals don’t yet have enough experience of sustainability and lack the tools to evaluate these projects from the local point of view. Another issue to contend with is the government’s firm belief in international firms’ ability to deliver sustainable projects, like in Dubai.\(^ {139}\)

Conversely, some respondents explained that international firms can develop urban centres without influencing the existing systems. This was perceived as advantageous because the developments can start afresh, offering an opportunity for new ideas based on detailed studies of other cities within the Arabian Gulf. Furthermore, respondents argued that a number of firms had tried to adopt local design methods and to observe contextual factors which would have a good impact on the environment, while others had collaborated with local firms and believed that to create a lasting project, local partnerships are needed, as well as international expertise.

Nearly half of all respondents were of the opinion that international firms responded to the local social and cultural context of Saudi Arabia, whereas only a quarter disagreed

\(^{138}\) Interviewee 8.

\(^{139}\) Interviewee 20.
more or less strongly (Figure 7.8). The general trend suggests that overall, respondents considered international firms to have the capacity to deal with the socio-cultural requirements of urban centre development in the KSA.

Figure 7-8: International design firms are responsive to social and cultural needs

7.4.3 Rationale for the Engagement of International Firms

More than a third of survey respondents had no strong feelings about whether the government should engage local firms in project execution in preference to international firms and a similar number disagreed with this assertion (Figure 7.9),\(^{140}\) while only 29% expressed a preference for using local professionals. In justification of this minority standpoint, one interviewee said:

> Even if there are partnerships between international firms and some local offices, Saudi offices will stand to gain little or no experience from these partnerships, since from recent happenings the Saudi professionals’ role has been that of brokers on behalf of these firms. In addition, only 25% percent of the projects implemented are handled by the local construction firms leaving the international firms completely responsible for the reminder of the project implementation. To many, there should be a full partnership in every sense that could culminate in

\(^{140}\) Question 36a: The government of Saudi Arabia should use local designers and urban planners instead of international firms and planners. (i) Strongly agree; (ii) Agree; (iii) Neither agree nor disagree; (iv) Disagree; (v) Strongly disagree
an exchange of experience. But this is not the case on ground. It is a laid law in the kingdom that international firms cannot operate in isolation locally and how this is allowed to continue calls for overhaul of the system. Therefore, the Saudi office works as a broker with a percentage of 10-25%.\textsuperscript{141} There was a high degree of doubt among questionnaire respondents concerning the benefit of the policy of engaging international firms, as these firms were seen as having their own view of sustainability and promoting it through their planning codes (Figure 7.9); as already noted, there was also a belief that local firms were more than capable of delivering sustainable construction projects. In addition, foreign planning codes were not viewed as ideal to preserve the Islamic culture of Saudi Arabia.\textsuperscript{142} Hence, there was a strong call among stakeholders for the government to encourage joint ventures between local and international experts in any competition for future design work.

Figure 7-9: The Saudi Government should engage local designers as opposed to international firms

As a way of benchmarking local citizens’ and other stakeholder’s perceptions of ongoing projects, questions were asked about which characteristics would make each city a place where they would want to live now and in the future. In response, some asserted that their

\textsuperscript{141} Interviewee 27.

\textsuperscript{142} Interviewees 25,21,30.
present urban centres were poorly organised, overcrowded, noisy and hard to live in because of the way they had been built. Stakeholders expressed a desire for more pedestrian paths, open parks and landscapes, among other concerns. Indeed, many citizens strongly argued that such amenities were necessary in every neighbourhood of all cities.

There are growing numbers of informed sustainable environmental choices in daily living, workplaces and communities; these trends are viewed as inspiring and it is assumed that key stakeholders in every society have the responsibility to nurture them in their immediate environment and promote sound environmental stewardship. Such stewardship in this context encompasses integrated planning, which is undertaken through enhancement brought about by change and town centre rejuvenation. This process begins long before a development is conceived and continues long after it is completed. Accordingly, sustainable places are those where, at all scales of development, these ongoing processes of adaptation and change are positively channelled in an integrated manner towards achieving a built environment that better meets stakeholder needs and is thus more liveable (Carmona, 2001).

The importance of adopting environmental stewardship in developmental urban design projects in Saudi Arabia is reflected in commitments contained in the plans for projects commissioned. In this respect, one interviewee felt it was important to be extremely cautious:

*Over-provided road infrastructure translates into longer commutes and increased traffic fatalities. This has a direct impact on decreased economic activity and diminished social capital. Clearly, sprawl presents negative impacts, not only on the physical environment, but also on other areas of development. At this point in time, it is our hope that Saudi Arabia avoids what has been proven to be a detrimental mode of urbanisation, and instead adopts a more sustainable approach to development.*

143

Saudi Arabians need genuine choice in how they live; given this, many will continue to want to live in auto-oriented subdivisions. However, many are now actively asking for a viable and sustainable alternative. Currently, few zoning codes allow for this type of communal living. The first imperative is to level the playing field and incentivise smart

143 Interviewee 9
growth and development in terms of design, management and policy, which if carefully adopted can promote change in the most positive manner.

As part of the strategy to enhance urban quality, the MoMRA Manual on sustainable development in planning (2005a) places greater emphasis on the inclusion of environmental protection and management elements in every planning process. The codes applied to the development of the Dammam CBD are viewed as form-based, since emphasis is placed on the form of a structure, rather than on its use or density (commercial, industrial, residential, etc.). Hence, they feature a complete overhaul of conventional zoning regulations with components that encourage transportation and mixed-use walkable communities (DPZ, 2010). However, interviewees 2 and 24, for example, viewed the development of Dammam as a white elephant project where the supply of accommodation is likely to far outweigh demand for many years. In fact, the CBD development in Dammam (Figure 7.10) followed the plan of other cities like Abu Dhabi, Paris and New York (DPZ, 2010).

Figure 7-10: A proposal for CBD Dammam (Source: DPZ, 2010)

An important concept in this form of development is iconicity. This implies that the planning of urban centres is driven by the need to maximise urban space to allow for the placing of iconic facilities, which actually results in a poorer quality of life.
On that theme, interviewees 2 and 24 argued that the strategic placement of iconic towers in Riyadh, as depicted in Figures 7.11 and 7.12, demonstrates a disjuncture from the Saudi way of living, rendering the concept of liveability weak and subservient to the developers’ paramount desire for iconicity.
Under the Ninth Development Plan, the economic efficiency of the construction sector in terms of investment, production and organisation is envisaged to improve with greater application of advanced technologies and mergers of medium-sized companies to form large entities better able to face fierce competition in local and regional markets. The KAFD vision is part of this plan, intended to create a sustainable centre for commerce, finance and technology for Saudi Arabia and to establish Riyadh as the key financial district of the Middle East.

This vision is seen by both the government and international firms such as HLA as rooted in its context and offering a high degree of flexibility to adapt and respond to future needs. The mixed-use design incorporated in the plan was believed to offer Riyadh a combination of domestic and international business activities with a high-quality residential, recreational and cultural environment all in one site. Public transport, landscape, traffic planning and world-class, fully-integrated sustainability define the master plan of the project (Figure 7.11). The inclusion of a green pedestrian thoroughfare meandering through the district, linking and defining various urban zones, is viewed as a positive approach, giving the inhabitants a sense of belonging and interaction with the outside environment. Simultaneously, the optimisation of the urban proportions and harnessing of local wind patterns is envisaged to lower the outdoor temperature by 6-8 degrees Celsius, thus helping to support a viable, living community in the desert.

The project’s development was encouraged through the available economic means, which promised minimal environmental harm, reducing travel as well as energy use, and
increasing recycling. These outcomes underpin the notion of environmental sustainability and represent a further demonstration of the duty of care in terms of energy usage and use of non-renewable or environmentally-friendly materials. However, other stakeholders raised concerns about the amount of energy and resource usage, and the possible impact on the built environment. Interviewee 10 attributed rapid urbanisation to the country’s oil boom, and urged caution:

*In the last fifteen years, the nation has experienced an oil boom in comparison to the construction boom in seventies and early eighties. However this has certain problems associated with it. Cities began to expand tremendously, so growth was too rapid for the services and infrastructure so far provided, making it extremely difficult for municipalities to keep up with or regulate the urban expansion. This makes us think again about the overall concept of sustainability as presently promoted.*

This, in itself, highlights one of the major weaknesses in respect of resource utilisation and the lack of regulation to force foreign consultants to respect natural resources and use them efficiently. An academic expert made this related point in interview:

*During the last 7 years, high-rise buildings have emerged in Riyadh and Dammam. The FAR for example went beyond 12, and the Municipality approved about 10 million square metres, then DPZ designed the plan and regulations, confirming that the project is a sustainable urban centre and sustainable business centre. It was in addition mentioned that the population density, heights and mix use will achieve the required sustainability.*

This implies the need to adopt the best available sustainable technologies and encourage the reuse of identified brownfield land and empty buildings before allowing new development on greenfield sites. It requires more careful consideration of the transport consequences of any new development.

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144 Interviewee 25
7.5 The Concept of Sustainability as a Vehicle for the Implementation of New Urban Centre Projects in Saudi Arabia

There have been significant changes in the nature and pattern of urban growth in Saudi Arabia since the turn of the century, with Saudi cities undergoing restructuring both in their use and form. The rationale for testing the implementation process in respect of sustainable urban centre projects was to ascertain the reality on the ground in Riyadh and Dammam. Hence, it was pertinent to explore the degree to which the sustainability concept has been invoked and how international firms have used this as a gateway to establish their presence in the construction industry. The questionnaire responses and interview findings were used to measure the utilisation of sustainability as a vehicle for approaching the new urban centre projects in Saudi Arabia. To explore this matter in detail, the five following subsections deal in turn with evidence of sustainable urban centre projects, the views of local real estate developers, contractors and consultants, then general perceptions of sustainability as a marketing tool.

7.5.1 Evidence of Sustainable Urban Centre Projects

There are several sustainability-promoted projects handled by international firms operating in Saudi Arabia. Gensler, a group of designers, worked with the construction company Saudi Bin Laden Group to construct the World Trade Centre as an iconic architectural landmark within the new KAFD in Riyadh (Gensler, 2014). The project won an international design competition through the leadership provided by Gensler in attaining a global sustainability tag after earning LEED certification. An American firm, FXFOWLE, has also worked extensively on LEED-certified buildings including towers in the KAFD (FXFOWLE, 2014). Not only has the consortium delivered sustainable towers, but it was also involved in the development of guidelines for physical developmental projects that need to abide by agreed sustainable development standards with national and international authorities in the USA and the KSA (ibid). According to FXFOWLE, their strategy of attaining high level sustainability standards was centred on their drive to employ over 80% accredited staff in handling projects around the world, ensuring that staff are able to deliver projects in accordance with international standards.

Another design firm considered to have made inroads is Perkins & Will (2014), which has over 150 LEED-certified buildings in its portfolio, including towers constructed in the KAFD. Its strategy to gain acceptance was to use certification as a minimum benchmark.
of design and thus to do more for their clients than simply meeting the required certification standard (ibid).

The adoption of mixed development and the provision of a hierarchy of services and facilities are viewed in both Riyadh and Dammam as avenues for diversity and choice for their citizens. Environmental diversity is a key tenet of sustainable development, enhancing the social quality of built space. Choice is also cited frequently as a key tenet of urban design; it seeks freedom and choice of circulation and movement, the provision of facilities and amenities, and effectiveness in how they are deployed by the public in the environment. To enhance diversity and choice, the designers of the CBD of Dammam (DPZ, 2010) made strenuous efforts to bring about inclusivity in the area. The new design envisioned a self-sustained and dynamic urban community that would achieve the necessary development capacity and related infrastructure in the form of great urbanism rooted in the urban and architectural traditions of Saudi Arabia, while also providing all the conveniences of modern living. The goal was to transform this site into a memorable place capable of serving as a natural extension of Dammam. The result is a compact and dense plan with an urban structure based on a series of civic spaces that unite the neighbourhoods. The main public spaces are sequentially and spatially connected to create a string of ceremonial moments within the site.

In the same vein, the HLA plan for the KAFD offered diversity and choice. It was designed to accommodate a variety of services including sporting, cultural and other recreational facilities distributed in different locations and densities to appeal to different people and as a means of meeting a broad range of demand (HLA, 2008). Hence, the services provided are intended to create an identity for the area and to generate variation between different areas in the confines of the KAFD.

The plans were intended to address the shortcomings of the existing built environment, which in the post-war period had acted to undermine choice. These problems included overreliance on road vehicles at the expense of pedestrian walkways, the zoning of the environment into mono-use areas with an associated reduction in diversity of use, and the increasing privatisation of parts of the public realm, leading to the effective isolation of these areas from society. These patterns are compounded by the ongoing ignorance of the needs of certain sections of society, such as women, the elderly and the disabled. On various scales, the reintroduction and design of diversity and choice in the built
environment therefore represents a key strategy to enhance inclusivity. This is achieved for example, through mixed land uses and tenures, by removing barriers to access and designing paths for walking, thereby connecting the different spaces and networks that constitute the public realm and supporting diversity in the character of what results. It also implies planning for diversity and choice around employment opportunities to support lifestyle aspirations and local economic sustainability.

The application of sustainability to projects in both cities, as viewed by the participants in the empirical study, was seen as being hampered by lack of local expertise. Interviewee 5, for example said:

_The projects can be seen as sustainable as stated by DPZ. However, one key setback is the lack of experience of local officials in the area of sustainability, which raises the question of the overreliance on international firms in the drive for what they consider a sustainable project._

Interviewee 7 also expressed doubts:

_The concept of sustainable urban projects has not been applied in the context of Saudi Arabian cities, especially from the developer perspective, unless strict regulations from the government are adhered to, which at present is lacking in most projects so far completed. I still do not think that sustainability is being considered yet, considering the financial implications and the time it will involve in ensuring its full implementation._

While firms working on towers in Riyadh and Dammam argued that their projects were sustainable, interviewees were less convinced, believing that truly sustainable urban development projects in Saudi Arabia are few and far between, especially when interpreting sustainability in a deeper sense. On one hand, developers, architects and government officials amplified sustainability credentials using energy rating standards, whereas on the other, academics, contractors and local end users expected a holistic interpretation of sustainability and not one that depended purely on energy efficiency ratings. Clearly, without a standard way of measuring sustainability, it is difficult to make any meaningful evaluation. Hence, Interviewee 1 argued that sustainability should be

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145 Interviewee 7.

146 Interviewee 25, 29, 42, 45.
considered from the perspective of a project’s entire lifecycle, covering the design phase, the procurement of materials, their use and the disposal of the finished structure in the future. These ideas were not those being promoted by the designers and developers of towers, who were seen to demonstrate a greater concern for some kind of sustainability certification. Interviewee 17 echoed these sentiments, stating that some of the materials were imported from distant countries, contributing to higher energy utilisation, once transport was taken into account.

Another interviewee observed the rapid increase in the number of developments in Riyadh and Dammam, noting that these developments, covering about 10 million m², had been undertaken using Municipality-approved planning codes as implemented by DPZ, confirming that each project was to be developed as part of an overall sustainable urban centre.\(^\text{147}\) The regulations also mention that the population density, heights and mixed use could achieve sustainability. However, they do not prescribe the measures a developer must take to achieve the required levels of sustainability. This, according to Interviewee 36, is a good strategy, because it leaves room for the developer and the professional team to decide how they can achieve the required levels of sustainability. Another interviewee agreed that regulations should be flexible, precisely to allow developers and their professionals the freedom to propose how best they can achieve the level of sustainability certification required.\(^\text{148}\)

However, the inherent flexibility in the existing planning codes has resulted in the creation of more diverse interpretations of sustainability among companies. Hence, disparities exist not only in the definition of sustainable urban centres but also in attempts to establish a common yardstick for its measurement in the KSA. Clearly, there are inconsistencies in the interpretation of sustainability within urban centre projects. Thus, whilst flexibility has its advantages, it has the major weakness of allowing designers to make decisions that could be termed as expedient, leaning towards certification.\(^\text{149}\) Interviewees 18 and 19, for example, argued that most current projects were squandering natural resources without regard for the wellbeing of future generations, while

\(^{147}\) Interviewees 29.

\(^{148}\) Interviewee 42.

\(^{149}\) Interviewee 23.
Interviewees 43 and 39 perceived this as a fundamental flaw in the drive to achieve a level of certification which developers can subsequently use as evidence of sustainability. These concerns are in line with the view expressed by Schwartz and Roslan (2013) that because developers can use various ways to measure the level of sustainability achieved, the end result is not necessarily similar; there can be variations in the outcomes of the measurement process. Hence, there can be variance in the procedure for assessing the building energy performance due to differing types of process used; however, the impact on the environment or the level of energy consumption is similar between BREEAM and LEED.

7.5.2 Local Real Estate Developers’ Views of Sustainable Urban Development

The DPZ (2010) design brief for Dammam highlights the social and environmental benefits of a pedestrian-friendly, compact, connected and mixed-use city where land use is appropriately distributed to foster a lively and vibrant street life. However, other stakeholders saw the result as contrary to a desirable sustainability commitment. According to Interviewees 5 and 6, the level of sustainability promoted was prescriptive, as in the case of Dammam municipality. This appears to be the fault of the current sustainability codes, which are so vague as to allow international firms to dictate what goes into the towers to make them sustainable. Interviewees 44 and 46 from the municipalities disapproved of this freedom and rejected as inappropriate the government’s policy of employing international firms in the belief that they can positively influence the development of sustainable urban centres.

It is apparent that international firms are not only consulted on the design elements but also involved in the development of the codes to be used in the evaluation of their projects. For example, HLA is both the master planner for the KAFD and the designer of some of the towers within the plan. The creation of the master plans has been one of the sure ways of influencing the planning codes. Another example is the work done by DPZ for Dammam Municipality in the creation of zones and master plans for the Dammam CBD (DPZ, 2010), while also being responsible for the planning and development of towers and iconic buildings in Dammam.

Local real estate developers complained that despite this level of consultation, international firms had not greatly influenced the sustainability codes, because there was no clear evidence of any holistic view of the concept; rather, sustainability was perceived
as a process of certifying the buildings under development (Interviewees 5, 41 and 42). In another development, interviewees argued that sustainability was viewed not only as an administrative issue but also as a commercial one, with return on investment being used to determine the project types to be considered and built.\textsuperscript{150} Interviewee 41 criticised the model as largely driven by profitability, so that government did not institute strict measures for implementing sustainability, but adopted only those elements required for the optimal level of profit. Hence, the onus is not on the developer, but on the government to ensure that developers can and do build sustainably. The weaker the systems of enforcement of the planning codes, the more difficult it undoubtedly is for the government to monitor levels of sustainability.\textsuperscript{151}

The overall opinion was that decisions to proceed with urban developments were made without a holistic view of sustainability being held up as the standard at the initial evaluation stage. In addition, the process was perceived as weakened by the government’s policy of rapid urban centre development.

7.5.3 Contractors’ Perspectives on Sustainable Urban Development

From the contractors’ perspective, the sustainability issue was bound up with protection of the environment, as indicated by Interviewee 10, from one of the largest contracting groups in Saudi Arabia, who said “sustainability is focused on the way building materials and site waste could be managed so as to avoid environmental damage”. While designers would evaluate their designs in accordance with the certification process they wished to deploy, contractors set their goals on waste reduction as well as on limiting the potential environmental damage resulting from the developments. Their reasoning was that if there were penalties for waste as a result of their industrial activities, they would ultimately pay these. Therefore, finance was the main motive for them to build sustainability into their business operations. Similar responses were given by Interviewees 26 and 28, who worked for another large contracting firm based in Dammam. Their view of sustainability was that it is intended to ensure that operations are environmentally friendly, using materials that would cause minimum damage to local communities. They strongly believed that contractors did not properly deal with sustainability in buildings in Saudi

\textsuperscript{150} Interviewees 2,6,8,18,19.

\textsuperscript{151} Interviewees 7,24.
Arabia. For instance, Interviewee 28 argued that in more than 30 projects executed in the last two years by his company, no client had asked for a sustainable building, because clients saw these as too expensive and believed that the contractors had insufficient experience to build them. In addition, there was no government regulation for sustainability that a contractor could use and no encouragement from the municipalities to the investor (i.e. less tax), as is the case in the USA or Europe. In short, the standards and incentives for attaining sustainability and environmental improvement in the construction process were perceived as very weak or nonexistent.

These response by contractors highlight a shortcoming of the current drive for sustainable urban centre construction projects unanticipated by policymakers, architects, urban planners and clients: the failure to address operationalisation of the planning codes. This omission means that there is no assurance that buildings will embody sustainability even as they are being developed. It indicates that the policy on sustainable urban centre development has not been formulated in a strategic way, since key details of how companies are meant to implement it are missing. The result is a clear contrast between the contractors’ view of sustainability and that of consultants. Specifically, it emerged that while the consultants affirmed their willingness to make use of local quality materials in their project developments to reduce the energy consumption and environmental damage related to long-haul transport, and to ensure a long lifetime and a minimum of maintenance (HLA, 2008), local contractors claimed that this commitment had never been implemented.\textsuperscript{152}

One stakeholder asserted that over 85\% of the materials used on the KAFD towers had been imported from Europe or America and that these materials were incompatible with the Saudi environment.\textsuperscript{153} Conversely, another interviewee asserted that his company did use materials from within Saudi Arabia.\textsuperscript{154} The contradiction is obvious, in that consultants were seen to overplay the levels of sustainability, while contractors highlighted difficulties in delivering sustainable urban centres in the KSA.

\textsuperscript{152} Interviewees 10,16,26,28.

\textsuperscript{153} Interviewee 11.

\textsuperscript{154} Interviewee 3.
Interviewee 26 added that even if flagship projects such as the KAFD were seen as sustainable, they were not sufficiently representative to be able to conclude that sustainable construction was being adopted in Saudi Arabia. He argued that while some iconic structures could be developed within the ethos of sustainability, there was no evidence of compliance with environmental requirements; and the Saudi regulatory system did not foster sustainability, since urban development contractors were subject to no rules or strategies to do this.

7.5.4 Consultant Designers and their Views of Sustainable Urban Centre

The ordinary planning codes for Saudi urban centre projects do not cater for all the issues one might anticipate; consequently, consultants have been offering to incorporate smart codes in municipalities. These aim to address legibility, aesthetics, security, low crime, social mix and imageability, together with choice represented as a concern for human needs. Indeed, environmental needs are never likely to be met if human needs are ignored. Hence, many conceptualisations of sustainability are underpinned by notions of social (and increasingly economic) sustainability based on equity, opportunity, quality of life and participation.

Some stakeholders were positive about sustainable urban centres in Dammam and Riyadh, but still acknowledged that the planning codes could not respond to all of the issues raised.155 Their arguments were based on their belief that projects are sustainable if they are compact, mixed-use and pedestrian-friendly, but this would seem to be an extremely narrow conceptualisation of sustainability. They also expressed the belief that a sustainable project should use the increment of the neighbourhood as a structural element and balance land conservation with smart manageable growth. Most importantly, if sustainability really matters, it should be addressed at all levels of planning (region, city, community, block and building), since each warrants different solutions.

Notwithstanding the consultants’ assertions of evidence of sustainability within current projects in the CBD, some aspects of sustainability are missing from Saudi Arabia’s urban development strategy; hence the Saudi system could learn from other countries where sustainability systems have been put into practice over a long period. Essentially,

155 Interviewees 17, 19.
the consultants wanted to work with established standards imported from the international community, rather than having to continually generate new ones, which they saw as 'reinventing the wheel'.

The consultants’ arguments can also be seen as based on the understanding that sustainable urban development could directly reduce economic activity and social capital. They argued that the sprawl approach to development in Saudi Arabia has negative impacts, not only on the physical environment, but also on other areas of development. They appeared to believe that they could influence the Saudi authorities to avoid a proven detrimental mode of urbanisation and instead to adopt a more sustainable approach to development. Smart growth was seen to offer the most viable solution to the need to accommodate future growth. Although peak oil is not a concern for the KSA, certainly for the foreseeable future, the country should be planning for more resilient cities for equally important reasons, including better health and general well-being, a reduced carbon footprint, consumption of less land and better water conservation. Built environments that facilitate more active lifestyles and reduce barriers to physical activity are desirable because of the proven positive relationship between physical activity and health.

Many interviewees also cautioned against inclusivity in public spaces, since it went against the traditional Saudi lifestyle. In this respect, Interviewee 31 complained that the inadequate segregation of the genders in such projects was “not appropriate in Riyadh”. As already discussed, the KSA adheres to the ideology of Islam, which is quite conservative in terms of its prescriptive gender segregation in public. However, the Dammam CBD has been designed from a Western viewpoint and the common use of public space for a range of community facilities has raised major concerns, since it does not take gender segregation into account. This was also highlighted as a significant problem in the KAFD, demonstrating the lack of involvement of the public voice. Figure 7.13 shows plans for men’s and women’s spa facilities in the KAFD. Certainly, the long-term use of the services provided cannot be predicted. Given this clear mismatch between design and the desire of society, it was important to assess how smart the planning codes

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156 Interviewees 23,25,31,32,42
actually are in responding to societal settings, not only from the technical perspective, but also from the sociocultural and religious viewpoints (Saleh, 2001; 2002).157

Figure 7-13: Men’s and Women’s Spa facilities, KAFD (designed by WORKSBUREAU)

In another interview, a stakeholder raised the concern that the planning code affected the ongoing internationalisation process as it allowed for the provision of iconic buildings in both Riyadh and Dammam. He said:

A sustainable project is one that should advocate for development of a compact, mixed-use, pedestrian-friendly city that develops using the increment of the neighbourhood as a structural element. In addition, it should aim to bring about balanced land conservation and smart manageable growth. Most importantly, for any project to be considered sustainable, it should be seen as taking into consideration all scales of planning issues at the regional, city, community, block and building level. Each warrants different significantly meaningful solutions. While much attention has been paid to addressing the greening of buildings, very little attention has been paid to addressing larger patterns of development that arguably impact people’s lives to a greater degree.

157 Interviewees 21,30,32.
This response of Interviewee 9, while cautious, represents a more positive outlook than that of the contractors who argued that in their current form, the planning codes could not cope with all the social, cultural and religious issues as well as they could with environmental challenges. This implies that the codes are not considered smart enough to enable the design of facilities that have been generated after making a holistic analysis of the needs of proposed projects. In cautioning against rash development, many interviewees said that Saudi Arabia must learn from mistakes made by other developed nations such as the USA, where the development of suburbs has occurred too swiftly over the past 50 years, resulting in sprawl, excessive land use, separated uses, and automobile dependency. Hence, the nation is seen as gradually shifting away from the traditional setting known in the country to this new (Western) model and both cities and suburb dwellers are now realising they can no longer afford to develop in this unsustainable manner when resources and services are stretched too thinly. The over-provision of road infrastructure translates into longer commutes and increased traffic fatalities, both of which have a direct impact on decreased economic activity and diminished social capital. Clearly, sprawl presents negative impacts, not only to the physical environment, but also to other areas of development. In addition, it is the hope of many that Saudi Arabia avoids what has been proven to be a detrimental mode of urbanisation, and instead adopts more sustainable approach. Smart growth offers the most viable solution for accommodating the nation’s future and new growth. The country should be planning for more resilient cities for equally important reasons: better health and general well-being, lowering carbon footprint, less land consumption, and greater water conservation.

Saudi Arabia urgently needs to provide walkable environments as an alternative to the only choice people currently have, which is the car. Built environments that facilitate more active lifestyles and reduce barriers to physical activity are desirable because of the proven positive relationship between physical activity and health.

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158 Interviewee 9.
The present development pattern of Riyadh city is characterised by unicentral and horizontal expansion (HCDR, 2003). Development is concentrated along the major roads that connect the city with the residential districts at the peripheries. The fast growth witnessed by Riyadh in recent decades continues to exert a strong impact on its current shape in respect of the distribution of public facilities, public service institutions, urban density and economic activity. Bearing in mind the future growth forecast for the city, the HCDR has spelt out the urgent need to create a number of sub-centres capable of supporting the present city centre through the redistribution of economic activity and of administrative and residential services to new residential areas of the city.

The HCDR report (2003) highlighted several environmental problems facing Riyadh as a city, the most important being the negative impacts on the national resources and their deteriorating quality, due to the fast-moving development process and land sub-divisions that took place in the city without any regard for natural topography. This caused the destruction of existing rivers and the removal of hills, resulting in problems of rainwater drainage and increased sewerage costs. Ideally, these natural phenomena should be available for use as parks and pedestrian walkways. It is also believed that current plans threaten further loss of natural features and environmental damage. Hence, the allocation of responsibility for protecting the environment now and in the future is vitally important, but it is hampered by the multiplicity of agencies responsible for the administration of the environment. Indeed, the only organisation that has direct environmental responsibility is the Meteorology and Environmental Protection Agency, which has minimal powers.

Stakeholders echoed a number of environmental issues facing Riyadh:

- Deterioration of environmental quality and resources.
- Dispersal of responsibilities for environmental management and protection.
- Increasing air pollution ratio in a number of city areas.
- Worsening ground water pollution in some parts of the city.
- Lack of sufficient open spaces for city dwellers.
- Continued depletion and deterioration of existing open spaces and resources.

The Metropolitan Development Strategy for Riyadh (HCDR, 2003) indicates that as a result of the unsound environmental practices allowed by current policies, future
improvements will be limited unless a major change is made to those policies related to natural assets. Environmental deterioration is predicted to continue and Riyadh will face difficulties in developing into a sustainable city. The likely impacts include the loss of open spaces and the degradation of these important services for both the population and businesses. In addition, it is believed that the city may experience a major shortage of public facilities. It is therefore anticipated that should the current development policies continue, citizens’ quality of life will suffer significantly.

Studies of conventional new houses indicate that the accumulated energy use costs exceed the embodied energy of the basic construction within five years, but as more energy-efficient construction techniques are adopted, so the energy and resources invested in the construction process become more and more significant.\textsuperscript{159} For buildings to last, there must be reductions of pressure on the sources of construction materials, reduction of waste and energy used in demolition, and encouragement of the construction of more adaptable and manageable buildings, spaces, urban forms and infrastructure. Such patterns of development need to be adaptable, and in the case of buildings in Riyadh and Dammam, must be capable of adapting to different functions, being extendable if required. Additionally, the many overlapping and sometimes contradictory functions required of urban space must be accommodated.

It is clear from the existing condition of Dammam that excellent urbanism requires street edges and urban enclosures to be well defined by building frontages. The master plan has made provision for a wide range of building types, which add visual interest, diversity and market responsiveness, and appeal to a wider demographic of prospective residents and tenants. The five different building types considered in the plan are perimeter buildings, podium and tower buildings, courtyard buildings, liner buildings and bar buildings. A review of the plan shows that the proposed types are all configured to provide a rich network of open public spaces and to define public and private outdoor rooms.

The aerial studies of each section of the proposed building type reveal a number of things. The low-density blocks can accommodate large mid-block spaces that can be adapted to several low-intensity uses such as markets, small parks or even playfields (HLA, 2008).

\textsuperscript{159} Interviewee 40.
The mid-density blocks are designed to have high-block coverage to a height of five or six storeys and lesser coverage above six stories. Their denser bases still provide for large courtyards where all housing is in relatively thin wings, with daylight from two sides: either the street and a courtyard, or the courtyard and a mid-block street seven to ten metres wide. Because of the overall high-density site potential, the design concept is seen to be flexible in creating a dense and permeable urban fabric that echoes the best traditions of Islamic cities, while meeting contemporary requirements for urban living.

7.5.5 Sustainability Used as a Marketing Tool by International Firms

There was a general argument that marketing by international firms was strategically strong but divorced from reality. For instance, several interviewees commented that key issues concerning sustainable urban development in Saudi Arabia were not real in many people’s lives, making the concept of sustainability seem remote from their concerns; yet municipalities went ahead to hire professionals who claimed to deliver it. These stakeholders further argued that there was a lack of focus on the use of resources and that methods of implementation and deployment of standards were secondary. They warned that means of achieving sustainability were viewed far too narrowly, concentrating purely on the building process and its eventual measurement. Another interviewee added that there was a bias towards the objective measurement of sustainability in order to prove its implementation in the ongoing urban centre development, while ignoring social and cultural factors not measurable by such empirical means as LEED and BREEAM. Hence, these respondents perceived a need to view the urban planning codes and their implementation on city developments from a wider perspective, citing the lack of fresh water as one instance. If this were to be explained as a code protecting scarce domestic water supplies, end users would become more aware of what could happen in the future if nothing were to be done about it, and this would encourage the general population to support the sustainability agenda. This points to the strong marketing strategy that was able to convince decision-makers in government institutions to engage international firms.

In respect of the overall marketing and public understanding of sustainability, Interviewee 42 observed that while the World Commission on Environment and Development defined

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160 Interviewees 27, 29, 42.
161 Interviewee 27.
sustainable development as meeting “the needs of the present without compromising the ability of future generations to meet their own needs”,

...there has been a poor approach to re-define sustainability in order to make it applicable to the KSA. [The definition is] very general ... [and] sustainable urban projects do not in their present application state, focus on the three needed dimensions of economy, environment, and social, addressing the concerns raised as they affect the local context of the region.

Continuing the theme of the definition of sustainability, Interviewee 23 stated that in the generic concept, continuity is embedded, such that all the elements of “advanced and renewable powers and other techniques new to Saudi Arabia” form part of the overall picture for sustainable urban development centres. Thus,

...projects such as those at the KAFD include new techniques and technologies that comply with the sustainability applications, such as solar panels, hence creating the very basic level of sustainability on the part of development.

Overall, Interviewee 23 argued that in Riyadh, tower buildings had not attained the high levels of sustainability expected, despite the advanced technology and techniques used in the construction process.

On a related issue, Interviewee 22 said:

In order to understand sustainability we have to evaluate their positive and negative impact on the specific project. In addition, any sustainable communities should be seen as adhering to the C-6 Challenge.

This was a reference to the following criteria:

1. **Connectivity**: Walkable | Bikeable | Transit-Ready | Permeable | Proximate
2. **Compact**: As dense as the market will bear
3. **Complete**: Balance of Jobs | Housing | Retail | School | Programmed open space
4. **Complex**: Housing for a diversity of Age | Income | Transport preference
5. **Convivial**: Public spaces that are Safe | Engaging | Accessible | Comfortable
6. **Conserving:** Buildings that are Resource Efficient | Healthy | Durable | Flexible.

The thrust of the argument from interviewees in the academic sector was not that the CBD and KAFD were unsustainable projects, but rather that some systematic way was needed to evaluate and test the projects to ascertain their degree of sustainability in general. Interview 42 added that it was the responsibility of those companies marketing the various projects within these mega-developments to provide evidence that their projects were indeed sustainable.

Confirming this viewpoint, another interviewee made the point that “municipalities do not have the ability and experience to assess the sustainability”, adding that it was “the responsibility of companies that market the project as a sustainable urban centre”. Interviewee 27 expanded on this view, saying that in the KSA,

> developers have no understanding of sustainability application to existing projects, because owners of the projects do not have a clear understanding of sustainability, and the international firms use the term to market their work without requesting assessment and measurable indicators that should be used by these owners, so the result is going to be used for marketing only.

Hence, the reliance on LEED and BREEAM as the main indicators of sustainability was seen as a marketing ploy by the international firms, because using these building rating standards means that they can point to tangible results and claim immediate success.

Another interviewee reported the perception that

> ...the KAFD is the new downtown and reflects the country’s strong economy. However, all famous international cities have commercial and financial centres that function 24 hours a day.

Since the KAFD operates from morning to evening only, the interviewee noted various problems, one being the rush hour, as “there were no studies of traffic jams and no environmental impact assessment”. Hence, the designs went ahead without due consideration for the environment.

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162 Interviewee 29.

163 Interviewee 30.
Interviewee 42 was of the view that glass buildings could not be said to be sustainable, especially in the climate of Saudi Arabia,

...with this high temperature, which increases the consumption of water and electricity, [and the] environment which is congested with traffic. [Therefore,] such projects are sustainable only in Europe and the USA, where the temperature does not reach 50 degrees.

7.6 The Sustainability Drive and its Influence on National and Municipal Policies

Even though government policy on urban centre development has been said to be centred on sustainability, it is important to assess how international firms and their local partners have packaged their services and market strategies. As established already, international firms concentrated on spatial planning to introduce efficiency. With the adoption of globalisation as a concept, international firms are highly competitive as far as spatial planning is concerned, because of their global exposure. They have developed the strategy of setting up a local office in such a way that they could bring world-level competition to a local market.

The second strategy that was examined in chapter two of this dissertation arises from the realisation by international firms that governments seek international investors for their cityscapes so that their cities can develop global attributes. This means that international architectural and planning forms strive to co-ordinate a team of developers; they also strive to use ‘star’ architects who have global experience of developing iconic skylines. This includes the assembly of technology and construction strategies around the world.

The third important factor examined in the literature review is the issue of ‘transnational capitalists’, whose aim is to use international architectural teams who can design, market and develop iconic buildings and spaces that could eventually attract visitors to a region or a city. In this case, transnational capitalists aim to develop buildings as special symbols whose aim is to attract business for other forms of products and services in the city.

The final important factor is the introduction of international construction companies into a market to facilitate the delivery of iconic projects that local firms might find extremely
challenging. The international builders use their experience to assure clients of their ability to develop unique facilities that could change the urban centre outlook.

Considering these four factors in the context of the KSA, it could be argued that international architectural and planning firms have applied sustainability as a marketing tool in order to gain entrance to Saudi urban centre development projects. Indeed, two interviewees affirmed that there was much marketing of technical services by international firms. They argued that sustainability was perceived broadly by the MoMRA, whose brief to consultants was to ascertain how they could deliver sustainable urban centre development projects, individually and collectively. Both interviewees argued that the current low levels of application of sustainability would continue unless consultants decided to make improvements without waiting for the planning codes. This confirmed the view that there was an open window for companies to demonstrate their capabilities; hence, marketing through international exposure and the amalgamation of capitalist investment has become crucial to the bidders. One interviewee, for instance, argued that sustainability involves the achievement of social functions and welfare for the community, where citizens are considered to enjoy their social rights in terms of entertainment, accommodation and city life at reasonable cost, or less than the primary costs, lifecycle costs, or even municipal costs (which are themselves extremely high).

Therefore, companies that had demonstrated this element were accorded priority when determining who to engage on a project, since their technical competencies were deemed to be higher than others.

If sustainability is achieved, municipal costs will decline for all users, with simultaneous improvements in the conservation of the environment and its resources, wise consumption, the use of clean technologies and reliance on renewable resources. All elements were marketed by international firms as a way of instituting measures to improve sustainability credentials on projects. However, the implementation of sustainable urban development had not been successful, because of the attitudes of officers at the district planning and municipal regulations offices. Such attitudes must be

164 Interviewees 45, 46.

165 Interviewee 43.

166 Interviewee 44.
overcome by government by not forcing the sustainability agenda through its policy of engaging international firms, which are believed to reduce the learning curve for the local people, since there are currently no enforceable rules or regulations at ministerial level that can be used.

7.7 Evidence of Sustainability Mobilisation based on Reviewing the Master Plan Documentation

One of the key indications that international firms are involved in the redevelopment of vast areas in the location in which they are allocated work is documented in the master plan of the project. This is perceived as another form of branding, as they publicise their architectural skills in the implementation and delivery of iconic products. It allows them to control the influx of capital to the area based on the master plan. The second strategy used by multinational firms is that of image creation; all developers are required not only to provide economic benefits but also to create an image which could have a positive impact on the social, economic and political aspects of the projects. The example referred to most often by the study’s participants was the major construction project sanctioned by King Abdullah, the Economic City. This enormous development was predicted to create one million jobs and four million homes. The government intended to generate knowledge-based technology and science parks, as well as health and educational centres, hoping to attract private sector investment (Espirito Santo Research, 2012).

Large developers have demonstrated that their way of measuring sustainable urban development is through international certification programmes. For instance, the RIC (Figure 7.14) reported the KAFC as a sustainable project on the basis that all its buildings had either gold, silver or platinum LEED certification, while in the KAFC Master Plan, the Danish company HLA defined sustainability in the project delivery in line with international criteria (HLA, 2008). However, the master plan recommended that 20% of the lighting for the project when completed should come from solar energy, but the use of solar panels in the buildings is in fact less than 1%. 167 This raised several questions among several stakeholders about the energy saving claim made by the completed project. Nonetheless, the trial was considered successful and granted LEED certification. Other

167 Interviewees 11,17.
companies, such as the RIC, the Bin Laden Company, SBG, HOK, and Omranion, believed that the adoption of LEED and BREEAM provided evidence of their implementation of sustainable urban development. Contractors were able to demonstrate that their buildings embodied the requirements for certification, and the master plans have demonstrated that a mechanism does exist for achieving sustainable urban centres.

Figure 7-14: King Abdullah Financial District Final Master Plan (Source: Riyadh Investment Company, 2009)

7.8 Conclusion

The Ninth Development Plan gives utmost priority to the improvement of living standards and quality of life. In attempting to ensure long-term sustainability of its urban environment, the Saudi government formulated plans to cater for the development and maintenance of the nation’s natural resources, as well as the rationalisation of their use and the protection of the environment. This effort includes the improvement of the country’s environmental regulations within the framework of sustainable development.

168 Interviewees 1,3,10,15,16,17,34,37.
The review of the KAFD and CBD projects has revealed that both have incorporated new technologies, such as the use of solar panels as an alternative energy source, and the encouragement of pedestrian pathways in both cities, that comply with this national sustainability drive. However, this drive is viewed as insufficient to attain a sustainable urban environment in Saudi Arabia, one fundamental reason being the lack of adherence to universally applicable sustainability principles.

As emerging cities with ambitions to be regional and international hubs, both Riyadh and Dammam now face various challenges relating to their ability to develop a sustainable form of urbanism in a region that is witnessing increasing and novel economic competition. Thus, on one hand, liberalisation strategies and extensive public investments are needed to establish these urban centres as growing hubs, while on the other, diverse, efficient and attractive urban environments are needed for them to become sustainable metropoli. The harsh desert climate and lack of natural water sources have always been the main obstacles to the achievement of sustainability in large settlements in the region, and despite efforts to overcome these barriers, they may once again restrict human life in the region when the affluence deriving from oil and gas revenues declines, inverting the economic ratio of rising energy costs to gross domestic product.

The data obtained from the interviews and questionnaires demonstrate that the KSA government policy, as implemented via the local authorities, has been biased towards the engagement of internationally-acclaimed design firms. It is also apparent that these global firms have used sustainability as a marketing tool in their attempts to win contracts in the country, with little consideration being made of the potential environmental and socio-cultural impacts which such projects might have. Furthermore, several instruments were found to have been employed by these international firms to gain the confidence of the decision-makers involved. The use of technical expertise in spatial planning in order to introduce efficiency is one such ploy, and the search for international investors for their cityscapes to ensure they develop global attributes is another. In addition, the use of energy-rating certification was evidenced as a bargaining tool in winning such contracts, yet such certification is considered insufficient and artificial, since as voiced by many stakeholders, most certification programmes address only energy efficiency.

Globally, there is widespread political pressure to use building assessment criteria in all major developments, with LEED being the most widely adopted. To this end, the KSA
has welcomed international developers who use the LEED certification system to ensure that each new structure is seen to have complied with the conditions stipulated to achieve the green certification. However, it is clear that both local goals and realities can hinder the practicality of adopting certain foreign energy efficiency building rating codes in the Kingdom.

Poor competence levels among Saudis in the field of sustainable development, and inadequate training opportunities were perceived as hindrances in the attempt to encourage local Saudi professionals to adequately contribute towards the implementation of the greening concept being promoted by the foreign firms, and not surprisingly, it is perfectly conceivable that once these new developments are completed, their management may become problematic.

That said, there remains the need for more effort to enhance the education system in order to create a better work ethic among Saudis and a cadre of skilled workers capable of generating the cutting-edge facilities that can gel with the country’s culture and religion. Considering that, there is a general feeling that international firms have failed to adhere to local standards and to some of the sensitive cultural and religious norms of the society, and it is believed that this problem would be alleviated if greater investment in education and training were made in the Saudi population such that locals were able to match the expertise of expatriates.

The trend observed portrays Saudi professionals as having minimal influence in the whole process of awarding projects and executing them. The problem surfacing as a result of this trend is that the apartments designed and developed by international firms are perceived by many stakeholders as unsuitable for Saudi families, and instead attract highly paid international workers or young couples, a situation which will eventually create exclusive zones similar to those seen in China and Singapore.

This chapter has critically examined sustainability as a means of accelerating internationalisation, using the primary data gathered from stakeholders in the Dammam CBD and the KAFD in Riyadh, and cross-referencing that data with the relevant literature and the available direct documentary evidence. The next chapter concludes the thesis by offering a general discussion of the issues raised and making some pertinent recommendations for practice and for future research.
8. CHAPTER EIGHT: DISCUSSION, CONCLUSION AND RECOMMENDATIONS

8.1 General Discussion

This research study has evaluated the evolution of urban centres in the Kingdom of Saudi Arabia over the last 40 years. In making this evaluation, the study has identified the strategies adopted when implementing the process of internationalisation of Saudi urban centres, and the planning strategies intended to achieve sustainable urban centres. In both of these areas, lessons have been learned from the explorations.

This chapter draws conclusions from the research, lists its contributions to knowledge, makes appropriate recommendations for practice and for further research, then considers the limitations of the research. It begins by discussing in turn the four main themes emerging from the research: internationalisation, its mobilisation, sustainability as a marketing tool, and international influence on the operationalisation of planning codes.

8.1.1 The Notion of Internationalisation

Over recent years, the government of Saudi Arabia has operated a policy whereby international architectural firms have been awarded contracts to design master plans for the ‘global-style’ modernisation of the KSA’s once-quiescent cities. One exemplary major construction project in Riyadh is the KAFD, which upon completion is expected to cover a total land mass of 3,085,026 m², of which 1,658,117 m² will be used for office accommodation (KAFD, 2015; HLA, 2015). The literature reviewed, supplemented by consultation with the research population, considered the process used in the mobilisation of international firms and foreign policies, the impact of internationalisation on the development of planning codes, the modernisation of urban centres, and the sustainability approach adopted as part of the Saudi government’s planning development strategy. A strong contribution to the literature in all these areas, as well as in the area of policy mobility and the roles played by architectural and construction practices in specific contexts of accelerated forms of capitalism, is made by the study.

There was overwhelming evidence that economic-centred globalisation has been driving internationalisation via the commissioning of international architectural firms which metamorphosed into a global business network capable of responding to demand for
architectural and planning services of all kinds. However, urban policy mobility and city development are highly complicated processes that exert complex effects upon the spatial planning and governance of cities. In some cases, internationalisation was considered by the stakeholders in the study, to benefit certain economic aspects of cities, yet it was also the view that the process is gradually introducing the idea of commercialisation, loss of cultural identity, and heavily marketed architectural products. Not surprisingly, mixed views were expressed about the very swift changes taking place. Indeed, the research demonstrated that the architecture of Riyadh and Dammam has experienced rapid transition, partly due to the influence of governance systems in the Kingdom and partly as a result of the influence of the international architectural firms. It is evident that the Saudi government has formulated deliberate policies to promote the architectural and planning work of these firms. These findings are in line with those of other researchers (Ren, 2008; Clarke, 2012), who have observed the conscious efforts made to integrate nationalism and the perceived economic benefits that prompt politicians and bureaucrats to opt for international architectural language as a means to narrate their national ambitions and to highlight salient characteristics of their countries’ urban centres.

8.1.2 Mobilisation of Internationalisation of Architectural and Planning Services
Simultaneously, software tools such as computer-aided design have enabled the production of architectural designs that were impossible using traditional methods in Saudi Arabia; in addition, such tools have provided a platform that encourages collaborative work with international architects in the design and construction of iconic buildings in the Kingdom’s major cities. The process has been influenced by these international firms, and has evolved over the past 40 years, to become a major conduit for policy mobility to Saudi Arabia. This policy mobility has facilitated the spatial planning of new urban centres, thereby reinforcing the argument that internationalisation has been fuelled by the globalisation of the architectural market.

The empirical evidence gathered in the study confirms the establishment of a government policy that is seen to be driving an advanced urban development process in Riyadh and Dammam in response to the demand for international status of local Saudi cities. While concerns for environmental sustainability - and more recently for climate change and resource depletion - have been a fundamental source of new ideas and approaches in urban planning, there has been a general concern about the process adopted in the promotion of sustainability and the new wave of internationalisation of the urban areas.
As demand grows for practical means to improve sustainability, several strategies are beginning to emerge. Hence, the policy of sustainable urban centre development, for the KSA has been viewed by the Kingdom’s policy-makers as timely, as far as the sustainability of the construction facilities for urban centres is concerned. However, a major weakness of the process appears to be the paucity of stakeholder participation in the planning and implementation of these polices, reflected in the study’s finding that stakeholders had reservations of varying gravity concerning the selection of international firms and their lack of local knowledge. In addition, the selection process was seen as promoting a major deviation away from traditional ways of living and interaction with the local environment, and hence, as a threat to the Saudi lifestyle.

8.1.3 The Notion of Sustainability as a Marketing Tool to Accelerate Internationalisation

Furthermore, the implementation of sustainable urban centre developments in the cities of Riyadh and Dammam has attracted very considerable international architectural attention. However, the research has found that the concept of environmental sustainability, although perceived as essential for preventing further damage to the local environment, has nonetheless, been used as a strategy and marketing tool to guarantee the ultimate objectives of the developers, as set out in Chapters Five and Seven. This was evident upon closer examination of the environment and when identifying the missing link in terms of socio-economic inclusion. Neither the environment nor socio-economic inclusion has been effectively considered in the urban centre development process, nor have the objectives associated with each been achieved.

Hence, the study concluded that although the KSA has embarked upon the rebranding of its major cities, including Riyadh and Dammam, through the involvement of Western firms, the process adopted by the policy-makers is considered technically inadequate. This is patently observed in the cases of Riyadh and Dammam where sustainability has been used as a marketing tool to sanction urban centre developments and to attract international investment. The research has further established that the major disparities in climate, culture, and economy between Saudi Arabia and the Western countries where these policies originated, have been ignored in both the planning and implementation stages (i.e. when imported and mobilised). These disparities are seen as drawbacks to the sustainability drive associated with urban centre projects and consequently to Saudi
Arabian urban development, via the introduction of foreign forms which conflict with the tenets of Islam in operation in the Kingdom.

In addition, international architectural firms are perceived as using their geographical dispersal to their advantage by ensuring that they implement systems such as the LEED or BREEAM energy rating standards to stay ahead of the competition in the international market. Stakeholders criticised the adoption of these assessment schemes, a finding consistent with the warnings of Ding (2008), Alyami and Rezgui (2012) and Seine et al. (2014) that a one-for-all scheme would be difficult to apply in all geographical, social and economic settings, making it difficult and risky to implement a foreign policy of this nature in a new environment. Moreover, in the view of the stakeholders consulted, the application of these schemes to construction projects in Saudi was seen to be hindered by local environmental factors such as climatic conditions, geographical characteristics, potential for energy renewal, construction materials and available techniques, government policy and regulations, and public awareness. These concerns provide further support to the earlier findings of Alyami and Rezgui (2012).

The study also found evidence that the sustainability drive in respect of the KAFD and CBD urban centre developments in Riyadh and Dammam was misleading, being in reality a branding strategy by which international architectural service providers seek to market their iconic buildings in order to improve their international competitiveness. Various stakeholders consulted on the ongoing projects echoed these concerns. They were worried that the newly-developed urban centres in the Kingdom, in its present state, might not be wholly sustainable.

Although this perception that these new urban centres are not sustainable does exist, the new buildings within them have created a brand of urban centre that incorporates complexity and the provision of advanced forms of communication networks. It was evident that in the cities researched, the new spatial logic is expected to offer an interchange of information, capital and power in order to support the social, economic, and political structures necessary for them to develop. Therefore, the new urban centres in Riyadh and Dammam have become important nodes in expanding international trading networks, while the concentration of international companies and their headquarters has turned these cities into global control centres, challenging the national state and its
political boundaries. This has become possible through the development of infrastructure, offices and residential homes in the new CBD and the KAFD.

Urban centre development in Riyadh and Dammam has realigned the perceptions of the government’s role in development. The research has identified a strong perception that developers have responded to government strategy to decentralise urban development by allowing state-owned land to be developed by the private sector. This process was accompanied by the relaxation of the financial regulations and restrictions regarding building permits in order to accelerate and facilitate construction growth.

Although the strategy could generate urban growth, there is however, always the danger of upsetting the balance between the short-term interests of speculators and the long-term government plans to achieve sustainable urban consolidation. In the KSA, there has been a fine balance between professional freedom and government interference through the engagement of international architectural and planning firms to create master plans for Riyadh and Dammam, thus representing a clear example of a supportive government policy that enabled the codification of planning and development at regional and national levels. Today, many emerging urban centres in the KSA are exposed to the intense influence and impact of global trends in urban development and as a result, many traditional particularities rooted in urban history and socio-cultural contexts are turning into peripheral and isolated elements. Thus, the conflict between a rapid urban development that seeks to integrate historical and traditional contexts on one hand and the impact of the continual importation of globalised morphologies on the other, has led to the creation of clear demarcations in urban evolution; as such, this conflict is one of the key characteristics of emerging urban centres in the KSA.

8.1.4 Significance of International Influence on the Operationalisation of Planning Codes and Building Regulations

Sustainability has been used as a vehicle for operationalising the new wave of internationalisation; in their turn, international firms have had significant influence on a new generation of planning codes in the Kingdom.

The development and application of planning codes has been underpinned by the wish to influence urban planning, as was evident in the KSA as early as the 1960s, when the government engaged Constantinos Doxiades as design consultant. Subsequently,
urbanisation was accelerated in the 1970s, beginning with the implementation of a series of development plans, as reported by El-Nachar and Salama (2007) and Mandeli (2008).

Historically, the Saudi government’s policy of engaging international architectural and urban planning firms has been founded upon the drive to drive to develop new urban planning codes that would enhance the Kingdom’s city landscapes and facilitate the development of iconic buildings of various heights, while simultaneously promoting sustainable cities.

However, the study has revealed that for the present urban development codes to have any meaningful influence on the community, the KSA government must promote specific elements of sustainability in its ongoing urban development plans, and should additionally be seen to be making every effort to persuade all stakeholders of the resultant value such plans and policy could bring to the urban centre development drive.

Considering also that the implementation of the new planning codes is intended to produce sustainable buildings within the Kingdom, attention should be paid to the tools of implementation, and in this respect, it is believed that the success of the sustainability drive requires the engagement of the Kingdom’s local professionals, and the promotion of local building materials for use in the ongoing projects. These ideas echo those of Elgert and Krueger (2012), who emphasised that for planning codes to make any significant impact in promoting sustainable urban development, there must be a plan in place to enable the perfect integration of political power and knowledge of local professionals in its implementation.

While there are pockets of change in the roles played by international firms in the delivery of government policy, overall there remains a strong Western influence on urban developments in the KSA. Relationships with local designers, the way policy is formulated and developed, including the principles underpinning the operations of these international firms have not undergone any radical change, and many observers perceive the strong Western influence to have given rise to severe problems, all stemming from the mismatch between the contexts in which these ideas originated and the ones to which they are being imported. However, not all participants shared this belief, as some expressed the view that the changes in urban centres had been introduced in the interests of the general public, and that the new planning codes had indeed brought benefits. What is clear is that
there has been a consistent strategy on the part of the KSA government since 1970 to engage international firms to develop the national urban planning process.

The literature (MoEP, 2000; MoMRA, 2005; MoEP, 2010) does point to the fact that the government policy of deploying five-year strategic development plans since 1970 did create an avenue for both the urban and regional economic and infrastructure development to be determined and promoted by the government in Saudi Arabia. Hence, the establishment of physical infrastructure in the Kingdom was approached in stages during the first three development plans; and these development plans have been used as platforms to accelerate internationalisation. However, from 2000 to 2010, there was no evidence that the plans had resulted in specific planning codes that could be used as essential documentation for urban centre development. The Ninth Development Plan (MoEP, 2010:232), however, did include specific information relating to building and construction, but it was largely strategic in nature, indicating policies that could expand the marketing of the construction sector to regional players and investors, promoting the domestic production of building materials and encouraging the engagement of local contractors in the business of construction.

By the year 2010, it was clear that local contractors were under-represented in the market, as a result of the influence exerted by the internationalisation of urban planning in the KSA. At policy level, the Ninth Development Plan (MoEP, 2010:233) encouraged foreign direct investment as well as the participation of foreign companies in building and construction activities. A clear mandate was included in the Ninth Development Plan (MoEP, 2010:631) for the municipalities to expand their urban and regional centres, and to bear in mind the fact that economic activities had a significant influence on the horizontal and vertical growth of Saudi Arabian cities. In this respect, it was noted that the existing approach to urban development had impaired the efficiency of land use and the provision of infrastructure. Consequently, the plan emphasised the need for the development of planning codes that could address, among other factors, urban boundary and land use regulations, and ensure their application. Another focus of the plan was on the vertical development of cities, all dependent upon the capabilities of services such as water and sanitation, and modern, integrated public transport for all major cities and suburbs. The creation of radical solutions for vacant land within cities was also called for to ensure their optimal utilisation.
8.2 Conclusions

The research conducted has provided empirical evidence of the transformation of urban centres in the KSA since the 1970s, and the conscious effort made by the government to advance a policy of engaging international architectural and planning firms to ensure that the planning regulations and codes introduced within the Kingdom would be of international standard. The key conclusion from the investigation of the mobilisation of internationalisation policy as it refers to distinct forms of urban development, was that international firms have used their global influence to market themselves as experts in the development and implementation of planning codes for the new urban areas within Riyadh and Dammam. In addition, these firms have established standards, which have replaced the old ones, as they have relaxed building height restrictions in designated areas in these cities.

Undoubtedly, the mobilisation of international architectural and planning firms has been facilitated by Saudi government policy on the grounds that these firms’ global experience in business equips them to introduce the concept of sustainability and to use it as a marketing tool, thereby gaining acceptability. Subsequently, in establishing partnerships with these firms, the Saudi government triggered the adoption of international standards on architectural and urban planning services. Not surprisingly, the policy proved to have a significant influence on the internationalisation of urban planning and urban development strategies in the KSA. This developed into a notion that internationalisation has been mobilised by the government, resulting in a massive contribution made by international architectural practices working in the Kingdom to facilitate government policy. Hence, government policy and the drive for sustainability provided the main mechanism behind the process of internationalisation in order to arrive at the salient factors used to promote the concept in the Kingdom as discussed in Chapter Five, section 5.6.

- The first dimension concerns the regime and urban policies of the government, and how these have influenced urban development through knowledge transfer brought about by the engagement of foreign firms, as discussed in section 5.6.1;
- The second refers to the prestige associated with iconicity and governmentality with the modernisation of the planning process in new urban centre developments, while assessing their sources of inspiration in contemporary urban centres in the Arab and Western worlds, as discussed in section 5.6.2;
• The third dimension of the process of internationalisation concerns its implementation and the associated importation of materials, as discussed in section 5.6.3.

Another contribution from the study lies in the arena of international firms’ marketing strategy in respect of their expertise in urban centre development, and their desire to compete with other players in the field on the grounds of their capability to produce and develop sustainable designs and buildings. This can be seen as the bait used in attracting the attention of the policy-makers in the KSA. Consequently, they rushed to incorporate energy-rating systems such as LEED and BREEAM within their designs, thus claiming their competence in sustainable construction. With their claim to achieve sustainability in their buildings, the theme of sustainability was also embedded in the planning codes, as well as in the master plans for urban centres. However, the results indicate, that the sustainability promised can never be achieved because of construction-related constraints in terms of lack of attention to major environmental, cultural, and regional differences between the Western and Middle Eastern nations.

Nonetheless, from an economic viewpoint, the government planning departments and municipalities were technically supported in terms of establishing a strong base for the planning and control of development, with the power to attract private investment in urban centre development. That said, the development of new urban centres has had negative effects upon the old ones, since they are no longer considered attractive or appealing to new clients. At the same time, infrastructure such as roads has been negatively affected because the new developments have created traffic congestion. Yet another conclusion is that many locals are reluctant to assume residence in the new urban areas because the design of modern apartments is out of keeping with their socio-cultural beliefs and lifestyle.

In respect of sustainability, the stakeholders involved in the study offered a variety of opinions concerning the transformation of the Riyadh and Dammam urban centres. From these, it is clear that the major setback to the implementation of sustainable development has been the failure by the municipalities to provide any form of guidance as to how sustainability was to be implemented in projects, meaning that international firms have been at liberty to prescribe the use of rating systems to assess the extent of sustainability achieved. Contractors, on the other hand, had firm ideas about sustainability, believing
this to be a way of promoting traditional forms of construction, thus tapping into as many local resources as possible. Without doubt, there are different interpretations of sustainability, and the adoption of an international energy rating system does not seem to solve the problem.

The overarching argument in this chapter has been that the engagement of international firms in the KSA’s urban centre development has promoted a new approach to urban planning codes devolved at municipal level. Moreover, those international architectural and planning firms have been proactive in reshaping the new urban planning codes and regulations, using sustainability has an active marketing tool to accelerate internationalisation, which has been achieved by the presence of many foreign practices.

Considering the lack of adequate information, this study has contributed significantly to the literature by eliciting data from various stakeholders on their perceptions of the ongoing internationalisation process and the promotion of sustainability and planning codes. In addition, it has advanced a series of academic debates in the areas considered, which will help to shape future approaches to internationalisation mobility and the implementation of planning codes.

8.3 Specific Contributions to Knowledge

The overarching contributions to knowledge made by this research are:

(i) Literature on policy mobility in architectural and planning services has been enhanced by the novel discovery that high levels of accumulated surplus in an economy can be used as the main trigger for the rapid engagement of global players to enter a sector.

The sector with high levels of surplus need not be an open market per se for it to attract international players to the architectural and planning market; rather, it can be strongly conservative, in terms of social, cultural and religious attributes, as is the case of the KSA.

(ii) Global architectural and construction practices have tapped into the notion of accelerated capitalism by disguising their marketing capabilities under the
umbrella of sustainability in order to exploit the business opportunities arising from high levels of accumulated surplus.

(iii) There has been a reductionist approach to using attractive elements of sustainable urban development in the operationalisation of the new wave of internationalisation in the architectural and urban planning market.

(iv) The new wave of internationalisation of the architectural and urban planning services has significantly influenced a new generation of planning codes and regulations, which have in turn acted as a catalyst, accelerating internationalisation.

8.4 Recommendations

The urban landscape of the Kingdom of Saudi Arabia has undergone radical changes since the 1950s, from the small, densely populated low-rise cities and towns of the pre-oil boom period to the large sprawling cities of today. The transformation has been driven by four main factors: accelerated population growth, rapid urbanisation, growth in wealth following the discovery of oil, and the subsequent modernisation of the economy. For the country to achieve its potential there is a need to harmonise planning and development processes to meet the socio-cultural needs of its citizenry.

Based on the study findings, the following recommendations are made to enhance urban centre development in the cities of Riyadh and Dammam which it is hoped will guide the policy development of the Kingdom;

1. Stakeholders should be invited and encouraged to participate in the planning and development of new projects to ensure the inclusivity and sustainability of each project;

2. The Saudi government should develop a workable strategy to encourage and enhance local firms’ participation in the ongoing urban renewal in order to develop their potential and to retain their services in the country;

3. There should be a regulatory system enforceable on every developer to use local materials where available and to pledge to do so in a legal document. The heritage of the Saudi people should be preserved and the use of local materials will contribute towards this objective;
4. The Saudi government should endeavour to ensure that Saudi students, whether in the KSA or abroad, are trained to the best possible standard to create future generations of competent, independent designers and architects capable of working in line with global standards;

5. Public investments should be able to tackle scenarios where governments are compelled to privatise and decentralise urban development by allowing state-owned land to be developed by foreign investors and their developers;

6. An urgent rethink is required for Riyadh and Dammam in order to develop these cities into highly connected service and business hubs, integrating all possible measures to sustain ecological balance as well as economic prosperity, thus consolidating a multifaceted and multinational society.

8.5 Recommendations for Further Research

I. It is recommended that future research should examine the impact of internationalisation on local architectural practices, in particular on how they have been able to influence the development of standards in architectural practice.

II. Future researchers might usefully review the existing situation to determine the extent to which sustainability has been implemented and to assess its impact on the property market in the CBD;

III. The social and cultural response of local people to the changing urban centre development strategy in the KSA should be investigated.

The belief is that the study does not suffer unduly from any limitations.
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9.1 References


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Appendices: Sample of Interview Protocol and Questionnaire Survey Templates
9.2.1 Appendix 1: The Interview Protocol for Professionals and Non-Professionals

Table 9-1: The Interview Protocol for Professionals

<table>
<thead>
<tr>
<th>Sample Question</th>
<th>What is your official position?</th>
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<tbody>
<tr>
<td></td>
<td>How does the current development of the new urban centre in your city (Riyadh/Dammam) affect the urban form?</td>
</tr>
<tr>
<td></td>
<td>Is the current position of your business or that of your employer affected by the urban centre development scheme in Saudi Arabia?</td>
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</table>

<table>
<thead>
<tr>
<th>Sample Questions</th>
<th>What urban developments in your city (Riyadh/Dammam) are you currently aware of?</th>
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<tbody>
<tr>
<td></td>
<td>What do you think about the current urban developments in your city (Riyadh/Dammam)?</td>
</tr>
<tr>
<td></td>
<td>How do you feel personally about these effects?</td>
</tr>
<tr>
<td></td>
<td>What is your involvement in the new urban centre?</td>
</tr>
<tr>
<td></td>
<td>Do you think that the engagement of international companies to design the urban centres of the Kingdom is a good strategy?</td>
</tr>
<tr>
<td></td>
<td>State your opinion, the severity of the impact of international design teams on urban regulations. For instance, is it too negative or too positive?</td>
</tr>
<tr>
<td></td>
<td>Do you think that designs created by international firms allow for Saudi, Arabian, and/or Islamic cultural elements such as social contact with neighbours, hierarchy of privacy and mosques?</td>
</tr>
</tbody>
</table>
**Section 3: Interviewee’s views on Sustainable urban centres in Saudi Arabia**

**Sample Questions**

- What is your understanding of the concept of urban sustainability?

  How do you think the definition you gave can be applied in the context of Saudi Arabian cities?

  How sustainable do you think your city (Riyadh/Dammam) is?

  Do you think Saudi Arabia needs sustainable urban centres?

  Who do you think would be the best way to design sustainable urban centres?

  Are any strategies being used in your city (Riyadh/Dammam) to address issues of sustainability?

**Section 4: Interviewee’s views on the Influence of international organisations on urban planning and urban design**

**Sample Questions**

- Why has the Saudi government hired international companies to design the new urban centres?

  Do you think the Saudi government needs to worry about the influence that international firms might have on urban form?

  Do you think the current criteria for the designing of sustainable urban centres are adequate? Why/why not?

  Are you aware of the criteria for selecting sustainability factors to incorporate in the design of the urban centres?

  Do you think international designers would deliver a more robust and sustainable urban centre than local designers would?

  Do you think that international firms would have a negative influence on
current urban form? Why/why not?

Section 5: Interviewee’s views on the impact of current planning regulations

Does the government of Saudi Arabia have regulations that can be used to develop a sustainable urban centre? What are they?

Do you think that the internationalisation of urban planning has affected current planning regulations? If yes, then what are these impacts?

Do you think international organisations need to be used in the implementation of urban codes for sustainable urban centres in Saudi Arabia? Why/why not?

Table 9-2: The Interview Protocol for Non-Professionals

Section 1: Interviewee’s line of work or life in general

Sample Question   How long you have worked or lived in the area (Riyadh or Dammam)?

Section 2: Interviewee’s views on Internationalisation of Urban Planning

Sample Questions   Have you noticed changes to buildings in the area? What are they?

   Did you know that the government employed international companies to facilitate the changes to the areas?

   Is it good practice to employ international companies to work on making urban centres?

   Do you think the changes made to the locality where you live will affect the history of the city?

   Have the new urban developments impacted upon your business or you
as a resident?

If you compare the new urban centre and its buildings to old ones, do you think the new ones are better than the old ones?

Have the changes to the urban centres made it easier for your work or for your livelihood?

Do you think that in their designs, international firms allow for Saudi, Arabian, and/or Islamic cultural elements such as social contact with neighbours, hierarchy of privacy and mosques?

Table 9-3: Questionnaire Structure

<table>
<thead>
<tr>
<th>Questionnaire sections</th>
<th>Type of questions</th>
<th>No. of questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 1: Demographic Information</td>
<td>This section captured the respondent’s profile (Location, Gender, Profession, Education, and Affiliation etc.) and professional position/role within the selected case studies.</td>
<td>12</td>
</tr>
</tbody>
</table>

Section 2: Urban development

This section inquired about the respondent’s general perception about the growing urban developments in the KSA and how it may have affected him/her.

Section 3: Sustainable urban development

This section asked questions about how the notion of urban sustainability in general and the respondent’s opinion about sustainable urban developments.
Section 4: Sustainability in the KSA
This section focused on how sustainability is being introduced and adopted in the urban developments in the KSA.

Section 5: Internationalisation
The questions in section 5 were focused on obtaining the respondent’s opinions about internationalisation, in general and its growing impact in the KSA.

Section 6: Influence of international firms in the KSA
This section asked the respondent how s/he felt about the involvement of international firms in the planning and development of urban centres in the KSA.

Section 7: Current planning codes and regulations
The last section captured the respondent’s views about the impact of internationalisation and sustainability on the existing planning codes and regulations in the KSA.
Preamble

This questionnaire has been devised to facilitate the process of obtaining personal and professional opinions from people working in urban planning in the Kingdom of Saudi Arabia and those who are affected by the government’s drive for new sustainable urban centres. The information obtained from the questionnaire survey is intended to be used in an academic research study entitled “The Internationalisation of Urban Planning Strategies for Sustainable Urban Centres in the Kingdom of Saudi Arabia: An Evaluation of their Impact on Urban Form”. The study is being conducted as part of the requirements for the degree of Doctor of Philosophy at the University of Manchester, UK. The questionnaire is anonymous, and all questionnaires will be destroyed/deleted from the researcher’s hard drive six months after the write up of the thesis.

SECTION ONE: DEMOGRAPHIC INFORMATION

1. Please indicate your official position at the time of the survey.
   - Designer; Engineer; City Planner; Government Officer; Developer;
   - Academic Other: Please indicate:

2. Please indicate the nature of the company for which you work.
   - Public entity; Private entity; Semi-public; Semi-private entity

3. Gender:
   - Male Female

4. Age:
   - 30 years and below 31-40 41-50 51 years and above

5. Educational qualifications:
   - Diploma and below Bachelor degree Master Doctorate
6. Please indicate where you received your schooling and achieved your educational qualifications. You may tick more than one box.

- Saudi Arabia  - Middle East and North Africa  - Europe  - USA or Canada  - Other (please indicate where):

7. Please indicate the range of years that best describes your work experience in the urban planning industry in general:

- No experience;  - 1–5 years;  - 6–10  - 11–15  - 16 years+

8. How many years have you worked in Riyadh/Dammam altogether?

- No experience;  - 1–5 years;  - 6–10  - 11–15  - 16 years+

9. a. Does your job involve making decisions that affect the real property development in your city?

- No;  - Yes;

   b. If your answer is “Yes”: Please explain how:

10. Does your job involve responding to the decisions that are necessary for real property development in KAFD, Riyadh/ CBD Dammam?

- No;  - Yes;

11. Are you involved in the new urban centre (KAFD, Riyadh/ CBD, Dammam)?

- No;  - Yes.

12. In your opinion, is your official position important to make a decision in the urban centre development in (KAFD, Riyadh/ CBD, Dammam)?

- No;  - Yes;  - Don't know;  - No comment

SECTION TWO: GENERAL INFORMATION ABOUT THE CITY DEVELOPMENT

13. What are the main changes that have taken place in your city (Riyadh/Dammam) in the last 15 years?

14. What do you think are the key factors that have determined the type of development within your city (Riyadh/Dammam)?

15. What are the current urban development projects in your city (Riyadh/Dammam)?
16. What is your opinion about these developments?

SECTION THREE: THE CONCEPT OF SUSTAINABLE URBAN DEVELOPMENT

17. How would you define a sustainable urban project?

18. How do you think the concept of sustainable urban projects can be applied in the context of Saudi Arabian cities?

19. In your opinion, are there any urban development projects that could be considered as sustainable urban projects in Saudi Arabia?

☐ No; ☐ Yes; ☐ Don’t know; ☐ No comment

b. If your answer is “Yes”, please list some of them and explain why they are sustainable:

20. In your opinion, what are the key drivers for sustainable urban projects in Saudi Arabia?

21. a. Are there any urban development projects that have been advertised by the media as sustainable projects in Saudi Arabia?

☐ No; ☐ Yes; ☐ Don’t know

b. If your answer is “Yes”, please list the main projects:

SECTION FOUR: SUSTAINABLE URBAN CENTRES IN THE KINGDOM OF SAUDI ARABIA

22. How do you personally feel about the new urban centre in your city (KAFD, Riyadh/CBD, Dammam)?
23. How sustainable do you think the new urban centre in your city (KAFD, Riyadh/CBD, Dammam) is? Why?

24. a. Are there any strategies that are being used in the KAFD, Riyadh/CBD, Dammam to address issues of sustainability?
   - No; ☐ Yes; ☐ Don't know; ☐ No comment
   b. If your answer is “Yes”, please explain the key strategies:

25. a. Do you think the current criteria for designing sustainable urban centres are actually appropriate to achieve sustainability?
   - No; ☐ Yes; ☐ Don’t know
   b. Please explain why:

26. How does the current development of the new urban centre in your city (KAFD, Riyadh/CBD, Dammam) affect you as a resident?

27. How does the current development of the new urban centre in your city (KAFD, Riyadh/CBD, Dammam) affect you as a worker?

28. a. Do you think Saudi Arabia needs sustainable urban centres?
   - No; ☐ Yes; ☐ Don’t know; ☐ No comment
   b. Please explain why:

29. a. Does the government of Saudi Arabia have regulations that can be used to develop a sustainable urban centre?
   - No; ☐ Yes; ☐ Don't know
   b. If your answer is “Yes”, please list them briefly:
   c. If your answer is “No”, which regulations should be introduced? :
SECTION FIVE: INTERNATIONALISATION OF URBAN PLANNING IN SAUDI ARABIA

30. What do you understand by the term ‘internationalisation of urban planning’?

31. In your opinion, why do the public and private sectors rely on international firms to design their projects in Saudi Arabia?

32. Who do you think is best placed to design sustainable urban centres in the context of Saudi Arabia? Why?

33. a. Do the designers and planners involved with KAFD, Riyadh/CBD, Dammam, adhere to any particular sustainability criteria?
   □ No; □ Yes; □ Don’t know

   b. If your answer is “Yes”, please list some of the criteria for sustainability of urban centres:

34. a. Do you think international firms deliver a more robust sustainable urban centre than local designers in Saudi Arabia?
   □ No; □ Yes; □ Don’t know

   b. State the reasons for your choice:

35. a. How would you rate the effect that international expertise is beginning to have on the design of sustainable urban centres (KAFD, Riyadh/ CBD, Dammam) in Saudi Arabia?
   □ Very negative; □ Negative; □ None; □ Positive; □ Very Positive

   b. Please explain why:

For Questions 36, 37 and 38 please indicate your level of agreement with the statements made.

36. a. International firms engaged to work on urban planning and design rely on their standards not local standards to perform their duties:
37. International firms respond to the local social and cultural context of Saudi Arabia e.g. Privacy, social identity and interaction between people.

38. a. The government of Saudi Arabia should use local designers and urban planners instead of international firms and planners.

39. In your opinion, what has been the impact so far of international firms on the urban form in Saudi Arabia?

40. In your opinion, what will be the long-term impact of international firms on the urban form in Saudi Arabia?

41. Please assess the level of influence that international firms are having on the following specific aspects of urban development in Saudi Arabia:

   a. Urban amenities that are in line with Saudi culture:

   b. Business facilities:

   c. Housing facilities:

   d. Urban planning codes:
42. In your opinion, do you think international firms bring any benefit to Saudi Arabia, and if so, what are they?

For Questions 43 and 44, please indicate your level of agreement with the statements made.

43. a. The influence of international firms on urban planning affects my work as an urban planner and designer.

- Strongly agree;
- Agree;
- Neither agree nor disagree;
- Disagree;
- Strongly disagree

b. Please explain how:

44. The influence of international firms is evident in the appearance of the buildings and infrastructure that now characterise urban centres in Saudi Arabia.

- Strongly agree;
- Agree;
- Neither agree nor Disagree;
- Disagree;
- Strongly disagree

45. a. Do you think the Saudi government needs to worry about the influence that international firms might have on urban form?

- No;
- Yes;
- Don't know

b. Please explain how:

SECTION SEVEN: THE IMPACT OF CURRENT PLANNING REGULATIONS

46. What are the recent major changes to the planning code and regulation?

47. Please describe the impact of international firms on urban regulations in Saudi Arabia

- Very strong;
- Fairly strong;
- Moderate;
- Weak;
- Very weak
48. a. Do you think the planning regulations and codes should be changed?

☐ No; ☐ Yes; ☐ Don’t know; ☐ No comment

b. If your answer is “Yes”, please explain why:

49. Do you think the recent changes in planning regulations (on height and density, for example) will deliver a sustainable urban centre in Riyadh/Dammam?

☐ No; ☐ Yes; ☐ Don’t know; ☐ No comment

50. Do you think the recent changes in planning strategies, regulations and codes in the new urban centre reflect what most Saudi Arabians perceive as the best design for the Kingdom’s modern cities?

☐ No; ☐ Yes; ☐ Don’t know; ☐ No Comment

51. Do you agree that planning regulations and codes should be imported from western cities?

☐ No; ☐ Yes; ☐ Don’t know; ☐ No comment

52. Please indicate where the planning codes/regulations have undergone the most change recently

☐ Heights ☐ Setback ☐ Density ☐ Floor Area Ratio (FAR)
☐ Land Use ☐ Lot Area ☐ Built up area ☐ Others :

53. In your opinion, will the density of 280 du/ha that have been used in CBD Dammam lead to the sustainability of the KAFD, Riyadh/CBD, Dammam?

☐ No; ☐ Yes; ☐ Don’t know; ☐ No comment

b. Please explain why:

54. In your opinion, will the high density lead to a sustainable urban centre?
52. a. Which type and quality of development among those below do you find most attractive and acceptable in the context of Saudi Arabia? You may tick all those that apply.

☐ ☐ ☐

☐ ☐ ☐

☐ ☐ ☐

b. Why do they appeal to you the most?
53. Please rank (where 1 is the most likely, and 9 is the least likely, to be successful) the following nine urban designs in terms of their success in sustainability terms.

Thank you for participating in the survey

PhD Student
## List of Interviewee

<table>
<thead>
<tr>
<th>Firm</th>
<th>Position</th>
<th>Interview Code</th>
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<tr>
<td>Riyadh Investment Company (RIC), being a wholly-owned subsidiary of the Saudi Public Pension Agency (PPA). KAFD in Riyadh</td>
<td>Director Projects</td>
<td>Interview 1</td>
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<tr>
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<td>Investment Director</td>
<td>Interview 3</td>
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<td>Estates Director</td>
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<td>Interviewee 69</td>
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<td>General Organization for Social Insurance (GOSI)</td>
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<td>Somu Real Estate Company – Dammam</td>
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<td>Interview 2</td>
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<td>Aloula Real Estate Company – CEO (CBD Dammam (office based))</td>
<td>CEO</td>
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<td>Commercial Director</td>
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<td>Aloula Real Estate Company – CEO (CBD Dammam(field based))</td>
<td>Planner</td>
<td>Interviewee18</td>
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<td>planner</td>
<td>Interviewee 24</td>
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<td>Bin Laden Company (construction company who build KAFD)</td>
<td>Project Director</td>
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<td>General Manager</td>
<td>Interviewee 11</td>
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<td>HOK &amp; Omranion (They Designed Capital Market Authority [the tallest building in KAFD]</td>
<td>Principal Architect</td>
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<td>Architect</td>
<td>Interviewee 15</td>
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<td>Saudi Binladin Group (SBG) - Public Building and Airport Division (PBAD) - LEED® AP BD+C - LEED In-Charge )</td>
<td>LEED designer</td>
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<td>LEED inspector</td>
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<td>DPZ, CBD Dammam (Smart Code USA)</td>
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<td>Interviewee 9</td>
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<td>Code Specialist</td>
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<td>Riyadh Academics</td>
<td>Specialist on planning codes (KAFD)</td>
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<td>Project Engineer</td>
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<td>Dammam International Firm HLA</td>
<td>Director planning</td>
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<tr>
<td>Dammam International Firm HLA</td>
<td>Director design</td>
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<td>Dammam General Director of the Department of Urban Planning-Dammam Municipality</td>
<td>General Director</td>
<td>Interviewee 38</td>
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<td>Dammam General Director of the Department of Urban Planning-Dammam Municipality</td>
<td>Planning Manager</td>
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<tr>
<td>Dammam Director of Mega Projects in Eastern Province (Municipality of Dammam)</td>
<td>Director a province</td>
<td>Interviewee 40</td>
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<td>Dammam Director of Mega Projects in Eastern Province (Municipality of Dammam)</td>
<td>Assistant Director at Province</td>
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<td>Dammam Ministry of Municipalities and rural affairs (Planning Department – future study)</td>
<td>Chief Planner</td>
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<td>SmartCodesPlaner</td>
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<td>Dammam HCDR (Planning Department) (Riyadh)</td>
<td>Director Planning</td>
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<td>Shop Keepers and buildings Owners Dammam CBD</td>
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