Resource Curse Reduction through Innovation - A Blessing for All - The Case of Kuwait

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By

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I dedicate this book in memory of my father
Sheikh Jaber Al Ahmad Al Jaber Al Sabah
who firmly established in me a sense of moral and ethical thinking,
to my mother who gave me the love of life,
to my wife, brothers and sisters who gave me a life of love,
and to my beloved country The State of Kuwait.

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SUMMARY

The strategic issues surrounding the governance of oil resources and its implication for the growth and development of Kuwait through innovation are considered in this study – Resource Curse Reduction through Innovation. Within the large and growing body of work in this area a negative relationship between resource abundance and poor economic performance has often been empirically established. Many of the third world countries are richly endowed with significant natural resources. A plethora of research findings shows that these countries are scoring lower on human development, they exhibit pervasive corruption, display conflicts and a large percentage of their population live in dire poverty. Moreover, an enormous amount of their gross domestic income is spent on defence spending and manifests an autocratic form of governance. For the most part this evidence appears to support the "resource curse" hypothesis. The question that arises is whether there is any prospect of the "resource curse" being converted into a "blessing". This study examines the role of innovation in this context as Kuwait considers moving away from its dependence on its natural resources which sustain the economy. Since, innovation is considered a result of numerous interactions between key organizations and groups in the economy including institutions of learning, government, firms and other organizations which together form an innovation system, it may be opportune to consider the reductive role of innovation related to the resource curse.

There are many unique cultural issues that confront Kuwait, and make it a fundamentally different case from other countries endowed with natural resources. The culture of governance in Gulf countries, and the norms and values within each individual Gulf country, become key determinants of innovation that impact on the various economic, political and social phenomena. By reviewing the extensive literature in both the field of the resource curse and innovation and collecting primary data, this study offers an overview of the challenges of promoting and supporting innovation in Kuwait, and the effectiveness of dissemination of innovative practices throughout the various economic sectors.

Numerous studies have considered whether a country's natural resources are a curse or a blessing. Emerging findings appear to suggest that at times, resource-based economic growth models have indeed

inhibited growth rates. Development economics also presents numeric data to substantiate the view that the gifts of nature are non-renewable and cannot be replenished. The hypothesis that natural resources of a country might be more of an economic curse than a blessing needs to be tested at different stages of economic growth of a country. The rate at which natural resources are exploited has often been cause for concern. From an economic perspective, Kuwait should inevitably switch from dependence upon natural resources to the development of sectors based on knowledge, skills, capital and technology. A defining characteristic of many resource-rich countries is the discrepancy between the interest of the stewards of the resources and the owners of the resources. At times those in political office (the stewards) appear to work extremely hard to ensure that the rest of the population (the owners) receive little benefit from the resources with which their countries have been abundantly endowed, and so the governance of natural resources merits further research. The study shows that income accruing as a result of the discovery of oil in Kuwait rapidly changed Kuwait's economic priorities, bringing new opportunities and at the same time new challenges. The findings of the research highlight many important issues relating to innovation and the depletion of non-renewable resources indicating to what extent certain sectors of the economy are innovative. One of the unique challenges facing Kuwait is what collective action is necessary to safeguard time honoured traditions that combine economic prosperity with solidarity. Today Kuwait is in need of new commitments on the part of its citizens and decisive actions in political leadership. Instead of maintaining structures and organizations that have shown themselves unable to deal with the challenges that face Kuwait, Kuwait must be ready to support structural changes. This in particular requires a prioritisation of resources towards education, research and development. Kuwait can only become comprehensively innovative if all sectors support the development of innovative products and services. Strategic issues entailing innovation require the involvement of all parties. These include businesses, the public sector, producers and consumers. A wide-ranging partnership for innovation is necessary, particularly when a country’s resources are in question. To establish an optimal framework and develop potential for innovation, the prospect of an innovation-friendly market must be widely accepted and a national innovation system where the flows of technology and information among people, enterprises, and institutions that are the key to the innovation process at the national level are required.

In light of these issues this book recommends the reduction of a resource curse through targeted innovation initiatives. The exploitation of

natural assets is a matter of grave concern. Exploration and exploitation are costly and risky exercises in terms of growth and profitability. Kuwait needs to cultivate a culture that fosters creative ideas associated with, among others, safety and security of its natural and human resources, morality, employment and health within the context of an increasingly global environment. A lack of a shared vision, purpose and strategy reduces the vital role that innovation can play. Investment in innovation is therefore critical and Kuwait needs to reinvent itself economically, politically, socially, ethically and morally in this regard. Failure to achieve this would result in Kuwaiti governments failing to fulfill its mandate, and thereby reducing the return to private effort and dampening private initiatives.

CHAPTER ONE

INTRODUCTION AND OVERVIEW OF THE STUDY

"The jar of meal will not be emptied and the jug of oil will not fail"
(*The Prophet's Psalm*)

1.1 Introduction

This book considers the strategic issues surrounding the governance of oil resources and its implication for the growth and development of Kuwait through innovation. Within the large and growing body of empirical work in this area a negative relationship between resource abundance and poor economic performance has often been empirically established. For the most part this evidence appears to support the "resource curse" hypothesis. The question that arises is whether there is any prospect of the "resource curse" being converted into a "blessing". This book places innovation into context within the confines of the natural resource that sustains the Kuwaiti economy. There are many unique issues that confront Kuwait, and make it a fundamentally different case from other countries endowed with natural resources. The culture of governance in Gulf countries, and the norms and values within each individual Gulf country, become key determinants of innovation that impact on the various economic phenomena. By reviewing the extensive literature in both the field of the resource curse and innovation and collecting primary data, this book offers an overview of the challenges of promoting and supporting innovation in Kuwait, and the effectiveness of dissemination of innovative practices throughout the various economic sectors.

1.2 Purpose of this study - innovation in the "blessing-curse" context

Research by Auty and Mikesell (1998) on sustainable development in mineral economies focuses on the determinants of innovation. Several

authors, among whom one could include Freeman (1982), Porter (1990), Lundvall (1992) and Nelson (1993) describe the link between innovation and competitive economic outcomes and their results have been widely adopted in the policy research domain. However, the necessary preconditions in formulating and implementing its strategic framework as a curse reductive for oil rich countries has still to be explored, particularly in oil rich Gulf countries. This view is taken on board by Van der Panne and Van Beers (2006) who ask, what favours regional innovation? Economies are inextricably linked to the type of governance and political policies that states have endured over time, with Collier and Hoeffler (2000) eloquently addressing these issues in terms of greed and governance. Wilson (2010:5) in his seminal work – "is it possible to build sustainable innovation capacity in oil rich Gulf Countries" – presents a pessimistic picture and suggests that there is very little scope currently for Gulf States to become more internationally competitive with respect to innovation and knowledge fundamentals.

Any contribution to knowledge must be interdisciplinary, taking into consideration the politics of the region, socio-economic issues, history, and the nature of business conducted on the part of the private and the public sector. Failure to address the issues from an interdisciplinary perspective may result in stakeholders being antagonized and the consequences could be disastrous. Furthermore, an interdisciplinary approach ensures a process of solving broad and complex problems adequately since most significant issues have multiple causes and effects. A range of perspectives should ideally be considered providing a more comprehensive understanding of issues and challenges. The thought that innovation is vital for socio-economic growth and human development was long recognized by Adam Smith and even Karl Marx. As much as the global socio-economic and political environments are in a state of dynamic change, these have a major impact on economies. Economies are in different stages of economic growth. Through oil revenues Kuwait has achieved a status of high mass consumption and at the same time, has faltered in terms of innovation.

Within the context of innovation, countries must nevertheless equate the changes that are taking place in the external environment with time-honoured traditions in order to maintain a certain sense of cohesiveness (Afsaruddin, 2002). Success for any country comes from adopting appropriate changes. Any change that is effectively and consistently managed, presents the country with opportunities for sustained growth and ultimately human and social development. To address the challenges and opportunities presented by today's complex, and often unpredictable

markets, an organisation must be able to combine resources in novel ways, dispose of or reconfigure resources that are no longer relevant and acquire new resources. An organisation's ability to manipulate resources continuously and rapidly becomes a competitive capability that is not easily imitated by competitors. This capability to innovate is critical to an organisation's viability since it enables the development and introduction of new products and services. It thus enables an organisation to maintain, or improve its current market position.

Acknowledging that innovation in any economy requires a thorough understanding of its social fabric, geographical environment and political economy, an examination of the potential resultant changes accruing to an economy needs to be considered within a curse-blessing context. Kuwait's blessing, in the form of oil, is placed in the context of the study and can underpin the transformation of Kuwait from a welfare economy to one where free market innovations prevail, resulting in sustained growth and development, with its oil revenues becoming the driver of innovation. The "curses" are in the form of a dependence syndrome that was created as a result of previous forms of governance that pre-date the discovery of oil. Generation upon generation of Kuwaitis have benefitted from the wealth in numerous ways. The lump-sum government hand-outs in the form of donation to the nation, and free medical care abroad and many social and philanthropic gestures by the government are primary causes of concerns since many of these are not sustainable. Innovation initiatives in Kuwait open a new chapter in the conflict over time-honoured traditions and modernity. A haphazard approach in using innovation as a curse reduction tool may have disastrous consequences. Embracing an all-encompassing concept of innovation, this study considers innovation as an idea, as theory and rhetoric, and as a political and socio-economic practice, sustaining an economy and at the same time improving productivity. Moreover, this study places innovation in Kuwait as a policy driven movement, and as a process that shows every sign of reconstituting major institutional sectors of contemporary society. The implementation of innovation becomes a critical component within this definition. In ultra-conservative societies the inertia for change comes from certain policy initiatives created by the government. A mandate by the government to change its *modus operandi* is indeed an impetus for change. An innovative solution by the government in the form of policies and procedures for migration to innovation is the start of change in a mindset towards innovation. In this regard four major institutions have been established by the government to ensure that there is diffusion of innovation in terms of a comprehensive policy and procedure. The

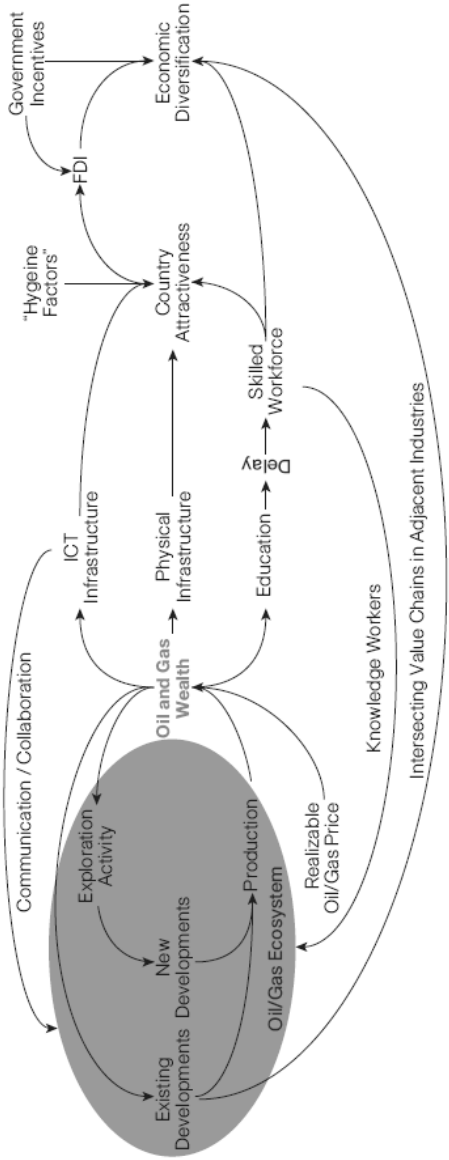
institution includes: Kuwait Foundation of Advancement of Science, Kuwait Institute of Scientific Research, Kuwait Investment Authority and the Arab Development Fund. These institutions are considered in greater detail in Chapter Three.

As a result innovation has become a central feature of economic policy in Kuwait and indeed in a variety of economies in the Arab world. Governments worldwide are looking to innovation as a possible solution to their political needs. Innovation in Kuwait should therefore be seen as a process of embracing efficient and competitive initiatives. Effective programmes of innovation in the economy involve many elements, both macro and micro in character. These programmes include the introduction of new goods and new methods of production, the opening of new markets and the sourcing of new material, as well as managing and restructuring enterprises, establishing an appropriate business environment, building financial intermediaries and promoting competitive market conditions. This all-encompassing definition helps to avoid ambiguity and facilitates comprehensive analysis of the issue in all its aspects.

An investment in innovation is an investment in security. The spread of democracy continues throughout the world. Spectacular innovation is affecting the technology of production and the organization of firms as well triggering social and cultural changes. A widely accepted hypothesis is that people are motivated by a hierarchy of needs. Safety and security of the body, morality, employment, health and resources is the second level of human needs identified by Maslow. Satisfaction associated with these issues is said to lead to a sense of belongingness and love and finally to other higher order of needs. An investment in security becomes critical when one considers the broadened view of security in relation to countries endowed with rich natural resources. Since the gifts of nature are not renewable and cannot be replenished, Kuwait needs to align itself to economic, political, social, and ethical strategies that enhance sustainable socio-economic and political development. Insecurity in its broadest definition reduces the return to private effort and destroys private initiatives.

The accompanying Figure 1.1 shows the diffusion of innovation in terms of a wider definition of security that should ideally encompass: the improvement of social relations; the fostering of economic growth, financial development and independence; reducing political, social and financial volatility; fostering employment growth; promoting a sustainable environment; restructuring social security systems; delivering food security, ensuring fiscal discipline; and embracing trade agreements. Education plays a pivotal role in the pursuit of creating this awareness.

Figure 1.1 Diffusion of Innovation – a broadened view



Source: The Natural Wealth of Nations: Transformation of Oil and Gas Producing Economies, Cisco Internet Business Solutions Group (IBSG) (Wood, 2007).

A wider definition of innovation should ideally encompass: the improvement of social relations, the fostering of economic growth, financial development and independence; reducing political, social and financial volatility; fostering employment growth; fostering sustainable environment; restructuring social security; re-focus on food security, ensuring fiscal discipline; and re-energizing trade agreements. An investment in all forms of governance of innovation plays a pivotal role in the pursuit of country attractiveness.

Oil and gas-based economies have an opportunity to use the wealth derived from mineral assets to create societies capable of sustaining growth and diversity, with infrastructure and education taking priority, as illustrated in the figure. Infrastructure will provide the platform for linkages across the oil and gas community, fostering creativity and innovation. Education will help to create an environment where innovation can take place, and will also provide the labor pool so desperately needed by an industry whose specialized knowledge and talent are currently dwindling instead of growing. By creating an ICT infrastructure, educational and research institutions become connected to community and industry. Connected cities become part of the network, providing access to data and enabling collaboration and cooperation among communities, companies, institutions, and government. When the workforce becomes connected, even while mobile or in remote locations, and manufacturing and production are tightly tied to business analysis and decision making, the benefits become tangible and quantifiable.

The purpose of this study is therefore to consider the reductive role of innovation in combating a resource curse situation within Kuwait.

1.3 Defining Innovation within the context of this study

Innovation is one of those words that suddenly seem to be all around us. Firms care about their ability to innovate, on which their future allegedly depends (Christensen and Raynor, 2003), and many management consultants are busy persuading companies about how they can help them improve their innovation performance. Politicians care about innovation too, how to design policies that stimulate innovation has become a hot topic at various levels of government. The European Commission, for instance, has made innovation policy a central element in its attempt to invigorate the European economy (see Chapter 2). A large literature has emerged, particularly in recent years, on various aspect of innovation and many new research units focusing on innovation have been formed (Fagerberg and Verspagen, 2009).

Innovation is the management of all the activities involved in the process of idea generation, technology development, manufacturing and marketing of a new or improved product. There is a distinction between an innovation and a product. Product is an output of innovation. This is consistent with what Drucker (1992) posits: "…. In a knowledge economy knowledge is a product, in a knowledge-based economy, knowledge is a tool". Today, the idea of innovation is widely accepted. It has become part of our culture – so much so that it verges on becoming a cliché. But even though the term is now embedded in our language, to what extent do we fully understand the concept? Moreover, to what extent is this understanding shared? A scientist's view of innovation may be very different from that of an accountant in the same organisation.

A brief analysis of economic history, especially in the United Kingdom, will show that industrial technological innovation has led to substantial economic benefits for the innovating *company* and the innovating *country*. Indeed, the industrial revolution of the nineteenth century was fuelled by technological innovations (*see* Table 1.1).

Table 1.1 Nineteenth-century economic development fuelled by technological innovation

Innovation	Innovator	Date
Steam engine	James Watt	1770–80
Iron boat	Isambard Kingdom Brunel	1820–45
Locomotive	George Stephenson	1829
Electromagnetic induction dynamo	Michael Faraday	1830–40
Electric-light bulb	Thomas Edison and Joseph Swan	1879–90

Technological innovations have also been an important component in the progress of human societies. Anyone who has visited the towns of Bath, Leamington and Colchester will be very aware of how the Romans contributed to the advancement of human societies. The introduction over 2,000 years ago of sewers, roads and elementary heating systems is credited to these early invaders of Britain.

Innovation has long been argued to be the engine of growth. It is important to note that it can also provide growth almost regardless of the condition of the larger economy. Innovation has been a topic for discussion and debate for hundreds of years. Nineteenth-century economic historians observed that the acceleration in economic growth was the result of technological progress. However, little effort was directed towards

understanding *how* changes in technology contributed to this growth. Schumpeter (1934, 1939, 1942) was among the first economists to emphasise the importance of *new products* as stimuli to economic growth. He argued that the competition posed by new products was far more important than marginal changes in the *prices* of existing products. For example, economies are more likely to experience growth due to the development of products such as new computer software or new pharmaceutical drugs than to reductions in prices of existing products such as telephones or motor cars. Indeed, early observations suggested that economic development does not occur in any regular manner, but seemed to occur in 'bursts' or waves of activity, thereby indicating the important influence of external factors on economic development.

This macro view of innovation as cyclical can be traced back to the mid-nineteenth century. It was Marx who first suggested that innovations could be associated with waves of economic growth. Since then others such as Schumpeter (1934, 1939), Kondratieff (1935/51), and Abernathy and Utterback (1978) have argued the long-wave theory of innovation. Kondratieff was unfortunately imprisoned by Stalin for his views on economic growth theories, because they conflicted with those of Marx. Marx suggested that capitalist economies would eventually decline, whereas Kondratieff argued that they would experience waves of growth and decline. Abernathy and Utterback (1978) contended that at the birth of any industrial sector there is radical product innovation which is then followed by radical innovation in production processes, followed, in turn, by widespread incremental innovation. This view was once popular and seemed to reflect the life cycles of many industries. It has, however, failed to offer any understanding of *how* to achieve innovative success.

After the Second World War economists began to take an even greater interest in the causes of economic growth (Harrod, 1949; Domar, 1946). One of the most important influences on innovation seemed to be industrial research and development. After all, during the war, military research and development (R&D) had produced significant technological advances and innovations, including radar, aerospace and new weapons. A period of rapid growth in expenditure by countries on R&D was to follow, exemplified by US President Kennedy's 1960 speech outlining his vision of getting a man on the moon before the end of the decade. But economists soon found that there was no *direct* correlation between R&D spending and national rates of economic growth. It was clear that the linkages were more complex than first thought.

There was a need to understand *how* science and technology affected the economic system. The neo-classical economics approach had not

offered any explanations. A series of studies of innovation were undertaken in the 1950s which concentrated on the internal characteristics of the innovation process within the economy. A feature of these studies was that they adopted a cross-discipline approach, incorporating economics, organisational behaviour and business and management. The studies looked at:

- the generation of new knowledge;
- the application of this knowledge in the development of products and processes;
- the commercial exploitation of these products and services in terms of financial income generation.

In particular, these studies revealed that firms behaved differently (*see* Simon, 1957; Woodward, 1965; Carter and Williams, 1959). This led to the development of a new theoretical framework that attempted to understand how firms managed the above, and why some firms appeared to be more successful than others. Later studies in the 1960s were to confirm these initial findings and uncover significant differences in organisational characteristics (Myers and Marquis, 1969; Burns and Stalker, 1961; Cyert and March, 1963). Hence, the new framework placed more emphasis on the firm and its internal activities than had previously been the case. The firm and how it used its resources was now seen as the key influence on innovation.

Neo-classical economics is a theory of economic growth that explains how savings, investments and growth respond to population growth and technological change. The rate of technological change influences the rate of economic growth, but economic growth does not influence technological change. Rather, technological change is determined by chance. Thus population growth and technological change are exogenous. Also, neo-classical economic theory tends to concentrate on industry or economy-wide performance. It tends to ignore differences among firms in the same line of business. Any differences are assumed to reflect differences in the market environments that the organisations face. That is, differences are not achieved through choice but reflect differences in the situations in which firms operate. In contrast, research within business management and strategy focuses on these differences and the decisions that have led to them. Furthermore, the activities that take place within the firm that enable one firm seemingly to perform better than another, given the same economic and market conditions, has been the focus of much research effort since the 1960s.

The Schumpeterian view sees firms as different – it is the way a firm manages its resources over time and develops capabilities that influences its innovation performance. The varying emphasis placed by different disciplines on explaining how innovation occurs is brought together in the framework in Figure 1.1. This overview of the innovation process includes an economic perspective, a business management strategy perspective and organisational behaviour which attempts to look at the internal activities. It also recognises that firms form relationships with other firms and trade, compete and cooperate with each other. It further recognises that the activities of individuals within the firm also affect the process of innovation. While there are many arguments and debates in virtually all fields of management, it seems that this is particularly the case in innovation management. Very often these centre on semantics. This is especially so when innovation is viewed as a single event. When viewed as a *process*, however, the differences are less substantive.

The collection of quantitative data of a study of this nature immediately requires an explicit definition of fundamental terms. Innovation is one such term in this study and "resource curse" is another. Bakken (2002) identifies innovation as a fuzzy concept that evokes sharp political reactions. According to Schumpeter "radical" innovations shape big changes in the world, whereas "incremental" innovations fill in the process of change continuously. The term innovation certainly covers a vast range of ideas and policies relating to change. This may include privatization which Star (1988:1) considers may vary from the "eminently reasonable to the wildly impractical". Varied, and at times unclear in its meaning, innovation has unambiguous political origins and objectives too.Innovation goes far beyond research and development. The impact of innovation extends beyond the confines of research laboratories to users, suppliers and consumers. Governments, private businesses, non-profit organizations and other institutions are beneficiaries of innovation or innovators themselves. According to the Oslo Manual of 2005 which is the foremost international source of guidelines for the collection and use of data on innovation activities across the OECD countries (Organisation for Economic Co-operation and Development) contend that the ability to determine the extent of innovation initiatives and the characteristics of innovators are prerequisites for the pursuit and analysis of policies aimed at fostering innovation. The Manual investigates the field of non-technological innovation and the linkages between different innovation types. Furthermore, it includes an annexure on the implementation of innovation surveys in developing countries.Innovation is at the heart of economic change. Schumpeter proposed a list of various types of

innovations. These include: introduction of a new product or a qualitative change in an existing product; process innovation new to an industry; the opening of a new market; development of new sources of supply for raw materials or other inputs; and changes in industrial organisation.

The first issue related to innovation is product innovation. This involves a good or service that is new or significantly improved which may include significant improvements in technical specifications, components and materials, software in the product, user friendliness or other functional characteristics. The second refers to process innovation and relates to new or significantly improved production or delivery methods. Marketing innovation, the third form of innovation includes significant changes in product design or packaging, product placement, product promotion or pricing and finally, organisational innovation relates to a new organisational method in business practices, workplace organisation or external relations.

The characteristics of innovation suggest that innovation is the result of numerous interactions between key organizations and groups in the economy including universities, government, firms and other institutions, which together form an innovation system (Wilson, 2010). Wilson (2010) goes on to add that innovation does not take place within a vacuum and that there is an interaction between numerous stakeholders. According to Yam et. al. (2011) a national innovation system consists of flows and relations which exist among industry, government and educational institutions in the development of science and technology. Moreover, they consider Technological innovation as a learning process that results in enhancement of the knowledge and skills firms need to choose, install, operate, maintain, adapt, improve, and develop their technology requirements. Yam et. al. (2011) add that in a world of increasing competition and technological change, the generation and diffusion of innovations increasingly rely on new technological knowledge generated not only through internal research and development department, but also by the firm's interaction with external sources of innovation, particularly in the region in which the firm operates.

1.4 Innovation and the resource curse hypothesis

It is widely acknowledged that revenues resulting from natural resources should generate wealth for an economy, promote economic progress, and increase the wellbeing of each citizen. The logic behind this assertion can be based upon simple common sense, which suggests that while money cannot buy happiness, it is a good "down payment". A large windfall of

revenues accruing to an economy from an abundance of natural resources ought to place that economy in pole position economically compared with others. While not a central concern of this study, the question as to whether resource-rich countries have experienced a worse performance (in terms of economic progress and poverty reduction) than countries without such apparent "benefits" is an important issue. However, this study concentrates on understanding innovation as a strategy that converts the blessings into a common good for all. Much of this conversion process relies upon configuring governance structures that make innovation possible. The "Resource Curse" phenomenon is not an immutable law, but the study considers it a strong recurrent tendency.

Berkhout et al. (2006), in their seminal work, identify the changes that are taking place in the so-called *innovation economy*, in which - besides capital, labour and knowledge - creativity is identified as the fourth principal factor of production. The authors go on to describe the activities in an innovation economy as creative enterprise with knowledge. Creativity is an important aspect of human endeavour, particularly in distressing economic times. The assumption of the study is that together with creativity, innovation creates added value. This may be central to converting curse effects into blessings. Whether innovation is an imperative for the survival of economies endowed with natural resources and whether it is a solution to the political, social and economic woes of Kuwait are considered in this study.

For much of the contemporary period the Kuwaiti economic system entailed the provision of free housing and other welfare services to Kuwaiti nationals. Security in the form of jobs in the public sector is a privilege that is accorded to Kuwaitis and the private sector is not in a position to offer the same salaries. This has created a dependence syndrome resulting in a "financial duty" and the state's obligation to fulfill this dependence syndrome. This is becoming untenable as a result of the increasing population and the fact that Kuwait's fiscal revenues remain limited to the revenues generated by oil. Between 1990 and 2009 the Arab Planning Institute shows that the population increased by 2.44%. Many of the stateless community are being incorporated in the State of Kuwait. In this regard the Arab Planning Institute suggests that the continued welfare system will become unsustainable. Oil price fluctuations make government revenues unstable and therefore this study considers whether innovation can help combat the adverse effects of this violability.

On a no-change scenario, the future of this country will be uncertain, possibly bleak. The population is set to more than double by 2035. Four-fifths of Kuwaiti citizens are employed in the public sector. Oil reserves

are large, but will decline over time. Kuwait has now reached a stage where its entrepreneurs feel so constrained that they look abroad, and not at home, for opportunities, (Rt. Hon. Tony Blair, 2010).

It is widely believed that Innovation serves as an effective economic mechanism for achieving greater efficiency, strengthening the role of the private sector, improving the public sector financial health, and freeing up resources for allocation to other important areas of government. Kuwait, like many countries around the world, has already taken these views into account and started revitalizing its public enterprises.

1.5 Systematic approach

The process of resource-curse reduction (or resource-blessing enhancement) through innovation requires a methodological approach. Key decision makers must base their decisions on both their goals associated with curse reduction and the respective socioeconomic and institutional environment which determines the strategies adopted. In this regard, it was essential that individual interviews or focus group discussions with key stakeholders be held.

Individual interviews or focus group discussion is a research technique that collects data through interaction with the interviewer on a specific topic. These interviews were particularly useful as empirical evidence and resources relating to curse-blessing effects in Kuwait are limited. In the study, the individual interview method was firstly used to gain an in-depth understanding of key stakeholders' perceptions relating to Kuwait's oil production and its implications for innovation. Secondly, the interview identified the challenges that face the economy. This assisted in formulating the hypothesis for the study, and helped develop a questionnaire that reflects the sentiments of key stakeholders from the private and public sectors.

The findings of the preliminary study provided insights on:

- The extent to which resource abundance (in the form of oil) shaped the Kuwaiti Economy;
- Whether Kuwait uses its natural resources in effective ways;
- Perceived weaknesses of an oil dependent State;
- Options to reduce oil dependency in Kuwait;
- Thoughts of stakeholders regarding the Kuwait Investment Authority's policies and roles;
- Whether privatization should be an option;
- Kuwait's potential for innovation; and

- Factors associated with a well-diversified and technologically advanced economy.

1.6 Chapter outline

This initial chapter presents an overview of the study, placing it into perspective and introducing its purpose. Since innovation is considered a key determinant in the reduction of curse-effects, the chapter identifies the objectives of the study and briefly introduces the methodological approach used.

Chapter Two is a comprehensive literature survey which focuses on the resource curse. This chapter considers the findings of recent studies which have examined the issue of whether a country's natural resources are a curse or a blessing and considers the emerging findings that appear to suggest that, at times, resource abundance has indeed inhibited growth rates. The hypothesis that natural resources of a country might be more of an economic curse than a blessing is a cause for concern. From an economic perspective, economies endowed with rich natural resources should inevitably switch from dependence upon natural resources to the development of sectors based on knowledge, skills, capital and technology. The chapter also considers whether a boom in resource revenues can lead to an enduring competitiveness.

Chapter Three places Kuwait in context within a political and economic framework and considers the institutional framework expected to convert valuable natural resources into enhanced standards of living for Kuwaiti citizens. The unique issues that confront Kuwait, and make it a fundamentally different case from other countries endowed with natural resources are addressed in this chapter. The culture of governance, and the norms and values within Kuwait become key determinants of innovation. A review of the institutional environment thus offers an overview of the challenges of promoting and supporting innovation in Kuwait.

Chapter Four, surveys resource curse reduction through innovation. Income accruing as a result of the discovery of oil in Kuwait rapidly changed Kuwait's economic priorities, bringing new opportunities and at the same time new challenges. The chapter highlights that the government of Kuwait is concerned about many important issues relating to the depletion of non-renewable resources. It identifies the unique challenges facing Kuwait and considers what collective action is necessary to safeguard time honoured traditions that combine economic prosperity with solidarity. This chapter proposes a framework that is favourable to innovation. The prospect of an innovation-friendly market is also considered.