Macro-environment Influences on Health Service Strategy in Saudi Private Sector Hospitals: An Empirical Investigation

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Abstract

The rapid changes in the Saudi private sector hospital environment have exerted significant pressures on the hospitals to pay attention to marketing strategies in general and health service strategy in particular. Therefore this research investigates the influence macro environment factors have on the health service strategy made by the hospital managers. This study proposes and tests a four factor macro environment model that explains the considerable variation in health service strategy in the hospitals. These factors include political/legal (P), economic (E), social/cultural (S), and technology (T). In order to explore this issue, a triangulation method was used to collect primary data through a questionnaire, which was administered in the private sector hospitals in the Western Region in Kingdom of Saudi Arabia (KSA) and, via in-depth semi- structured interviews with hospital managers and experts in the health services in KSA. All Saudi general private sector hospitals in Western Region were targeted in this research rather than a representative sample of these hospitals. A purposive sampling strategy was used to choose the participants in this research. In total, 120 senior managers (including general managers, administrative managers, medical managers, public relation managers, nursing manager, and out patients clinic managers) participated in this study. The results confirm significant differences in the influence of macro environment factors on health service strategy. Furthermore, the results show that the hospitals might benefit further by placing more emphasis on an integrated health service strategy and recognising the macro environment influences on their hospitals. The results also highlight several implications for future research in health services marketing and fill in several gaps in the existing literature on health services marketing.

Keywords: Macro environment, Health service strategy, KSA

1. Introduction

The new environment reality affecting the operation and performance of organizations is being characterized by continuous and often unpredictable change. As a result, many calls have been voiced for organizations to build the ability to respond and adapt to changing and uncertain environmental conditions, in order to sustain their competitive situation (Cardwell & Bolon, 1996; Godiwalla et al., 1997; Chung, 2008; Aapo & Tomas, 2008).

Macro environment has been the subject of considerable research in both business and marketing literature recently. Furthermore, it became an area of primary concern to all organizations, depending critically on a subtle understanding and analysis of both the industry within which the hospital will compete, and the competitors working in same arena.

Studying macro environment factors is an important issue in terms of the increased pressure placed upon hospitals and the competition that exists between hospitals.

Any attempt at conceptualizing the term “macro environment” should, at some stage, involve an attempt to answer certain questions, such as:

- What is the meaning of macro environment in hospital industry?
- What are the main factors of macro environment? And how do they influence health organizations?

Godiwalla et al. (1997) noted that the senior management team’s perception of organisational environments significantly affects the strategic choices they make. If their perception of the environment is favourable and filled with opportunities, then the organisations strategic postures would be aggressive and externally-oriented.

Alternatively, if they perceive the environment to be fraught with danger then the organisation would be most defensive in its strategic posture.

Since the patient and his or her accompanying persons are the beneficiaries in any hospital from a marketing standpoint they are to be considered consumers who have many needs and demands, which have increased with the heightened awareness among Saudi people of modern health care. This trend can be identified through study and analysis. In other words, marketing activities in the health sector require extensive studies be conducted as well as hiring effective marketing expertise and staff to satisfy the needs and wants of the target market, while also achieving management and organisational goals. To accomplish this, health care service providers and marketing decisions makers must adapt their strategies and modify their services according to the macro environment in which they grow up and survive.

In order to improve ways of handling marketing problems the private sector hospital management should be analysing marketing activities more effectively by shedding light on the surrounding environmental conditions, and updating knowledge about both current and future marketing decisions in their hospitals. This may be achieved by considering marketing as being a sub-system operating in the larger system which is the surrounding environment (Abu-Nokta, 2000).

The purpose of this study is to identify the influences of macro environment on the health service strategy in Saudi private sector hospitals. The study focuses on the investigation of macro environment factors influences health service strategy in Saudi private sector hospitals. Findings of this research are useful for the health sector in formulating appropriate strategies to build adaptation of macro environment by hospital's managers to formulate successful health service strategy.

2. Literature Review

2.1 Macro Environment

Strategic management views the environment as an important contextual factor that has a strong impact on a firm's strategic direction (Hamel & Prahalad, 1994; Chaharbaghi & Nugent, 1994). Strategy literature supports the view that both owners and top managers need to deal with the impact of the environment (Chaganti & Damanpour, 1991; Hamel & Prahalad, 1994; Hough & White, 2004; Chung, 2008; Aapo & Tomas, 2008). The information uncertainty perspective (Chaharbaghi & Nugent, 1994, 1996; Hough & White, 2004; Chung, 2008; Aapo & Tomas, 2008) maintains that greater environmental dynamism will lead to greater environmental uncertainty and increased difficulty in decision-making (Sanders & Ritzman, 2004). Bourgeois (1985) and Lumpkin and Dess (1995) argue that organisations that are able to respond appropriately to varying levels of environmental uncertainty will be more effective. Porter (1986) is of the view that globalisation potential depends on industry characteristics and particularly on specific industry drivers - such as market forces, cost factors, technology, government policies and competitive factors.

The major forces represent uncontrollable variables that hospitals must monitor and to which they must be respond. Marketers must also pay attention to interactions among forces to identify and take advantage of new opportunities and threats. For example of the offerings are affordable (economic), they may actually change attitudes and behaviour (social cultural) (Kotler et al., 2008). Macro-environment consists of broader forces that affect the actors in the micro environment (Armstrong & Kotler, 2011).

In sectors that have higher environmental uncertainty Ansoff and McDonnell (1990) identified that strategic management systems are more sophisticated, while other authors (Haines, 1988; Csath, 1991) demonstrated that uncertainty in the sector and national environments is linked together.

The importance of analyzing the macro environment arises from the critical role it plays in the growth and profitability of organizations. This fact has been clearly highlighted by Kotha and Nair (1995), and later by Wagner and Gooding (1997). Thus, by understanding an organization's external environment, Fombrun and Shanley (1992), Gimeno and Woo (1996) indicate that strategic decision-makers can not only help improve its competitive position but also increase its operational efficiency, and win battles in the field of global economy.

Based on this conclusion, Hill and Jones (1998) have further argued that to succeed, an organization must either fit its strategy to the industry/sector environment in which it operates, or be able to reshape the industry/ sector's environment to its advantage through its choice of strategy. Thus, "*companies typically fail when their strategy no longer fits the environment in which they operate*" (Hill & Jones, 1998, P102).

Crucially, any study of the external environment should include the identification of both the 'opportunities' and 'threats' facing an organization.

2.2 PEST Environment

A societal environment includes general forces that do not directly touch on the short run activities of an organization but can, and often do, influence its long run decisions (Wheelen & Hunger, 2002).

The number of possible strategic variables in the general environment is enormous. Various authors have listed those variables in different ways, the most notable being the PEST framework of societal environment which is an acronym for political/legal, economic, socio-cultural and technological variables (Fifield & Gilligan, 1998; Henry, 2010; Kotler et al., 2008; Armstrong & Kotler, 2011).

In order to increase comprehension of the societal environment so as to assess and evaluate the practical impact of the environmental data generated from the aforementioned segments of such an environment, organizations engage in a process called "external environmental analysis". The challenge in this process of analysis, according to Hitt and Hillman (1999) is to scan and monitor current changes/trends in the elements of the aforementioned environmental segments, and adopt them as a basis for forecasting, to be able to assess the implications of those environmental changes and trends that prove to have the most significant relevance to an organization and its strategic management. In this context, Lynch (2000) indicates that it may be useful to begin this process of analyzing the external environment surrounding an organization with a checklist - often called a PEST analysis which can be used to scan the political, economic, socio-cultural, and technological aspects of this environment embodying any other related segments, and monitor changes in these environmental segments so as to identify areas that appear to reflect distinctive emerging trends.

2.2.1 Political/Legal Environment

A Political/legal environment consists of laws, government agencies, and pressure groups that influence or limit various organizations and individuals in a given society (Armstrong & Kotler, 2011).

The environment of political/legal to the Saudi government, factors that may influence the health service strategy in hospitia's in particular are: government objectives, policies, decisions, legal restrictions, various governmental units sharing legislative authority, laws concerning taxation, and privatization decisions (Sameer & Jasmine, 2003). The clinical governance structure has, at its fundamentals, the foundation philosophy of continuous quality improvement (CQI) and total quality management (TQM). These two philosophies were developed first in manufacturing and industry, and then adopted by health services institutions in the early 1990s (Berwick, 1989; Kitson, 1994). The overall philosophy is to generate a culture of continuous quality based on effective cooperation between staff, systems spotlight, investment in people and staff, and self-monitoring (McLaughlin & Kaluzny, 1999; Ovretveit, 2000).

The elements of clinical governance that are relevant to research governance are as follows: (Bayliss et al., 2001; Franks, 2001; Som, 2004).

Many scholars (Doyle et al., 2000; Eisenberg & Gregg, 2004; Pomey et al., 2004; Cronin & Wright, 2005) presented critical questions regarding the regulation of private hospitals as follows:

- What is the responsibility and role of government?
- What information is needed for patients about costs and fees, and a national complaints?
- Procedure for the private sector?
- What are the broad outcomes that the government wants to achieve?
- Should the same standards be applied across public and private hospitals?

Walshe (2003) suggested some regulatory responses in the health care market:

- Control prices or impose other controls to limit excessive profit-making and promote competition.
- Make information more widely available and provide it in ways that promote its use by customers.
- Make the customer/provider pay the full costs or impose controls to prevent perverse behaviors.
- Impose controls on service provision and development, aimed at ensuring supply and planning development rationally.
- Manage demand/ need for service to avoid both excessive usage and improper rationing or restrictions through access/ referral guidelines or thresholds, or waiting lists.
- Regulator requires health care organizations to meet privacy or data protection standards.

- Regulator monitors and manages performance and quality to ensure acceptable standards on behalf of users/consumers.
- Regulator prevents health care organizations from refusing access to certain groups, such as those with high health needs.

Based on the political/legal literature, it can be hypothesised that:

Political/legal environment has a positive significant influence on health service strategy in Saudi private sector hospitals.

2.2.2 Economic Environment

The economic environment consists of factors that affect consumer purchasing power and spending patterns (Kotler et al., 2011). Kingdom of Saudi Arabia (KSA) has greatly in its levels and distribution of income. KSA has a rich market in different kinds of goods and services (e.g. oil, gas and religious tourism as a spiritual place product represented by Mecca and Medina) which reflects positively on the purchasing power of goods and services. And one of these services is health services. Health services marketing should pay attention to high income of the Saudi people.

Economic fluctuations in the home market and inflationary factors are also impacts that have an influence, because they can produce both positive and negative effects on the demand for goods and services. For example, they could affect the specifications of certain goods or may require workers to receive specific types of training or preparation. (George, 2009; Girijasankar & Bhar, 2011).

The KSA interest rate is stable at the moment, which means it may affect Saudi private hospitals in regards to their health service development and sales volume. These aided hospitals decide on their pricing strategy of competitive pricing, where they set their prices in line with their competitors' in another health market in KSA (e.g. Ministry of Defense hospitals, and National Guard hospitals).

An additional economic factor to be considered by Saudi private hospitals is taxation. Taxation comes in two forms, direct and indirect. Direct tax is tax that can't be avoided, an example of this is (income tax), where a percentage of everyone's earnings are taken from them, and this affects people. Indirect tax is tax that can be avoided (e.g. VAT on a product, as this can be avoided by not buying the product). In KSA both kinds of these taxes are not applied, that means it gives an opportunity to the Saudi people to consume more and more services (e.g. plastic surgery, and regular medical checkup).

An extra influence that the economy may have on private hospitals in Saudi is unemployment. While, if unemployment is high, then there would be less demand for their health services (e.g. orthodontist, plastic surgery, and regular medical checkup), this is because if lots of people are unemployed, then they aren't going to have much money to spend on non basic health services (e.g. orthodontist, plastic surgery, and en suit rooms). Whereas, if unemployment was low then there would be a higher demand as people have got more spare money to spend on the above mentioned health services.

Based on the economic literature, it can be hypothesised that:

Economic environment has a positive significant influence on health service strategy in Saudi private sector hospitals.

2.2.3 Social/Cultural Environment

Social/cultural environment is made up of institutions and other forces that affect a society's basic values, perceptions, preferences, and behaviors (Kotler et al., 2011; Armstrong & Kotler, 2011).

Socio-cultural trends can present both threats and opportunities for many hospitals. They are reflected in customer wants and needs in terms of a health service. In terms of the Saudi health care market, a growth of young age groups and a decrease in older age groups has long-term funding implications and presents new demands in terms of product and service requirements for health care.

As the KSA has a wide selection of people from different social backgrounds, Saudi hospitals need to be aware of things like people's race, culture, education levels, population, gender, age distribution, buying habits and lifestyle. As a result, Saudi private hospitals need to promote my product so that it appeals to the different social backgrounds of the KSA, as this will maximize the hospitals sales and enable their services to fulfill its potential market share.

Based on the Socio-cultural literature, it can be hypothesised that:

Social/cultural environment has a positive significant influence on health service strategy in Saudi private sector hospitals.

2.2.4 Technology Environment

The technology is perhaps the most dramatic force now shaping, our destiny (Kotler et al., 2011).

Technology in health services organizations has released such good things antibiotics, robotic surgery, MRI. The technologies environment change rapidly. In the past most of hospital managers do not know about the updating technologies we knowing nowadays. New technologies create new markets and opportunities. Therefore, the hospital managers should study these updating technologies around the world to adopt them in their hospitals.

Dramatic advancements in updating technology affect not only the products and services offered by organizations to customers but also the work processes needed. They can offer opportunities to those who can take benefit of such advancements. Otherwise, expecting and responding to technological trends can prove to be costly (Kotler et al., 2008).

New technology is a speedily changing environmental factor. In the field of health services, the latest technological breakthroughs in surgery techniques (e.g. robotic surgery) have made it possible for more illnesses to be treated although at the same time increased costs of such health and medical services. Measures taken to reduce costs can lead to more day surgeries for minor operations.

Based on the technology literature, it can be hypothesised that:

Technology environment has a positive significant influence on health service strategy in Saudi private sector hospitals.

2.3 Health Service Strategy

The service concept is the core element of a service, and it must be derived from the needs and wants of a specified target group of customers (Gronroos, 1980, 2000). The service product is the central component of any marketing mix strategy (Cowell, 1984; Ennew, 1998).

Product strategy is McCarthy's first element of the marketing mix components. It can be summarized as the ultimate result involving benefits being enjoyed by a client at the time of a purchase/receipt of service from an organization (Armstrong & Kotler, 2011).

Medical service can be defined as a health care service intended to influence a person's health, directly or indirectly, through procedures executed by medically educated personnel. It is difficult to distinguish clearly between diverse activities within medical services (Oravo & Tuominen, 2002).

Health service organisations usually offer a wide range of health service products to a number of customer and patient groups in order to satisfy a variety of customer and patient needs and wants (Kotler et al., 2008).

Today brands play an integral part in marketing strategy and, as indicated by Lim and O'Cass (2001), brands are increasingly valuable assets and sources of differentiation. A brand can be defined as: *"a name, term, sign, symbol, or design, or combination of them which is intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competitors"* (Keller, 2003, P3) and should enhance a product's or service's value.

Depending on the perspective that one considers, the brand can have added value to the manufacturer (e.g. signal of quality, legal protection, source of financial return), the trade (e.g. wider distribution, lower slotting allowances, more shelf facings), or the customer (e.g. identification, risk reducer, signal of quality) (Farquhar, 1989; Keller, 2003).

Over the past twenty years or so, the ways in which markets have evolved, i.e. through liberalization, free enterprise, and closer global cooperation, have led to fierce competition between services firms which are all vying for the biggest market share. However, it is this very competition that has compelled service companies to become more innovative in their approach by constantly adjusting to new trends and demands in order to be able to offer the newest and best services. It would therefore be fair to assume that *new service development* (NSD) is of the utmost importance and at the very heart of the service industry (Johnson et al., 2000; Fitzsimmons & Fitzsimmons, 2001).

NSD involves developing offerings such as health care services (diagnosis, treatment, rehabilitation, health researches, etc). Offerings can be sold either to consumers or to businesses, and sometimes to both.

It may be commonly agreed, by any definition, that 'innovation' necessarily involves creating "something new". It was recognized by King and Anderson (2002) that an innovation would have to lead to some type of benefit such as profit, personal growth, solutions, etc. Innovation may be seen as an intentional attempt to apply change to gain an advantage. The prerequisite for an innovation however is an idea, although an idea cannot in itself be considered an

innovation. Most importantly, a new development cannot be termed an innovation unless it is useful and applicable, for it is use and applicability that make an innovation truly worthwhile.

New services, if truly beneficial, have the potential to attract customer satisfaction which could lead to larger numbers of new customers while at the same time garnering and reinforcing existing customer satisfaction. If customers are satisfied, they would not only provide positive recommendations but would also have no objection to paying a price premium (Reicheld & Sasser, 1990). Customer perspective of service quality invariably would lead to repeat purchases (Grönroos, 1990).

3. Rationale for Research

Hospital industry is growing fast all across the globe. It is a key measure of the economic growth of a country. In the Saudi Arabia private sector hospitals are considered to be an emerging business. A study of the external environmental influences will allow planners and strategists to improve upon the quality and effectiveness of health service delivery in this sector.

Further, the environmental turbulence that has been created by health service reforms and competitive pressures of the open market mechanisms have resulted in hospital executives' serious attempts to aggressively formulate and implement strategic options that are closely tied to their hospitals' distinctive competencies and their perception of the external environment.

4. Research Objectives

1. To identify the factors which constitute the macro environment profile for Saudi private sector hospitals?
2. To determine what influences the macro environment factors have on the health service strategy in Saudi private sector hospitals.

5. Research Methodology

5.1 Research Design

Having first explored secondary sources to obtain insights into the literature on satisfaction with hospitals, the next stage involved gathering information directly from actual managers of hospitals. This was accomplished in two steps.

Step 1- Involved exploratory in-depth research. Interviews were conducted with a small but representative sample of conveniently chosen hospital senior managers with different backgrounds which represented 10 percent of the total research population. Participants responded to open-ended questions. The in-depth nature of the interviews allowed identification of the factors explaining the macro environmental influences on health service strategy in Saudi private sector hospitals.

Step 2- Involved designing and pre-testing a questionnaire which was administered to 120 respondents, again chosen conveniently from all the Saudi private sector hospitals in the main cities (Jeddah, Mecca, Ta'if, and Al-Leith) in Western Region. The pre-test was instrumental in assessing the strengths and weaknesses of the questionnaire and suggested the need to make minor modifications in the instrument.

5.2 Measurement

The questionnaire included perceptual measures that were rated on a five-point Likert scale. Each scale item was anchored at the numeral 1; 1 = "strongly disagree"; 5 = "strongly agree". This format has been recommended for management and health-care surveys (Elbeck, 1987; Steiber, 1989). Multiple items were used to assess their measurement properties (reliability and validity). Consistent with the literature, the scale items selected for the dependent variable were direct measures of health service strategy with influences received from macro environment factors as independent variables.

Both the independent and dependent variable(s) deployed in the research are explained in Table 1 and 2 according to the proposed hypotheses.

Insert Table 1 Here

Insert Table 2 Here

5.3 The Research Population

Any research population must be accurately specified in order to collect the required data for the research problem.

The research population consists of the private hospitals in the Kingdom of Saudi Arabia. The population in this research is defined as all the hospitals of the Saudi Western Region governorates which are licensed as general private hospitals by the Ministry of Health. Therefore, the hospitals which are licensed as single medical

specialization hospitals were not included in the research population. The number of hospitals included in the research population for this study was 35. These were classified according to location, size, and specialization.

This research focused on the multi-medical specialization (general hospitals) alone. Hospitals in Saudi are either government hospitals (Ministry of Health, Ministry of Defense, Ministry of Interior, National Guard Hospitals, and university hospitals), private hospitals or hospitals run by charitable organizations e.g. Crescent Hospitals.

The hospitals were classified according to the number of available beds: large hospitals (300 beds or more than beds) medium hospitals (101-299 beds) and small hospitals (100 or less than beds). Although there are a number of classifications for hospital size (American Hospital Association, 1974), the one depending on bed capacity was used because it is the most popular measure internationally (American Hospital Association, 1991).

5.4 The Research Respondents

The research was conducted with the senior management teams in the Saudi private hospitals. These teams included the following; general director, medical manager, administrative manager, nursing manager, marketing manager (if any), public relations manager, and out-patient clinic manager.

The rationale for selecting these respondents is that they have more access to the knowledge and data being studied as a result of their greater responsibility for managing strategies involving environmental factors than the lower level managers in the hospitals.

The researcher gathered 120 questionnaires, yielding a response rate of 100% (Table 4). All data collection procedures were designed to ensure the anonymity. Respondents typically held purposive sample. It should be noted that every questionnaire was personally handed and instructions were given to each manager before completing the questionnaire. Regarding to educational levels of those managers (85%) were bachelor degree holders, (12.5%) of them were master degree holders and the remaining (2.5%) were doctoral degree holders. In terms of the age group of respondents, it is interested to note that (54.2%) of them are fell into (46-50) years, whereas (37.5%) fell into (36-40) and the remaining are over 60 years old (8.3%). In terms of the type of academic background of those managers, the majority (75%) were medical specialty, and some those (25%) of these, were managerial background. Regarding to hospital size (43.3%) were big hospital staff, (40%) middle size, the remaining (16.7%) were small hospitals. In terms of the location of hospital the majority (86.3%) were from Jeddah city and the remaining percentage from different city in the Western Region.

6. Analytical Approach

Our basic hypotheses posit that macro environmental factors influence health service strategy.

More specifically, we hypothesize that a stable environment in hospitals can lead to a successful and superior performance of health service strategies in the Saudi market. Conversely, a dynamic environment could lead to inferior performance. To test these two relationships we employed a multiple regression model because the interactive multiple regression modelling approach has been proposed as an effective method for studying interactive relationships (Pedhazur, 1982; Cohen & Cohen, 1983).

In the interactive multiple regression model, a series of simple regressions were put in place by entering selected values of the moderating variable. Following this, the slopes were tested to evaluate the effect of leverage on health service strategies at various levels of environmental dynamism. Thus we were able to provide statistical proof to strengthen our hypotheses.

6.1 Research Hypotheses

Based on the PEST environment factors and the health service strategy the researcher formulated a number of hypotheses to assist in investigating the research problem and fulfilling its aim and objectives.

The hypotheses were based on examining the effect of PEST environment factors on the health service strategy of Saudi private sector hospitals.

The general hypothesis is:

H1: PEST factors have a positive significant influence on the health service strategy in Saudi private sector hospitals.

This general hypothesis was divided into four sub-hypotheses:

H1a- Political/legal environment have a positive significant effect on the health service strategy of Saudi private sector hospitals.

H1b- Economic conditions have a positive significant effect on the health service strategy of Saudi private sector hospitals.

H1c- Socio/Cultural factors have a positive significant effect on the health service strategy of Saudi private sector hospitals.

H1d- Technology has a positive significant effect on the health service strategy of Saudi private sector hospitals.

Research Design of a Multiple Regression Analysis (Predictors of Health Service Strategy)

$$Y = B0 + B1X1 + B2X2 + B3X3 + B4X4 + E$$

Y=the predicted value on the health service strategy; B0=the Y intercept, the value of Y when all Xs are zero; X1=Politics (P); X2=Economics (E); X3=Socio/Cultural(S); X4=Technological (T); B=the various coefficients assigned to the IVs (Independent Variables) during the regression; E=an error term.

$$\text{Health Service Strategy} = f\,(P, E, S, T)$$

As shown, the health service is the dependent variable in this model, while politics, economics, socio/cultural, technological are independent variables.

R square is 0.402 as displayed in table (3) and the adjusted R square for the four variables is 0.473, which means that these four variables explain through such a model, about 40% of the variance of the health service dimension. However, viewing table (3) shows that four out of four variables having a significant effect. Of the four significant variables, technology appears to have the greatest impact on health service strategy based on the size of its beta coefficient.

6.2 Discussion of the Hypothesis Relating to the Effects of Macro Environment Factors on Health Service Strategy

The hypotheses concerning the potential relationship between macro environment and health service strategy. The hypothesis was tested by applying multiple regression tests.

Hypothesis H1: macro environment and health service strategy.

Macro environment factors have a positive significant influence on health service strategy in Saudi private sector hospitals.

Empirically the model assumed that macro environment factors influence health service strategy in Saudi private sector hospitals. It also predicted that the influence of such factors on health service strategy would differ according to personal variables such as the respondent's position, academic background, and organisational variables, such as hospital location and size.

The results of the multiple regression analysis have indicated that there is a variation in the effect of macro environment factors on the health service strategy. There is significant empirical evidence in this research indicating that macro environment factors have a different degree of influence upon the health service strategy.

The empirical evidence presented the view that macro environment factors have a fundamental role to play in the health service strategy of Saudi private sector hospitals.

6.2.1 Political/Legal

Hypothesis H1a: political/legal and health service strategy.

Political/legal environment have a positive significant influence on health service strategy in Saudi private sector hospitals.

The empirical evidence has provided significant support for the political/legal literature which advocates that government regulations have an influence upon private sector hospitals (Berwick, 1989; Solomon, 1990; Boonekamp, 1994; NHS Executive, 1998; Hogan, 1999; Fleishman et al., 1999; Walshe, 2003; Kotler et al., 2008; Armstrong & Kotler, 2011).

Berwick (1989) and Kitson (1994) suggested that the clinical governance framework has at its foundations the core principles of continuous quality improvement (CQI) and total quality management (TQM). CQI/TQM were developed first in industry, and subsequently adopted by health care organisations.

Hogan et al. (1999) established that increased government regulations and rules have led health institutions to connect and/or create large health service systems and introducing them in a market field not unlike that of commodity products. As a result, hospitals have come to accept the stark realization that consumer/patient awareness of services is supreme to economic survival. The stability of Saudi government regulations represents an opportunity for such hospitals to reduce uncertainty.

The successful implementation of government regulations and policies has an important influence on the health service strategies of these hospitals, because governmental departments and ministries are often adopting new policies and strategies in an effort to improve health care services.

One of the most significant factors of influence is the government regulations that are applied at various levels in the kingdom. In many countries, health services are considered so critical and vital for the well being of the populace that governments consider themselves responsible for guaranteeing it. In Saudi Arabia too, the government, represented by the Ministry of Health (MOH) and other ministries and departments, takes its responsibility as a health care provider seriously. The Saudi MOH controls the nature and level of competition, and plays a significant role in influencing the rules of the competition. Furthermore, local, regional and national authorities continue to influence the planning and financing processes in health care. For example, governmental influence restricts the manner in which private sector hospitals can offer services as they are not completely free to set their prices, extend their facilities, or promote their health services on television. In such a scenario, where the government is a controlling party, Saudi private sector hospitals are obliged to work in cooperative relationships with government representatives. Another factor to be considered is that governmental departments are also involved in controlling the investment in high technology medical equipment.

6.2.2 Economic Conditions

Hypothesis H1b: Economic conditions and health service strategy.

Economic conditions have a positive significant influence on health service strategy in Saudi private sector hospitals.

Economic conditions are considered to be one of the influential factors on Saudi private sector hospitals.

In KSA there is a high income for most of population, this may encourage these hospitals to invest in a high technology medical equipments. In similar vein, this high national income high growth may boost demand for these hospitals. As such, low inflation may enhance higher salary demand from employees and leads these hospitals to improve the health services provided to the target market.

The taxes imposed on the medical equipment in KSA are nothing, this give an opportunity to the Saudi hospital to improve their medical equipments.

6.2.3 Social/Cultural

Hypothesis H1c: Social/cultural and health service strategy.

Social/cultural have a positive significant influence on health service strategy in Saudi private sector hospitals.

This finding is consistent with other researchers' findings (Kotler et al., 2008; Armstrong & Kotler, 2011).

Changes in social trends can influence on the demand for a hospital services and the availability and willingness of individuals to work. In KSA, for example, the population has been married many times during their lives. This has increased the numbers of new babies which reflects on increase the number of Obstetrics and Gynaecology departments.

Many social and cultural influences market habits for consumption of health care services. There are many people who prefer to seek health services of outstation familiar provides private sector rather than the (Ministry of Health, Ministry of Defence, National Guard, Ministry of Interior) hospitals where he/she insured, and patients look at medical advice for diagnostic tests or emphasis on particular brands prescribed by doctors, with a sense of suspicion. Socio cultural attitudes affect health services outcomes.

6.2.4 Technology Environments

Hypothesis H1d: technology and health service strategy.

Technology has a positive significant influence on health service strategy in Saudi private sector hospitals.

A further examination of the results of the multiple regression analysis has indicated that the technology is the most influential factor on the health service strategy in Saudi private sector hospitals.

New technologies create new medical equipments and new technique processes (e.g. MRI Scanning, C.T. Scanning) are all new markets created by technological advances.

Technology in health services can reduce costs improve quality of health care outcomes, and lead to innovations. These developments in Saudi health market can benefit patients as well as the hospitals providing the health services.

From the above discussion on the influence of macro environment factors on the health service strategy in the Saudi private sector hospitals, it can be concluded that marketing in this industry means much more than trying to construct lengthy relationships with consumers alone. This does not mean however that the consumer orientation – one of the basic concepts of marketing – is of minor importance in health care.

7. Research Conclusion

7.1 Managerial and Practical Implications

The results of this research bear a number of significant empirical conclusions for researchers and practitioners in health services marketing and for hospitals in particular.

The theoretical foundation of this study is based on literature from the PEST environment relating to private hospitals within the hospital industry. The empirical conclusions drawn from this research are multi-faceted and as a consequence it is important that hospitals managers pay attention to the influences of PEST environment elements on health service strategy in the KSA. Researchers are consequently confident to place more spotlight on the influences stemming from the PEST environment and its impact on health service strategy within Saudi private sector hospitals. Besides that, investigating the impact of PEST influences on health service strategy has not been recognized before as the vital inputs for satisfaction by hospital managers within the private sector hospitals.

This research has attempted to explore the macro-environment factors which influence the health service strategy in the hospital industry. This research tries to identify the factors which constitute the macro-environment factors in Saudi private sector hospitals and investigated whether the hospital managers in Saudi private sector hospitals had a view of these factors.

The literature review in this research indicates a clear shortage of research on the macro-environment factors influencing the health service organizations and specifically the private sector hospitals (McLaughlin & Kaluzny, 1999; Ovretveit, 2000; George, 2009; Girijasankar & Bhar, 2011; Kotler et al., 2011; Armstrong & Kotler, 2011). Some studies only partially covered the macro-environment of the Saudi health industry. Therefore, the present research attempts to fill in a gap in the field of macro-environment factors in the private hospitals from the viewpoint of the hospital managers. The research also addressed some of the shortcomings in the literature such as the macro-environment of political/legal, economic, socio cultural, and technological factors, to investigate the macro-environment impacts on health service strategy and hospital industry in the KSA.

7.1.1 Health Service Strategy

The study found that the majority of Saudi private sector hospitals provide a comprehensive range of health and medical service classes to facilitate the diverse needs and wants of both domestic and foreign patients in their target market.

The study also found that developing and introducing new health services applied to Saudi private sector hospitals. The importance of introducing and developing new health services is twofold. First new health services are a competitive tool for the hospital's growth and continuation, and for enabling the hospital to meet the needs and wants of the largest possible market. Second, as medical technology worldwide is updated, it helps hospitals to gain opportunities that lead to increased market share and new market penetration.

7.1.2 PEST Environment Factors

7.1.2.1 Political/Legal

The quantitative and qualitative data analysis of the Saudi private hospital sector indicates that the most influential factor is the government type and stability. This refers to the regulation stability and clear of the policies. The rationale behind this is that there is huge changing in the policies and regulations in the Saudi government. As such, all of the policies and regulations walking alongside with the up dated development in health services in these hospitals (e.g. low tax).

7.1.2.2 Economic

The quantitative data analysis in the Saudi private hospital sector indicates that one of the influential factors is the rising of purchasing power of Saudi community. This refers to different reasons: firstly, the increasing of health awareness, secondly, high levels of income, and thirdly, the high numbers of non-Saudi employees and their parents who asking for private health insurance in the private Saudi hospitals.

7.1.2.3 Social/Cultural

The quantitative and qualitative data analysis of the Saudi private hospital sector indicates that the most influential factor is the population health awareness. This refers to the increasing knowledge for the Saudi people.

7.1.2.4 Technology

The quantitative data analysis in the Saudi private hospital sector indicates that the most influential factor is the up-to-date methods for the diagnosis and therapy of diseases and health problems. This refers to high competition and interest in the Saudi health market which leads to the majority of the Saudi private hospital sector desiring possession of these technologies to compete successfully within the Saudi health market. As such, as a result of utilising this up-to-date technology they can satisfy their customers' needs and wants where they actually install and run these technologies. The rationale behind this is that most Saudi private hospitals are representatives of global companies in the medical equipment field.

The relationship between macro environment factors and health service strategy components

1. Researchers, besides health organisations, are encouraged to regard the whole picture of relationships among the macro environment influences considered in this research. Generally, researchers and practitioners place more emphasis on end results, like market share, profit and revenue, while ignoring the importance of the source of these outcomes. In particular this research would encourage managers and academics to pay greater attention to the health service strategy aspect and to scrutinise its outcomes.
2. The stability of Saudi governmental policies and strategies provide a sound opportunity for Saudi hospitals to reduce uncertainty. This is among the one of the most influential factors affecting health service strategy.
3. Additionally, economics are a significant influential factor on health service strategy. For this reason it is an important consideration, for hospital managers to investigate the nature of economic conditions they have in the health market, and the nature of the economic in relation to how this influences hospital strategy. As such, hospital managers must investigate their patients' personal needs and wants, in order to become aware of the local and international economic situations.
4. The technology environment provides a marketing opportunity for some Saudi private hospitals to benefit through using up-to-date medical technology and their technically specialised labour-skills as a means of competing: balancing the cost of using this technology against the profit gained. This can enhance the quality of health services and reduce the waiting time. It poses a threat to other hospitals, which do not introduce such technology. The Saudi market is aware of the technology and is recognised the need for it, thus increasing awareness of health and illness issues, Some hospitals may not introduce new technology because of the perceived lack of benefit from introducing it because of the high cost, or because of the specialised training needed for personnel to become qualified in the use the new technology.
5. The technology factor is the most influential in health service strategy. It is crucial for both hospital managers and researchers to investigate such factors and to ensure the extent to which hospital comprehend the needs and wants of their customers when they provide them with health services. Therefore, how the hospital managers utilise these technologies as a strong foundation to recommend the hospital services to other potential customers is paramount.

7.2 Conclusion

In summary, this research makes a positive contribution in the direction of macro environment influences on health service strategy in the Saudi private hospital sector. However, this research sought to overcome the limitations it encountered with the sound methodological techniques and it should be followed by other efforts in the same direction. This research and similar studies will encourage other researchers to engage in more studies regarding the macro environment factors that influence health service strategy in the hope that such efforts will improve the relationship between the organisation, its managers and its customers with regard to greater mutual benefits and common advantages.

As noted, the findings suggest several directions for future research. First, the study should be replicated with other services to further examine the transferability of the macro environment in the hospital industry. Second, studying the proposed model in other Arab countries in order to gain more validation for the model and more generalised findings. Third, studying other service sectors and other health sectors e.g. public sector (MOH hospitals, Ministry of Defence, National Guard hospitals and also teaching hospitals) in order to develop a model that represents the service sector more generally, rather than representing the private hospital sector alone. Fourth, the same model could be used in a comparative study between the service sector and the industrial sector in order to test the differences in marketing mix strategy in both sectors and ascertain whether the model could be standardised across a range of industries. Finally, studying all levels of hospital employees should be involved to gather more information on this issue. Customers' viewpoints should be surveyed to gain more insight into customer attitudes, their perceptions of hospitals and their satisfaction.

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Table 1. Macro-environment (political/legal, economic, social cultural, and technology)

PEST factors: Independent variables
Political/Legal (independent variable) Political/legal in the Saudi private sector hospitals was measured on: Government type and stability, rule of law and levels of bureaucracy, regulation and de-regulation trends, social and employment legislation, tax policy, and trade and tariff controls, likely changes in the political environment.
Economic (independent variable) The economic environment of Saudi private sector hospitals was measured taking into consideration: Stage of business cycle, present and predictable economic growth, inflation, interest rates, unemployment, labor supply, levels of income distribution, impact of globalization, and the likely impact of technological or other changes on the economy.
Social/Cultural (independent variable) Social/cultural contexts in the Saudi private sector hospitals were measured taking into consideration: Population growth rate, age profile, education level, population attitudes toward health, population employment patterns, press attitudes, public opinion, social attitudes, lifestyle choices, and cultural changes.
Technology (independent variable) Technology in the Saudi private sector hospitals was measured on: Impact of emerging technologies, impact of internet, updating medical technologies and increased remote working (mobile clinics), telemedicine, R& D activity impact of technology transfer.

Table 2. Health service strategy: Dependent variable**s**

Health Service Strategy (dependent variable)
Health Service Strategy in the Saudi private sector hospitals was measured on: Hospital brand name, introduces new health services, understands customer needs in order to develop new health services, offers a considerable (comprehensive) range of health care types (classes), good reputation for services and this becomes very important in hospital success, medical staff who play a crucial role in building our brand reputation, uses customer (patient) service as a central element in our service offering strategy, good capacity to hold huge numbers during disastrous time, confidential about our customers (patients) cases.

Table 3. Results -PEST factors (Health service strategy)

PEST	B	Standardized error	Beta	t-value	Significant
PEST	0.780	0.412	0.186	3.144	0.004
Political/legal	0.734	0.761	0.262	2.768	0.035
Economic	0.750	0.541	0.277	2.543	0.024
Social/cultural	0.566	0.479	0.198	3.213	0.001
Technology	0.697	0.411	0.377	3.964	0.000

Note: R 2 = 0.402; Adjusted R 2 = 0.473; F =10.650; P < 0.05.

Table 4. Characteristics of the sample (N = 120)

Characteristics	Frequency	%
Gender:		
• Male	108	90
• Female	12	10
Age:		
• Less than 25	0	0
• 25-30	0	0
• 31-35	0	0
• 36-40	45	0
• 41-45	0	37.5
• 46-50	65	0
• 51-55	0	54.2
• 56-60	0	0
• Over 60	10	8.3
Education level:		
• Diploma	0	0
• Bachelor	102	85
• Master	15	12.5
• PhD	3	2.5
Academic background:		
• Medical specialties	90	75
• Managerial background	30	25
Hospital size		
• Big	52	43.3
• Medium	48	40
• small	20	16.7
Hospital location:		
• Jeddah	104	86.3
• Mecca	14	11.3
• Ta'if	2	2.4
• Al-laith		0