



# University of HUDDERSFIELD

## University of Huddersfield Repository

Ahmad, Ala'eddin Mohamad Khalaf.

The impact of competitive environment on the service marketing mix strategy of health organisations in developing countries : Jordanian private sector hospital senior managers perspective

### Original Citation

Ahmad, Ala'eddin Mohamad Khalaf. (2007) The impact of competitive environment on the service marketing mix strategy of health organisations in developing countries : Jordanian private sector hospital senior managers perspective. Doctoral thesis, University of Huddersfield.

This version is available at <http://eprints.hud.ac.uk/id/eprint/4614/>

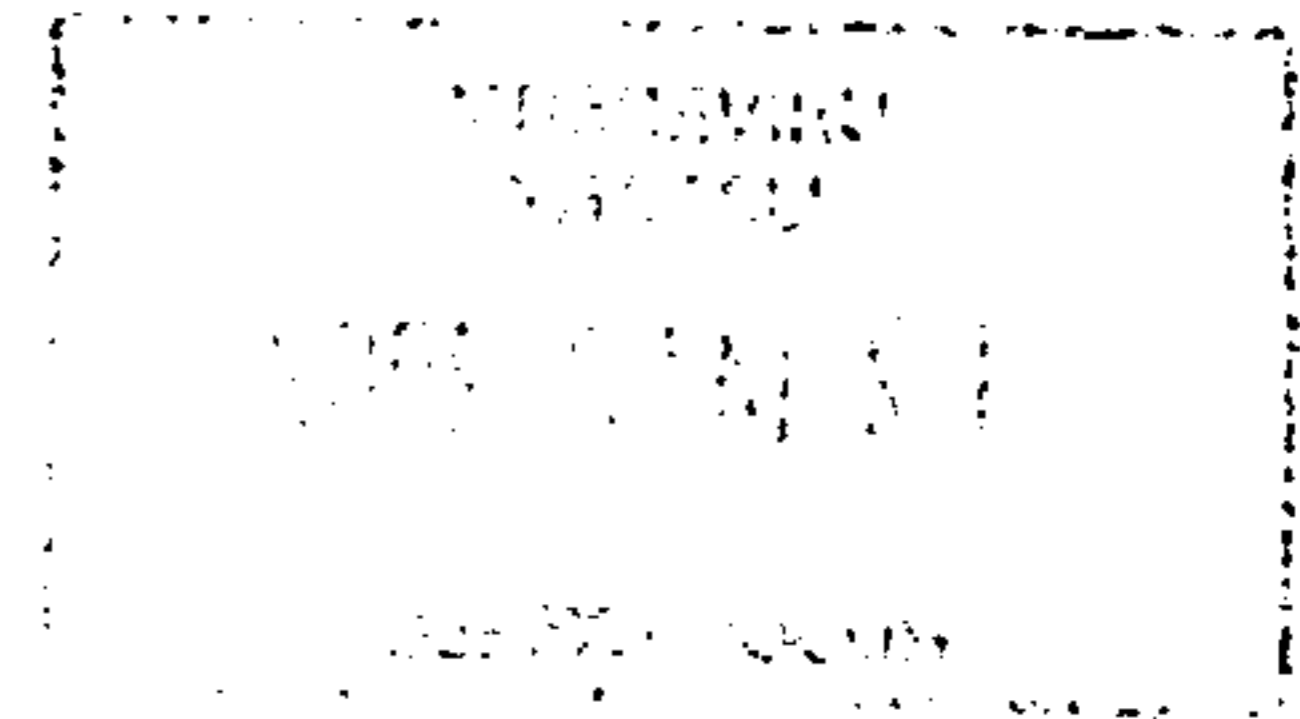
The University Repository is a digital collection of the research output of the University, available on Open Access. Copyright and Moral Rights for the items on this site are retained by the individual author and/or other copyright owners. Users may access full items free of charge; copies of full text items generally can be reproduced, displayed or performed and given to third parties in any format or medium for personal research or study, educational or not-for-profit purposes without prior permission or charge, provided:

- The authors, title and full bibliographic details is credited in any copy;
- A hyperlink and/or URL is included for the original metadata page; and
- The content is not changed in any way.

For more information, including our policy and submission procedure, please contact the Repository Team at: [E.mailbox@hud.ac.uk](mailto:E.mailbox@hud.ac.uk).

<http://eprints.hud.ac.uk/>

**The Impact of Competitive Environment on the Service  
Marketing Mix Strategy of Health Organisations in  
Developing Countries: Jordanian Private Sector Hospital  
Senior Managers Perspective**



By

**ALA'EDDIN MOHD KHALAF AHMAD**

Thesis Submitted in Partial fulfillment of the Requirement for the Degree of Doctor of  
Philosophy Awarded by University of Huddersfield

2007

## **Dedication**

### **To My Beloved Father's Spirit**

My Father taught me many things in my life; lessons that I've held close to my heart. With those lessons, I've gone many places, met many people, and done many things. But of all the things I've done, and of all the things I am, that thing that I am most proud of, is that I am my father's son. To look at his life, and the man he was, and to hope that I could demonstrate the sort of gentle love and kindness that was my Father's hallmark is my ultimate goal in this life.

## Acknowledgment

The precious help and invaluable support of friends, relatives and colleagues must be fully acknowledged. Special thanks are extended to my supervisor Professor Norman E Marr, whose guidance and support directed me throughout all the stages of this strenuous journey. My gratitude also goes to Mr. Howard Jackson, my second supervisor for his concern and constructive feedback.

Further, my thanks are due to Professor Issam Al-Dabagh from the University of Amman/ Jordan for his help and assistance in sharing valuable ideas during the theoretical and practical stages of this research.

To my father in law Professor Mashhour Al-Refai for his help, encouragement and support

*To my MOTHER whose prayers and motherly love kept the candle of hope alight inside me at the most difficult times and hardships. Her endless love provided me with the strength to accomplish this mammoth task.*

*To my grandfather and grandmother in Syria*

*To my fiancée Amani, for her support, encouragement, love and tolerance of the geographical distance between us.*

*To all my brothers and sisters who gave me emotional support and who believed in me during this journey, especially to the youngest Qais and Rula whose words of prayers filled my empty moments.*

*To all the people in my village (AL`AL)..... and to the olive trees in my father's farms*

To Dr Dr Yaman Walid, Ahmad Kabaha, Dr Maolod Al-Ani, Nader Al-Refai, Abdul Qader Al-Masri, Husam Arman, Dr AbdulLatief Al-Ghazawi, Mohamad Noor, Vena Halady, Najeb Masud, Dr Ihab Jaradat, Dr Mohamad Atwah, Dr Malik Telfah, Dr Mohamad As`ad, Susan Bretton, Sana Malkawi, Tony, many thanks for all your help and support through my journey; things would have been a lot more difficult without you.



## Abstract

The environment of Jordanian private hospitals has never been so complex and challenging as at present. There are huge influences on these hospitals in the current climate. Managers in these hospitals are finding themselves, more than ever before, confronted by increasing pressures and demands which they must seek to understand and respond to in their service marketing mix strategy in order to achieve effective strategic marketing in terms of their choice of service marketing mix strategy components (namely health service, pricing, distribution, promotion, physical evidence, process, and personal strategies). This research, therefore, investigates the influence competitive environment factors have on the service marketing mix strategy components made by Jordanian private hospital managers, and on the reality of the Jordanian private hospital marketing. The literature review reveals that there is an extensive body of research that addresses service marketing mix strategy in general but there is less emphasis on the health sector. Moreover, evidence of the impact of a competitive environment on service marketing mix strategy and hospital performance measurements' criteria in the hospital industry is limited. 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 six Jordanian governorates and, via in-depth semi structured interviews with hospital managers and experts in the health services in Jordan. All Jordanian general private sector hospitals 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, 143 senior managers (general manager, administrative manager, medical manager, public relation manager, marketing manager, and out patients clinic manager) participated in this study.

The results confirm significant differences in the influence of competitive environment factors on service marketing mix strategy components. They also reveal that the components of the marketing mix strategy have varied significant and insignificant influence on the hospital performance, which demonstrates that the hospital performance phenomenon is complicated and multi-dimensional in nature. Furthermore, the results exhibit that hospital managers might benefit more by placing more emphasis on an integrated service marketing mix strategy and recognising the competitive environment influences on their hospitals. The results also highlight several implications for future research in health services marketing and fills in several gaps in the existing literature on health services marketing.

This research contributes to the academic and practical knowledge as being one of the first attempts to investigate empirically the impact of the competitive environment on service marketing mix strategy. As such, the influences of service marketing mix strategy on hospitals' performance criteria, identifying the main concerns and problems which face the management and marketing in Jordanian private sector hospitals, are explored in addition to recognising the vital roles of marketing in improving the hospital performance. This research integrates, refines and extends the empirical work conducted in the field of health services marketing in developing countries. It raises many implications for managers in these hospitals, such as considering the importance of influences by competitive environment on marketing mix strategy and the vital role this strategy plays in the performance of Jordanian private sector hospitals. This research provides useful guidelines for further and future research possibilities such as exploring the influence of the competitive environment factors influence on hospital performance criteria.



## Table of Contents

Dedication.....	ii
Acknowledgment.....	iii
Abstract.....	iv
Table of Contents.....	v
List of Abbreviation.....	ix
List of Tables.....	x
List of Figures.....	xiii
<b>Chapter one</b> .....	<b>1</b>
Introduction.....	1
1.1 Introduction.....	1
1.2 Background of Jordanian Health Sector.....	2
1.3 The Research Problem.....	3
1.4 Aim and Objectives of the Research.....	3
1.5 Format of Thesis.....	4
<b>Chapter Two</b> .....	<b>7</b>
The Jordanian Health Services Sector.....	7
2.1 Introduction.....	7
2.2 Background of the Jordanian Health Sector.....	7
2.3 Major Health Care Delivery Programs.....	8
2.4 The Jordanian Private Health Sector Management and Marketing.....	11
2.5 Summary.....	15
<b>Chapter Three</b> .....	<b>16</b>
The Service Marketing Mix Strategy Literature Review.....	16
3.1 Introduction.....	16
3.2 The Evolution of the Original Marketing Mix.....	16
3.3 The Service Marketing Mix Definition.....	19
3.4 Service Marketing Mix Strategies in Services and Health Services.....	21
3.4.1 The Service Strategy.....	21
3.4.2 Pricing Strategy.....	31
3.4.3 Distribution Strategy / Access Strategy.....	37
3.4.4 Promotion Strategy.....	44
3.4.5 Physical Evidence Strategy.....	52
3.4.6 Service Delivery Process Strategy.....	54
3.4.7 Personal Strategy.....	59
3.5 Summary.....	62
<b>Chapter Four</b> .....	<b>67</b>
The Effect of the Competitive Environment on the Organisation's Marketing Strategy, with a Focus on Health Care.....	67
4.1 Introduction.....	67
4.2 Concepts and Analysis of the External Environment.....	68
4.3 Analysis of the External Environment.....	70
4.4 Competitive Environment.....	76
4.4.1 Government Regulations.....	81
4.4.2 Competitors.....	83
4.4.3 Suppliers/ Technology.....	85
4.4.4 Customers.....	87
4.5 The Competitive Environment in Health Service.....	90

4.5.1 Government Regulation /Health Service Sector .....	93
4.5.2 Competitors/ Health Service Sector .....	99
4.5.3 Supplier / Health Service Sector .....	101
4.5.4 Customer/ Health Service Sector .....	102
4.6 Third Party Payers.....	105
4.7 Summary .....	109
<b>Chapter Five</b> .....	113
Hospital Performance Measurement Criteria.....	113
5.1 Introduction.....	113
5.2 Finance Criteria.....	114
5.3 Quality Criteria .....	116
5.4 Customer Criteria.....	118
5.5 Marketplace Criteria .....	120
5.6 Summary .....	123
<b>Chapter Six</b> .....	125
Research Methodology .....	125
6.1 Introduction.....	125
6.3 Research Hypotheses .....	127
6.4 Research Design.....	129
6.5 Type of Research .....	132
6.6 Research Methodology .....	132
6.6.1 The Research Population .....	132
6.6.2 Data Collection Methods .....	134
6.6.3 Research Questionnaire Design.....	137
6.6.4 Translation the Questionnaire .....	139
6.7 Validity and Reliability.....	142
6.8 Building the Research Framework.....	147
6.8.1 Building the Research Framework.....	147
6.8.2 Operational Definition of the Research Variables .....	150
6.9 Statistical Methods.....	159
6.10 Summary .....	159
<b>Chapter Seven</b> .....	161
Descriptive Analysis .....	161
7.1 Introduction.....	161
7.2 General Demographic Analysis .....	161
7.2.1 Age.....	161
7.2.2 Education .....	162
7.2.3 Academic Background.....	163
7.2.4 Experience.....	163
7.2.5 Job Title .....	163
7.2.6 Hospital Size .....	164
7.2.7 Hospital Location.....	164
7.3 Strategic Marketing.....	165
7.4 Components of Service Marketing Mix Strategy .....	171
7.4.1 Health Service Strategy.....	171
7.4.3 Health Service Distribution.....	176
7.4.4 Health Promotion Strategy.....	178
7.4.5 Physical Evidence Strategy.....	179
7.4.6 Health Process Strategy .....	180
7.4.7 Personal Strategy .....	181



7.5 Influence of Competitive Environment Factors on Marketing Mix Strategy .....	182
7.5.1 Government Regulations .....	183
7.5.2 Competitors.....	184
7.5.3 Suppliers .....	185
7.5.4 Customers .....	186
7.5.5 Third Party Payers.....	187
7.5.6 Performance Measurement Criteria .....	188
7.6 Summary .....	190
<b>Chapter Eight</b> .....	191
Data Analysis .....	191
8.1 Introduction.....	191
8.2 Testing the Assumption of Multiple Regression .....	191
8.2.1 Normality .....	192
8.2.2 Linearity .....	193
8.2.3 Homoscedasticity.....	194
8.2.4 Multicollinearity .....	194
8.3 Multiple Regression Analysis (MRA) - Competitive Environment .....	195
8.3.1 The Correlation Matrix .....	196
8.3.2 Summary of the Multiple Regression Model.....	197
8.3.3 Model Parameters .....	200
8.4 Emerged Measurement Structures .....	203
8.4.1 The Competitive Environment.....	203
8.4.2 Research Design of a Multiple Regression Analysis (Predictors of Marketing Mix Strategy Components).....	203
8.5 Hospital Performance Measurement Criteria.....	207
8.6 Summary .....	214
<b>Chapter Nine</b> .....	218
Discussion of the Overall Quantitative and Qualitative Data and Findings .....	218
9.1 Introduction.....	218
9.2 Characteristics of the Participating Hospitals and the Research Respondents ...	218
9.3 Findings Related to the Strategic Marketing of Jordanian Private Sector Hospitals .....	220
9.3.1 Marketing Activity.....	220
9.3.2 Marketing Objectives.....	221
9.3.3 Participants in the Strategic Marketing Decisions .....	221
9.3.4 Environmental Data Source .....	222
9.4 Discussion of the Hypotheses Relating to the Effects of Competitive Environment Factors on Marketing Mix Strategy .....	222
9.4.1 Government Regulations .....	223
9.4.2 Competitors.....	225
9.4.3 Suppliers .....	226
9.4.4 Customers/Patients.....	227
9.4.5 Third Party Payers.....	230
9.5 Discussion of the Hypotheses Relating to the Service Marketing Mix Strategy with Hospital Performance Criteria .....	230
9.5.1 Health Service Strategy.....	231
9.5.2 Pricing Strategy.....	232
9.5.3 Distribution Strategy.....	233
9.5.4 Promotion Strategy .....	233
9.5.5 Physical Evidence Strategy.....	235

9.5.6 Process Strategy .....	236
9.5.7 Personal Strategy .....	237
9.6 The Modified Research Framework .....	237
9.7 Summary .....	241
<b>Chapter Ten</b> .....	242
Conclusion .....	242
10.1 Introduction.....	242
10.2 Research Objectives.....	242
10.3 Managerial and Practical Implications.....	242
10.4 Theoretical Conclusion .....	250
10.5 Empirical Conclusion.....	251
10.6 Research Contribution .....	252
10.7 Limitations and Avenues for Future Research.....	253
<b>References</b> .....	256
<b>Appendix A</b> .....	300
<b>Appendix B</b> .....	305
<b>Appendix C</b> .....	306
<b>Appendix D</b> .....	306

## **List of Abbreviation**

**AHA:** American Hospitals Association  
**C.T. Scanning:** Computed Tomography Scanning  
**CIP:** Civil Insurance Program  
**CQI:** Continuous Quality Improvement  
**DEA:** Data Envelopment Analysis  
**DOH:** Department of Health/ United Kingdom  
**FAH:** Federation of American Hospitals  
**GDP:** Gross Domestic Product  
**GP:** General Practitioner  
**ICU:** Intensive Care Unit  
**JUH:** Jordan University Hospital  
**JUST:** Jordan University of Science and Technology  
**KAH:** King Abdullah Hospital  
**KPMG:** Kaiser Permanente Medical Group  
**MENA:** Middle East and North Africa  
**MOH:** Ministry of Health  
**NAO:** National Audit Office  
**NHA:** National Health Accounts  
**NHS:** National Health Services  
**OECD:** Organisation for Economic Cooperation and Development  
**PR:** Public Relationship  
**RMS:** Royal Medical Services  
**TQM:** Total Quality Management  
**USAID:** United States Agency for International Development  
**WOM:** Word of Mouth  
**WTO:** World Trade Organisation



## List of Tables

Table 2.1 Estimates of Health Insurance Coverage in Jordan .....	9
Table 3.1 Pricing Objectives of Services Firms.....	32
Table 4.1 Key Information on Private Third Party Payers in Jordan.....	109
Table 5.1 Performance Criteria in Service Sector.....	122
Table 6.1 Alternative Terms for the Main Research Paradigms.....	130
Table 6.2 Hospital Location.....	133
Table 6.3 Hospital Size.....	133
Table 6.4 Research Respondents.....	134
Table 6.5 Reliability Coefficient for the Strategic Marketing .....	145
Table 6.6 Reliability Coefficients for the Service Marketing Mix Strategy.....	146
Table 6.7 Reliability Coefficients for the Environmental Factors at the Hospital.....	146
Table 6.8 Reliability Coefficients for the Performance Criteria Factors.....	146
Table 7.1 Ages.....	162
Table 7.2 Education.....	162
Table 7.3 Academic Background.....	163
Table 7.4 Experience.....	163
Table 7.5 Job Title.....	164
Table 7.6 Hospital Size.....	164
Table 7.7 Hospital Location.....	165
Table 7.8 Importance of Marketing Activities.....	166
Table 7.9 The Importance of Marketing Objectives.....	168
Table 7.10 Participation in Strategic Marketing Decisions.....	169
Table 7.11 Environmental Data Sources.....	170
Table 7.12 Health Service Strategy.....	171
Table 7.13 Health Pricing Strategy.....	174
Table 7.14 Health Distribution Strategy.....	177
Table 7.15 Health Promotion Strategy.....	178
Table 7.16 Physical Evidence Strategy.....	180
Table 7.17 Health Process Strategy.....	181

<b>Table 7.18 Health Personal Strategy.....</b>	<b>182</b>
<b>Table 7.19 Government.....</b>	<b>183</b>
<b>Table 7.20 Competitors.....</b>	<b>184</b>
<b>Table 7.21 Competitor Analysis.....</b>	<b>185</b>
<b>Table 7.22 Suppliers.....</b>	<b>186</b>
<b>Table 7.23 Customers.....</b>	<b>187</b>
<b>Table 7.24 Third Party Payers.....</b>	<b>188</b>
<b>Table 7.25 Performance Measurement Criteria .....</b>	<b>189</b>
<b>Table 8.1a Competitive Environment and Service Marketing Mix Strategy....</b>	<b>196</b>
<b>Table 8.1b Competitive Environment and Service Marketing Mix Strategy....</b>	<b>196</b>
<b>Table 8.2 The Multiple Regression Model Summary.....</b>	<b>197</b>
<b>Table 8.3 Analysis of Variance, for Multiple Regression Model.....</b>	<b>200</b>
<b>Table 8.4 Coefficient of the Multiple Regression Model.....</b>	<b>201</b>
<b>Table 8.5 Coefficient of the Multiple Regression Model/Health Service.....</b>	<b>204</b>
<b>Table 8.6 Coefficient of the Multiple Regression Model/Price Strategy.....</b>	<b>204</b>
<b>Table 8.7 Coefficient of the Multiple Regression Model/Distribution Strategy.</b>	<b>205</b>
<b>Table 8.8 Coefficient of the Multiple Regression Model/Promotion Strategy...</b>	<b>206</b>
<b>Table 8.9 Coefficient of the Multiple Regression Model/Physical Evidence Strategy.....</b>	<b>206</b>
<b>Table 8.10 Coefficient of the Multiple Regression Model/Process Strategy.....</b>	<b>207</b>
<b>Table 8.11 Coefficient of the Multiple Regression Model/Personal Strategy ....</b>	<b>207</b>
<b>Table 8.12a Marketing Mix Strategy and Hospital Performance Criteria....</b>	<b>208</b>
<b>Table 8.12b Marketing Mix Strategy and Hospital Performance Criteria....</b>	<b>209</b>
<b>8.13 Coefficient of the Multiple Regression Model/Hospital Performance Criteria .....</b>	<b>210</b>
<b>Table 8.14 Coefficient of the Multiple Regression Model/Financial Criteria ....</b>	<b>211</b>
<b>Table 8.15 Coefficient of the Multiple Regression Model/Quality Criteria .....</b>	<b>212</b>
<b>Table 8.16 Coefficient of the Multiple Regression Model/Customer Criteria ....</b>	<b>213</b>
<b>Table 8.17 Coefficient of the Multiple Regression Model/Marketplace Criteria.....</b>	<b>214</b>

<b>Table 8.18 Regressions with Five Independent Groups and Six Dependent Variables .....</b>	<b>215</b>
<b>Table 8.19 Significant and Non -Significant Relationship.....</b>	<b>216</b>

## List of Figures

Figure 1.1 The Research Structure.....	1
Figure 3.1 The General Outline of the Literature Review .....	17
Figure 3.2 Length Width, and Depth of a General Private Hospital.....	25
Figure 3.3 The Surgical Service Process.....	57
Figure 4.1 The I/O Model of Superior Returns.....	70
Figure 4.2 The PEST Framework for Environmental Auditing.....	72
Figure 4.3 Elements of Industry Structure.....	75
Figure 4.4 Identifying Competitor's Response Profile.....	100
Figure 6.1 Research Methodology Diagram.....	125
Figure 6.2 Research Original Model.....	150
Figure 9.1 The Original Model.....	239
Figure 9.2 Competitive Environment and Service Marketing Mix Strategy.....	240



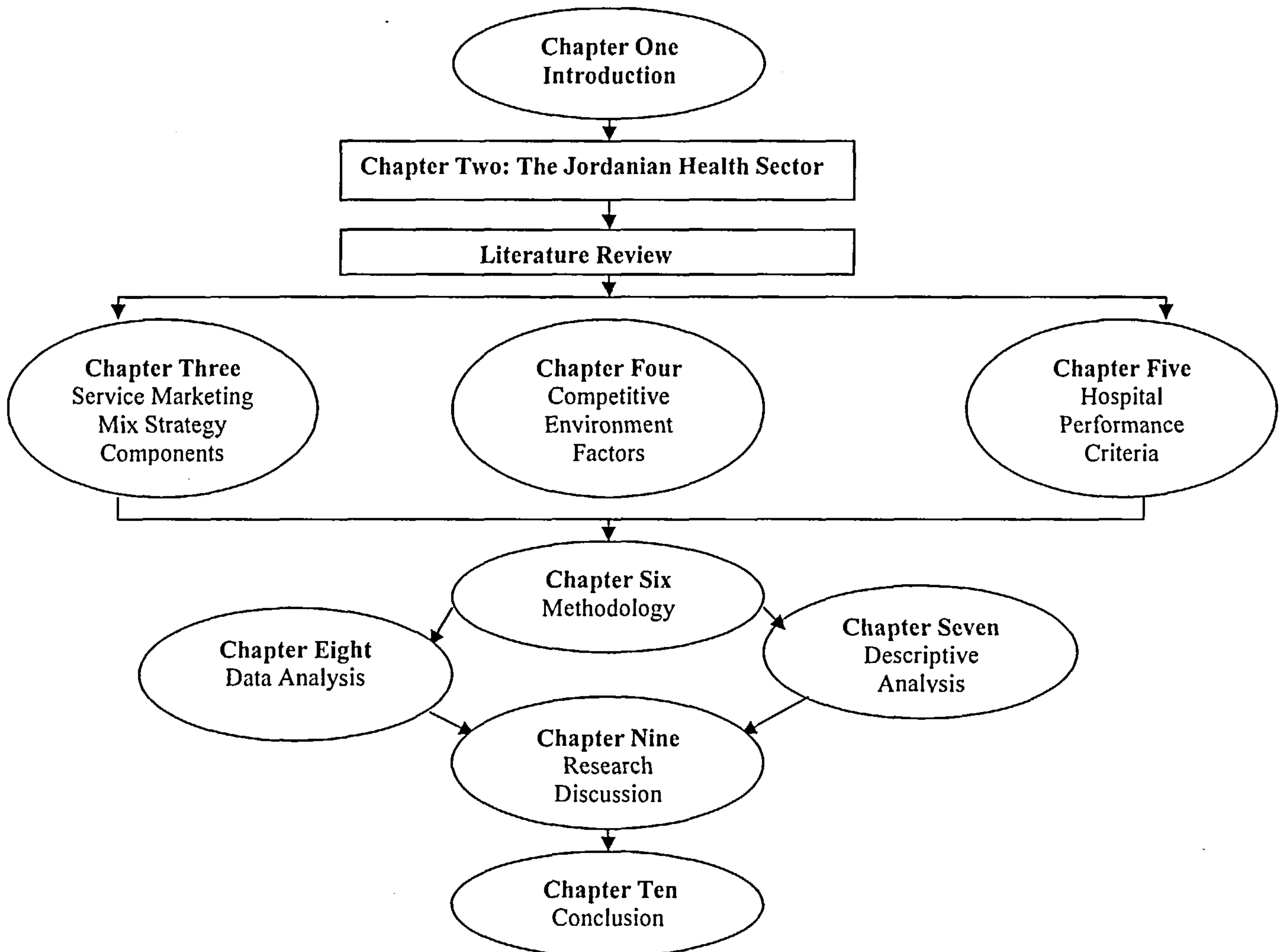
# Chapter one

## Introduction

### 1.1 Introduction

The purpose of this introductory chapter is to present an overview of the research, which is depicted in the next nine chapters. This introduction starts by presenting a background to the Jordanian health sector, followed by an identification of the research problem and a discussion of the research objectives. The chapter ends with a brief summary of the structure of the research. A detailed structure of the research chapters can be illustrated in Figure 1.1.

**Figure 1.1 The Research Structure**



## **1.2 Background of Jordanian Health Sector**

Jordan is a small country with a population of 5.480 million and an area of 87.000 square kilometres (General Statistics Bureau, 2003). The Jordanian health sector performs well in terms of access and health outcome, which are among the best in the region and among other middle- income or developing countries.

The physical infrastructure of Jordanian health institutions is good and it utilizes international advanced technology. There are, however, problems in some of its activities, (such as not applying the updated managerial and marketing) technologies, lack of professional staff to work in these departments and low occupation ratio for hospital beds. Health services in Jordan are delivered through an extensive network of public and private programmes. The overall capacity in terms of hospital beds and physicians is high (Brosk et al, 2000, MOH Annual Report, 2004).

The Jordanian health sector delivers health care through a complex amalgam of two major public health insurance programmes. The civil insurance programme managed by the Ministry of Health (MOH) and the army insurance managed by the Royal Medical Services (RMS)/ Ministry of Defence. There are several other public programmes including two independent university-based public programmes, Jordan University Hospital (JUH) and King Abdullah Hospital (KAH) at Jordan University of Science and Technology, United Nations Relief Works Agency (UNRWA) (which provides services to Palestinian refugees) and a large growing private sector (Jordan National Information System, 2002). The private sector plays an important role in delivery of health services, because many private firms/universities provide health care coverage for their employees/students either through self-insuring or the purchasing of private health insurance.

The services delivery system that the private sector accounts for is about 55% of the hospitals in Jordan, and 30% of total beds with an occupancy rate of 49%. It also contains much of the country's high-technology diagnostic capacity (World Bank, 1999; MOH annual reports, 2004). An estimated 80% of Jordan's population is



formally covered through various public (68%) and private insurance (12%) programmes, while 20% has no formal coverage (MOH annual report, 2004). Yet these 20% can purchase services at private sector hospitals.

### **1.3 The Research Problem**

The research problem evolves around investigating the marketing strategies in Jordanian private sector hospitals. Discussions, formal and informal interviews with managers in Jordanian private sector hospitals and the Jordanian Ministry of Health have indicated that marketing is one of the most critical problems that have contributed to the low performance of the Jordanian private sector hospital. They suggested that the hospitals beds occupancy rate is very low in comparison with the normal international rate enacted by World Bank study (1999). Moreover, the position of the health industry in Jordan is questionable in terms of its contribution to the Jordanian national economy, which is very low. According to the Jordanian Ministry of Health's report (2004) the occupancy rate for Jordanian private sector hospitals is 49% whereas the occupancy rate in the government hospitals is 75.4 %.

An occupancy rate of 80 percent is a frequently applied benchmark depending on geographical and epidemiological characteristics of the population, the range of hospital services available, and the willingness to tolerate queues and/ or shortages of services at certain times (World Bank, 1999).

### **1.4 Aim and Objectives of the Research**

Based on the above section highlighting the marketing problem in the Jordanian private sector hospitals, the broad aim of this research is:

**To determine the competitive environment factors influencing the marketing mix strategy components and to study the effect of marketing mix strategy on their hospital performance.**

To achieve this aim, four objectives have been identified, which guided the investigation of the research problem.

## **Objective of the Research**

1. To establish and define the components of the marketing mix strategy of the private sector hospitals in Jordan.
2. To identify the factors which constitute the competitive environment profile for Jordanian private sector hospitals.
3. To determine the influences of the competitive environment factors on the marketing mix strategy components in Jordanian private sector hospitals.
4. To determine the effects of the marketing mix strategy components on the performance of the private sector hospitals in Jordan.

### **1.5 Format of Thesis**

The initial focus of this research is on understanding the impact of competitive environment factors on service marketing mix strategy followed by the relationship between the service marketing mix strategy and hospital performance criteria. The overall view of the thesis, its background, research problem, aim and objectives and a model of research structure are covered in **Chapter One**.

**Chapter Two:** discusses the structure of the health care system in Jordan with its six main providers (MOH, RMS, JUH, KAH, UNRWA, and the private sector). This chapter provides a brief history about the health system in Jordan under the MOH as a governing body for the whole system. It also provides some detail about the different sectors in Jordan. The final part of this chapter discusses the management and marketing of the Jordanian private health sector in detail.

**Chapter Three:** is concerned with the relevant literature review related to the 7Ps (health service, pricing, distribution, promotion, physical evidence, process, and personal (people) strategies) of the services marketing mix framework. The chapter aims to define and discuss the marketing mix strategy in service marketing in a service context. In the service context, the unique features and characteristics of the service are presented. The chapter begins with an overview of the evolution of the original marketing mix framework and a discussion of the marketing mix definitions.



Literature relevant to the services and health services marketing mix strategies is extensively discussed.

**Chapter Four:** reviews the competitive environment factors concept in the services marketing area. This chapter aims to define and discuss the constitution of the competitive environment factors influencing the hospital industry. This chapter starts with a general view of the external environment influences and is followed by a discussion of the competitive environment factors in the service sector in general, and the hospital sector in particular. Relevant literature on the general environment and competitive environment in the health sector is thoroughly discussed.

**Chapter Five:** is concerned with the relevant literature review related to hospital performance measurement criteria. The chapter aims to define and discuss the measurement criteria used in the health service sector.

**Chapter Six:** discusses the methods and tools by which the research will be carried out and implemented. In this research different research philosophies are discussed and their strengths and weaknesses are assessed. This evaluation leads the researcher to identify the benefits of both qualitative and quantitative research methodologies to gain more perspectives and explore the researched relationships in greater depth. As such, this chapter begins by discussing various research methodologies and presenting the main methodological paradigms. While this research has relied more on the quantitative approach, the triangulation approach is utilized, whereby both the quantitative and qualitative approaches are incorporated in order to compensate for the drawbacks of either methodology. This chapter continues discussing the survey stage of the research, explaining the questionnaire design, the semi-structured interviews including the sample, the sample population, the sampling frame, the sampling size, and the translation of the questionnaire. The data collection process is also discussed in this chapter regarding semi-structured interviews, the survey, how the survey and the interviews were conducted, and the response rate of the survey using a drop-off and pick-up approach, mail approach, and remaining with respondents whilst they answer the research questionnaires in some hospitals. The research validity is additionally discussed using face validity, criterion validity, and construct validity. The reliability analysis is presented herein. Building the research

framework is presented in this chapter. Finally the chapter concludes with a brief overview of the data analysis techniques used in this research.

**Chapter Seven:** starts with a descriptive statistical analysis of the general demographic characteristics of the respondents including their age, educational level, academic background, position, hospital size, and hospital location. It continues to discuss and analyse the mean and standard deviation of the respondents' perceptions concerning the questionnaire items.

**Chapter Eight:** presents the data analysis stage of this thesis. It commences with assumption of the multiple regression using normality, linearity, homoscedasticity, and multicollinearity. It further continues to analyse the effect of competitive environment factors on marketing mix strategy. As such, it provides analysis of the effect of marketing mix strategy on hospital performance criteria.

**Chapter Nine:** presents discussion of the overall quantitative and qualitative data and findings of this research. It presents interpretation, triangulation and reflection of the quantitative and qualitative results presented in the previous two chapters; in addition, comparisons with other related studies are made. As such this chapter presents the modified research framework.

**Chapter Ten:** a managerial and practical implications as well as the theoretical summary with the empirical implications, the limitations of the study and directions for future research. It suggests that competitive environment factors have a partially significant effect on marketing mix strategy components. Marketing mix strategy components have a partially significant effect on hospital performance criteria. As such this chapter presents the research contribution



## **Chapter Two**

### **The Jordanian Health Services Sector**

#### **2.1 Introduction**

This chapter focuses on the Jordanian health sector in general and private hospitals in particular. It starts with the background of the Jordanian health care system. To fully understand how the health care system works, each of the health delivery programmes is described in general, and private sector hospitals are described in detail.

#### **2.2 Background of the Jordanian Health Sector**

Jordan is a small country with a population of 5.48 million and an area of 87,000 square kilometres (General Statistics Bureau, 2003). While the Jordanian health sector performs well in terms of access and health outcomes, which are among the finest in the region and, among other developing countries, it is both expensive and inefficient, and there are geographic misdistributions of resources.

The population is relatively well educated with an adult illiteracy rate of only 9.9 %. Health indicators are also relatively positive, with a life expectancy at birth of 70 years, and an infant mortality rate of 22 per 1,000 live births (MOH Annual Reports, 2003). However, the population of Jordan is growing. The total fertility rate is 3.7 children per woman of reproductive age and 41% of the population is under the age of 15 years (i.e. entering their prime fertile years) (MOH annual report, 2003). At the same time, a decline in the death rate has increased the number of elderly in the population. These factors raise concerns for increasing expenditure on health care (World Bank, 2000).

The physical infrastructure of Jordanian health institutions is good and has kept abreast of international advances in technology. Even so, there are problems in the workings of the health sector. For example, managerial and marketing activities are not up-to-date, there is a dearth of professional staff, a low occupancy rate, lack of

coordination between the multiple public and private financing and delivery systems (Jordan Times,2000), and the inappropriate use of higher levels of the system due to poor referral networks (World Bank, 1999). The Jordanian hospital bed occupancy rate is approximately 62.2 % (MOH annual reports, 2003) which is below the generally accepted norm of 80 %.

Only 49% of the 3,532 beds in the country's 55 private hospitals are occupied. In contrast, the occupancy rates of the health ministry's 29 hospitals (with a total of 3,587 beds); the Royal Medical Services' 10 hospitals (1,801 beds) and the public universities' two hospitals (823 beds) have soared to 75.4 % (MOH annual report, 2003).

According to National Health Accounts (NHA), in 2001 Jordan spent approximately 598 million Jordanian Dinars (JD) (US\$ 837.2 million) on the health sector, which accounted for 9.12% of GDP. Health expenditure per capita in 2001 was JD 101 (US\$141). NHA results highlight the fact that the proportion of GDP (9.12%) spent on health care is extremely high. This level of expenditure might be hard to sustain given the sizable population and low economic growth rates (World Bank, 1999; Brosk et al, 2000).

There were 22.6 physicians per 10,000 population in Jordan in 2003 and 29.3 nurses (all categories) per 10,000 population in 2003. While this physician per population ratio is close to that found in the Organisation for Economic Cooperation and Development (OECD) countries, which average 25 physicians per 10,000 persons, it is much higher than the average of 8 per 10,000 for the Middle East and North African (MENA) region. Jordan has 17.7 hospital beds per 10,000, which is equal to the MENA average and lower than either OECD countries (83 beds per 10,000) or the United States (44 beds per 10,000) (Brosk et al, 2000, MOH Reports, 2003). Jordan has 63 dentists per 10,000 population, and 11.6 pharmacists per 10,000 population (MOH report, 2003).

### **2.3 Major Health Care Delivery Programs**

Health services in Jordan are delivered through an extensive network of public and private programmes, and overall capacity in terms of hospital beds and physicians is



high. Jordan delivers health care services via a complex amalgam of two major public health programmes, the civil insurance program, administered by the Ministry of Health (MOH) and the Royal Medical Services (RMS). There are several other public programmes including two from independent universities. The Jordan University Hospital (JUH), and the King Abdullah University Hospital (KAU) at the Jordan University of Science and Technology (JUST), United Nations Relief Works Agency (UNRWA) which provides services to Palestinian refugees and a large and expanding private sector.

Each major program has its own delivery system with little co-ordination between them. There is not a single managerial entity responsible for the overall health system. Civil and army programs have their own pharmaceutical procurement, management, and distribution systems (World Bank, 1994, 1999). Table 2.1 is an illustration of the estimates of health insurance coverage in Jordan.

**Table 2.1 Estimates of Health Insurance Coverage in Jordan**

Source of Health Coverage	Percentage %
Royal Medical Services	35
Civil Insurance Program (MOH)	23
JUH/KAH/UNRWA/other public	10
Private Sector	12
Uninsured	20
<b>Total</b>	<b>100%</b>

Source: Adapted from World Bank Health Sector Study (1999) and MOH Annual Statistical Report (2003).

The Jordanian government provides free primary and curative health services to its citizens. A multitude of agencies provide health services: The Ministry of Health, - 23% are enrolled in the civil insurance program for the comprehensive public health services the MOH provides i.e. primary, preventive, and curative care. The MOH covers civil servants and dependents; individuals certified as poor, the disabled, and blood donors. It operates over 52 comprehensive health centres, 340 primary health

centres, 352 maternity and child health care centres, 250 dental clinics, 12 chest diseases centres, 29 hospitals, and 3,587 hospital beds (MOH Report, 2003).

The ministry's responsibilities include: public health, quality, standard setting, medical education and training, monitoring and licensing private care facilities; running various specialist laboratories and blood bank services; and planning future services, plus health statistics reports.

The Royal Medical Services (RMS) is the largest insurance provider in terms of individuals covered (about 35% of the population). The RMS services are run by the Royal Medical Services/ Defence Ministry for military personnel and their dependents. The military health insurance system of the RMS was introduced in 1963 to provide medical treatment to members of the armed forces and their families and other referrals from the MOH and the Jordan University hospital, and also other patients, through contractual agreements with public firms. The RMS operates 81 ambulatory care centres, 5 clinics, 10 hospitals, 1,801 hospital beds (MOH Reports, 2004).

The University Hospitals: there are two university hospitals providing health services in Jordan. First, the Jordan University Hospital (JUH), which covers Jordan University employees and their dependents (less than half a percent of the population) and serves, for a fee, a service referral centre for other public programmes and private payers. The JUH operates 540 beds. Second, King Abdullah University Hospital (KAU), which covers Jordan University of Science and Technology (JUST) employees and their dependents, and serves, for a fee, a service referral centre for the public programme and private payers. The KAU has 283 beds (MOH Reports, 2004).

The United Nations Relief and Works Agency (UNRWA) provides health care for over 400,000 Palestinian refugees, many of whom are also covered through the MOH and RMS. UNRWA runs its own system of health centres and refers patients to the MOH and private facilities for hospital care. The UNRWA operates 23 clinics



throughout Jordanian's cities. Appendix (A) summarizes the health sub-systems in Jordan.

## **2.4 The Jordanian Private Health Sector Management and Marketing**

As a result of the economic boom affecting the area during the last two decades, Jordan is experiencing wide-scale socio-economic progress in the private sector. In particular, private hospitals demonstrate progressive development in response to the following criteria:

- The geographical location of Jordan, that facilitates simple access and communication by neighbouring Arab and especially Gulf countries including Yemen, Sudan, Iraq, Syria, Lebanon and Libya.
- The highly distinguished professionalism, advanced skills and qualifications, and excellent reputation in medical and health services.
- Availability of the most advanced medical equipment and systems in Jordan, in accordance with recent technological advances.
- Implementation of the governmental program of privatisation in many economic and service sectors. This may lead to privatisation of the public health sector in Jordan.

The Jordanian private health sector is represented in three ways. First, through private clinics and hospitals. According to the MOH reports, the private sector had 36% of the total beds with an average occupancy rate of 49% (MOH, 2003). There are in addition many private clinics (i.e. single or group physician practices) throughout Jordan, but with the majority in Amman. Most of the private hospitals and clinics were constructed in the 1990s. Some of Jordan's private hospitals continue to be in demand because of their reputation for quality. Second, through the pharmaceutical and medical supplies sector. This sector is able to produce and import drugs and medical supplies. Third, through a number of spa-villages, for example those at the Dead Sea and Maai'n and also through hotel services to provide health services to Jordanian and non-Jordanian patients, and visitors from other target countries.

The reputation for high quality gained by many private hospitals has been linked to successful contractors with impeccable standards, such as the renowned American Mayo clinic and the Duke University Medical Centre. The third party payer's

management contracts are expanding as a means of improving quality and reducing costs (Abu-Noktah, 2000).

The environment is a powerful force acting upon the effectiveness of strategic decision-making; failure to take cognisance of the influence of the environment can have disastrous consequences (Proctor, 2000).

The rapid growth of this sector has been accompanied by dramatic changes in the environment, challenging health care managers and administrators to discover alternative ways of remaining viable (Andaleeb, 1998).

It is crucial to observe that the senior management team's perception of organisational environments significantly affects the strategic choices they make. If its perception of the environment is favourable and filled with opportunities, then its strategic postures would be aggressive and externally-oriented. Alternatively, if it perceives the environment to be fraught with danger then it would be most defensive in its strategic posture (Godiwalla et al, 1997).

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 Jordanian people of modern health care and which 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 needs and wants for the target market on one hand and, on the other hand achieving management and organisational goals. To accomplish this, health care service providers and marketing decisions makers must adapt their strategies besides modifying their services according to the external environment in which they grow up and survive.

Hospital management should be analysing marketing activities more effectively to improve ways of handling marketing problems by:

- Shedding light on the surrounding environmental conditions.



- Conducting relationship marketing that helps in making a connection between the hospital and its environments.
- Updating knowledge about both current and future marketing decisions in Jordanian hospitals by considering marketing as being a sub-system operating in a larger system which is the surrounding environment.

The strategic focus of the particular hospital should be based on a correct choice of the strategic environment facing the hospital. Emphasis should be on (Godiwalla et al, 1997):

- Strategic flexibility in the current period so that they can respond to altering conditions of the market factors.
- Empowerment of employees who must share the vision of leadership.

The lucrative potential of what has come to be known as “medical tourism,” prompted Jordan over the last few years to attract Arab patients to the country's private medical sector in order to transform it into a major hard currency earner (Jordan Times, 2000).

The Jordanian Economic Consultative Council formulated a plan to promote Jordan as a hub of the medical industry and health care services, catering to patients notably from Arab countries (Jordan Times, 2002a).

This called for an upgrading of standards in selected specialisations with a view to securing a competitive edge within the region with the aim of attracting Arab patients.

Diverse factors, which are promoted by Jordan to attract Arab and Mediterranean patients, are as follows:

- The low cost of surgery, compared to costs in the USA and European hospitals.
- The high standard of care provided to patients who come to Jordanian private hospitals for treatment.
- The excellent reputation that Jordanian private sector hospitals enjoy in the region.

- The country's advanced health care system, notably in the fields of coronary care and surgery, kidney, brain and eye specialisations.
- The prevailing sense of security in Jordan.
- The high standard and wide-scale availability of accommodation for patients and accompanying visitors.

According to official industry figures, in 2002, Jordan generated JD500 (\$700) million in revenue from patients from many different Arab countries who came for medical treatment (Jordan Times, 2002b).

Upon the recommendations of the Economic Consultative Council in 2000, to reinvigorate the private medical sector, the Ministry of Health formed a committee the same year to establish links with Arab countries and tap into the market for patients requiring treatment. Additionally, Jordanian officials in Arab embassies began to promote the Kingdom's most specialised hospitals and their services to prospective patients.

There is a great shortcoming in the marketing activities and capabilities of the Jordanian services sector in general and health care sector in particular. Abu-Noktah (2000) concluded that most problems encountered in the Jordanian private sector hospitals are related to the following:

- The absence of a scientific concept of marketing in the services sector, particularly the health sector.
- Concentration on process problem without paying attention to actually marketing their services, despite the strong competition facing hospitals.
- Failure to study how to benefit from external environmental factors, and use this knowledge to the advantage of the hospital in the health market.
- Decision making in these hospitals is concentrated in their owners, while their directors are less authorized to make decisions related to marketing.
- Lack of qualified personnel in the field of health care marketing.
- The belief in some Jordanian hospitals that marketing is unethical in relation to the health sector.



Consequently, it is imperative for marketing managers to analyse the environment in order to formulate appropriate strategies for coping with the external environment from which the hospital has its inputs (resources, clients, and employees) and to which it sells its output.

## **2.5 Summary**

This chapter was necessary within this thesis to present the context and the environment in which the fieldwork of this research was conducted. It represents a brief overview of the health system in Jordan, which shares common characteristics with many Arab countries in the region. It attempts to provide a brief survey of the structure of the health services in Jordan headed by the Ministry of Health, which is the governing body of the whole health system. As a result of numerous contemporary developments, the health system is attempting to excel and adapt to local and global transitions that are affecting the entire region. The impact may well influence the overall managerial practices, including human resource and marketing aspects. Health service quality appears to have a place too. Competitive environmental factors have been the focus of this research which began by presenting a background to the health system in Jordan, followed by its structure which encompasses public, private, and every charity sector providing health services to patients. The final section of this chapter discusses Jordanian private health sector management and marketing.

## Chapter Three

### The Service Marketing Mix Strategy Literature Review

#### 3.1 Introduction

A number of researchers (McCarthy's, 1964; Booms and Bitners, 1981; Brunner, 1989; Rafiq and Ahmed, 1995; Harvey, 1996; Goldsmith, 1999; Kotler, 1999; Zeithaml, 2000; Lovelock, 2001) have previously argued that the traditional 4Ps of the marketing mix model are inadequate for either the marketing of goods or for services marketing. Services are different from products, because of their characteristics; intangibility, inseparability, heterogeneity, and perishability (Zeithaml et al, 1985). The unique characteristics of services create unique marketing problems and challenges, which need special marketing strategies to deal with them. Consequently, the marketing strategy in the services should include the 7Ps of the services marketing mix and framework, which may have a crucial effect on hospital performance (Booms and Bitner, 1981; Cowell, 1984; Collier, 1991; Lovelock, 2001).

The purpose of the current chapter is to explore existing literature relating to services marketing mix strategy components included in the research, which represent the first part of the research framework. This objective was achieved through reviewing relevant literature in both services and health services context for research purposes. Figure 3.1 is an illustration of the general outline of the literature review in chapter three.

#### 3.2 The Evolution of the Original Marketing Mix

The term marketing mix refers to a set of tools available to an organisation to shape the nature of its offer to customers (Palmer, 2001). Kotler (2000: P15) defines the marketing mix as *"the set of marketing tools that the firm uses to pursue its marketing objectives in the target market."*

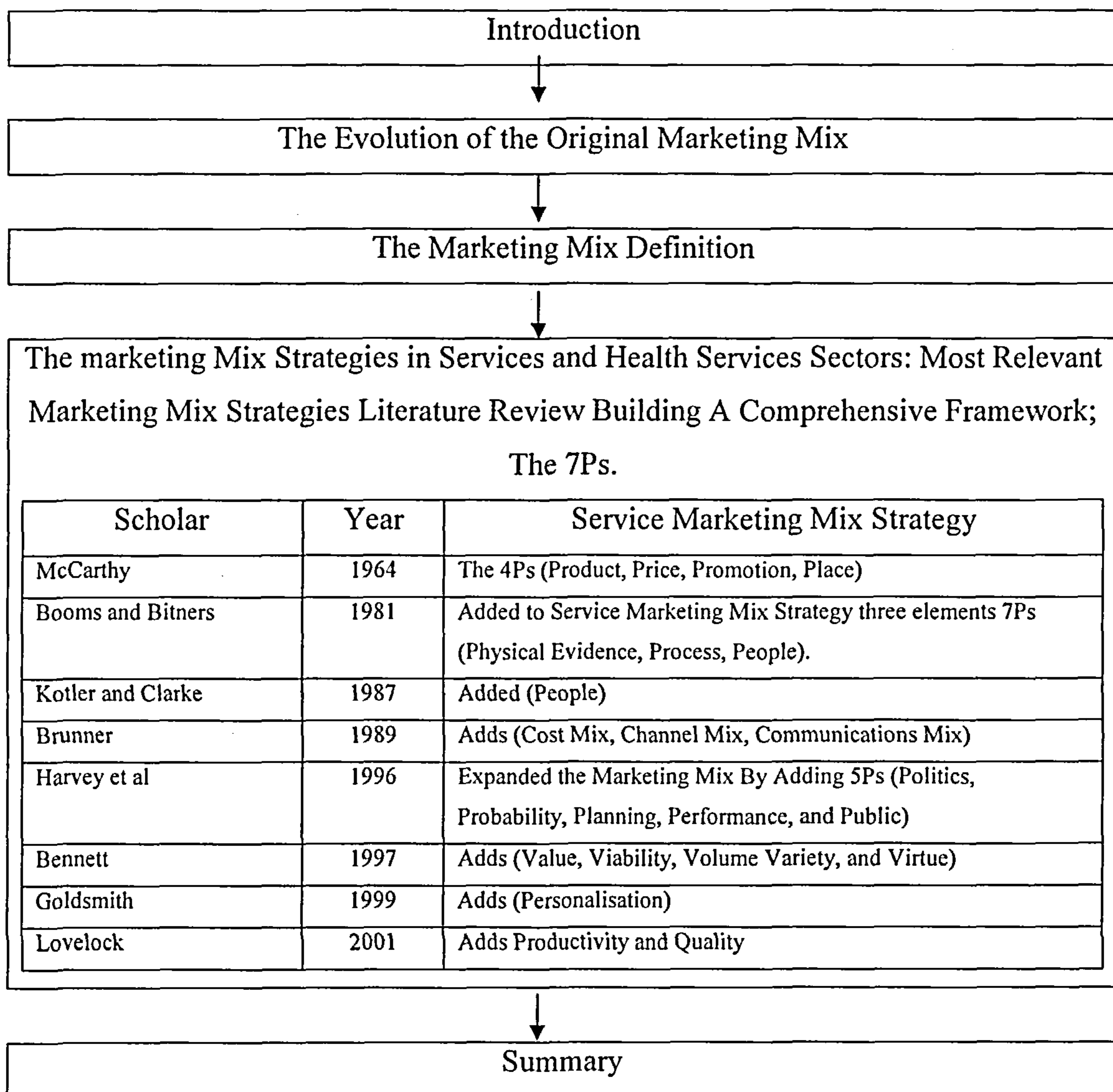


Figure 3.1 The General Outline of the Literature Review in Chapter Three

The marketing mix strategy is considered one of the core concepts of marketing theory (Rafiq and Ahmed, 1995; Ziethaml and Bitner, 2000).

In recent years, the popular version of this concept, that of McCarthy (1964) relating to the 4Ps: (product, price, promotion and place), has increasingly come under attack with the result that diverse marketing mix strategies have been put forward for different marketing contexts (Rafiq and Ahmed, 1995).



Earlier work of Booms and Bitner (1981) extend marketing mix for services from 4Ps to 7Ps adding three elements to the traditional model: participants, physical evidence and processes (Booms and Bitners, 1981).

Brunner (1989) reformulated the marketing mix that comprises the concept mix; cost mix, channels mix and communications mix whereas the cost concept includes not only monetary costs but also costs incurred by the customer e.g. transportation, parking, information gathering, etc. Along similar lines, Rakich (1994) in considering health care services suggests that patients pay more than just monetary fees, they also pay effort costs, psychic costs and waiting costs (Rakich, 1994).

The channels concept is essentially the same as the traditional place element. The communications element includes not only the traditional promotional element but also information gathering (Brunner, 1989).

Chee and Harris (1993) contend that the price and the physical facilities of a service are important tangible clues to enable consumers to assess its quality before purchase. Sales promotion is a necessary tool to attract consumers to try a new service.

Harvey et al (1996) argue that the traditional 4Ps of the marketing mix can be expanded by adding an additional 5Ps: politics, probability, planning, performance and public (Harvey et al, 1996).

By adding personal, physical assets, and procedures to the marketing mix (forming the 7Ps) services marketing theorists ventured out into a new field of management theory and practice separate from the marketing of tangible goods (Lovelock et al, 1996).

Goldsmith (1999) proposed a new area of decision-making responsibility and competitive tools in *personalisation* as one of the most crucial for marketers in the present and future business environment. Goldsmith (1999) labelled this new suggestion as the 8Ps (Goldsmith, 1999).

Bennett (1997) argues for a paradigm which is driven by the needs of the market rather than the organisation. He posits that the disposition of the buyer towards a product or service, or supplier during the sourcing process can be represented by five distinct criteria termed the “five Vs.”: value, viability, volume, variety and virtue. It is proposed that the five Vs can be used in conjunction with the marketing mix to enable a supplier or provider to achieve a more detailed understanding of the buying process and, ultimately, of product / service adoption (Bennett, 1997).

In health care, more than in other services, the product is the person. When the patient thinks of medical care he or she thinks of the physician. The patient envisions medical care in terms of the people who deliver it. Thus the fifth P of marketing is the organisation’s people (Kotler and Clarke, 1987).

Kotler (1999) has suggested a further two Ps in addition to the 4Ps of the marketing mix elements: *politics* and *public opinion*. More recently, Lovelock (2001) added both productivity and quality as an eighth P to the services marketing mix framework. These two elements are regarded as strategic elements in the services management paradigm.

Judd (2003) proposed that the employees of an organisation be formally considered an element of the marketing mix, defined as “people – power”. Accordingly, it is proposed that the traditional 4Ps model of marketing be expanded to include a fifth P in people power as recognition of the employee’s role in helping an organisation differentiate itself in order to gain a competitive advantage (Judd, 2003).

Overall, therefore, it was found that no consensus exists among scholars of marketing vis-à-vis a sole marketing mix model for goods or services. The symbiotic co-ordination and integration of essential marketing mix components, however, is widely held to be critical for the development and design of strategies which aim to realize an organisation’s objectives.

### **3.3 The Service Marketing Mix Definition**

There is a number of definitions that have been forwarded by marketing scholars to define the marketing mix.



Cowell (1984: P 71) defines the marketing mix as *“The convenient means of organising all the variables controlled by the marketer that influence transactions in the market place.”*

McDonald (1989: P 330) defines the marketing mix as *“The “tools” or means available to an organisation to improve the match between benefits sought by customers and those offered by the organisation so as to obtain a differential advantage.”*

Van Waterscott and Van den Bulte (1992: P 88) define the marketing mix as *“The controllable demand-impinging instruments that are combined into a marketing program used by the firm to achieve a certain level and type of response from its target market.”*

Dibb et al (1997: P 18) identify the marketing mix as *“The tactical “tool kit” of product, distribution, promotion, price, and people that an organisation can control in order to facilitate satisfying exchange.”*

Palmer (2001: P 10) regards the marketing mix as being *“the set of tools available to an organisation to shape the nature of its offer to customers”*.

It is evident from the various definitions offered that there is no one unified definition which has been accepted by marketing scholars. However, these definitions do have crucial themes:

- The most significant theme is that the marketing mix variables are seen as “controllable variables” that are viewed as being under the marketer’s control.
- These variables are considered as tools or means that can be used in order to influence customers demand and to achieve companies’ objectives or achieve a differential advantage within the marketplace.
- These variables are used to communicate and satisfy customer needs and wants in the present and the future.



- The marketing mix variables should be coordinated and integrated in a way, which enables a company to achieve its predetermined objectives via satisfying customers' needs.

### **3.4 Service Marketing Mix Strategies in Services and Health Services**

#### **3.4.1 The 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, 1990b). The service product is the central component of any marketing mix strategy (Cowell, 1984; Ennew and Watkins, 1992; Ennew, 1998).

Roberts et al (1989) defined a product as a bundle of perceived benefits that will meet the consumer's needs and may also include the services provided before and after the sale.

Grönroos (1990) defines a service as an activity or series of activities of a more or less intangible nature that normally, but not necessarily, occur in the interactions between the customer and the service employees and / or physical resources or goods and / or systems of the service provider that are provided as solutions to customers' problems.

Armstrong and Kotler (1991) describe a service as being something that is exchanged between the parties and that is, by its nature, ephemeral and does not lead to possession of any thing concrete.

Product strategy is McCarthy's first element of the marketing mix components. It can be summarised as the ultimate result involving benefits being enjoyed by a client at the time of a purchase/ receipt of service from an organisation (Kotler, 1997).

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 and Tuominen, 2002).

Services differ from goods in terms of how they are produced, consumed, and evaluated. Chase and Tansik (1983) classified services based on consumer contact. The extent of consumer contact with the service organisations was used as a means of differentiating types of services. The three types of services identified were:

1- Pure service – organisations in which the customer must be present for service production (e.g. surgical operation, nursing home).

2- Mixed service – organisations in which there is both face-to-face as well as back office contact with the customer (e.g. commercial, airline).

3- Quasi-manufacturing service – organisations in which there is no face-to-face contact with the customer (e.g. credit card companies, long distance phone companies, and in health services e-health and telemedicine) (Gupta, 1995).

Zeithaml (1996) classifies services into three categories:

(1) High on search attributes (performance of the service can be known before consumption)

(2) High on experience attributes (attributes that can only be discerned after purchase or during consumption) such as a haircut or eating at a restaurant. These services are non-professional services that can be substituted by self-service by the consumer.

(3) High on credence attributes (attributes that consumers may still find impossible to evaluate after consuming the service) such as medical services and repair services. These are professional services that require special training or license.

The unique characteristics of services that determine what constitute components of the service product is generally a difficult task (Cowell, 1984). Blois (1983) argues that the key aspect of the service product strategy in health service organisations is to meet the problems, which are created by these characteristics. Therefore, when these organisations move through these levels they are trying to differentiate themselves (Levitt, 1983; Gronroos, 1990b; Lovelock, 2001). This can be achieved by having a range of high quality services, means of branding, new service development, and customer service (Levitt, 1983; Ennew and Watkins, 1992; Ennew, 1998; Kotler, 2000; Baker, 2000; McDonald, 2002).

Hence, it could be argued that (Blois, 1983; Lovelock, 1983; Gilmore and Moreland, 2000):



1- Health services are largely **intangible**. There is a difficulty from the customer / patient's perspective to evaluate and measure the quality and outcomes of health services. The hospital sells the utility or satisfaction of services (Blois, 1984) and a reduction of anxiety.

2- Many health services need **speed and agility** in performance, as delay may not be desirable, especially in emergency cases.

3- The health services cannot be stored when not in use (**perishability**).

4- Personal selling in health care is an example of selling **non-standardised**, highly technical and intangible services. Sales-people in this industry are asked to tout the skills and talents of their medical specialists and staff to a wide variety of customers, including primary care physicians, insurance companies and employers (Bowers et al, 1994).

5- **Inseparability**. A doctor or a consultant cannot be separated from the service that they provide.

Services differ from goods in several ways. The fundamental difference is intangibility. Services cannot be seen, felt, tasted or touched in the same manner in which goods can be sensed. Therefore services are an experience. Inseparability of production and consumption is another characteristic of services and involves simultaneous production and consumption. Products are first produced then sold and later consumed. Heterogeneity is also a typical characteristic of services. The quality and essence of a service can vary from producer to producer, from customer to customer, and from situation to situation. This makes the process more problematic to standardise. Another characteristic is perishability and the inability to store or save a service. Hence, it is difficult to synchronise supply and demand (Zeithaml et al, 1985).

The key to success in services marketing is "tangibilizing the intangible" (Levitt, 1981; Berry, 1986). One way to increase the tangible nature of a service is to use an explicit clue such as a brand. Service brands help to reduce consumer purchase risk and optimise their cognitive processing abilities (Onkvisit and Shaw, 1989).



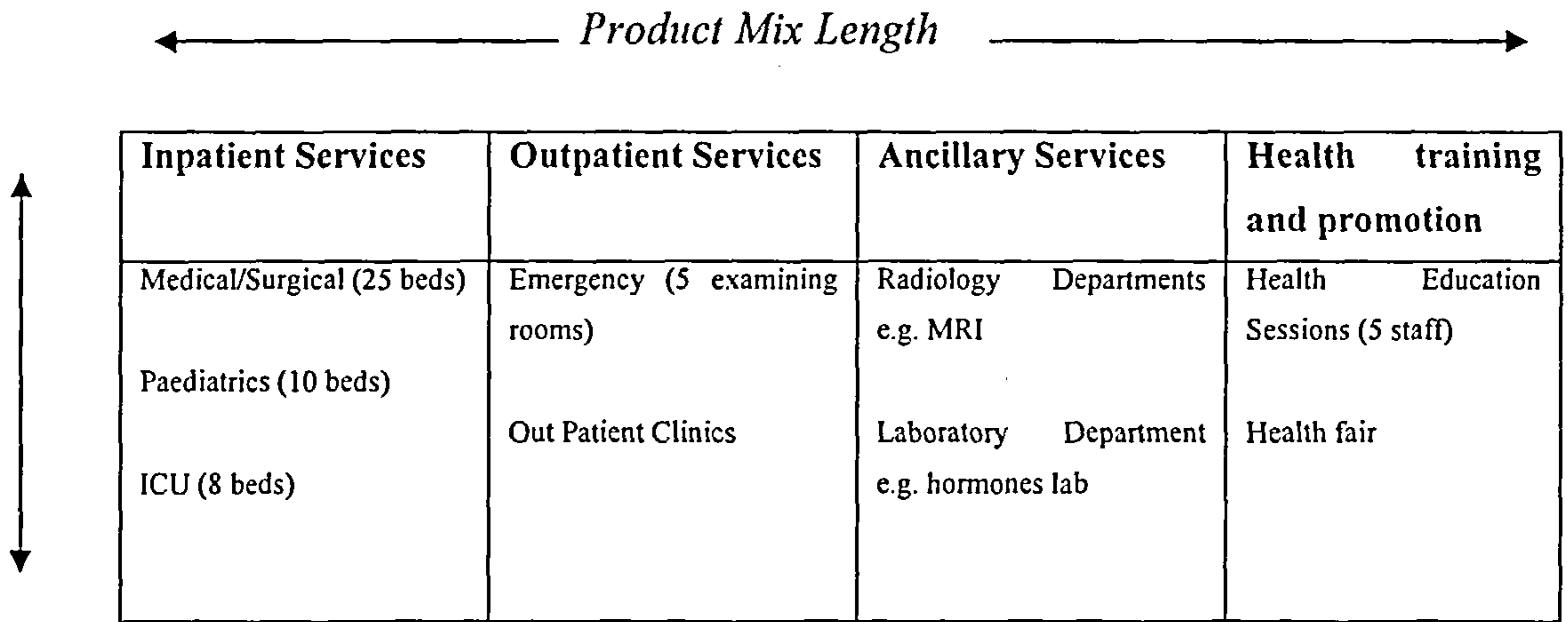
The implications of customer participation in the service delivery process have been referred to by many authors including Grönroos (1990), Kelley et al (1990), Lovelock (1992), Canziani (1997), Mayer et al (2003), Hsieh et al (2004), and Vukmir, (2006). As Grönroos (1990) noted, customers are not just passive consumers of services. They participate in the production of a service in an active way. The variability of this factor arises not only from the customer's own behaviour, labelled the style of consuming'' by Grönroos, but also from the behaviour of other customers in the service setting. Kelley et al (1990) also note the critical role that customers play as active participants in the service production and delivery process. It is argued that the ultimate quality of the delivered service is influenced by the information and effort that the customer brings to the service situation. Lovelock (1992) referred to this as one's exposure to other customers or customer-to-customer interactions. Canziani (1997) further discussed the customer's inseparability from the service delivery system. It is suggested that customers could be segmented based upon their ability to effectively participate in service delivery given the customer's designated roles in the process (Mayer et al, 2003).

### **Health Service Range**

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. For example, the teaching/university hospitals have three service lines, each with numerous specific services. These are: teaching for the medical school students, research for medical staff and scientists, and patient care by providing them with the services, which they require (Kotler and Clarke, 1987). The product mix is defined as the set of all product lines and items that a particular organisation makes available to consumers. In the hospital industry the product mix is described in terms of its *length*, *width*, and *depth*. These concepts are illustrated in Figure 3.2 for the product mix of a general private hospital.

The product mix, in term of its length, consists of four product lines: inpatient services, outpatient services, ancillary services, and health training and promotion services. Each product line has a certain width: the inpatient services include medical surgical, Paediatrics, and ICU. Finally, each product item has a certain depth: the hospital contains 10 paediatrics 10 beds.

**Figure 3.2 Length Width, and Depth of a General Private Hospital**



*Product Line Width* Source: Adapted from Kotler and Clarke, 1987, p.329

### Service Brand

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).

Many service industries such as financial services or health services are facing increasing competition. Strong brands are established not only in the market, but also in the mind of the customer. Services can be classified into two categories. Firstly there are services which are small or unlinked to goods; and secondly services that are connected with the products (Keller, 2003; Kim et al, 2003).

Dobree and Page (1990) list five steps for effectively branding services. These are:



- 1- Building a brand proposition,
- 2- Overcoming internal barriers,
- 3- Measuring delivery against the proposition,
- 4- Continual improvement,
- 5- Expansion.

Dobree and Page (1990) additionally recommend developing a "service contract" internally to create ownership for the service brand across all levels of the organisation.

Gale (1994) defines a power brand as a "name that means satisfaction, quality and value to the customer". He recommends understanding customer needs, delivering superior quality on attributes that matter to customers, low "cost of quality", overall cost leadership and effective positioning as some of the steps that lead to building a powerful service brand. This can result in achieving a prized reputation denoting that your particular brand (or power brand) represents special qualities including satisfaction high quality and value money.

Aaker's (1996) brand identity framework proposes four elements under which an identity is typically developed for a brand. These are:

- 1- Brand as product,
- 2- Brand as organisation,
- 3- Brand as person,
- 4- Brand as symbol.

Brand as product concerns the product related attributes of the brand. This factor deals with the tangible and intangible aspects of the product and the manner in which the customer relates to it. Brand as organisation deals with the organisation's innovation, consumer concern etc., that are crucial in building strong brands. Brand as person deals with the personality aspects of the brand. Aaker (1996) defines brand personality as the set of human characteristics associated with a brand. Thus brand personality encompasses such characteristics as gender, age, and socio-economic background as well as classic human personality traits such as warmth, concern and sentimentality.



Charnatony and McDonald (1998) summarise some of the key issues that affect branding. Issues noted include characteristics of services, importance of symbols in brand building, empowerment of staff, and consumer participation in developing the brand.

To the consumer, a brand identifies the source of the product, which in turn assigns legal responsibility to the product maker, and provides a promise or bond with the maker of the product (Lassar et al, 1995). In addition, brands reduce consumer search costs (Landes and Posner 1987; Biswas, 1992), perceived risk, and signal the quality of the product (McNeal and Zero, 1981; Herbig and Milewicz, 1993; Shimp, 1993; Erdem, 1998; Janiszewski and Van Osselaer, 2000). The brand, therefore, becomes the purveyor of advantages to the consumer, in terms of both economic and symbolic value. In the area of branded goods considerable effort and understanding has developed over the last decade.

Keller (1993, 1998) focuses on brand knowledge while Aaker (1996) focuses on brand image. However, despite the importance of service brands and related consumer perceptions, marketers and researchers have not devoted sufficient attention to this area.

Biel (1992) speaks of brandscapes, Aaker (1997) brand personality, Keller (1998) brand image, and Berry (2000) brand meaning. Most of these labels have conceptual similarities and are often referred to synonymously within the literature.

Brand personality refers to the set of human characteristics associated with a brand (Aaker, 1997; Freling and Forbes, 2005). Brands can be characterised by personality descriptors or traits, such as youthful, energetic, extrovert, powerful, or sophisticated (Keller, 1998). In other words, the brand personality may be described and communicated in terms of both demographic or psychographic characteristics (Aaker, 1997) providing a framework on which the brand can be positioned in the consumer's mind. In particular, brand personalities are used to mirror the personality characteristics of the target consumer, hence attracting a particular market through identification, and enticing those who view that personality as their ideal (Sirgy, 1982). A well-established brand personality has been said to heighten emotional ties

with the brand, increase preference and patronage, and develop trust and loyalty (Biel, 1992; Siguaw et al, 1999; Austin et al, 2003). In a similar sense, one could argue, many hospitals advertise themselves in relation to the sophisticated surgical operations that are performed in-house by well-known surgeons.

### **New Service Development**

During the last two decades, the deregulation and globalisation of markets, as well as the internationalisation of service firms, has made competition among service companies extremely harsh. These trends place service innovation at the heart of the firm's competitiveness, as constant adaptation in a turbulent environment requires a continuous flow of new offers. Consequently, much research has concluded that new service development (NSD) is a major competitive factor for the service industry (Johnson et al, 2000; Fitzsimmons and Fitzsimmons, 2001).

NSD involves developing offerings such as health care services, telecommunications services, information services, financial services, hospitality services, facilities management services, educational services, and consulting services. Offerings can be sold either to consumers or to businesses, and sometimes to both.

Edvardsson et al (1995) argue that the NSD process needs to be well analysed, planned and controlled from the idea generation phase to the evaluation phase.

The development of new services is considered one of the crucial aspects of the service offering strategy (Ennew, 1998).

All definitions of innovation include the development and implementation of "something new". King and Anderson (2002) conclude that an innovation is aimed at producing some kind of benefit (profits, personal growth, etc.). It is restricted to intentional attempts to derive benefits from change. An idea is a necessary condition for an innovation, but cannot be called an innovation in itself. Finally, innovation involves an application component, so merely developing something new cannot be regarded as an innovation unless it is used.

A number of authors (Gadrey et al, 1995; Chase et al, 1998; Cook et al, 1999; Den Hertog, 2000; Avlonitis et al, 2001) have stressed that innovation in services can be



related to changes in various dimensions. Some examples include innovation in the service concept, the client interface, the delivery system and technological options. Innovation in the service concept includes changes in the characteristics of the service itself.

Innovation in services can be additionally related to a new client interface. Service offerings are increasingly marketed and produced in a client-specific way (even with client-specific pricing). Often, the characteristics and desires of existing and potential clients tempt a service firm to make adjustments in the client interface. This dimension of innovation can even entail clients acting as co-producers of the service offering (Van Der Aa and Elfring, 2002). One example of an innovation in the client interface is electronic data interchange.

Innovation in the delivery system refers to the internal organisational arrangements that have to be managed to allow service workers to perform their jobs properly, and to develop and offer innovative services (Cook et al, 1999; Gadrey et al, 1995; Den Hertog, 2000; Avlonitis et al, 2001). It could be interpreted as the internal work processes and arrangements. This type of change is often the direct result of the preceding ones (the linkage between the service provider and its client, and/or the service concept). Also, the capabilities, skills and attitudes of existing co-workers can make any necessary adjustments in the service delivery. One example of innovation that led to changes in the delivery system is the introduction of e-commerce, which required serious business process re-engineering efforts. E-commerce may have a substantial impact not only on the way in which actual commercial transactions occur, but also on the processes preceding and following the transaction.

Ancona and Cladwell (1992) found that development teams that have more thorough internal communication achieved a superior performance. To some extent, Lievens and Monaert (2000a, b) confirmed this observation more recently for services. The focus emphasises the way the team organising the problem-solving process throughout development reinforces the relevance of the learning strategies for understanding the NPD/NSD process.

Damanpour (1991) identified significant organisational determinants of innovation, such as functional differentiation, centralisation, and managerial attitude towards



change, managerial tenure, technical knowledge resources, administrative intensity, and internal communication.

A new service may achieve higher overall customer satisfaction through increasing the number of satisfied customers besides increasing the satisfaction of existing customers. Satisfied customers provide referrals and may be willing to pay a price premium (Reicheld and Sasser, 1990). Similarly, perceived service quality is said to lead to repeat purchases (Grönroos 1990). In addition, building a reputation for being innovative may make it easier for a company to introduce radical new products as consumers are more ready to accept such products from proven innovators (MacMillan and McCaffrey, 1984).

NSD may be undertaken to "prepare for the future" (Dvir and Shenhar, 1990). The technical infrastructure for the development and production, that is to say the hardware, software and delivery systems of one new product, can provide a platform for other new services (Shostack, 1984). The human resource infrastructure in design, production and marketing can be improved due to the process of developing a new product and overcoming various administrative, legal and operational barriers generates expertise that can be employed in the future (MacMillan and McCaffrey, 1984). The development of a new service can lead to a better understanding of a market's particular requirements, making it easier to identify further opportunities (Easingwood and Percival, 1990).

The importance of top management support for NSD has already been emphasised. It has also been stressed that cross-functional teamwork is critically important throughout the development process.

Earlier Lovelock and Young (1979) explored the issue of customer sensitivity to changes in services, observing that the introduction period is crucial in attracting customers and persuading them to try a new or developed service.

Based on the service strategy literature, which has included the health service range, service branding, new service development, and customer service literature, it can be hypothesised that:

*Health service strategy has a positive significant effect on the performance of Jordanian private sector hospitals.*

### **3.4.2 Pricing Strategy**

Customer satisfaction in addition to profitability and long term survival (Avlonitis and Indounas, 2005) is a marketing concern of service organisations. Nagle and Holden (1995) point out that if effective product development, distribution and promotion sow the seeds of organisation success; efficient pricing strategy is the harvest. While effective pricing strategy can never compensate for poor execution of the first three elements, ineffective pricing can surely avoid those efforts from resulting in financial success.

The price strategy should be integrated and consistent with the other marketing mix strategies in the organisation to achieve the organisation objectives (Cowell, 1984; Palmer, 2001). Price is one of the fundamental elements of the services marketing mix (Lovelock, 2001; Palmer, 2001). Some researchers (Marns and Rosiello, 1992; Simon, 1992; Lovelock, 1996, Harrison, 2000; and Shipley and Jobber, 2001) have suggested that pricing is the only factor of the marketing mix strategy that produces revenues for the organisation, whereas all the others are related to expenses.

Diamantopoulos (1991) has argued that price is the most flexible element of marketing strategy in that pricing decisions can be implemented relatively quickly in comparison with the other elements of marketing strategy.

The degree of complexity of pricing strategy amongst the service sector is comparatively significant due to the high degree of homogeneity between most service groups and shared service delivery and operating systems (Tung et al, 1997; Gouvea et al, 2001). However, the most important concern in this research is investigating the Jordanian hospital managers' perceptions of different pricing strategies that are being used when they formulate their strategies. It should be noted that mathematical techniques and demand/supply patterns are not discussed in this research.



Avlonitis and Indounas (2005) summarised the fundamental pricing objectives that have been derived from the services pricing literature as shown in Table 3.1 (Channon, 1986; Cannon and Morgan, 1990; Bonnici, 1991; Payne, 1993; Palmer, 1994; Bateson, 1995; Drake and Llewellyn, 1995; Woodruff 1995; Ansari et al, 1996; Lovelock, 1996; Meidan, 1996; Zeithaml and Bitner, 1996; Hoffman and Bateson, 1997; Langeard, 2000).

**Table 3.1 Pricing Objectives of Service Firms**

<ul style="list-style-type: none"> <li>-Profit maximization.</li> <li>-Achievement of satisfactory profits.</li> <li>-Achievement of satisfactory sales.</li> <li>-Market share maximization.</li> <li>-Achievement of a satisfactory market share.</li> <li>-Distributor's needs satisfaction.</li> <li>-Creation of a prestige image for the company.</li> <li>-Price wars avoidance.</li> <li>-Sales stability in the market.</li> <li>-Price similarity with competitors.</li> <li>-Determination of "fair" prices for customers.</li> <li>-Attraction of new customers.</li> </ul>	<ul style="list-style-type: none"> <li>-Market share increase.</li> <li>-Cost coverage.</li> <li>-Return on investment (ROI).</li> <li>-Return on assets (ROA).</li> <li>-Coverage of the existing capacity.</li> <li>-Liquidity maintenance and achievement.</li> <li>-Price differentiation.</li> <li>-Service quality leadership.</li> <li>-Price stability in the market.</li> <li>-Market development.</li> <li>-Discouragement of new competitors entering into the market.</li> <li>-Maintenance of the existing customers.</li> <li>-Customer's needs satisfaction.</li> <li>-Long-term survival.</li> <li>-Achievement of social goals.</li> </ul>
---	---

Source: Avlonitis and Indounas 2005, P.48

However, not all of these pricing objectives are suitable for hospitals. Hence, hospital managers should evaluate the best objectives and apply them.

### **Pricing Methods**

Costs play a significant part in the pricing of health services. Managers must consider corporate objectives as well as costs when setting hospital prices. Purely covering costs is unsatisfactory in view of the fact that the hospital needs to meet its monetary objectives and generate a profit. In addition to cost consideration, hospital pricing strategy is usually influenced by consumer price elasticity. Price elasticity of demand measures the responsiveness of the quantity demanded of a service to any change in price. Segmentation approach supports the notion that disparate groups of consumers will place dissimilar values on a service, and therefore require different pricing



strategies, (Booms and Bittner, 1981; Zeithamal et al, 1985; Palmer, 1994; and Nagel and Holden, 1995).

While the pricing objectives provide general directions for action, later Oxenfeldt (1983) defines pricing methods as the explicit steps or procedures by which firms arrive at pricing decisions. A comprehensive review of the literature of pricing of services identified twelve pricing methods falling into three large categories namely cost based, competition based and demand based. The three principle methods of pricing which Lovelock and Wright (1999) identify as the pricing Tripod can be used in Jordanian private hospitals. They are:

### **(1) Cost-Based Methods**

- Cost-plus method – a profit margin is added to the service’s average cost (Beard and Hoyle, 1976; Dearden, 1978; Goetz, 1985; Zeithaml et al, 1985; Ward, 1989; Palmer, 1994; Payne, 1993; Bateson, 1995; Zeithaml and Bitner, 1996). This is usually based on full cost, but can also be based on a contribution and incremental basis.
- Target return pricing – the price is determined at the point that yields the firm’s target rate of return on investment (McIver and Naylor, 1986; Meidan, 1996).
- Break-even analysis – the price is determined at the point where total revenues are equal to total costs (Channon 1986; Lovelock, 1996).
- Contribution analysis – a deviation from the breakeven analysis, where only the direct costs of a product or service are taken into consideration (Schlissel and Chasin, 1991; Bateson, 1995).
- Marginal pricing – the price is set below total and variable costs so as to cover only marginal costs (Palmer, 1994).

Zeithaml et al (1985) found that cost-oriented pricing was the most popular approach used by service firms. Although this method offers some advantages, the simplistic nature of cost-oriented pricing is not effective in a complex and competitive business world.

Most cost-oriented service pricing strategies suffer from several limitations including:

- Not considering supply and demand,
- Not maximizing profit, and
- Not incorporating unique service characteristics and selling conditions into the decisions (Hoffman and Arnold, 1989).

Hoffman and Arnold (1989) proposed an extended cost-oriented pricing approach for professional service providers. This model included the traditional cost-oriented pricing factors of fixed costs, variable costs and the firm's profit goals, along with the factors that comprise the extended model: essentiality – the extent to which the purchase of the service is postponable, model durability, value added, and the percentage of performance capacity.

## **(2) Competition-Based Methods**

For a competitive-oriented pricing approach, the price is set to meet the market competitive situation (Kotler and Bloom, 1984). As in the following approaches:

- Pricing similar to competitors or according to the market's average prices (Channon, 1986; Payne, 1993; Palmer, 1994; Woodruff, 1995; Zeithaml and Bitner, 1996).
- Pricing above competitors (Bonnici, 1991; Meidan, 1996; Zeithaml and Bitner, 1996; Mitra and Capella, 1997; Langeard, 2000).
- Pricing below competitors (Payne, 1993; Palmer, 1994; Zeithaml and Bitner, 1996).
- Pricing according to the dominant price in the market – the leader's price that is adopted by the remainder of companies in the market (Kurtz and Clow, 1998).

The simplistic nature of these two pricing approaches provides the advantage of a useful and quick pricing method. On the other hand, the simplicity of these approaches also causes loss of effectiveness as the business world becomes more dynamic and complex (Guiltinan, 1987).



In general, a competitive-oriented service pricing approach provides no guidance on how much higher or lower than a competitor's price a service provider should set its price (Arnold et al, 1989).

### **(3) Demand-Based Pricing**

- Perceived-value pricing – the price is based on the customer's perceptions of value (Channon, 1986; Lovelock, 1996; Zeithaml and Bitner, 1996; Hoffman Bateson, 1997).
- Value pricing – a fairly low price is set for a high quality service (Cahill, 1994).
- Pricing according to the customer's needs – the price is set so as to satisfy customer's needs (Bonnici, 1991; Ratza, 1993).

Guiltinan (1987) argues that: bundling is a further aspect, which needs to be considered. This is where two or more products are marketed as one unique offer set at an exceptional price often for a limited period. This currently occurs particularly in telecommunications where customers can receive an all inclusive package of telephone calls, satellite channels and broad bands. The rationale for service bundling is that the cost structure consists of a high degree of cost sharing and a high ratio of fixed cost to variable cost (Dearden, 1978), and the demand for a firm's services is generally interdependent. From an economic viewpoint, Schmalensee (1984) stated that the advantage of pure bundling is its ability to decrease effective consumer heterogeneity, while the benefit of unbundled sales is its ability to accumulate a high price for each good from some buyers who care very little for the other.

Mixed bundling can produce use of both of these advantages by selling the bundle to group buyers with accordingly reduced effective heterogeneity, while changing high markups to those on the fringes of the distribution who are mainly interested in only one of the two goods.

Ratza (1993) developed a client driven model for service pricing. The model is based entirely on the client's response to price, namely the quantity of service used and the number of clients gained or lost. The major advantages of this model are:



consideration of the relationship between market share (demand) and price, and maximizing short-term and long-term profit.

Berry and Manjil (1996) suggested that a guiding principle should be stated in pricing decisions so as to reduce consumer complaints.

In handling the complex issue of pricing, marketing theory stated that a hospital should proceed through four stages: Berry and Manjil (1996)

- 1- It should choose the pricing objectives. Among these pricing objectives can be distinguished as: surplus maximisation, net patient service revenue maximisation, cost recovery, usage maximisation, market disincentive, public relations and cross subsidisation.

- 2- It should determine the pricing strategy- whether price should be cost based, demand based, or competition based.

- 3- It should determine pricing in situations such as self pay markets? reimbursed markets (i.e. segmental pricing).

- 4- It should predict further possible changes in reimbursement procedures and how to respond to these.

Accordingly, pricing strategies depend on recognising the value to the customers (patients), health service costs, competition, government, and offered technology (Van Raaij, 2005).

Earlier Tung et al (1997) proposed a multi-step synthetic service pricing approach to deal with the complexity of market competitiveness, cost structure, profit goals, price/demand sensitivity and service unique characteristics. To set a proper service price, the proposed pricing approach combines the pricing decision process and the other pricing approaches rather than using a singular approach. Skimming pricing strategy and penetration pricing strategy are suggested for new services.

The Medicare Competitive Pricing Demonstration is testing a new method for the US government to pay for the care they provide under Medicare, with each plan "bidding" premiums for a defined standard package of health services. Today, competition among managed care plans in the Medicare Risk market is based on such factors as

breadth and accessibility of the provider network, creative marketing and additional benefits, chiefly in the prescription drug arena (Melek, 2005).

Gertler and Molyneaux (1995) argue that public spending on health can: (1) improve health outcomes; (2) promote non-health aspects of well-being (for example, reducing individual's risk of economic losses from random health crises); and (3) finance redistribution to the poor. Optimal subsidy and fee policy will depend on how much relative weight a government places on those competing objectives. Subsidies need to be reallocated toward the poor and toward public health, but only a fraction of the resources needed to expand the health sector can be financed by increasing public subsidies.

Based on the pricing strategy literature, it can be hypothesised that:

*Pricing strategy has a positive significant effect on the performance of Jordanian private sector hospitals.*

### **3.4.3 Distribution Strategy / Access Strategy**

Distribution deals with the availability and accessibility of products and services (Kotler and Clarke, 1987; Roberts and Beck, 1989).

Carter et al (1989) established that the importance of distribution channels vary depending on different types of institutions. Several life insurance companies relied heavily upon a sales force while others relied exclusively on brokers and other independent intermediaries (Carter et al, 1989).

Health service organisations need to develop successful sales force teams, which have the basic and necessary skills, knowledge, and motivation related to delivery of health services (Kotler and Clarke, 1987; Grice and Kickham, 1997; Jones, 2003).

Health care organisations, whose products are primarily services, must consider three distribution decisions: physical access, time access, and informational and promotional access (Kotler and Clarke, 1987; Grice and Kickham, 1997; Jones, 2003). Kotler and Clarke (1987) presented a comprehensive case for health service



access. They stated that dental offices in shopping malls operate in locations (*physical access*) that are more convenient for the consumer. They are also open at weekends and in the evening, providing better *time access*. And they rely on the traffic within the shopping mall (*promotional access*) rather than word of mouth or physician recommendation (referral) to generate demand (Kotler and Clarke, 1987; Nagle et al, 1991; Grice and Kickham, 1997; Jones, 2003).

Roberts and Beck (1989) suggests factors affecting health service availability and accessibility in hospitals include geography, population concentrations, distances and transportation, and religious or cultural attitude.

Accessibility implies the customer's/ patient's ability to easily arrive at and depart from the service location or to experience the service without great difficulty due to effective spatial orientation and layout (Melin and Granath, 2004).

Booms and Bitner (1981) referred to accessibility within the flow of activities, one of their seven elements of service assembly. Grönroos (1984) additionally discussed accessibility in the context of the functional quality of service delivery.

Uhl and Upah (1983) distinguished between convenient and inconvenient types of services in terms of location. They proposed that convenience services be located where customers are less willing to travel long distances. These convenience functions include traffic and circulation, public transportation, alternative transportation, walking, parking, pedestrian circulation, signs and guidance, public information, material loading/unloading activity, and personal assistance.

Wakefield and Blodgett (1996) argued that layout accessibility is an especially crucial element in leisure services because of its potential effect on the customer's ability to experience and enjoy the service offering, especially through ease of ingress and egress considerations. They noted that having to stand in lines for long periods of time might even cause some customers to miss primary aspects of the service.

Kelley and Turley (2001) studied customer perceptions of service quality at sporting events and found that facility access and convenience exerted a significant influence on the quality perceptions of certain groups of sports fans. Thus, these researchers



provide a basis for including accessibility as a structural descriptor of service process since it emanates from managerial design choices.

Any attempt at improving the delivery of care and its management today has of necessity to include enhancing the management, quality, availability and use of information and its associated technologies. Human, clinical and managerial, as well as informational parameters and approaches have therefore to define interventions aimed at expanding the impact of information technology in a health context (Atkinson et al, 2002).

Time access deals with three distinct issues: the opening hours, the length of waiting time (in the service providing waiting area) and the time between calling and having an appointment (Renner and Palmer, 1999; Hasin et al, 2001; Melin and Granath, 2004; Proudlove and Boaden, 2005).

The definition of waiting time is defined in the Patients Charter as the time between an appointment time and the start of the consultation or treatment period. Scholars used three different methods to calculate an average waiting time (Siddharthan et al, 1996; Naumann and Miles, 2001; Hattam, 2004):

- 1 Time between appointment time and the start of the consultation,
- 2 Time between arrival time and the start of the consultation, and
- 3 Waiting time estimated periodically throughout the clinic.

Lovelock (1992b) referred to the time dimension of service delivery as duration. Stuart and Tax (1997) also examined the time dimension and identified task times; total process times, customer contact time, throughput time, and service wait as key aspects for service delivery.

Earlier Maister (1985) formulated seven principles concerning waiting time in service delivery, including the notion that pre-process waits feel longer than in-process waits. Duration involves both types of wait and encompasses the total time involved before and during the service encounter. In spite of such sophisticated measures, waiting time is inherently variable in the delivery of most services. The same holds true for the time involved in completing a service encounter, during which any number of

unforeseen events could lead to delays. Thus, duration becomes the first situational descriptor of the process of service delivery. It is defined as the total time involved in completing a service encounter, including both pre-process and in-process periods (Mayer, 2003).

The term "waiting time" is, however, potentially ambiguous as it can be applied to two discrete types of events. On the one hand, the National Health Services (National Audit Office (NAO), 1991) refers to "waiting time before first routine appointment".

Cartwright and Windsor (1992) use the term "delay" to refer to this period of time and further refine the types of delay into delays by the patient between the onset of symptoms and consulting a GP, delays between consulting a GP and being referred to a consultant, and finally the delay between being referred to a consultant and the date of the initial out-patient appointment. On the other hand, the NAO also refers to "waiting time in clinics" (usually measured in minutes). The potential confusion is beautifully illustrated in the Committee of Public Accounts Report on NHS Outpatient Services (Hart, 1995).

Concern over lengthy waiting times in hospital and out-patient clinics appears to have been a consistent source of dissatisfaction.

Informational and promotional access concerns the process of getting the consumer to know about the provider so that the service can be obtained. This involves the use of intermediaries who distribute information on and promote the hospital. The most obvious intermediary in hospitals is the physicians (Lewington and Farmer, 1995; Grice and Kickham, 1997; Marriott, 2002; Yu, 2002; Jones, 2003).

Patients and visitors coming to a major medical institution have one significant non-health issue on their minds - finding the desired destination. The size and complexity of hospitals, medical centres, and medical office buildings complicate the already emotional event of going to a medical institution. Regardless of how they arrive (private vehicle, dropped off by a family member, public transportation, or walking), people are concerned that they arrive at the right place at the right time. Assistance is often needed but all too seldom found. This problem can be observed at many large



medical centres. They depict access related circumstances that are both undesirable and more common than thought (Nagle et al, 1991; Melin and Granath, 2004).

The first impressions that patients and visitors have of a hospital are typically based on these activities: finding a parking space, finding the main entrance or desired door, obtaining directions (either from a staff member or from signs), and finding their way to the final destination. Long before a patient sees the physician, receives medical assistance, or benefits from the most sophisticated medical technology, the initial impression of the hospital and how helpful it is derives from access related functions (Nicholas et al, 2002; Melin and Granath, 2004).

To lead a healthcare organisation into this century successfully, healthcare professionals will need to adopt new and innovative ways of considering and using information technology (IT). Several trends are making information systems (IS) and IT a critical factor in the healthcare environment (Bangert et al, 1999; Akber, 2003).

Telemedicine is defined as the practice of medical care using audio, visual and data communications, which includes medical care delivery, consultation, diagnosis, treatment, education and the transfer of medical data. 'Telehealth' is broader than "telemedicine" in that it also encompasses the uses of computer-assisted telecommunications to support functions other than the clinical aspects of healthcare, namely management, surveillance, literature and access to knowledge (Mandil, 1995).

Telehealth could eventually constitute a major sector of international cooperation, subject to certain impediments being overcome. The advent of almost globally accessible telecommunications services within and among nations offers a significant opportunity to spread awareness and understanding of global interdependence on environmental and health issues. Telecommunications tools and services could be used to improve access to quality healthcare, the extent and quality of education and training of human resources, the cost-effective surveillance of diseases and services, and technological developments for affordable diagnosis and treatment (Bashshur et al, 2001; Gagnon, 2005).

The essence of telemedicine lies in transferring the expertise and not the patient - the goal of telemedicine is to eliminate the unnecessary travelling of patients (and their escorts). One immediate benefit of telemedicine is to extend medical services to isolated, geographically dispersed and physically confined persons unable to reach a physician within reasonable time or distance. Indeed, its major promise for the future is to bring health services to people wherever it is not possible or feasible to bring people to health services (Bangert et al, 1999; Bashshur et al, 2001; Aas, 2001; Croteau and Vieru, 2002; Baldwin et al, 2002).

Telemedicine is characterised by:

- A geographic separation between client and provider,
- The use of telecommunication technologies to establish communication and interaction between client and provider to enhance clinical functions,
- An underlying system for the delivery of care to be developed, including a division of labour and specialisation among the providers and staff; and clinical maintenance and operational functions within the system which are specifically designed for this mode of operation (Bangert et al, 1999; Bashshur et al, 2001; Aas, 2001; Baldwin et al, 2002; Croteau and Vieru, 2002).

Telemedicine will have an impact on the following:

- **Expansion and export of skills.** Teaching hospitals could expand and export their skills to the remote primary centres. Distance becomes immaterial. Other examples include access to archived electronic scans and health care records; health care information on preventive vaccination programmes; information for expectant mothers; information about specific diseases; support groups, etc. All these could be made universally available at the touch of a button. By installing CT scanners in peripheral hospitals, a national emergency teleconsultation system would be possible with high quality video transmission of pictures. The speed, quality and completeness of information exchange would result in instantaneous emergency tertiary consultation (Bangert et al, 1999; Baldwin et al, 2002).
- **Fetal telemedicine.** Pilot projects have proved the efficacy of transmitting fetal ultrasound images from high risk pregnant women. Importantly, patient's



satisfaction is significantly high - video consultation seems almost as satisfying as face-to-face. Further, there was a significant fall in unnecessary referrals to specialists (Aas, 2001; Croteau and Vieru, 2002; Baldwin et al, 2002).

- **Tele-endoscopy.** Present day technology enables transmission of (reasonably) high quality images via telecommunication networks at an acceptable cost. The signals from a video camera attached to an endoscope can be compressed and digitised by a video codec prior to transmission to a remote institution through a 2MB circuit. The receiver can "see" the endoscopic examination on a monitor and influence the control and movement of the endoscope by communicating over two-way sound and picture connection with the person operating it (Bangert et al, 1999; Bashshur et al, 2001; Aas, 2001; Croteau and Vieru, 2002; Baldwin et al, 2002).
- **Telemedical education.** A regional, national and international medical educational system becomes a reality. With the presence of telecommunication providers, live two-way interactive transmissions of major surgical procedures from one part of the globe to another are possible (Aas, 2001; Croteau and Vieru, 2002).
- **Telepathology.** A pathologist using micromanipulators could remotely change the field of view, focus and magnification of a slide located under a microscope thousands of miles away (Aas, 2001; Croteau and Vieru, 2002).
- **Patient's convenience.** Retaining specialists in non-urban areas is very difficult, and is a worldwide problem. The unequal distribution of specialists in any country results in more medical institutions and access to specialists in various disciplines in some parts rather than others. The answer presently is to move patients to the expertise. Telemedicine can help avoid unnecessary or even harmful travel - and expense for patient and family. Once the virtual presence of a specialist is acknowledged, a patient could also access resources in a tertiary referral centre. Telemedicine enables patients to remain at home and ensure much needed family support (Knorr et al, 1998; Bashshur et al, 2001; Aas, 2001; Croteau and Vieru, 2002; Baldwin et al, 2002).

Based on the distribution strategy literature, it can be hypothesised that:

*Distribution strategy has a positive significant effect on the performance of Jordanian private sector hospitals.*

#### **3.4.4 Promotion Strategy**

Promotion and communication strategy is one of the key components of the services marketing mix strategy by which hospitals can communicate their health services to customers (Lauterborn, 1990; Lovelock, 2001). The hospital's managers must first examine the needs of customers in the environment it serves and choose the communication tools that suit the environment, based on profit and growth potential given hospital resources and objectives. Promotion can provide an opportunity to organisations to differentiate themselves at corporate and brand levels (Thwaites, 1998).

A service promotion strategy has a number of components that are known as the "promotional mix" (Ennew and Watkins, 1992; Harrison, 2000). There is no one promotional tool that is able to achieve promotion strategy objectives which, in turn, means that most service organisations use more than one promotional tool (Kirk, 1994) in order to avoid the disadvantages of each tool. This implies that each promotional tool has different advantages and disadvantages so most service organisations try to use more than one promotional tool in order to maximise the advantages and minimise the disadvantages of each (Harrison, 2000).

Ottawa Charter for Health Promotion (1986) defined health promotion as a process of enabling people to increase control over, and to improve, their health. To reach a state of complete physical, mental and social well being, an individual or group must be able to identify and to realise aspirations to satisfy needs, and to change or cope with the environment (Hancock, 1999).

Bowers and Powers (1991) stated that salespeople in the health care industry are responsible for promoting health services in their hospitals, and they are asked to tout the skills and talents of their medical specialists and staff to a wide variety of customers, including primary care physicians, insurance companies and employers.



Promotion of health care has evolved from an emphasis on advertising to a current interest in personal selling (Bowers and Powers, 1991).

Earlier Booms and Bitner (1981) stated that the need for personal selling in health care has been reinforced by a lack of marketing quality control and a fragmented marketing base. In addition, increased competition and a demand for cost-cutting measures has prompted many health-care organisations to market their products through a sales force. Along with public relations and planning research, sales are becoming a significant part of the marketing function of health-care organisations (Mack and Burns, 1988; Bowers and Powers, 1991).

In 1977, the American Hospital Association (AHA) and the Federation of American Hospitals (FAH) formally recognised the need for hospitals to advertise their services (Berkowitz and Flexner, 1981). Later, when the Supreme Court (*Bates and O'Steen vs. The State of Arizona*) granted lawyers the right to advertise and the AHA, likewise, revised its guidelines (Andaleeb, 1994) a new era in hospital and medical advertising began. The loosening of advertising restrictions was greeted by an intense wave of consumerism (Green, 1988; Ferrini and Ferrini, 1992). Patients, who were previously only passive receivers of physician-ordered medical treatments, became more proactive in their health-related decisions and expectations (Gilly and Wolfingbarger, 1992; Kurtz and Wolinsky, 1992). A large portion of the population now believed they had more (or at least as much) influence over hospital selection than their physician, and would conceivably change physicians to gain admission to their preferred hospital (Christensen and Inguanzo, 1989; Turner, 1993). This change in perceived influence was occurring even during the apparent ubiquity of managed care plans that attempted to control provider selection. More recently, however, the insurance market has become increasingly patient oriented. One of the natural consequences of this reorientation is that patients are being empowered to seek providers outside the insurance carriers group. This creates an opportunity for hospital providers to market their services to a newly liberated consumer/patient group.

Advertising is expected to play a more prominent role in a hospital's quest for market share and profits. Several specific reasons account for this contention (Andaleeb, 1994). First, it is apparent already that competitive pressures have increased for

hospitals. Many administrators seem to have increased their marketing efforts to respond to competition (Solomon, 1990). Advertising is a critical component of these efforts.

Second, greater education and awareness amongst customers has led to more sophisticated buyers of health-care services today. These buyers are better able to discriminate between the quality-of-care delivered by different hospitals (Nelson and Goldstein, 1989). In this regard, Heistand (1986) claims that customers are nowadays relying less on doctors than they did in the past to choose the “right” hospital. In another study, Wagner (1985) suggests that more consumers are choosing physicians through advertisements. Similarly, Johns and Moser (1989: P13) claim that “Consumers do look for and favour advertising as a means of obtaining information about dental services”. These findings indicate that advertising will become an increasingly important marketing tool in the health-care industry.

Third, the regulatory environment against advertising has also changed.

Andaleeb (1994) discussed advertising as being an important tool for hospitals for two reasons. First, advertising is a competitive tool for hospitals. Its effective use should assist hospitals to attract and retain clients in a rapidly changing environment where the clients are increasingly involved in selecting the right hospital. Second, a nationwide survey showed that 50 percent of consumers remembered seeing or hearing a hospital advertisement.

Powills (1986) indicated that only 20 percent of the respondents believed that hospitals should not advertise. Steiber (1987) also found that 62 percent of respondents thought hospitals should advertise and 58 percent favoured the hospital advertisements they had seen.

Christensen and Inguanzo (1989) demonstrated an increase in overall acceptance of hospital advertising and indicated that about 75 percent of consumers favour such advertising when it is perceived as informing the public of hospital services.

Traditionally, most patients have chosen hospitals, which their doctors recommended.



Consequently, external sources of information may not have been very helpful in facilitating hospital choice. Recent evidence suggests that patients are relying much more today on external sources of information for choosing physicians (King and Haefner, 1988).

Some textbook treatments of services advertising (Zeithaml and Bitner, 1996; Grace and O'cass, 2005) draw heavily on the work of George and Berry (1981). Specifically, these authors recommended that service promoters should:

- Make the service understood,
- Take advantage of word of mouth communications,
- Provide tangible cues,
- Promise what can be delivered,
- Aim advertising at employees, and
- Preserve advertising continuity.

Zeithaml et al (1985) found that newspaper and television advertising seemed to be appropriate vehicles for advertising services where consumer benefits were immediate, rather than where benefits were more enduring. They speculated that this relationship was due to the higher cost or involvement of the enduring service. Direct mail and newspapers were reported to be the more important advertising media groups. Zeithaml et al (1985) also report a high degree of importance placed on explicit encouragement of word-of-mouth "advertising".

Legg and Baker (1987) advised new services to use vividness as a strategy to make the service easy to understand. Pictorial presentation (visual) is more effective than verbal presentation. A combination of both pictorial and verbal presentation will achieve the best results by facilitating the comprehension of the intangible service. Credibility of the advertiser can also be enhanced when vivid information is provided (Twible and Hansel, 1991).

Advertising has been recommended as a means to help shift demand away from peak periods, increase utilization during slow periods, or teach customers how to become part of the service production and delivery process. Hence, greater productivity is generated from existing technical capacity (Rust et al, 1996).

Earlier Cutler and Javagli (1992) discovered that services advertising used more visuals than goods advertising. In 1993 they found that service advertising is more likely to use an emotional approach than goods advertising.

Legal and ethical constraints barring hospital advertising have loosened; many professionals and consumers still give hospital advertising only mixed reviews, at best (Aquiar, 1985; Dove, 1987 and 1988; Taylor et al, 1990). Today, despite only limited and piecemeal evidence of advertising effectiveness, increasing numbers of hospitals have placed greater emphasis on marketing and advertising efforts.

Jaklevic (1995) noted that not-for-profit hospitals spent 42 percent more on marketing-related activities than their for-profit counterparts. It is possible that not-for-profit hospitals are spending more on marketing-related activities because they tend not to be enjoying the economies of scale generated by system or group member hospitals. As stand alone facilities, the not-for-profits will bear the entire burden of a campaign, as opposed to a proportion of the total cost that is borne by the provider group.

Several studies (Mayer, 1988; Fisher and Anderson, 1990; Andaleeb, 1994) have identified various types of print advertising as the most frequently utilized advertising medium (averaging about 53 percent of the total advertising budget). Other typically popular advertising mediums include:

- Direct mail (averaging 15.5 percent of the total advertising budget),
- Yellow Pages (11 percent of the budget), and
- Television and radio (each with about 10.5 percent of the budget) (Japsen, 1997; Miller, 1996).

Grunig and Hunt (1984) determine public relations as the method via which an organisation handles effective communication with its client base. Cutlip et al (1999) further define PR as a beneficial instrument aimed at recognising and comprehensively building upon the relationships occurring between an organisation and the multiple publics upon which it is reliant for success, within its market. Ledingham and Bruning (1998) summed it up by defining public relations as “relationship management”. This implies that the focus of public relations is the



management of an organisation's relationships with its publics through the four-step management process of analysis, planning, implementation and evaluation. In this context public relations uses communication strategically.

Promotion was traditionally divided into four elements, known as the promotional mix: advertising, sales promotion, personal selling and public relations. In recent times, this promotional mix has been extended to include direct mail, sponsorship and the Internet (Andaleeb, 1994; Kotler, 1997). In this context, public relations is perceived as a communication tool that will be co-ordinated with these others (such as advertising) to achieve a previously defined marketing objective.

Deregulation of the use of marketing communications in the legal and medical professions, plus growing commercialisation of higher education encouraged greater deployment of public relations activities in these sectors.

Studies in the 1990s encouraged public relations practitioners to reveal the strategic and tactical concerns that required tackling in order for PR to progress as a profession and its value within the promotional mix to expand. The leading public relations consultancies cited a mix of internal and external business issues (Dibb et al, 1996, Grunig and Grunig, 1998; and White and Blamphin, 1995):

- Internationalism,
- Competition and specialisation,
- Personnel development and recruiting,
- Strategic expertise,
- The "grey" area with advertising and fit within marketing communications,
- Evaluation of PR effectiveness, and
- Adoption of new technology.

The PR industry is growing rapidly and is very permeable to new entrants, for it is perceived as an easy start-up. Competition represents a threat when it is posed by the increasing ability of advertising, sales promotion and management agencies to offer PR skills (Lages and Lages, 2005).

Although promotions are usually discussed as though they are a distinctive element of the marketing communications mix, they are more accurately a customisation of other elements of the marketing mix which change the price or enhance the service offering to attract consumers. The danger with such alterations to the mix is that consumers could react unexpectedly or unfavourably to the changes. Temporary price reductions may be appreciated by consumers, but consumers may also alter their "reference price", resulting in "significantly reduced loyalty once these deals are retracted" (Lowengrat, 2003; Mullikin, 2003). Alternatively, consumers may perceive any price reductions as a move downmarket or a sign of weakness. Changing the core service on a promotional basis can impair perceived service quality if anything goes wrong, or may become an expected part of the service package in future if it succeeds. Competitions, by contrast, can add value to a service by making awareness or use of it as a "ticket" to entering the competition, which minimizes the risk of consumer's perception of the service, its price and quality being impaired (Mullikin, 2003; Alvarez and Casilles, 2005).

Researchers have typically asked respondents directly about the degree of perceived influence of the referral (Bansal and Voyer, 2000). However, behaviour in response to the reception of word of mouth (WOM) has never been analysed. Studies show that attitudes and behavioural intentions are not always good predictors for subsequent behaviour (Kim et al, 2003).

Fishbein and Ajzen (1975) report that under certain circumstances, intentions may be entirely unrelated to behaviour. More recently, Mittal and Kamakura (2001) found that variables influencing repurchase intentions are not related in the same way to repurchase behaviour.

Word of mouth can operate through both channels. Informational influence occurs when information is accepted as evidence of reality (Mangold et al, 1999). In contrast, normative influence operates through compliance, which means that the individual conforms to the verbalised expectations of referent others (Wangenheim and Bay'on, 2004).



Kamins (1990) suggests that informational influence depends on the consistency of the communicator's image with the image of the product and the self-concept of the receiver of the information.

Glassman and Glassman (1981) found that women used personal experience and peer recommendations to select a physician, and patient satisfaction was determined primarily by physician-controlled factors such as providing sufficient relevant information about what to expect during pregnancy and offering continuity of care.

Boscarino and Steiber (1982) found that recommendation by a friend was the most important factor in one's selection of a physician.

Manthei et al (1982) manipulated patients' choice of health care providers in a community mental health centre and then measured patient satisfaction. Surprisingly, the subjects did not differ in their satisfaction ratings across three choice conditions. In later studies, Manthei (1983) found that, when allowed the opportunity, patients demonstrated a strong desire to choose their care provider. In a later study, Manthei (1988) found that allowing patients to choose their own health care provider enhanced the patient's commitment to the therapy, which raised expectations for the outcome and improved ratings for services received (Manthei, 1988).

Lytle and Mokwa (1992) found that process variables (for example the procedures doctors used) became important to women who were seeking pregnancy only when they were unable to conceive. However, women were not concerned about the health care processes involved when successful outcomes (conception) did occur.

Weyrauch (1996) discovered that patients who saw their own physician were significantly more satisfied than patients who saw another physician.

Schmittiel et al (1997) found that patients who chose their personal physician were as much as 20 percent more likely to rate their satisfaction as "excellent" or "very good."

Weyrauch (1996) and Schmittiel et al (1997) found that having a choice but not seeing one's preferred physician was less satisfying than not having a choice while receiving the care of one's preferred physician.

Based on the promotion strategy literature, it can be hypothesised that:

*Promotion strategy has a positive significant effect on the performance of Jordanian private sector hospitals.*

### **3.4.5 Physical Evidence Strategy**

The appearance of a work area is similar to physical appearance, identified previously as a structural descriptor (Booms and Bitner, 1982; Baker and Cameron, 1996; Stuart and Tax, 1997). Work area appearance relates only to the non-design aspects of the service environment, which are inherently variable in nature. These aspects include such things as cleanliness and tidiness or the general appearance of the service location on a day-to-day basis. For example, the work area at which a service encounter occurs could be dusty or cluttered with a variety of items that might distract from the customer's satisfaction with the service encounter. Although items such as furniture, wall coverings, or pictures might be designed into the service environment, their appearance could have variable aspects quite apart from the original design intent if they were dirty, torn, broken, improperly hung, or otherwise in a state of disrepair (Mayer et al, 2003). Health services have a number of unique characteristics, which have crucial implications for marketing strategy. Physical evidence aids health services to tangibilise the high degree of intangibility (Blois, 1984; Gilmore and Moreland, 2000).

A number of services researchers (Kotler, 1973; Shostack, 1977a,b; Berry, 1980; Shostack, 1984) have noted the importance of the physical environment in services.

Kotler (1973) recognised that one of the key features of the total product is the place where it is bought or consumed. In some cases, the atmosphere is more influential than the product itself in the purchasing decision.

Shostack (1977a) focussed on the management of the physical environment, arguing that this should be one of the service marketer's highest priorities.

Levitt (1981) focussed on providing tangible clues with intangible services. Levitt argued that customer buy promises from service organisations. It is therefore important for service marketers to provide tangible evidence for intangible products.



Booms and Bitner (1982) discussed the physical environment as a marketing tool and cited examples of the use of the environment to communicate the nature of the service experience to the customer.

Shostack (1984) recognised the vital role of providing tangible evidence during the service delivery process. This evidence may include the setting, colour schemes, printed advertising material, and stationery.

Solomon (1985) noted that customers engage in visual inspection of employee dress in order to help them gauge expectations of the firm and its service provision acumen. Thus, this variable aspect of employee dress represents the manner in which the employee wears the costume and presents his/her appearance to the customer. For example, the employee could be wearing the proper uniform that has been authorised by the service provider, but it could be wrinkled, dirty, or torn, or have some aspect of its appearance that is not consistent with its desired employee appearance. This problem is inherently variable in nature. A situational descriptor, employee appearance is defined in the proposed model as the personal aspects of a contact employee's presence, including both hygiene factors and the manner in which costumes are worn (Mayer et al, 2003).

Bitner (1992) identified the key role that the physical environment plays in services, and implied that the physical service setting could either aid or hinder the firm's ability to achieve its goals in service delivery. The proposed conceptual framework related the aspects of the service scope to the behaviours of both customers and employees during service delivery.

Later Baker and Cameron (1996) discussed the importance of design elements in the service environment that provide tangible clues to the customer about the service experience.

Carbone and Haeckel (1994) went on to note that context clues from the environment are not related to the performance of a service. Stuart and Tax (1997) also identified ambient conditions, space/function, signs, symbols, and artefacts as key process issues of physical facilities.

A number of scholars (Tomes et al, 1995; Aubert-Gamet, 1997; Yavas and Shemwell, 2001; Al-Shawi et al, 2005) agreed that the physical environment plays an instrumental role in customers' assessments of the service they expect. Aubert-Gamet (1997) defined the idea of diversion in the service process as corresponding to a customer's non-intended use or non-planned meaning of the physical surroundings in a service setting. As the managerial choices involved in deciding on an appropriate appearance for the physical environment have an unquestionable effect on the service delivery process, they can be characterized as structural descriptors. Therefore, physical appearance (including layout, colour, furnishings, lighting, noise levels, aromas, and other sensory aspects) in the proposed model represent the physical facility design decisions made by managers that are essentially fixed. The physical appearance descriptor contained in the proposed model differs from that of Bitner's (1992) research in that it applies to all of the physical dimensions of the servicescape, rather than the three composite dimensions that she developed in her study.

Other services marketing researchers (Cowell, 1984; Kasper et al, 1999; Zeithaml and Bitner, 2000; Lovelock, 2001; Palmer, 2001) have pointed out the vital importance of physical evidence in service businesses in order to send a consistent message and retain a coherent image about the organisation. Palmer (2001) has focussed on the vital role of providing tangibles as a significant component of the company service offer. Lovelock (2001) has argued that physical evidence is one of the vital components of the 8Ps of the services management paradigm by which the company can provide tangible objects to customers during the service delivery process and tangible metaphors used in such communications as advertising, symbols, and trademarks (Lovelock, 2001).

Based on the physical evidence strategy literature, it can be hypothesised that:

*Physical evidence strategy has a positive significant effect on the performance of Jordanian private sector hospitals.*

### **3.4.6 Service Delivery Process Strategy**

Process is one of the crucial elements of the expanded marketing mix components in services that should be a distinct strategic element. This is because process may



influence the initial customer decision to purchase a service and affect the level of customer satisfaction (Booms and Bitner, 1981; Collier, 1991; Smith and Saker, 1992; Kasper et al, 1999; Zeithaml and Bitner, 2000; Lovelock, 2001).

Earlier Shostack (1977b) argued that all service companies face unique distribution constraints because services are process based and people based. This implies that there are difficulties in achieving service uniformity and quality control during the service delivery (Shostack, 1977b). Later Shostack (1984) argues that better service design provides the key to market success and growth. Due to the involvement of the human element in the service delivery process, service companies need to recognise the importance of the management and control of the service delivery process.

Kelly (1989) discussed the efficiency of service delivery process. It is argued that the efficient service delivery system leads to the utilisation of company resources to their greatest advantage and minimal associated costs. It is recommended to use both humanistic and technological approaches in delivering services upon classification schemes of services. In health services both of these methods are important to improve efficiency and speed (technology approach), while the humanistic approach builds competitive advantage.

Grönroos (1990b) recognised the direct interactions between customer and provider as the “moment of truth”. Grönroos found that this interactive factor consists of four components, namely (1) Customer’s involvement in the process, (2) Contact persons, (3) Systems and operational routines, and (4) Physical resources and equipment.

Verma (2000) discovered that the top management challenges across four service industries were maintaining quality of service, hiring employees, and employee training (Verma, 2000). Zeithaml and Bitner (2000) recognised that the process has three major components, which are (1) Flow of activities (standardised or customised) (2) Number of steps (simple or complex) (3) Customer involvement.

Medical services are high-involvement personal services, in which the patient is the direct recipient of a service and in which the physical presence of a patient is a prerequisite for a series of quite tangible diagnostic and therapeutic processes (such as

surgical operations) to be performed (MacStravic, 1988; Brown and Swartz, 1989; Palmer, 1995; Lovelock, 2001). They are also knowledge-intensive services, delivered by highly educated people, and frequently closely linked to the development of scientific knowledge within the relevant area of professional expertise. Surgical services for example involve a high degree of customisation, a high degree of discretionary effort, and personal judgement on the part of the experts delivering the service (Alvesson, 1995; Ojasalo, 1999; Lowendahl, 2000).

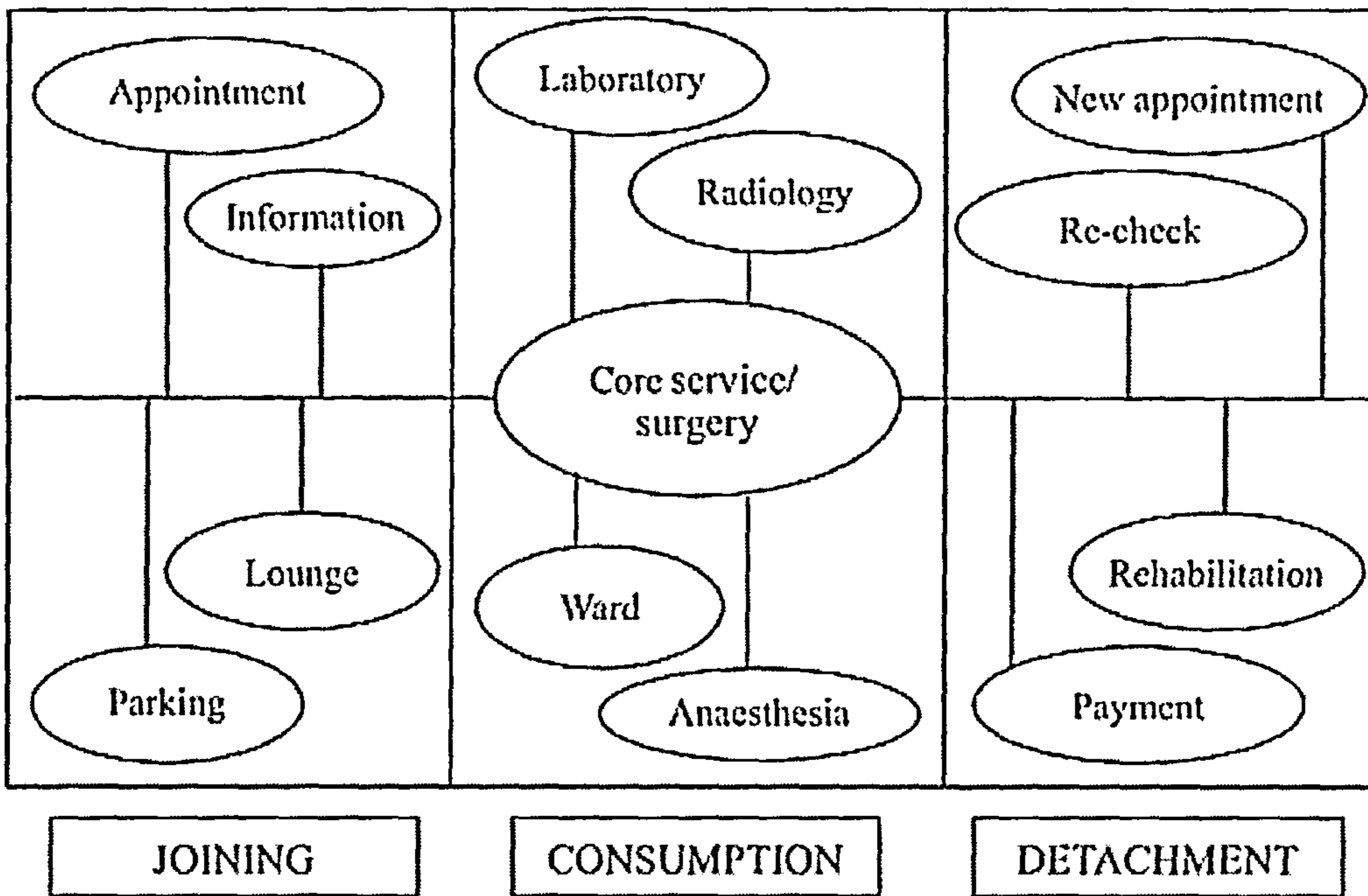
A service encounter can be defined as a period of time during which a consumer directly interacts with a service. This broad definition encompasses all aspects of the service company with which the consumer interacts, including its personnel, its physical assets, and other visible evidences of the service company during a given period of time (Bitner, 1990).

The patient's opinion of a service is influenced by his or her experience of the service process. This can be divided into three phases - namely joining, intensive consumption, and detachment (Lehtinen, 1986). In medical services, the joining phase occurs when the patient joins in the service process in order to consume a core health service. The core surgical service is delivered in the intensive consumption phase. In surgical services the delivery and intensive consumption of services are simultaneous processes, with interactions occurring between the patient and the tangible and intangible production resources of the medical service provider (MacStravic, 1988; Brown and Swartz, 1989). The intensive consumption phase is followed by the detachment phase, during which the patient leaves the surgical service process. Every phase can contain various auxiliary elements, in the form of facilitating or supporting services (Grönroos, 2000). Figure 3.3 illustrates the main elements in the surgical service process of a private hospital.

Surgical service can be a long and complex process of linked service chains and other activities intended to provide certain services (such as surgery). This process often contains distinct phases - including diagnosis, pre-surgery procedures, core surgery procedures, and post-surgery procedures (Gummesson, 2000).



**Figure 3.3 The Surgical Service Process**



Source: Orava and Tuominen, 2002, p.680

The process of service delivery can be thought of as the expressive performance of a service. Its descriptors are:

- Duration - the total time involved before and during the service encounter,
- Work-area appearance - the non-design aspects of the service environment, such as the day-to-day cleanliness and tidiness of the service location, which are inherently variable in nature,
- Employee appearance - the personal aspects of a contact employee's presence, including both hygiene factors and the manner in which costumes are worn,
- Empathy, assurance and employee effort - which encompass the skills, knowledge and professionalism of customer-contact employees. For example, how well contact employees are able to understand the customer's situations and treat them accordingly, and the amount of energy expended by an employee on behalf of a customer during a service encounter, which includes the employee's ability to be responsive to a customer's needs,
- Reliability - the ability to deliver an accurate service that has been promised to a customer on the first, and each subsequent, service encounter,

- Customer participation - not the "designed-in" elements of customer participation, but the customer's own style of consuming the service, and customer-to-customer interactions (Mayer et al, 2003).

Earlier Booms and Bitner (1981) and Harrington (1991) separated process delivery from process assembly in services, the former by classifying delivery within the process of service assembly and the latter by including it as a subset of staff support functions in a business organisation.

Similar to Booms and Bitner's (1981) construct of mechanisation, technology offers choices that managers must understand and make as a means of enhancing performance in service delivery processes (Fisk et al, 1993; Lovelock, 1992; and Lovelock, 1995). Heskett et al (1997) also identified "devices and policies" as one of the eight elements comprising a service delivery system. More recently, Stuart and Tax (1997) identified technology as one of a number of process issues that should be dealt with in assessing service systems when a company is considering a new service introduction.

Shostack (1987), Kingman-Brundage (1989; 1991), and Heskett et al (1997) discussed the concept of process visibility to the customer, which represents the extent to which a customer is allowed to see all, or only a portion of, the service delivery system. Thus, it is a choice made by service managers in the design of their service delivery systems.

Kelley et al (1990) noted that the degree of process customisation represents a strategic managerial decision. Further, it is stated that standardised service offerings are typically delivered through service delivery processes characterised by routine employee discretion, while customised services generally result from service delivery processes that allow employees more latitude in their behaviours.

Laws (1997) applied a service blueprinting approach to analyse the service process in an Australian pub/restaurant operation, with its attendant discussion relating to the implications of visibility for service process. Accordingly, visibility in the proposed model is defined as the aspects of the service delivery process that a customer is able to observe based upon the decisions made by managers.



Based on the process strategy literature, it can be hypothesised that:

*Process strategy has a positive significant effect on the performance of Jordanian private sector hospitals.*

### **3.4.7 Personal Strategy**

People play a crucial role in service organisations, especially during the service delivery process when the participants have interactions with customers. Service marketing has long stressed the importance of staff and particularly customer contact staff as crucial components in delivering a high quality service and contributing to overall customer satisfaction (Berry, 1980; Booms and Bitner, 1981; Cowell, 1984; Carlzon, 1987; Judd, 1987; Ennew and Watkins, 1998; Kasper et al, 1999; Zeithaml and Bitner 2000; and Lovelock, 2001). Currently the role of people in service delivery varies considerably across service contexts. However, the health service is one field where health staff are considered to be of particular importance. It is widely argued that the overall quality of the delivered service for organisations such as health services is influenced, among other things, by the nature of the relationship between the customer and health providers.

Interaction between two parties is a fundamental and core notion in services marketing and management (Grönroos, 1978, 1989; Gummesson, 1987, 1994, 1997).

Earlier Cowell (1984) recognised the people dimension in service companies in terms of service personnel as those who provide an organisation's services for customers. Carlzon (1987) introduced the "moment of truth" concept to highlight the importance of service encounters (buyer/seller interaction) in customer satisfaction.

Judd (1987) viewed people in terms of their role and involvement in the traditional marketing mix according to their role in contacting customers, and their role in both formulation and implementation of an organisation's marketing strategy. Gummesson (1991) viewed people in terms of contact personnel with customers in services organisations, which he called "part-time marketers". Ennew and Watkins (1998) recognised people in terms of the crucial role played by individuals. Kasper et al (1999) view people in terms of all employees of the service organisations who affect

it internally and externally. Zeithaml and Bitner (2000) recognise people as all who play a part in service delivery and influence the buyer's perceptions. Lovelock (2001) takes a comprehensive overview by focussing on human resource management (recruitment, selection, training, and retention of employees), operations management, leadership style, internal marketing, and the employee's role in the service delivery process.

In health care services, interaction of the service encounters between the customer and the service provider is particularly important. Quality contributions come from the joint efforts of all staff involved in patient care, including medical staff (Sharma, 1994; Alvesson, 1995; Lovelock et al, 1996, Wang and Mowen, 1997).

Hospital personnel are especially important in the health service industry because of the attitude, skills, appearance, and behaviour of the staff that influence the customers/patients perception of health service quality and help to create a favourable image of the hospital, through providing tangible clues.

Guest (1989) indicated that health service organisations should design programmes to generate the interest of their employees and potential employees, adding that staff development should be ongoing. All of this suggests that service marketing requires more than just traditional external marketing using the four Ps. It is further suggested that health care marketing also requires internal marketing, which describes the application of marketing techniques to employees within the organisation (Berry, 1980; Woodruffe, 1995). Kotler (1997) added that internal marketing must precede external marketing.

Mohr and Bitner (1995) studied employee effort during service delivery, looking specifically at what employee effort means to customers in terms of their satisfaction with a service encounter. Their employee effort is analogous to Schemenner's (1992) use of the term "degree of labour intensity" in his service process research. The effort an employee puts forth can be affected by many factors, such as state of health, lack of sleep, and job satisfaction. Thus, employee effort, like responsiveness, is essentially a variable aspect of service delivery. Mohr and Bitner (1995) concluded that the efforts of employees were highly correlated with and were a key determinant



of customer satisfaction. They argued that customers judge the effort exerted by a contact employee apart from his/her skill or ability to provide assistance. Accordingly, responsiveness can be encompassed in the employee effort situational descriptor of the proposed model. Employee effort is defined as the amount of energy expended by an employee on behalf of a customer during a service encounter, which includes the employee's ability to be responsive to a customer's needs.

Several studies of doctor-patient relationships and patient evaluations of medical services have underlined the importance of patient-staff interaction and the long-term nature of doctor-patient relationships (Brown and Swartz, 1989; Bowers et al, 1994; MacStravic, 1988; Taylor and Cronin, 1994; Turner and Pol, 1995; and Winsted, 2000). In these situations, the interactive element of service provision has a vital role in perceptions of the overall quality of service. Andaleeb (1998) found that three of the five factors leading to customer satisfaction with hospitals were related to patient-staff interaction. Similarly, Zifko-Baliga and Krampf (1997) found that three of five factors affecting perceptions of the quality of service in hospitals were related to interaction with doctors or other staff. A satisfied patient can evolve into a true advocate for the company and give a powerful word-of-mouth endorsement for the private hospital (MacStravic, 1985, 1994; Peck et al, 1999; Winsted, 2000).

Storbacka (1994) distinguished between routine and critical interactions in customer relationships. The routine interactions usually represent, proportionally, the larger number of all customer interactions. These interactions are characterised by routine behaviour and a low level of mental involvement. The customer can be said to play a large role in the production of such a routine interaction. A critical interaction can be defined as one that is of great importance for the relationship. This definition of a critical interaction is customer-specific and situation-specific. During critical interactions customers value all aspects of the interaction. Customers expect to receive intensive attention from the personnel involved and expect them to be professional, competent, and attentive (Storbacka, 1994).

Storbacka et al (1994) labelled routine and critical interactions as routine and critical episodes. Customer relationships have a number of different types of episodes, and these differ with respect to content, frequency, duration, and regularity (Storbacka, 1993).

The doctor has significant discretion in meeting customer needs, and evaluation of the interaction is largely based on the attributes of experience and credence (Brown and Swartz, 1989; Turner and Pol, 1995; Winsted, 2000). Experience attributes can be evaluated only during or after the consumption of medical service. Credence attributes are hard to evaluate, even after the consumption of a medical service has occurred (Ojasalo, 1999).

In health care more than in other services, the product is the person. When the patient thinks of medical care he or she thinks of the physician. The patient envisions medical care in terms of the people who deliver it. Thus the fifth P of marketing is the organisation's people (Kotler and Clarke, 1987).

Based on the personal strategy literature, it can be hypothesised that:

*Personal strategy has a positive significant effect on the performance of Jordanian private sector hospitals.*

### **3.5 Summary**

Based on services marketing mix strategy literature, it is concluded that: The service strategy should have four interrelated components that enable a service organisation to achieve success in the marketplace. These four components are: a comprehensive range of services, branding, customer service and developing new services. The literature indicates that the new service development is a crucial strategic tool in service business in general and in the hospital industry in particular. It has a critical role to maintain the hospitals in a competitive situation and to improve hospital performance (Gadrey et al, 1995; Edvardsson et al, 1995; Ennew, 1998; Cook et al, 1999; Johnson et al, 2000; Den Hertog, 2000; Avlonitis et al, 2001; Fitzsimmons and Fitzsimmons, 2001; King and Anderson, 2002). Branding should be viewed as a strategic tool, a result of strategic thinking and an integration of marketing programme across the complete marketing mix framework (Onkvisit and Shaw, 1989; Dorbree and Page, 1990; Aaker, 1996, 1997; Charnatony and McDonald, 1998; O'cass, 2001; Keller, 2003).



The literature indicates that the health service range has a strategic role to play in the growth and survival of hospitals and their performance. As such, the health service mix has a crucial role in helping to achieve the competitive situation (Kotler and Clarke, 1987).

Based on the pricing literature review, pricing is one of the essential variables of marketing and the cornerstone element in the marketing mix strategy in the service sector (Zeithaml et al, 1985; Diamantopoulos, 1991; Marn and Rosiello, 1992; Simon, 1992; Nagle and Holden, 1995; Lovelock, 1996; Tung et al, 1997; Harrison, 2000; Shipley and Jobber, 2001; Gouvea, 2001; Avlonitis et al, 2005). The current study investigates the pricing strategies methods and objectives in service sector in general and health services in particular which are used to achieve the organisation objectives.

Based on the distribution literature review, (Booms and Bitner, 1981; Grönroos, 1984; Maister, 1985; Kotler and Clarke, 1987; Roberts et al, 1989; Carter et al, 1989; Roberts, 1989; Cartwright and Windsor, 1992; Grice and Kickham, 1997; Bangert et al, 1999; Kelley and Turley, 2001; Jones, 2003; Akber, 2003) distribution is one of the fundamental elements in the health services marketing mix. As such, access to health services is a significant issue; this importance comes as a result of the critical kind of customers in most cases. With reference to the distribution strategy in the hospital industry, three major distribution decisions face health care organisations: physical access, time access, and informational (promotional) access. The current research investigated the physical access, time access, and informational and promotional access and how these kinds of access reduce barriers, which face the patients regarding their access to the health, services.

In terms of promotion strategy literature review (Aaker and Mayers, 1987; Lauterborn, 1990; Andaleeb, 1994; Palmer and Cole 1995, Zeithaml and Bitner, 1996; Thwaites, 1998; Harrison, 2000; Lovelock 2001) promotion is one of the basic elements in the health services marketing mix. There has been considerable empirical evidence that has shown that the unique characteristics of services have a profound implication on formulating the promotion strategy. Bitner (1992) focused on providing tangible clues in the marketing communications strategy due to the intangibility factor, which is inherent in most services. The current research

investigates the essential and important elements and facilities of promotion strategy in the hospital industry which are used to achieve the promotion strategy function. This chapter tried to find what elements are included in the promotion strategy in service sector in general and in health services in particular.

Physical evidence is one of the central components of the new expanded service marketing mix and is a central element in the service marketing strategy. Hospitals can use physical evidence in order to provide tangible clues to service quality and enhance their images (Kotler, 1973; Shostack, 1977a,b, Berry, 1980; Booms and Bitner, 1982; Shostack, 1984; Cowell, 1984; Baker and Cameron, 1996; Stuart and Tax, 1997; Kasper et al, 1999; Zeithaml and Bitner, 2000; Lovelock, 2001; Palmer, 2001; Mayer, 2003).

Based on the service process literature, the health service delivery system is one of the most critical issues in the service process strategy. Managers and medical staff should put the customer/patient as a focal point of each activity in the hospital system. Because of the unique characteristics of the health services, the process strategy and health service delivery should be designed and developed by using inputs from marketing management, operation management, and human resources management which must all get involved in these processes (Booms and Bitner, 1981; Shostack (1984; Kelly, 1989; Collier, 1991; Smith and Saker, 1992; Alvesson, 1995; Kelley et al, 1996 Kasper et al, 1999; Ojasalo, 1999; Zeithaml and Bitner, 2000; Lowendahl, 2000; Lovelock, 2001).

The personal dimension in health service organisations considers the main factor in the marketing mix strategy components. Personnel, especially those who have interactions with the patients particularly during the health service process e.g. physicians and medical records staff have a central role to play in hospital operations since patients regard them as a key part of the health service (Berry, 1980; Booms and Bitner, 1981; Cowell, 1984; Carlzon, 1987; Judd, 1987; Kotler and Clarck, 1987; Mohr and Bitner,1995; Ennew and Watkins, 1998; Kasper et al, 1999; Zeithaml and Bitner 2000; Winsted, 2000; Lovelock, 2001).



It is necessary to make a connection between the theoretical and empirical parts with reference to this chapter and the present research. This research examines the influence of competitive environment factors on the Jordanian private sector hospitals marketing strategies. The literature in this chapter made a comprehensive review of marketing mix strategy components. The current research attempts to find out how the Jordanian private sector hospitals managers achieve the duties of marketing mix strategy in their departments.

The marketing mix strategy components include health services, pricing, distribution, promotion, physical evidence, process, and personal strategies. And the research also includes the competitive environment factors: government regulations; competitors; suppliers; customers; and third party payers. As such the current research includes hospital performance criteria, finance, quality, customer, and marketplace criteria. The current research attempts to discover whether there is a significant influence of competitive environment on marketing mix strategy and also if there is any relation between marketing mix strategy and hospital performance criteria.

The current research investigates whether or not research was conducted on marketing mix strategy components in Jordanian private sector hospitals. The proposal of the research was to identify the Jordanian private sector hospitals managers' opinion on the important issues regarding the marketing mix strategy. This chapter asserted the importance of the research function for the service industry in general and health service in particular.

The current research tried to find out the impact of competitive environment on marketing mix strategy in Jordanian private sector hospitals and investigated if the Jordanian private sector hospitals employ the marketing mix strategy or not. As such if the Jordanian private sector hospitals managers investigated the impact of competitive environment factors on the marketing mix strategy.

A literature review in this chapter revealed a clear shortage of research (Booms and Bitners, 1981; Kotler and Clarke, 1987; Grönroos, 1990; Lovelock 1996; Judd, 2003) of materials on marketing mix strategy components role in the hospitals and specifically about the impact of competitive environment on marketing mix strategy.

This is also true when it comes to research on the effect of marketing mix strategy on hospital performance.

The specific references only partially covered the marketing mix strategy and its relationship with the competitive environment factors. Therefore, the present study attempts to fill a gap in the subject of marketing mix strategy in Jordanian hospitals. The study addressed some of the shortcomings in the literature such as looking at the competitive environment factors from the point of view of government regulations, competitors, suppliers, customers, and third party payers, to investigating the influences of competitive environment on marketing mix strategy in the private hospitals. It was established that no previous research had been conducted, which investigated the relationship between the competitive environment and the 7Ps in the private health sector.



## Chapter Four

### The Effect of the Competitive Environment on the Organisation's Marketing Strategy, with a Focus on Health Care

#### 4.1 Introduction

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

Competitive 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 organisations, 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 competitive 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 conceptualising the term 'competitive environment' should, at some stage, involve an attempt to answer certain questions, such as:

- What are the main environments, which influence the organisation's marketing strategy?
- What is the meaning of competitive environment?
- What are the main factors of competitive environment? And how do they influence health organisations?

The answer to these fundamental questions is the subject of this chapter.

## 4.2 Concepts and Analysis of the External Environment

The importance of analysing the external environment arises from the critical role it plays in the growth and profitability of organisations. This fact has been clearly highlighted by Kotha and Nair (1995), and later by Wagner and Gooding (1997). Thus, by understanding an organisation'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 organisation 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 and Jones, 1998, P102).

Crucially, any study of the external environment should include the identification of both the 'opportunities' and 'threats' facing an organisation. The reasons for this are:

- a- Opportunities represent possibilities or conditions which, if identified and acted upon could reinforce an organisation's strategic competitiveness. Formulating and implementing strategies based on such 'possibilities' or conditions would help the organisation offer distinctive value to its customers resulting in higher profits than its competitors.
- b- 'Threats', on the other hand, are the constraints in the general environment that could be impediments in an organisation's effort to achieve strategic competitiveness. Thus, the identification of such threats is a crucial first-step towards overriding them or minimising their negative effect through the development of capabilities and contingencies (Hill and Jones, 1998; and Hitt et al, 1999).

Earlier Barney (1991), and Seth and Thomas (1994) indicated that the *industrial organisation* model has four underlying assumptions, which place little emphasis on the impact of an organisation's functions on its competitive performance, in an effort designed to focus the analysis of what affects an organisation's competitive position on its environment. Such assumptions are:

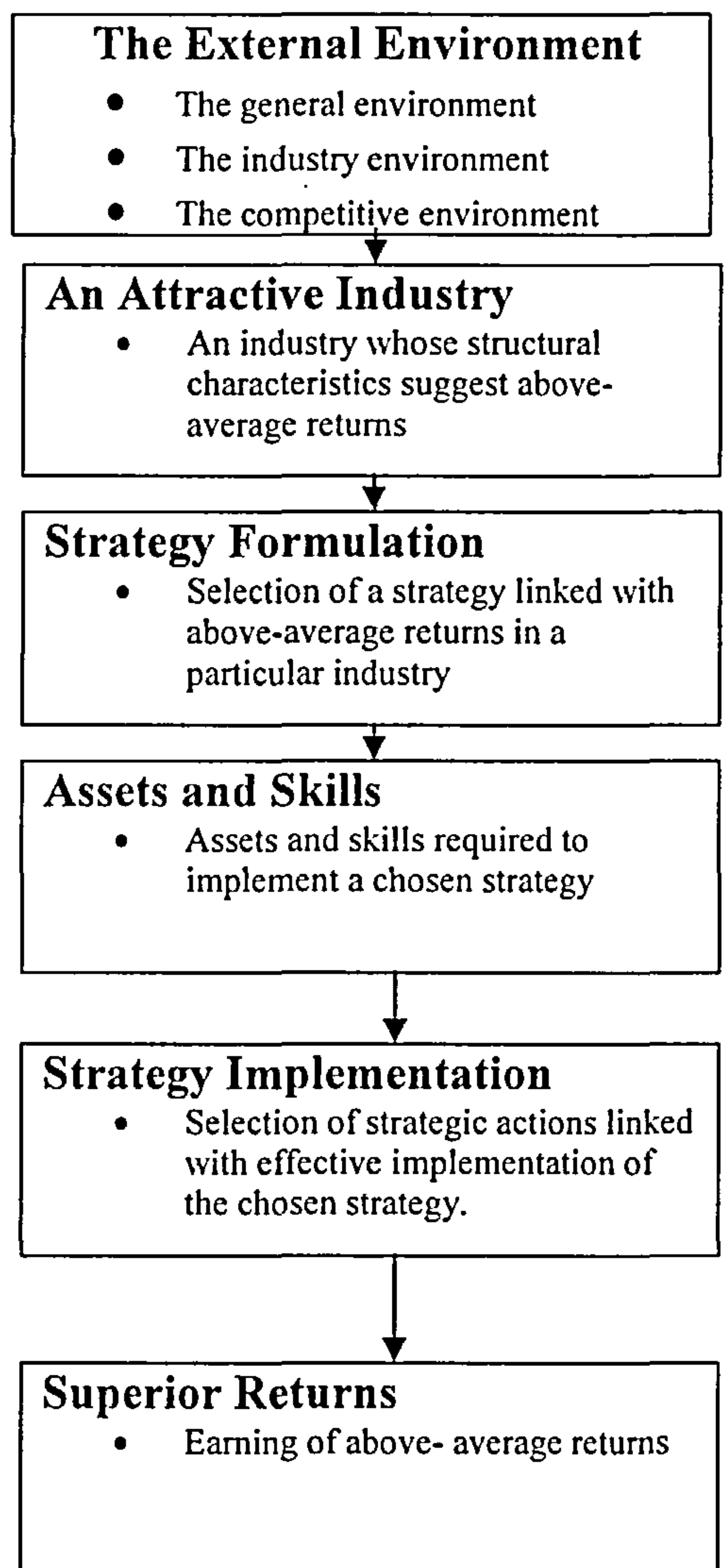


1. Organisations competing within a particular industry, or a certain segment of an industry, are assumed to be controlling similar strategically relevant resources and thus pursuing similar strategies. This means that the role of organisational resources in distinguishing a particular organisation from another is to a great extent neutralised and thus renders the contribution of an organisation's attributes in gaining a competitive edge over its rivals negligible.
2. This leads to the second assumption, which is based on the contention that the external environment is the leading factor affecting the strategies to be formulated in order to achieve competitiveness.
3. The resources used by organisations to implement their strategies are considered to be highly mobile. Therefore, should resource heterogeneity develop in a particular industry, it will not be sustained for long because all organisations have easy accessibility to such resources.
4. The behaviour of organisational decision-makers is assumed to be rational, in that it is geared towards profit maximisation. This explains the inclination to choose those market positions that are thought to be the most profitable for the organisation.

Based on the aforementioned assumptions, it may be concluded that the contributory effect of an organisation's resources on developing competitive advantage is minimal. However, Hitt et al (1999) stresses that an important factor that enables the organisation to compete successfully in its chosen industry is the development or acquisition of the necessary assets and skills needed to implement the strategy determined based on analysis of the external environment. Despite acknowledging the vital effect of resources on competitiveness, they highlight that this should not undermine the premise that under the industrial organisation model, profitability is primarily determined by external characteristics. Figure 4.1 illustrates the premise of such a model of superior returns.

**Figure 4.1 The Industrial/ Organisation Model of Superior Returns**

1. Study the external environment, especially the industry environment.
2. Locate an industry with high potential of above average returns.
3. Identify the strategy called for by the attractive industry to earn above average returns.
4. Develop or acquire assets and skills needed to implement the strategy.
5. Use the firm's strengths (its developed or acquired assets and skills) to implement the strategy.



Adopted from Hitt et al (1999)

### 4.3 Analysis of the External Environment

As mentioned earlier, the industrial organisation model emphasises the importance of analysing the external environment, which affects the organisation, as the first step towards identifying opportunities to be exploited in achieving competitiveness. Powell (1992) illustrates that to be successful over time an organisation must be in tune with its external environment. There must exist a strategic harmony between what the environment wants and what the organisation has to offer and also between the organisation's needs and what the environment can provide. Such an external



environment consists of three main components: The general or macro-environment, the industry / sector environment, and the competitive environment.

### **The General Environment**

A societal environment includes general forces that do not directly touch on the short run activities of an organisation but can, and often do, influence its long run decisions (Wheelen and Hunger, 1995).

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 and Gilligan, 1998). These variables and their related elements are shown in Figure 4.2.

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, organisations engage in a process called “external environmental analysis”. The challenge in this process of analysis, according to Hitt et al (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 organisation and its strategic management. In this context, Lynch (2000) indicates that it may be useful to begin this process of analysing the external environment surrounding an organisation 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.

The third activity of external analysis is forecasting, which involves developing feasible projections of what might happen and how quickly, as a result of the changes and trends detected through scanning and monitoring.

**Figure 4.2 The PEST Framework for Environmental Auditing**

<p><b>Political/legal factors</b></p> <ul style="list-style-type: none"> <li>• Legislative structures</li> <li>• Monopoly restrictions</li> <li>• Political and government stability</li> <li>• Political orientations</li> <li>• Taxation policies</li> <li>• Employment legislation</li> <li>• Foreign trade regulations</li> <li>• Environmental protection legislation</li> <li>• Pressure groups</li> <li>• Trades union power</li> </ul>	<p><b>Social-cultural factors</b></p> <ul style="list-style-type: none"> <li>• Demographics</li> <li>• Life styles</li> <li>• Social mobility</li> <li>• Educational levels</li> <li>• Attitudes</li> <li>• Consumerism</li> </ul>
<p><b>Economic factors</b></p> <ul style="list-style-type: none"> <li>• Business cycles</li> <li>• Money supply</li> <li>• Inflation rates</li> <li>• Investment levels</li> <li>• Unemployment</li> <li>• Energy costs</li> <li>• GNP trends</li> <li>• Patterns of ownership</li> </ul>	<p><b>Technological factors</b></p> <ul style="list-style-type: none"> <li>• Levels and focuses of government and industrial R&amp;D expenditure</li> <li>• Speed of technology transfer</li> <li>• Product life cycles</li> <li>• Joint ventures</li> </ul>

Source: Wilson and Gilligan, 1997, p.237

The relevance of these projections developed by forecasting, to the organisation, is then assessed, in order to specify the implications of the understanding reached from the previous three steps used in the analysis of the general environment, on an organisation's strategic management.

### **The Task (Industry) Environment**

The task environment includes those elements or groups that directly affect, and are affected by, an organisation's major operations. A task environment is often referred to as the industry in which the organisation operates (Wheelen and Hunger, 1995).

Hitt et al (1999) have pointed out that the industrial organisation model challenges organisations to locate the most attractive industry/sector in which to compete, since



the basic premise of this environmental model of competitive advantage is based on the contention that competitiveness in general can be increased only when:

- Organisations are able to find the industry, which proves to be attractive in terms of having the highest profit potential, and when
- Organisations are able to compete successfully in such an industry /sector, through learning how to develop and use their internal resources and skills to implement the generic competitive strategy required by the structural characteristics in that industry (Porter, 1980, 1998; Hill and Jones, 1998; Hitt et al, 1999).

Such a premise of the industrial organisation model highlights the point that the industry environment has a more direct effect in the competitive position of an organisation, compared to the general environment. This is evidenced by Porter (1980, 1998), who explains that the key to moulding successful and effective strategy lies in how a company or organisation adapts to its surrounding environment. It requires thorough assessment of the industry/industries within which it actively competes. This means that the prevailing industry structure bears considerable influence upon shaping the rules and strategies which a firm utilises within its target market.

In this context, Porter (1980, 1998) defines an industry /sector as a group of organisations producing commodities and/or services that are close substitutes for each other.

A full account of the analysis of industry structure as a competitive force is found in Porter's *five-force model* (1979) and his subsequent publications (1980, 1985). According to Porter, the state of competition in an industry depends on five basic competitive forces and the collective strength of these forces determines the ultimate profit potential in the industry and the ability of firms in an industry to earn rates of return on investment in excess of the cost of capital. The five forces suggested by Porter and the elements related to each are displayed in figure 4.3.

Porter's five-force model has attracted fierce criticism by a number of writers such as Grant (1995) and O'Shaughnessy (1995). For instance, with alternative views Speed's principle on the criticism of methodology and several of his conclusions is that they do not appear to have any justification. In the same context, O'Shaughnessy (1995) criticises the five forces suggested by Porter (1985) for two reasons. Firstly, there is little to suggest that this is necessarily an exclusive or exhaustive list. Secondly, Porter provides no indication of how to operationalise any analysis based on these forces. In O'Shaughnessy's view, there is no indication of how to assess the relative power of the forces and how to determine what counteractions are taken.

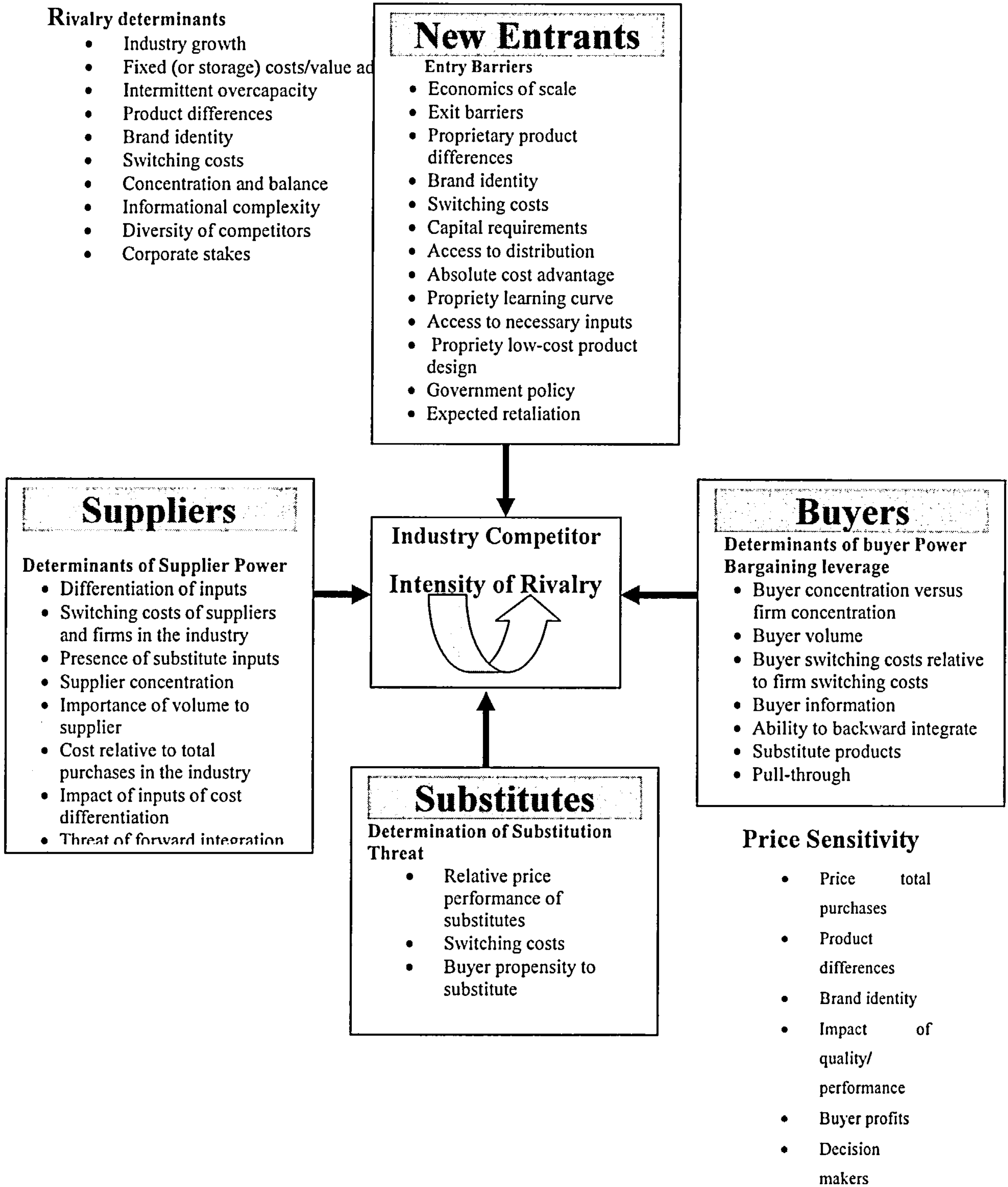
With respect to the above views, obviously, the five forces illustrated in figure 4.3 suggest that competition extends beyond the companies within the industry to include new entries, substitutes, suppliers and buyers. The stronger the forces are, the more companies are limited in their ability to raise prices and earn greater profits. In other words, a strong force may be regarded as a threat because it is likely to reduce profits. In contrast, a weak force may be viewed as an opportunity because it may allow the company to earn greater profits.

To illustrate the linkage between these forces and competitive strategy formulation, Porter (1980) points out that the goal of competitive strategy for a business unit in an industry would be for the company to defend itself against these competitive forces by influencing them in its favour. In this context, Freeman (1984) has contributed to the five forces model by suggesting a sixth force to Porter's list, which includes a variety of stakeholder groups. In Freeman's view the analysis of the relative power of stakeholders, while it is beyond industry structure towards stakeholder structure fits quite well with Porter's theory and assists in formulating generic strategies.

Finally, Karagiannopoulos et al (2005) indicate that, as the resulting effects of these forces vary from one industry to another, the strength of each force varies according to the stage of industry evolution. Therefore, the analysis of the industry life cycle is useful for explaining and predicting the strength of the trends among the five forces that drive industry competition.



**Figure 4.3 Elements of Industry Structure**



Source: Porter, 1985, P.6

#### 4.4 Competitive Environment

Competitive environments are changing at an accelerating pace, leading to a high level of uncertainty. This growing uncertainty is the result of greater customer expectations, the dilution of borders between competitive environments, and the move towards global competition. As the level of dynamics in business environments increases, the development of strategies that will differentiate the organisation from its competitors becomes the key success factor. Consequently, the study of parameters affecting the process of strategy development has become the leading focus of industrialists and researchers (Feurer et al, 1996).

Strategic management views the environment as an important contextual factor that has a strong impact on a firm's strategic direction (Hamel and Prahalad, 1994; Chaharbaghi and Nugent, 1994). Strategy literature supports the view that both owners and top managers need to deal with the impact of the environment (e.g., Chaganti and Damanpour, 1991; Hamel and Prahalad, 1994; Hough and White, 2004). The information uncertainty perspective (Chaharbaghi and Nugent, 1994, 1996; Hough and White, 2004) maintains that greater environmental dynamism will lead to greater environmental uncertainty and increased difficulty in decision-making (Sanders and Ritzman, 2004).

Earlier Miles and Snow (1978) suggested a scale of perceived environmental uncertainty (PEU) consisting of six sub scales corresponding to six key factors of the external environment of organisations, namely suppliers, competitors, customers, financial markets, government and regulatory agencies, and unions. Later Bstieler and Gross (2003) discuss the environmental uncertainty with concentration on the technology factor.

Wartick and Cochrane (1985) had already identified four 'generic,' firm level approaches to corporate social responsibility: reactive, defensive, accommodative, and proactive.

However, Zeithaml (1984) developed a framework of environmental response strategies (Hatten et al, 1978; Hambrick and Lei, 1985) suggesting the importance of environmental variables to the firm. Nonetheless, strategy literature suggests that



supplier performance, and in some cases customer satisfaction, is a direct result of firm and environmental variables rather than solely of individual transactions.

Bourgeois (1985) and Lumpkin and Dess (1987) 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. A second theme is that the use of global strategy should differ by dimension of strategy and for different elements of the value-add chain. However, this theory has yet to be addressed by empirical research in a services context.

On their side, Ansoff and McDonnell (1990) focused on the sophistication of strategic management systems in higher uncertainty sectoral environments. Other authors (Haines, 1988; Csath, 1991) demonstrated that uncertainty at sectoral and national environments is linked together.

Johansson and Yip (1994) identified several forces or industry drivers that influence the globalisation of manufacturing firms. Lovelock and Yip (1996) subsequently modified this framework to apply to services. Five categories of industry drivers favour globally and transnationally integrated strategy. They are:

- Market drivers;
- Competition drivers;
- Technology drivers;
- Cost drivers and
- Government drivers.

Along these lines, earlier Medhurst (1993) suggested that most firms already spend between 1 and 2 percent of their revenues as a response to environmental concerns (Medhurst, 1993).

D'Aveni (1994) has defined the nature of *hypercompetition* as a state of intense environmental change, in which flexible and innovative players enter the markets rapidly while eroding the advantages of the established players. On the other hand, Feurer (1996) shows that the level of dynamics in the competitive environment by itself does not have any influence on business performance. There are both high and low performers in competitive environments with low levels of dynamics. Similarly, both high and low performers in competitive environments have high levels of dynamics. This implies that organisations can be successful in any competitive environment. Feurer study has demonstrated that organisations with dynamic approaches to strategy development achieve superior performance in all competitive environments. This implies that the application of a dynamic approach to strategy development is not detrimental in competitive environments with low levels of dynamics.

Hart (1995) developed a more grounded typology of environmental strategies. The resource-based view of the firm suggests that corporate strategy will only lead to sustainable competitive advantage if it is supported by firm-level competencies (Barney, 1991; Rugman and Verbeke, 2002). Such competencies reflect unique combinations of resources that are rare, not substitutable, difficult to imitate, and valuable to customers.

Furthermore, Hart (1995) proposes that more proactive environmental strategies are associated with a stronger stakeholder orientation. Previously Freeman (1984) defined the concept of 'stakeholder' to include any individual or group that can affect the firm's performance or is affected by the achievement of the organisation's objectives.

Savage et al (1991) and Clarkson (1995) classify stakeholders as primary or secondary, based on the type of relationships they entertain with the firm. The primary stakeholders refer to employees, suppliers, customers, and public agencies engaged in formal relationships with the organisation. The secondary stakeholder groups include actors such as the media and special interest groups, not engaged in formal transactions with the organisation. Mitchell et al (1997) also classified stakeholders based upon three attributes; namely power, legitimacy, and urgency.



Rugman and Verbeke (1998), alternatively, found that other forces such as customer pressure, shareholder pressure and community pressure may play a significant role in the development of an environmental plan at the firm level.

Emerson et al (1999) discriminated between strategic and environmental variables for hospitals where the former are those over which the company has influence, such as the amount of flexibility provided, and the type and amount of advertising and other promotion used by the firm. The latter variables, however, are those outside the company's control, such as the amount of competition or rivalry in the industry.

Beal (2000) suggested that managers of small businesses do collect information on external environmental sectors, particularly customers and competitors, in order to align business strategy. Firms, in growing and maturing industries, should scan various types of information in order to compete more effectively. Such information focuses on competitors and customers independent of the strategy already employed.

Lozada and Calantone (1996) and Banerjee (2001) proposed that organisational responsiveness is conceptualised in terms of two dimensions: The speed with which an organisation responds to a given environmental change, and the magnitude of the response.

Fahey (2002) determined the network of relationships it possesses with external entities including customers, distributors, suppliers, and governmental agencies.

Wheelen and Hunger (2002) agree that top management need to extensively scan the turbulent changes in environmental factors to develop effective corporate policies for both short and long-term missions (Wheelen and Hunger, 2002). However, the implementation of these policies is dependent on individual perceptions and interpretations of environmental uncertainty. The same environmental uncertainty can be interpreted and responded to in a multitude of ways by different managers (Schneider and De Meyer, 1991). Also, perceptions about political and macroeconomic uncertainties differ significantly across nations (Miller, 1993). The perceptions and interpretations of managers are subject to influences at multiple levels

of analysis, such as individual, group, organisational characteristics and environmental context (Buchko, 1994).

O'Cass and Julian (2003) argued that foreign markets pose both threats and opportunities for organisations, significantly affecting marketing performance. They stressed that organisations must match their strengths with market opportunities to negate threats, and ensure better marketing performance. Thus, marketing performance tends to be conditioned by environmental characteristics (Cavusgil and Zou, 1994) such as the extent of competition (Christensen et al, 1987); legal and regulatory policies of host country governments (Contractor, 1990; Blodgett, 1991); availability of suitable distribution and communication channels; (Blodgett, 1991, Ganitsky et al, 1991) and, customer familiarity with the product (Cavusgil and Zou, 1994).

Ngamkroeckjoti et al (2003) analysed the various aspects of environmental scanning policies and practices by answering the following questions:

- What are the environmental scanning objectives of companies during periods of high uncertainty?
- What is the organisational structure for environmental scanning in these companies?
- What is the process of environmental scanning?
- What are the environmental factors that are analysed by companies?
- How do these companies judge the effectiveness of the environmental scanning process used by them?

Svensson (2004) shows that the competitive marketplace in many industries has forced companies to improve current business activities and existing resource allocations to sustain their turnover, defend their market share, maintain profitability, and conserve other key resources of the company's well-being.

The information uncertainty perspective (Duncan, 1972; Weick, 1979; Daft and Weick, 1984; Milliken, 1990) reveals that the environment provides information for top management actions. A concept central to this perspective is environmental dynamism. That is, the rate of change and the degree of instability of factors within an



environment. This perspective maintains that increasing levels of environmental dynamism will lead to greater environmental uncertainty (Lester et al, 2006).

Environmental scanning is the acquisition and use of information about events, trends, and relationships in an organisation's external environment, the knowledge of which would assist management in planning the organisation's future course of action (Choo, 2001). In other words, the purpose of environmental scanning is to identify an early opportunity for seeking new directions for the company as well as identifying threats that are likely to adversely affect its performance (Wheelen and Hunger, 2002). Scanning the environment to understand the external forces of change could result in an organisation fortifying itself on several fronts by simultaneously developing effective responses to secure and improve their position in the future, avoiding surprises, identifying threats and opportunities, gaining competitive advantage and improving long and short term planning (Sutton, 1988). However, in the case of the hospital managers of both small and large hospitals, who have limited time and capacity, the choice between scanning alternatives must be made most prudently.

Accordingly, the following sections will discuss the competitive environment factors individually, starting with government regulations, then competitors, suppliers, and customers.

#### **4.4.1 Government Regulations**

The environment of government regulations is composed of laws, agencies, departments, and pressure groups that influence and limit various organisation sectors. Government regulations are opening up new opportunities for many service businesses and encouraging regional and national consolidation (Lovelock, 1995).

Defining regulations is critical, because it helps to frame the concept and acts as a starting point for subsequent study and analysis. Selznick (1985, p 363) briefly and neatly defined regulation as, "*sustained and focused control exercised by a public agency over activities which are valued by a community*".

Many studies have questioned whether change of ownership or other factors, such as competition (Vickers and Yarrow, 1988; Bishop and Thompson, 1992), regulation (Saal and Parker, 2000, 2001), the business cycle, and technical change or size (Villalonga, 2000) result in the performance improvements attributed to privatisation. Others have found no change between pre- and post-privatisation performance when taking into account factors such as those mentioned above (Caves and Christensen, 1980; Martin and Parker, 1997; Florio, 2003; Omran, 2004). Without considering the separate effects of ownership, competition, and regulation, it is difficult to assess the impact of privatisation on performance (Vickers and Yarrow, 1988; Parker, 2003).

Studies investigating the effect of privatisation on firm performance have, on aggregate, found that change of ownership does matter (Shirley and Walsh, 2000; Megginson and Netter, 2001). The arguments in favour of privatisation can be summarised as follows. Private ownership removes political interference (Shleifer and Vishny, 1994; Boycko et al, 1996), introduces market based incentives through hard budget constraints and the threat of takeovers (Vickers and Yarrow, 1991), reduces information asymmetries between the agent and the principal by introducing competition and monitoring incentives (Vickers and Yarrow, 1991), and places profit maximisation as the sole incentive of both managers and owners. This results in privatised firms pursuing efficiency in order to maximise returns to shareholders.

Henriques and Sadorsky (1996, 1999) evaluated the perceived importance of different stakeholder groups using data of Canadian firms, and found that in addition to government regulation it is primarily customers, shareholders, and local community groups that affect corporate environmental management practices, especially the content of environmental action plans.

What Osbourne and Gaebler (1992) term “steering not rowing”, suggests that governments are not best equipped to be providers. Instead, Barlow and Rober (1996) indicate that an alternative approach of providing public services is that of steering, in which private social institutions deliver public services alongside state agencies.

Along these lines, Stewart and Walsh (1992) and Collins et al (1994) argue that the private sector operates in a competitive and profit -maximising environment. Such an



environment forces organisations operating in the private sector to be efficient, since failure would otherwise be guaranteed.

Nevertheless, Barlow and Rober (1996) have indicated that the cost efficiency of private sector organisations, coupled with increasing fiscal pressures on governments to limit state expenditures and activities has resulted in political demands being placed on public organisations to follow the private sector in its market-oriented management practices in an attempt to be cost efficient.

The environmental turbulence that has been created by health care reform and enhanced competitive pressures of the marketplace has resulted in hospital executives attempting to aggressively formulate and implement strategies that are most closely tied to their hospitals' distinctive competences and the executives' perception of their external environment.

#### **4.4.2 Competitors**

Competitors are the second network party that organisations have to take into consideration (Boonekamp, 1994).

Competition is defined in the *Shorter Oxford English Dictionary* as “the action of endeavouring to gain what another endeavours to gain at the same time” and in commerce as “rivalry in the market”. The concept of competition is central to the theory of the free-market, which underpins contemporary economic models and much business management thinking. Competition affects decisions on price, quality and profit and is the paradigm, which defines the relationship of business organisations with their environments.

Porter emphasized that the three strategic orientations of cost leadership, differentiation, and focus represent three fundamentally different alternatives to a firm seeking to establish a competitive advantage (Green et al, 1995).

Cost leadership represents a strategic alternative that centres on outperforming competitors through efficiency rather than product quality or service. The attainment of this position of relative cost efficiency is often at the expense of quality of product or service provided. Firms following such a strategy are better prepared to withstand

pressures when the competitive forces of the marketplace drive down prices. On the other hand, differentiated firms attempt to create a real or perceived difference in product or service with the objective of establishing an industry-wide customer base that views the provider's product or service as superior. Ideally, differentiation will occur in several dimensions such as superior quality in products, service, delivery, etc. Cost concerns are of secondary importance as a result of reduced price sensitivity and higher margins because of brand loyalty effects (Green et al, 1995; Wu et al, 2006).

The focus strategy urges any firm to narrow its marketing target by buyer group or by segment the product line, or by geographic region. This focus allows for the firm to better meet the needs of the customer base, resulting in differentiation from better service or cost leadership through marketing or operating efficiencies (Green et al, 1995; Wu et al, 2006).

Hitt et al (1999) explain that competitor analysis keeps an organisation informed about the objectives, strategies, assumptions, and capabilities of its competitors. The purpose behind such a study of an organisation's direct competitors, as indicated by Lynch (2000), is to identify the specific competitive advantages of rival organisations and to highlight any strategic resources, which may hold the potential of delivering competitive advantage to the rivals.

Swinehart and Smith (2004) demonstrate that a critical characteristic of world-class competitors is their ability to quickly adapt to changing customer, market and regulatory requirements, and to obtain new services and/or technologies designed, produced, and delivered to the customers better and faster than their competitors.

Porter (1980) suggested that the objectives of carrying out competitor analysis are twofold. Firstly, to develop a profile of the nature of the likely strategy changes each competitor might make. Secondly, to anticipate each competitor's probable response to the range of feasible strategic moves other firms could initiate, and each competitors probable reaction to the array of industry changes and broader environmental shifts that might occur.



The importance of competitor analysis has been extensively highlighted in marketing literature (Kotler and Armstrong, 1996; Kotler, 2000; Greenley, 2004). While Kelly (1987) identifies five important purposes for competitor analysis, Taylor (1992), introduces four examples of the consequences of failing to adequately monitor the competitor. Competitor analysis, in Taylor's view, is not a luxury but a necessity for companies to survive, grow, and remain competitive. In this context, Wilson and Gilligan (1997) defined competitor analysis as a set of activities, which examines the comparative positions of competing enterprises within a given strategic sector.

Kotler (1997) proposed that the key to identifying competitors is to link the industry perspective of competition and market perspective of competition by mapping out product service / market segments. He further considers such a map as the competitive arena in which a company can identify actual and potential competitors.

In this context, O'Shaughnessy (1995) pointed out that, while identifying the company's competitors, a company should not be restricted to simply identifying the current competitors but also take into account potential competitors. As such, O'Shaughnessy listed a number of conditions under which a market entry by a new competitor is more likely to happen.

#### **4.4.3 Suppliers/ Technology**

In the business context, organisations could engage in cooperative and collaborative arrangements with several groups of partners, suppliers being one such group.

Kalwani and Narayandas (1995) found a positive correlation between long-term relationships and profitability of suppliers, and empirically demonstrated the association or correlation between a company's adoption of relationship marketing programs and its performance.

Masella and Rangone (2000) propose four different supplier segmentation systems depending on the timeframe (i.e. short-term versus long-term) and on the content (i.e. logistic versus strategic) of the co-operative customer/supplier relationship. It is an analytic hierarchy process framework, with different sets of measures, deriving from a non-conventional model of the supplier, based on the dynamic system and on the

resource-based approach. Narasimhan (1983) and Nydick and Hill (1992) also apply the analytic hierarchy process to the supplier dilemma.

Van Weele (2000) describes a portfolio of different strategies to be used in supplier segmentation based on two dimensions, namely:

- 1-Supplier's impacts on financial results; and
- 2-Supply risk.

Svensson (2004) identifies four strategies for suppliers:

- 1- Partnership - strategic suppliers (i.e. market leaders, specific know-how, and balance of power may differ among buyers-suppliers);
- 2- Competitive bidding - leverage suppliers (i.e. many competitors, commodity products, and a buyer dominated segment);
- 3- Securing continuity of supply - bottleneck suppliers (i.e. technology leaders, few - if any - alternative suppliers); and
- 4- Systems contracting - routine suppliers (i.e. large supply, many suppliers with dependent position, and a reduction in the number of suppliers).

Dyer et al (1998) explore strategic supplier segmentation. This research suggests that suppliers should be segmented into two primary groups: one group of suppliers that provide necessary, but non-strategic inputs; and another group that provides strategic inputs. Strategic inputs refer to high-value inputs that are related to the purchasing firm's core competence and may be useful in differentiating the buying firm's product in the marketplace. Olsen and Ellram (1997) introduce a matrix based on two dimensions to categorise supplier relationships. Four categories of purchases are revealed: non-critical, bottleneck, leverage, and strategic.

Piercy (1999) encourages marketers to remember that not all customers want a relationship with their suppliers. He proposes four separate categories of customers, based on the relationships that they wish to form with the supplier:

- (1) Relationship seekers – customers who want a close and long-term relationship with suppliers.



(2) Relationship exploiters – customers who will take every free service on offer but will still move their business when they feel like it.

(3) Loyal buyers – customers who will give long term loyalty, but do not want a close relationship.

(4) Arm's length and transaction buyers – customers who avoid close relationships and move business based on price, technical specification or innovation.

#### **4.4.4 Customers**

There are growing links with the competitive environment. With the internal market reforms, customers have been given - in theory - greater freedom in choosing from which organisations they wish to purchase services and some organisations have introduced sections or programmes that are intended to be profit making (Kotler and Andreasen, 1991).

*The Chambers Dictionary* (Chambers Harrap, 1998) defines a client as a person who employs a lawyer or other professional advisor, a customer, a vassal or a dependent, while a patient is someone who bears or suffers or is simply a person under medical or surgical treatment care.

Services marketing and management literature widely acknowledges that retaining current customers and developing relationships with new ones is a key business strategy (Piercy, 1995).

The relationship between firms and consumers is considered to be the cornerstone of success (Storbacka et al, 1994; Liljander and Strandvik, 1995). Hennig-Thurau and Klee (1997, p. 751) define the relationship quality between end customers and firms as the “Degree of appropriateness of a relationship to fulfil the needs of the customer associated with the relationship.”

Needless to say customers are the engines of growth. Establishing lifetime relationships with customers is the focus of the smart twenty-first century organisation. Customer capital is the value – the contribution to current and future

revenues – that results from an organisation’s relationships with its customers. It is the product of the customer relationship. Measuring customer capital is fundamental to assessing how successful an organisation is and will continue to be in turning customer relationships into sustainable competitive advantage (Duffy, 2000).

Smyth and Philips (1999) suggested that competitive pressure would encourage providers to produce efficiently, with costs minimising and quality improved. Consumer choice would then be increased, and service providers would be rewarded for the work they did, i.e. the money follows the customer.

According to many reports consumerism is a key factor influencing policy, strategy, operations, and investment decisions in the industry and will fundamentally change how competition is viewed in the marketplace (Lysonski, 2003; Abela, 2006).

Judd (2003) suggested that all organisations have two broad marketing goals:

1. To satisfy customer needs; and
2. To provide an offering superior to those of their competitors (Bagozzi et al, 1998).

Christopher et al (1991) developed the idea that there is a relationship “ladder of customer loyalty”. The relationship progresses through the stages of: prospect; customer; client; supporter; and finally advocate. Advocates are so deeply committed to the organisation that they are not only very loyal long-term purchasers, but they also influence others through positive word of mouth.

What are the factors that affect the development and maintenance of a loyalty relationship? Dick and Basu (1994) propose a framework for customer loyalty that identifies the antecedents of a loyalty relationship. These antecedents can be categorised into:

- Cognitive antecedents, which are associated with “rational” decision making based on informational determinants.
- Affective antecedents, associated with feelings about the product or service.
- Conative antecedents or those associated with a behavioural disposition.



In the interests of improvement, leading thinkers and innovative organisations continuously challenge current management practices. Defining and then measuring the value of the customer franchise, although recognized as important, is still in its infancy. There are some obvious measures, for example (Asher, 1989; Emerson and Grimm, 1999; Akan et al, 2006):

- Number of customers;
- Number of sales staff per customer.
- Annual sales per customer;
- Customer satisfaction level;
- Percentage market share;

Emerson and Grimm (1999) suggested that customer power should positively impact customer satisfaction. There are a number of conditions under which a customer may possess market power, when:

- A customer represents a large portion of a supplier's sales;
- Products are standard;
- There are few switching costs; and
- The customer can influence the ultimate consumer's purchase decision (Porter, 1980).

It seems that the customer could use the power arising from any of these conditions to demand additional concessions such as a reduction in price or longer terms (Scherer and Ross, 1990), as well as very specific delivery times or requirements to ship each order complete (Gopal and Cypress, 1993) that may not be available to a less powerful firm.

Dale (2003) summarises three major changes in the service sector, stating that the present emphasis on the service encounter, in particular the contribution made by service providers in enhancing and maintaining service quality, arises from environmental trends relating to:

- Consumer awareness and expectations;
- Technological developments and sophistication; and

- Competitive elements.

#### 4.5 The Competitive Environment in Health Service

Conceptually, reform of health care systems changes the environment in which health care organisations operate. Therefore, health care organisations should define the competitive environment influences in order to help them adapt to external power effects.

Dow (1988) suggested that selective use of “configurational” and “coactivational” prescriptions by organisations may lead to better internal organisational resource responses to external challenges. These structurally related analyses are crucial to correct and modify the responses and performances of hospitals as they re-relate to changing environments. He also mentioned that market segments (or patient groups) must be analysed for the development of marketing strategies: survival (or defensive) strategies, concentration strategies, and collaborative or cooperative strategies. These strategies may be pursued concurrently.

Walsh (1991) makes the point that in the marketing of health services, direct and potential competition for resources and contracts are forcing health units to be more strategic in their market planning. Scrivens (1991) also believes that public services may now be exhibiting greater competitor focus in response to the internal market.

Ehreth (1993) developed a model based on the power and dependency relationships between hospitals and external organisations. Although used first in evaluating hospitals, the competitive constituency model is general and can be applied to any business organisation.

Green et al (1995) suggested however that health care providers must control rising costs, improve productivity and flexibility of human resources, adopt appropriate technologies, and learn to establish and maintain quality and competitive abilities in the marketplace. They also illustrate that health care firms are faced with an extremely uncertain and turbulent environment that makes planning onerous.

Swinehart (1995) determined the activities, which directly affect the hospital industry to include: the labour market, technology market, capital market, supplier market,



customer market and payer market. The customer market differs from that of the traditional firm in terms of its relationship to the product. Physicians are considered primary customers because they often select the product (or supplier of the product) for a secondary customer who is known as the patient.

In the health-care context, hospitals could engage in cooperative and collaborative arrangements with several groups of customers including, patients, payers, and health insurance companies. They could also partner with their suppliers, other hospitals, and/or specialised health-care service providers to enhance their offerings to customers. These arrangements could be broadly classified into three types of relationship marketing practices: (1) programs that are aimed at customer retention; (2) programs that involve special supply and delivery arrangements with other health-care providers and key suppliers; and (3) relational partnering programs to leverage the resources of others (Naidu et al, 1999).

The concept of uncertainty is one of several terms often used to describe this critical feature of the health care environment. Begun et al (2004) defined uncertainty as: occurring where decisions-makers did not possess enough background facts or figures to allow proper and accurate analysis of shifting environmental conditions.

Baird and Meshoulam (1988) and Hejase et al (2000) summarise various approaches towards improving institutional internal fit and external fit. They discuss approaches to deal with the diverse organisational stages such as initiation, functional growth, controlled growth, functional integration, and strategic integration. Each hospital should analyse its desirable fit in the context of its particular internal and external environments, and the particular stage of the organisation.

Glouberman and Mintzberg (2001) emphasize the high level of differentiation among the care (nursing), cure (physicians), community (trustees), and control (managers) cultures in health care organisations.

Begun and Kaissi (2004a) defined the task environment of an organisation as including sectors with which the organisation interacts more closely and which have a more direct impact on the organisation's ability to achieve its goals. They also

determined the health task environment factors as including competitors, customers, financial resources, human resources, suppliers, market conditions, and regulators.

Begun and Kaissi (2004b) suggested the health care organisations deal with a significant number of external elements. Suppliers, competitors, customers, financial capital markets, government regulatory agencies, institutions, professional associations and labour unions, health care professionals, and insurers-payers are among the major external elements.

Swinehart et al (2004) recognised that health care providers require a management approach that takes maximum advantage of those force-driving changes in both the industry and the organisations within the industry. They suggested that the organisations include hospitals, physicians' clinics, home health agencies, and extended care facilities. These providers of health care must identify new methods obtaining and maintaining market share in order to compete successfully in a market-driven, customer-focused industry.

On the side of purchasers, insurers and regulators, marketing strategies play a key role in building relationships with their clients, both consumers and providers. Marketing serves to enhance consensus around desired behaviours, inspired by knowledge on needs, wants, expectations and actual behaviour and outcomes. Therefore a marketing function works to stimulate a greater attention in providers to improve the quality, access, efficacy and cost-effectiveness of clinical procedures. Purchasers, regulators and insurers have an interest in encouraging providers to adopt and enhance evidence-based practice: guidelines, protocols, clinical pathways and other tools of clinical governance are "marketed" to providers and their professionals. At times this happens through new regulations, but experience shows that without consensus building those efforts are prone to fail. In many cases purchasers negotiate marketing mix decisions and clinical behaviours with providers through supply contract terms (Lega, 2005).

Health care managers usually distinguish between four key role-players within healthcare organisations: providers; purchasers; insurers-financers; and regulators (Lega, 2005).



Institutional marketing plays a key role in shaping a “fitting” relationship between the organisations and their environment. Institutional marketing involves the use of marketing tools to build relationships among system actors, such as: (Wu et al, 2006).

- General practitioners, specialists and other professionals, with the aim of consolidating trustworthy connections through a better mutual understanding of system goals.
- Other healthcare organisations, whether for purchasing services (as a third party payer or for contracting-in and outsourcing policies) or for implementing mutual inter-institutional initiatives, such as cooperative policies on service delivery in the same market/area;
- Pharmaceutical companies and other suppliers, with the aim of establishing partnerships and sponsorships in favour of innovative projects involving the whole system or single healthcare organisations. These parties have a mutual interest to improve and further legitimise the system, and to guarantee its stability and development.
- Other institutions, foundations, and the population itself, with the goal of increasing fundraising for specific projects. Institutional marketing is additionally aimed at enhancing the sensitivity and support of citizens towards public initiatives involving the healthcare sector and its organizations;
- Firms or other institutions (where sanctioned by law and where ethically acceptable) interested in the commercial advantages and marketing opportunities available within healthcare organizations (posters on walls, hall displays, etc.): the eventual revenues of which can contribute to financing institutional health services.

Accordingly, the following sections will discuss the competitive environment factors in health service organisations individually, commencing with government regulations, then competitors, suppliers, and customers. As such the third party payer is discussed in individual section.

#### **4.5.1 Government Regulation /Health Service Sector**

The environment of government regulation to the Jordanian government, factors that may influence the marketing mix strategy in health service organisation in particular

are : government objectives, policies, decisions, legal restrictions, various governmental units sharing legislative authority, laws concerning taxation, and privatisation decisions.

Fleishman et al (1999) suggested one essential role of the government regulatory system in the health care, which is to assure a sufficient level of quality of care, and its continuous improvement. Care is controlled / maintained according to the regulatory and procedural standards set by the relevant government ministries.

Part of the portfolio of market reform in general and health-care reform in particular has involved the encouragement of the private sector. Two routes are being taken: first, the private sector is being encouraged to establish health-care finance, purchasing, and supply of health care. The second route involves the privatisation of previously state-owned units Earl-Slater (1996). However, the general term "privatisation" linked to hospitals and medical facilities disguises the complexity of the process of privatisation, which can be classified into four groups: Earl Slater (1996)

- 1- Privatisation without restriction
- 2 -Privatisation with restriction
- 3 -Not privatisable (temporarily)
- 4 -Not privatisable (permanently)

In this regard, the National Health Service/UK adopted a clinical governance to ensure continuous improvement in the overall standards of clinical care and for reducing unacceptable variations in clinical practice (NHS Executive, 1998). 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 then adopted by health care organisations in the early 1990s (Berwick, 1989; Kitson, 1994). The overall philosophy is to create a culture of continuous quality based on effective teamwork, systems focus, investment in people, and self-monitoring (McLaughlin and Kaluzny, 1999; Ovretveit, 2000). By extension, research governance aims continuously to improve the quality of the conduct of research and reduce unacceptable variation in



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

- The importance of multidisciplinary collaboration in setting standards, monitoring and implementing changes in practice;
- Use of evidence-based standards and policies that are specific to the setting;
- Education of all staff, both initially and ongoing;
- Management systems that ensure accountability and competency;
- Monitoring how well standards are being met;
- Benchmarking with external organisations; and
- Internal and external communications.

High profile cases of poor standards coincided with a change of UK government that no doubt gave impetus to its drive to improve health care quality. The New NHS White Paper and related documents (DoH/UK, 1999; Scally and Donaldson, 1998) contained several principles:

1. Implementing staff development programmes for meeting clinical governance aims and objectives. Ensuring that evidence-based practice was in everyday use. Integrating quality improvement programmes and setting the NHS to work in partnership by breaking down barriers and forging stronger links with social care authorities, thereby making health care meet national standards while remaining a local responsibility.
2. Improving efficiency and effectiveness by cutting bureaucracy, disseminating good practice, ideas and innovations.
3. Shifting NHS staff focuses so that quality becomes the driving force behind decision-making and developing the leadership skills necessary to plan and implement policy on quality.
4. Implementing a clinical-risk reduction programme to detect and openly investigate adverse events, and to learn from them. Recognising and dealing early with poor clinical performance so that patients cannot be harmed.
5. Renewing, from a patient's standpoint, the NHS as a national service and rebuilding public confidence in the NHS – a public service that is accountable to patients, open to the public, and shaped by their views.

Khoman (1997) argues that although distributional concern gives justification for government intervention, blanket subsidies for government health services can achieve the desired objective only if there is proper targeting. General subsidies to health care, such as free or low-priced services intended for the poor, but extended to all, can and usually do result in leakages to more affluent beneficiaries. He further examines the pricing of government health services in selected government hospitals to study the consequences of such pricing on provider and user behaviour. Criteria for determining hospital fees are examined, and the equity argument for the pricing of services is explored. The following comparisons are made of:

- Cost with payment by patients to determine the degree of subsidy;
- Fees with cost to assess pricing rationality;
- Fees and payment by patients of various categories to examine sources of finance for hospital users; and
- Hospital costs and revenue to determine the degree of cost recovery.

Many scholars (Doyle and Bull, 2000; Eisenberg and Meyer, 2004; and Pomey et al, 2004) 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?
- What are performance measurements in health service provision?

It assumes that government has the capacity to judge the optimum size of the private hospital market and to refuse entry to prospective new proprietors once that limit has been reached. The development of a market in bed licenses provides strong evidence of the failure of government to determine the optimum size of the private hospital market (Doyle and Bull, 2000; Eisenberg and Meyer, 2004; and Pomey et al, 2004).



The inability of governments to pick winners and losers in the private hospital industry in a highly regulated environment calls into question the validity of these related objectives (Doyle and Bull, 2000).

Desmet et al (1999) and, Cronin and Wright (2005) have suggested that avoiding duplication is necessary to ensure quality in the provision of services. It is argued, for example, that unless a hospital performs a certain volume of a specialised service, it will not be able to reach and maintain a level of competency to ensure acceptable outcomes to patients. While this argument may have merit in strategies to promote quality, the discussion here will focus on whether avoiding duplication has any other non-quality benefits.

The objective of avoidance of duplication in hospital facilities is clearly out of line with the view that effective competition can offer improved choices for consumers and promote efficiency and economic growth.

The reconciliation of these conflicting views requires an acknowledgment that government can also satisfy its obligations through purchasing services for public patients, rather than necessarily being solely in the business of owning public hospitals. There is a strong public expectation that government ensures high standards of quality in both public and private hospitals (Doyle and Bull, 2000; Eisenberg and Meyer, 2004).

Every private hospital in the USA is annually inspected to assess standards of care against a detailed questionnaire covering issues such as safety, patient rights, records maintenance, staff education, the availability of equipment and infection control (Blenkham, 2006).

Boonekamp (1994) suggested that government will continue to play a major role in health care. "Regulated competition" implies deregulation and market mechanisms and at the same time government control of the nature and degree of competition, so the government will go on playing a role in health-care networks by influencing the rules of the game.

Hogan et al (1999) demonstrate that increased government regulations have led hospitals to join and/or create large health care systems, placing them in a market arena not unlike that of commodity products. As a result, hospitals are faced with the realization that consumer awareness of products and services presented is paramount to economic survival (Solomans, 1990).

The registration process through which the Jordanian Ministry of Health imposes conditions requires private hospitals to comply with regulations that specify the level of equipment that is appropriate for the type of patients and procedures that are performed in the establishment: (Jordanian Private Sector Hospitals Act 1980 MOH / Jordan)

- Requirements relating to information, privacy and treating patients with dignity.
- Employment of sufficient and appropriately qualified nursing staff.
- Taking steps to ensure that all private hospital services meet a minimum set of standards relating to safety and quality.

Walshe (2003) suggested some regulatory responses in the health care market. As shown below:

- 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 behaviours.
- 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 organisations 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 organisations from refusing access to certain groups, such as those with high health needs.

Based on the government regulation literature, it can be hypothesised that:

*Government regulations have a positive significant influence on service marketing mix strategy components in Jordanian private sector hospitals.*

#### **4.5.2 Competitors/ Health Service Sector**

Porter's typology has considerable utility in describing the traditional role of hospitals in the health care delivery system. Some hospitals follow the classical differentiation strategy, offering a wide range of services, providing all the latest medical technologies and providing an extremely high-perceived level of care. Others are more cost-conscious and attempt to take advantage of economies of scale, operating at close to full capacity. Some hospitals also focus on the type of services provided and are viewed as specialised hospitals. However, these generic alternatives are not flexible enough in describing the strategic orientations apparently emerging (Green et al, 1995; Wu, 2006).

Extensive research has been carried out on competition in health care services, but the findings have been varied. Many of these studies have discovered short-term cost savings (Melnick and Zwanziger, 1988; Doremus, 1992) while others in health care find that competition enhances quality (Higgins, 1991). However, as many studies show, costs increase with competition (Robinson and Luft, 1987). In fact, competition is most useful where there is a choice of willing and able providers and many purchasers, so that spare capacity does not accumulate.

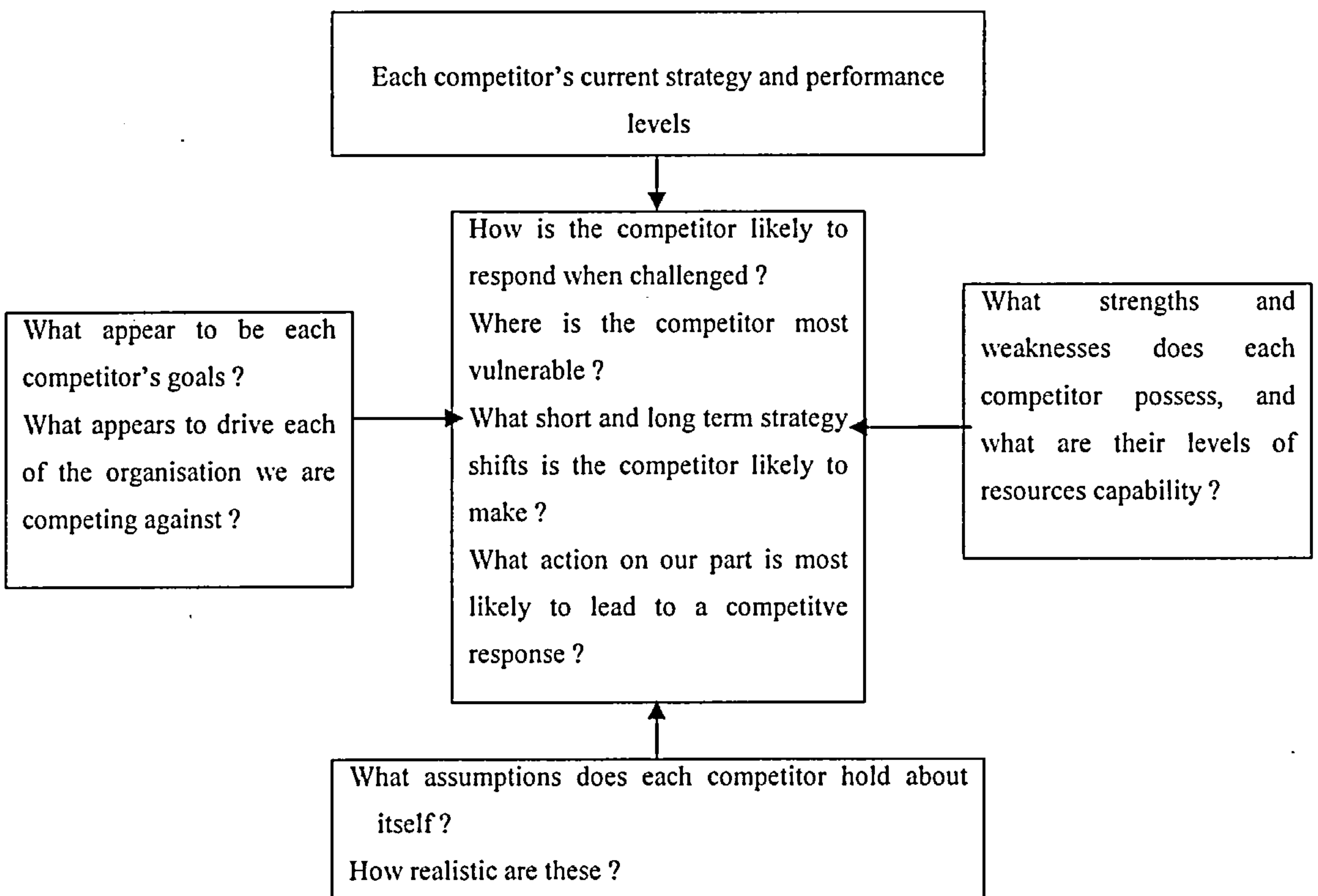
Boonekamp (1994) concludes that with the introduction of regulated competition in health care organisations in this sector, a growing need of instruments for adequate network management is emerging. Recently developed insights in marketing appear to offer clues for handling this issue. They illustrate that marketing is more than simply "client orientation". One of the major changes to have occurred within the health care market is the degree of direct competition between health care providers.

Because of this, the need for competitor analysis is now greater than ever before. To take competitor analysis further, health services managers need to focus upon five questions: Gilligan and Robin (1995)

1. Who is it that we are competing against?
2. What are their objectives?
3. What strategies are they pursuing, and how successful are they?
4. What strengths and weaknesses do they possess?
5. How are they likely to behave and, in particular, how are they likely to react to offensive moves?

It is the answers to these questions that enable the planner to gain a greater understanding of the competitive environment and, ultimately, a far clearer idea of the ways in which each competitor is likely to behave in the future (Gilligan and Robin, 1995). Figure 4.4 is an illustration of the competitor response profile.

**Figure 4.4 Identifying Competitor's Response Profile**



Source : Gilligan, C and Robin, L, 1995, P. 88



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

*Competitors have a positive significant influence on service marketing mix strategy components in Jordanian private sector hospitals.*

#### **4.5.3 Supplier / Health Service Sector**

Suppliers constitute a very significant component of a hospital's public input. Basic texts identify suppliers as a major factor influencing marketing effort and strategy (Kotler, 1984).

Hospitals are facing increased intra- and intertype competition with alternative forms of health care delivery (Malhotra, 1987).

Doyle and Bondereau (1989) advocated hospital–supplier partnerships as a means to improve productivity, to control costs, and to improve quality of care. They suggest that long-term relationships with suppliers based on trust, service, and effective coordination could lead to efficiencies and improved performance.

For large hospitals such as chains and private hospitals affiliated with sister organisations, linen services may offer growth opportunities. The strategic planning gap between projected and desired sales can be covered in three ways (Kotler 1984). One is to identify opportunities for growth within the hospital's current markets (intensive growth opportunities). Growth could be achieved by market penetration, market development, or product development. A second is to identify opportunities to build or acquire businesses that are related to the company's current markets (integrative growth opportunities). Growth could occur via backward integration, forward integration, or horizontal integration. The third is to add attractive businesses that are unrelated to the company's current business (diversification growth opportunities). Growth could be achieved by concentric, horizontal, or conglomerate diversification (Malhotra, 1987).

For hospitals, the modelling process and findings suggest a strategy of integrative growth by backward integration; for suppliers, they suggest intensive growth via market penetration and product development. In other words, a supplier can increase

market share in current markets with current products (market penetration) and/or by adding new products (product development) (Malhotra, 1987).

Shapiro and Moriarty (1984) show that wise suppliers of health care products are realizing the necessity of supplementing transactional selling with attention to evolving customer needs (Shapiro and Moriarty, 1984).

Further, Doyle and Bondereau (1989) Been and Crawford (2005) suggested that for suppliers to increase their market penetration, they must understand the decision-making process of hospitals as it relates to their services. These hospitals must recognize explicitly that the decision-making process could vary with the state of being characteristics of the hospital.

Heinbuch (1996), and Breen and Crawford (2005) remarked that though hospitals of different sizes confront the challenge of finding new ways to increase productivity and quality of health care, some seek a new relationship with their suppliers to help lower costs and improve quality.

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

*Suppliers have a positive significant influence on marketing mix strategy components in Jordanian private sector hospitals.*

#### **4.5.4 Customer/ Health Service Sector**

In today's health care environment, the consumer is king (Bolton, 2002). Competitiveness among health care organisations depends upon patients' satisfaction. Patients' satisfaction is created through amalgamation of responsiveness to the patient's views and needs, and continuous improvement of the health care services, as well as continuous improvement of the overall doctor-patients relationship (Zineldin, 2006).

According to the research findings of the *Consumerism in Health Care: New Voices* (KPMG, 1998) study: "consumers are the driving force in the delivery of health care services ... findings quantitatively support an emerging industry transformation..." whereby consumers are influencing the policy, strategy, operations and investment



decisions of health care entities. The health care industry can expect an expanding need to measure and report the quality of performance and related outcomes.

Milward et al (1995) argued that with regard to the care of people with long-term illness, outcomes are better if there is continuity of care from the same staff and same agency (although this may be achieved if the staff are transferred from one agency to another as in some agreements when a government facility is closed and staff are protected).

In the profit sector there is a clear exchange relationship between providers and consumers: the first delivers a product and the latter uses and pays for it. In health care, however, such a direct exchange relationship is usually absent, as third parties (health insurers, regional health authorities, budget-holding general practitioners) pay for the services. A distinction can be made between consumers as the individuals who actually use a service and customers, the individuals or organisations who pay for it (Hayden, 1993). In fact, the relationships are even more complex: in many health-care systems (Netherlands, UK, Denmark, and Germany), a patient can only be admitted to certain services (hospital, consultants) with a referral from another health-care provider (usually a general practitioner).

Lim et al (1998) state that patient complaints can do much more than merely reflect dissatisfaction with the service provided. For more than a decade they have been seen as having the potential to form an essential component of a health care delivery system that seeks to assure quality of care and maintain standards of care (Winkler, 1993). Zeigenfuss and O'Rourke (1995) stated that patients, as customers of health services, help provide a perspective on the quality of services and support staff and management capacity to identify and address issues and deficiencies associated with health services.

These critical ideas remained to a large extent in the realm of theory. Little seems to have altered since Gilly et al (1991) argued that most literature on complaints management was focused on individual consumer issues rather than organisational responses to consumer complaints. In a similar vein, Allsop and Mulcahy (1998) pointed out that there is insufficient evidence about the way patient complaints influence organisational performance.

Walker (2004) argues that there is an urgent need to improve quality of care by using the information provided by patient complaints.

In the healthcare sector, service recovery covers a broad and complex range of issues. These can be relatively minor, from length of waiting time in an outpatient department, or ease of securing a car park, to highly complex ones involving clinical competency issues. Where, because of the high level of credence, quality is extremely difficult for the health consumer to assess. However, what may be considered a potentially “minor” problem or relatively unimportant “moment of truth” from the staff’s perspective can become a matter of extreme frustration for the health consumer and a key indicator of quality (Bendall-Lyon and Powers, 2001).

Wong (1990) suggests that health-care consumers may have become much more sensitive to the price issue. Wong also predicts that consumers will shop for the best value. Consequently, if a hospital’s advertising expenditure is perceived as an additional cost that gets tagged on to patients’ bills, it is likely to be perceived unfavourably. In-depth surveys also revealed strong beliefs that customers have to bear the costs of hospital advertising, and this was not favourably viewed. Thus, Andaleeb (1994) proposed that competing for patients may not be the objective of the heavily subsidized healthcare institutions run by the government as they have a moral responsibility to be fully accountable for the efficient use of public resources (Sarji, 1996).

Leaffer and Gonda (2000) report that people who were better informed and participated more actively in their care were more satisfied with the treatment they received. Terry and Healey (2000) and Urden (2002) found a high correlation between patient education regarding their condition and care and satisfaction with the overall care. Patient education is thus seen not only as value-added, but also as a necessary component of the treatment.

Devlin et al (2002) points out that customers have an implicit range of expectations for each service attribute that they experience. The range that customers consider acceptable is referred to as the “zone of tolerance”. Performance below the zone engenders customer frustration, and performance above it pleasantly surprises customers and strengthens their loyalty.



Stevenson et al (1999) suggest that patient demand is complex and may be affected by the relationship between patients and GPs. In addition they advocate that patient demand is a major influence on prescribing in those practices. They note that patients' expectations are related to their educational achievement as well as their income. These differences were illustrated neatly by one GP, who worked in a practice between three buildings in completely separate areas.

Andaleeb (1994) shows that greater education and awareness in customers have led to more sophisticated buyers of health-care services today, and that these buyers are better able to discriminate between the quality-of-care delivered by different hospitals.

In this regard, Kurz and Wolinsky (1985) and Heistand (1986) claim that customers are relying less on doctors today than in the past to choose the “right” hospital. In another study, Wagner (1985) proposes that more consumers are selecting physicians via advertisements.

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

*Customers have a positive significant influence on marketing mix strategy components in Jordanian private sector hospitals.*

#### **4.6 Third Party Payers**

Health insurance can be defined as: the financial funds established to cover, either totally or partially, the cost of treatment for illness or injury (World Bank, 1989). “Health insurance is a means of financial protection against the risk of unexpected and expensive illness. It can also be a form of savings set aside to cover relatively predictable contingencies (annual medical check-up, for example) facing individuals or households” (Kutzin, 1995).

Hence, health insurance has two purposes: first, it is a way of raising all or part of the money to pay for health care; second, it is a way of securing the provision of services. Each view has to be considered alone, as either income or expenditure (Abel-Smith, 1992).

For countries heavily dependent upon government support of health care and curative services, government indirectly bears the risk of incurring high cost care; therefore, in many countries there is, at present, no way to arrange any kind of risk sharing with other parties. Health insurance in these countries is accessible to relatively small formal groups of people; but, in the industrialised and middle-income countries, various forms of insurance are more widespread. Some impose and apply a universal insurance programme i.e. most of the European countries, Canada, and Japan. These countries finance their insurance programmes through payroll taxes and/ or general government revenue. Other countries apply a voluntary type, administered by a third party and financed by employer and employee contributions, such as the system operate in the USA (Kutzin, 1995).

### **Demand and Supply**

*Demand* is the quantity of goods and services that a consumer will purchase in a given period of time. *Supply* is the quantity of goods and services offered for sale in the marketplace at any given period of time. Demand focuses on the behaviour of the consumer and supply focuses on the behaviour of the producer (Richards, 2001).

It is the interaction between *market demand* and *market supply* that determines the price. Once market price is equal to market demand, a *competitive market equilibrium* exists. In other word, there is no pressure on the price to change upwards or downwards. A *market supply schedule* illustrates what amount of goods and services will be offered for sale at each different market price during a given period of time. A *market demand curve* depicts the same price-quantity relationship but in a more understandable way (Richards, 2001; Rawabdeh, 2005).

In accordance with the concept of 'demand', patients who find themselves insured might increase their demand, by increasing their visits to the doctors or hospitals for what may be judged (by others) to be significant reasons (Longford et al, 1980; Asenso-Okyere, 1995).

On the other hand, the case of supply-induces demand also exist, when the doctors prefer to expand their services or earn more profit from those insured. For instance, hospital doctors may request additional tests to assure their diagnoses from a different



source of diagnostic facilities, even if one test proves satisfactory (Longford et al, 1980; Asenso-Okyere, 1995).

One of the foremost issues concerning the organisation of health services funded through health insurance is that of medical coverage. In some countries, coverage is limited to certain diseases, while in others it includes all diseases. For the former, coverage should include the most essential services to avoid the bias in the demand for certain kinds of services. In other words, different policies can be used to direct the demand toward the most effective and important services (Normand and Weber, 1994).

The payment of doctors can be made in one or more of three methods: (a) as fee for services rendered; (b) on a per head basis “capitation”, and (c) by salary. Crucially, the type of reimbursement offered by an insurance company (if fee-for-service) can influence utilisation through the supply-induced demand principle (Gaal et al, 2005; Badia et al, 2006).

Rates of hospitalisation engendered by health insurance schemes also present their own concerns. If insurance schemes do not run their own hospitals, there are four basic methods of payment for hospital care: (1) a fee for services rendered;(2) a rate per bed day; (3) a lump sum payment related to the numbers of patients insured and/or the numbers of beds available to insured people; and (4) a reimbursement method that reflects the case severity and complexity of those treated. In this last case, a strict control mechanism may need to be established to prevent cost escalation, and to assure quality control (Normand and Weber, 1994).

Analysis of insurance companies’ response to environmental change following implementation of the National Health Insurance/USA Law revealed a number of strategies, which are classified into two categories (Heese, 2006):

- Strategies oriented toward the institutional environment (i.e., attempts to satisfy or influence state regulatory bodies).
- Strategies oriented toward the competitive environment (i.e., attempts to satisfy customers and compete with other health insurance companies).

Three different types of companies or third party payers comprise the private health-financing sector in Jordan (Hollander and Rauch, 1998; Rawabdeh, 2005):

1- Private insurance companies: insurance companies enrol people onto a health plan, collect premiums from them, and pay for the medical costs that are covered under the health plan. People enrolled on the plan are known as the insured or subscribers or beneficiaries. The insurance companies take the risk that the premiums they charge and collect from the subscribers will be sufficient to cover the costs of the plan and provide the desired profit. Health plan costs include medical costs (also called medical claims costs), plus the cost of administering the health plan and maintaining financial reserves.

Jordan's health insurance industry is small but growing. Of the 26 companies licensed to sell any type of insurance in Jordan in 2004 (Jordan National Information System, 2004) 20 were licensed to sell health insurance and 18 were actually engaged in this.

2- Self-insured firms; such as airline or industrial firms pay directly for health services for their employees and covered dependents. Another company may do the claims processing, but the self-insured firm pays the providers and bears all of the financial risk inherent in affording their employees and covered dependents access to the covered health services. In addition, some people obtain health benefits through medium-size firms as well as professional trade associations that collect premiums and pay the medical claims for their association members.

3- Third party administrator firms: TPA firms provide medical claims processing services (including utilization review such as pre-hospital admittance review) to insurance companies or self-insured companies for a fee. The TPAs do not assume any financial risk vis-à-vis the cost of the insured's medical care. In Jordan, the TPAs do not actually pay the health care providers, but inform the client insurance company or self-insured firm what they believe it should pay the provider under the terms of the policy.

There are currently three third party administrator firms in Jordan (Magnet, Mednet, and NatHealth). They are servicing people through health plans from insurance companies or self-insured companies.

The cost of health insurance can be analyzed by the premium rate and the medical claims paid out. Most insurance companies in Jordan offer only a limited health insurance policy, which can cover hospital care, or both hospital and outpatient care, but with limits on how much the insurance company will pay out (e.g., per beneficiary per year for surgery, hospital stays, drugs, etc.). Companies reported the following for premium rates and claims paid out: Table 4.1 summarizes some of the data presented above.

**Table 4.1 Key Information on Private Third Party Payers in Jordan**

Variable	Insurance Companies	Third Party Administrators	Self-insured Companies and Associations
<b>Definition</b>	Company that pays medical claims directly for its beneficiaries in exchange for a fixed premium payment	Company that reviews and approves medical claims for payment; negotiates provider networks	Company that pays medical claims directly for its employees or members as a benefit
Number of companies (1998)	20 (licensed) 18 (actually selling)	3	Unknown
Number of companies that use TPAs	10 (17)	N/A	Unknown
Number of beneficiaries covered (1997)	138,815	N/A	Unknown (Estimated range 390,000-650,000)
Number of beneficiaries served by TPAs	N/A	74,300	N/A
Weighted Average Cost per beneficiary per year	Company	N/A	JD100.4 (US\$142) * for average full coverage, as reported by five companies

\*Note: Average cost includes medical claims and may also include administrative costs.

Based on the third party payer literature, it can be hypothesised that:

*Third party payers have a positive significant influence on marketing mix strategy components in Jordanian private sector hospitals.*

#### 4.7 Summary

The environmental turbulence that has been created by health care reform and enhanced competitive pressures of the marketplace has resulted in hospital executives attempting to aggressively formulate and implement strategies that are most closely



tied to their hospitals' distinctive competences and the executives' perception of their external environment. What strategies will ultimately be most effective in the future is still undecided. Hospital executives face a myriad challenges ranging from higher patient expectations to lower costs and possibly a restructuring of the total health care system due to the changing economics of health care (Green, et al, 1995; Yezdi et al, 1997).

Today's business environment is characterised by rapid change, knowledge explosion, technological advancement, and intense competition (Stewart, 1989; Cummings, 1990). Some theorists are calling for major changes in the way service organisations as well as manufacturing organisations function (Handy, 1990, 1994; Snow et al, 1992).

Since any organisation is a creature of its environment, this chapter began by discussing the three kinds of external environments. In this regard, the PEST framework of the environment was introduced to address the macro variables that should be scanned and analysed by an organisation's strategists. It was found that a positive relationship existed between environmental scanning and an organisation's performance.

Thereafter, the analysis of the industry in which an organisation competes has been discussed, with particular emphasis on Porter's industry structure analysis. Specifically, three points were highlighted; defining the industry in which the organisation will compete, analysing the competitive forces in terms of Porter's five forces framework and mapping strategic groups within industry.

The discussion of literature review in this chapter detailed the competitive environment analysis as a significant influence on the marketing strategy in organisations. This chapter tried to find out what factors included in the competitive environment were conducted in the service organisations in general and private sector hospitals in particular. In this context, five competitive environmental factors were discussed. These factors are government regulations, competitors, suppliers, customers, and third party payers.

Based on competitive environment literature review, it is concluded that government regulations have a crucial influence on the marketing strategy. Government regulations are opening up new opportunities, at the same time the government regulatory system in the health care sector assures a sufficient level of quality of care, and its continuous improvement. Care is controlled / maintained according to the regulatory and procedural standards determined by the relevant government ministries.

The literature indicates that suppliers will continue to play a major role in health care. Suppliers/technology represent a key component of a hospital's public input. Basic texts identify suppliers as a major factor influencing marketing effort and hospital strategies.

The current research investigated the extent of considering the competitor as one of the competitive environment factors in Jordanian private sector hospitals. This research considered competitors are one of the central factors influencing a hospital's marketing mix strategy.

Based on the customers' literature review, the consumer is found to be king in health care organisations and is the driving force in the delivery of health care services. As such, customers are influencing the policy, strategy, operations and investment decisions of a health care organisation's entities. The hospital industry can expect an expanding need to measure and report the quality of performance and related outcomes.

Third party payers can also be considered customers of a health care providing organisation. Relationships with them are worthy of separate attention in terms of interdependence and possibilities for influencing these relationships by the hospitals.

This chapter explored the competitive environment factors in general and the competitive environment factors which influencing the marketing mix strategy in the hospital industry in particular. The current research tried to find out the factors which constitute the competitive environment factors in Jordan private sector hospitals and investigated whether the hospital managers in Jordanian private sector hospitals conducted an understanding of these factors or not.

The literature review in this chapter revealed a clear shortage of research on the competitive environment factors influencing the service organisations and specifically the private sector hospitals (Walsh, 1991; Ehreth, 1993; Green et al, 1995; Swinehart, 1995; Hejase et al, 2000 Begun et al, 2004; Swinehart et al, 2004; Lega, 2005). The specific references only partially covered the competitive environment in health industry. Therefore, the present research attempts to fill a gap in the subject of competitive environment factors in the private hospitals from the viewpoint of the hospital managers. The research addressed some of the shortcomings in the literature such as the competitive environment factors government regulations, competitors, suppliers, customers, and third party payers, to investigate the competitive environment impact on marketing mix strategy and hospital industry in the hospitals under study herein.



## Chapter Five

### Hospital Performance Measurement Criteria

#### 5.1 Introduction

The evolution of hospital performance measurement has always intrigued the minds of both academics and practitioners (Conant et al, 1990; Yavas et al, 1994; Palmer, 1996; Eddy, 1998; Davies, 1998; Roper and Cutler, 1998; Malcolm Baldrige Criteria for Performance Excellence, 1998; Ramanathan's, 2005). While the development of a universal theory of performance measurement has eluded scholars and a high degree of fragmentation still exists, interest in the topic is still very much alive. This is not surprising. From a managerial perspective, sound measures of performance are crucial, since without a performance referent, managers cannot objectively or consistently evaluate the quality of their strategic decisions (Solnik, 2001). Research reveals that organisations with sound performance measurement systems outperform those that do not have such systems in place or those that are less disciplined in this respect. From a research perspective, performance is often a dependent variable of primary interest emanating from a desire to understand why some organisations are more successful than others. As such, identified success factors, attributes or characteristics can be used in strategy design by decision makers. Consequently, valid and reliable measures of performance are critical for both managerial and research purposes.

The review of the extant literature shows that performance of any organisation in general and an organisational alliance in particular can be assessed via objective or subjective approaches (Cameron and Whetten 1983; Parks, 1984; Lewin and Minton, 1986; Venkatraman and Ramanujam, 1986; Yavas et al, 1994; Behn, 2003). Objective approaches rely on hard measures (e.g. hospital revenues and other financial measures) and take them as indicators of effectiveness (Coyne, 1986; Glandon et al, 1987; Menke, 1997; Anderson, 1999; Bazzoli et al, 2000; Meliones, 2001). Subjective approaches, on the other hand, collect data regarding managers' perceptual evaluations of performance and/or their satisfaction with the attainment of expected outcomes (Todd and Baker, 1998; Mellor et al, 1999).

That said, efforts to measure the performance of health care providers and to furnish useful consumer performance information are laudable. Nevertheless, the ability to develop useful performance measures still faces many obstacles (Palmer, 1996; Eddy, 1998; Davies, 1998; Roper and Cutler, 1998). There are at least four reasons why uncertain the extent to which performance measurement in health care remains uncertain and how it will ultimately lead to increased quality of care and more public accountability. First, the reliability and validity of many current measures of performance remains to be established. Until performance measures are better aligned with what is really important in rendering health care, reliability and validity questions will remain. Second, performance measurement at the organisational level is still in its infancy and needs further development to realise its potential. Third, even when organisational performance is validly measured, a link between measurement activities and long-term performance improvement is not well documented; in fact, such a link only rarely appears in the literature (Hannan et al, 1994; Kazandjian and Lied, 1998). In other words, while this link is often assumed, it is rarely reported. Fourth, many of the performance measures are based on rates (numerators over denominators), which are suitable for comparative purposes only if the denominators (at-risk populations) are relatively large.

As shown in the existing literature, there are not many studies on health care performance assessment in developing countries. Al-Shammari's study (1999) that is aimed specifically at the Arab countries and Ramanathan's study (2005) of the case of the Sultanate of Oman are two examples of such studies. Therefore, the performance measurement literature review that is presented in this chapter aims to present some different points of view about the health organisation performance measurement. As such, the primary objective of investigating hospital performance in this particular research is to explore the effect of marketing mix strategy components on hospitals performance measured by four criteria (finance, quality, customers and marketplace).

## **5.2 Finance Criteria**

Examining marketing strategy literature has considered that finance is one of the main performance measurement criteria in business organisations (Parker, 2000; Moullin, 2004). However, a major criticism of financial measures embodied in objective

approaches is that such measures evaluate only a single dimension of performance. Since hospitals may be formed to pursue a diversified range of objectives (e.g. access to new markets, access to scale economies) in addition to financial outcomes, financial measures may not be able to accurately capture hospital performance.

Day and Wensley (1988) argue that the most common indicators of marketing effectiveness and competitive advantage are profitability. Profitability and current profitability, is the renewed from past advantages have been paid. Since profitability is influenced by actions taken in many previous time frames, it is unlikely to be a complete reflection of the current advantage. In the same vein, Conant et al (1990) measured organisational performance by using a subjective self-report instrument, which used the organisation's profitability and return on investment relative to competitors (Conant et al, 1990).

While some scholars (Cameron and Whetten, 1983) suggest that no one approach is inherently superior to another, the issue of "hard" versus "soft" measures is a topic of significant debate (Kelly and Swindell, 2002). Some purists insist that only such hard measures as financial and operational indicators (Venkatraman and Ramanujam, 1986) provide reliable measures of organisational performance (Ammons, 1996; Keehley et al, 1997; Berman, 1998). Others believe that soft, qualitative measures present a richer and multifaceted picture of performance (Kokkinaki and Amblier, 1999).

Needless to say, investment banks are now backing away from the health care sector and are refusing to lend money to many hospitals (Larkin, 2000). Without access to low cost capital necessary for modernization to compete for managed care contracts and being unable to negotiate favourable terms with physicians, insurance companies and medical suppliers, individual hospitals are constantly losing ground to provider networks and alliances. Multi-hospital systems have better access to capital due to their higher revenues and lower expenditures per admission than independent hospitals (Wilcox-Gok, 2002) and to reap the benefits of several synergies, independent hospitals are seeking solutions by joining multi-hospital organisations.



### 5.3 Quality Criteria

Generally speaking, service quality components are attributed to a few authors: Swan and Combs (1976) instrumental and expressive quality; Donabedian (1980), structure, process and outcome; Lehtinen and Lehtinen (1982) interactive, physical and corporate quality; Maxwell (1984), six quality components, i.e. effectiveness, efficiency, acceptability, access, equity and relevance; and Gronroos (1984), technical and functional quality are probably the most referenced in the marketing literature.

Such views on service quality dimensions have influenced the terms used in health services. For example, Cunningham (1991) referred to the dimensions as “clinical quality”, “economic or finance-driven quality” and “patient-driven quality”. Cunningham explained that “clinical quality” is associated with the usage of terms such as morbidity, mortality and infection rates, while “economic or finance-driven quality” and “patient-driven quality” refer to the service aspect of quality. Øvretveit (2000) preferred the terms “patient quality”, “professional quality” and “management quality”. “Patient quality” involves giving patients what they want, “professional quality” involves giving them what they need, and “management quality” involves using the least resources without error or delay in providing patients with what they want and need.

Based on these frameworks, several models of service quality have evolved. The most prominent is Parasuraman et al (1988) SERVQUAL. While Johnston (1995) saw the need to increase SERVQUAL to 18 dimensions, Reidenbach and Sandifer-Smallwood (1990) deemed it necessary to reduce it from ten to seven dimensions. Tomes and Ng (1995) regrouped it into “empathy”, “understanding of illness”, “relationship of mutual respect”, “dignity”, “food”, “physical environment” and “religious” needs. Despite controversies regarding the validity and reliability of SERVQUAL (Newman, 2001), the application of SERVQUAL, with or without modification, can be found in healthcare. The extent of modification or addition to the SERVQUAL dimensions varies from researcher to researcher. For example, Lim and Tang (2000) added “accessibility/affordability”; and Tucker and Adams (2001) “caring” and “outcomes”.

Having said that, the concept of quality in health care has developed from a purely technical approach to a multi-faceted issue (Donabedian, 1987), which now tries to

satisfy the needs, interests and demands of three principal interest groups (Øvretveit, 1992). These parties have been described as being those who provide the service (i.e. the health care professions), those who manage it, and those who use it (i.e. patients). Morgan and Everett (1990) suggested a fourth interested party, namely those who commission the service, the purchasers, resource allocators and policy makers. Each group has its own specific and different interests and opinions on the definition, measurement and improvement of hospital service quality.

Furthermore, Mannion and Goddard (2004) suggested that there are at least two key reasons why general practitioners may be expected to be interested in obtaining comparative data on the clinical performance of NHS hospital Trusts. First, in their role as gatekeepers, responsible for referring patients to secondary providers, they will use information on the quality of services to help make appropriate decisions. The renewed emphasis on enhancing patient choice in the NHS (Department of Health, 2001; Price and Pollock, 2002), emphasises their role in providing patients with reliable information on the comparative quality of providers.

However, recent studies show quality improvement (QI) programs to be effective in improving organisational performance (Schaffer and Thomson, 1992; Szwergold, 1992; Fitzgerald and Erdmann, 1992; Mathews and Katel, 1992; Haim, 1993; Hendricks and Singhal, 1997). Faced with increased competition and demands from clients and accrediting entities, general hospitals have applied QI programs in the hope of garnering the results that are seen to have been attained in other industries (Moore, 1997; Herzlinger, 1997; Malcolm Baldrige Criteria for Performance Excellence, 1998).

The general hospital QI literature adopted the QI model used by the health care industry in general, claiming that the effects of a QI program should also apply to a general hospital (Anderson et al, 1994; Berwick, 1995; Ittner and Larcker, 1996; Caldwell, 1997; Choi and Eboch, 1998). Thus, according to the general model, a QI program in a general hospital should improve its market share and financial indices. In measuring performance, general hospital QI literature also defined aspects of the quality of treatment it should deliver (clinical outcomes such as mortality or infection rates and also patient quality of life).

Naumann and Miles (2001) maintain that decreased waiting time is a critical performance criteria (for a hospital's internal and external customers, i.e. patients: this is an aspect of greater efficiency without immediate cost elimination, as opposed to time associated with decreased length of stay that is reported as cost elimination).

Eight other measures have been identified in the information from public data (published by the Israeli Ministry of Health for each hospital) (Health Ministry of Israel, 1993, 1997; Zalkind and Eastaugh, 1997), as follows:

- Number of hospital beds;
- Number of hospital departments;
- Total number of hospitalisation days for all patients;
- Elective admission percentage (the number of scheduled patient admissions out of the total number of admissions); and
- Technological sophistication (number of high-technology services presented out of the following eight options: trauma, stereostatic radiology, MRI, kidney transplant, organ transplant, thyroid transplant, bone marrow transplant) (Westphal et al, 1997).

Nevertheless, several methodologies can be employed for measuring performance of hospitals. The methodologies include ratios such as mortality rates (Knox et al, 1986; Tarnow-Mordi et al, 1990), stochastic production function approach (Vitaliano and Toren, 1994; Webster et al, 1998), and the data envelopment analysis (DEA) (Banker et al, 1986; Thanassoulis et al, 1995; Giokas, 2001). Inpatient mortality can be an indicator of the quality of care if it is risk-adjusted or, at the very least, stratified by high volume diagnoses categories involving patients with similar risk profiles.

#### **5.4 Customer Criteria**

Customer satisfaction ranks high on the list of strategic priorities concerned with the achievement of long-term objectives (Day and Wensley, 1988). Customer satisfaction (Day and Wensley, 1988; Kaplan and Norton, 1992) reflects the effectiveness of the hospital in delivering value to its patients and other customers (Eiriz and Figueiredo, 2005).



Doyle (1995) argues that the most appropriate measures of current performance are those provided directly by customers – customer satisfaction and customer loyalty. The rationale being that the customer who is satisfied with the value being provided will repeat their custom buy again and this provides the basis for future performance and profitability.

Clark (1999) asserts that over the past decade three measures have attracted extensive research attention, namely; customer satisfaction, customer loyalty, and brand equity. Customer loyalty philosophy is underlined by the notion that financial performance ultimately reflects whether customers purchase from a firm over time, regardless of satisfaction. In the same vein, he also argues that customer satisfaction and loyalty measurements are the areas in which most managers should concentrate in the near term. Customer satisfaction assesses customer perception of the company's offerings, while loyalty tracks actual customer purchasing behaviour.

Further, patient satisfaction, a crucial piece in the puzzle of performance assessment, merits consideration as a performance measure appropriate for small hospitals. Patient perceptions of quality of care are increasingly central in conceptual and operational models of performance measurement (Lied and Kazandjian, 1999). In other words, customer satisfaction relates to the patient and his family, and includes various dimensions ranging from the "hotel" service aspects (such as food or parking services) to medical aspects such as morbidity, use of a range of antibiotics or nursing services (Stern and Naveh, 1997, 2005).

The customer factor as acknowledged by Crosby (1979) and Juran (1988) is the foundation of organisational strategies of service, quality and reliability management. Peters and Waterman (1982) identified staying close to customers, learning their preferences and catering to their requirements as critical success factors differentiating "excellent" companies from the merely mundane. Even after the passage of more than a decade, the customer factor remains relevant, as a business exists for only one purpose "to serve the customer" (Boyd et al, 1997). According to Sewell (1997), serious deficiencies are likely to occur if there is any attempt to achieve quality without a full understanding of the requirements and expectations of customers. To remain customer-focused one must review the approach of how

business is managed, i.e. one must begin with customer problems, needs and priorities, and search for ways to meet them – a U-turn from the traditional provider-centred paradigm (Walters and Jones, 2001).

## 5.5 Marketplace Criteria

Varadarajan and Jayachandran (1999) argue that multiple dimensions of performance measurement should be used. Much of marketing strategy research has focussed on market-based performance (e.g. market share) and financial performance. However, a broader focus on performance would enable marketers to more comprehensively understand the performance consequences of strategies compared with the understanding that would emerge from a more limited focus on market share.

Webster et al (1998) have used occupied bed days and deflated patient revenue as outputs. Inputs they considered include labour (number of staff), capital (beds and capital stock), intermediate inputs (value of all non-labour and non-capital expenditure) and total patient input. Puig-Junoy (2000) have used eight outputs representing discharged patients, inpatient days, surgical interventions, day-care services, ambulatory visits and resident physicians, and four inputs representing inpatient and outpatient health services, and teaching activities. Moreover, Giokas (2001) has adopted outputs representing inpatient days, outpatient visits and ancillary services, and one input representing total cost of the resources (staff earnings, expenditure on operating services, supplies). Athanassopoulos and Gounaris (2001) have considered the number of patients, medical examinations and laboratory tests as outputs, and personnel, costs and beds as inputs. Thus, a variety of inputs and outputs have been considered by the studies in the literature. Typically, data on prices are used in data envelopment analysis (DEA) in studies that estimate allocative efficiency, rather than technical efficiency.

In a similar vein, Al-Shammari (1999) relied on data envelopment analysis (DEA) in evaluating the performance of 15 hospitals in Jordan by utilizing multiple inputs and outputs. The inputs used in the analysis incorporated bed days, physicians and health personnel, and the outputs included patient days, minor and major operations. The hospitals' data for three years from 1991-1993 were derived from annual statistical reports published by the Jordan Ministry of Health.

Notwithstanding, other measures could be utilised in most small hospitals to assess performance. These include: length of stay (LOS) by diagnosis, use of physical restraints, emergency department waiting times, Caesarean sections, and patient falls. Potentially useful information on performance measures is available from US governmental agencies (especially the Agency for Healthcare Research and Quality), from accreditation organisations such as the Joint Commission on Accreditation of Healthcare Organisations.

In today's turbulent health care environment, characterized by an economic slowdown, and by actively involved and sophisticated health care consumers, hospitals, more than at any other time in their history, are confronting the fundamental business challenges of survival and success (Yavas and Shemwell, 2005). Several troubling signs are in place. Hospital stays are shortening and occupancy rates are declining as more patients opt for ambulatory and out-patient care (Shemwell and Yavas, 1999; Yavas and Shemwell, 2005). Also, excess capacity is rising (Succi et al, 1997; Fuchs, 1997; Madden, 1999). Moreover, hospitals are suffering from an erosion of their once sacrosanct image. All of this is happening at a time when hospital closures have already reached an all-time high (Lee and Alexander, 1999).

Since virtually all hospitals report administrative data, selecting performance measures using data elements from an administrative database is a reasonable option for most small hospitals. Data elements from administrative data that are potentially useful in developing performance measures include patient length of stay, source of payment, primary and secondary diagnoses, principal and secondary procedures, major diagnosis category, and patient demographics. Table 5.1 summarizes some of the performance measurement criteria in service organisations in general and hospital industry in particular.



**Table 5.1 Performance Measurement Criteria in Service Sector**

Scholar	Year	Performance Criteria
		<b>Finance</b>
Day and Wensley	1988	Profitability
Conant	1990	Profitability and Return of Investment (ROI)
Parker	2000	Finance criteria
Kelly and Swindell	2002	Financial and operational indicators
Moullin	2004	Financial criteria
		<b>Quality</b>
Swan and Combs	1976	Instrumental and expressive quality
Donabedian	1980	Structure, process, and outcome
Lehtinen and Lehtinen	1982	Interactive, physical and corporate quality
Maxwell	1984	Six quality components; effectiveness, efficiency, acceptability, access, equity, and relevance.
Gronroos	1984	Functional and technical quality
Parasuraman	1988	SERVQUAL model
Cunningham	1991	-Patient driven quality -Clinical quality (morbidity rate, mortality rate, infection rate)
Schaff and Thomson	1992	Quality Improvement (QI)
Health Ministry of Israel; Zalkind and Eastaugh,	1993 1997	-Number of hospital beds; Number of hospital departments; Total number of hospitalisation days for all patients; Elective admission percentage (the number of scheduled patient admissions out of the total number of admissions); and Technological sophistication
Johnston	1995	Increase SERVQUAL to 18 dimension
Lim and Tang	2000	Accessibility and Affordability
Tucker and Adams	2001	Caring and outcome
Nauman and Miles	2001	Waiting time
		<b>Customer</b>
Day and Wensley	1988	Customer satisfaction
Kaplan and Norton	1992	Customer satisfaction
Doyle 1995	1995	Customer loyalty
Clark	1999	Customer satisfaction, customer loyalty, and brand equity
		<b>Marketplace</b>
Webster	1998	Occupied bed days, deflated patient revenue/ outputs, number of staff, capital and bed stock.
Varadarajan and Jayachandran	1999	Market share

Al-Shammari	1999	Data Envelopment Analysis (DEA) Utilizing multiple inputs and outputs. The inputs used in the analysis incorporated bed days, physicians and health personnel, and the outputs included patient days, minor and major operations
Puig- Junoy	2000	discharged patients, inpatient days, surgical interventions, day-care services, ambulatory visits and resident physicians, and four inputs representing inpatient and outpatient health services, and teaching activities
Giokas	2001	Inpatient days
Yavas and Shemwell	2005	occupancy rate and outpatient care

## 5.6 Summary

Health services sector is a complex area that is unique in all its characteristics. It has too many dimensions to be fitted into a simple singular unit and it is therefore essentially very problematic to approach the measurement of the performance of healthcare services by using one method or another. Traditionally hospital performance measurement is done by measuring certain specific metrics that are thought to be the important indicators of the overall performance. Broadly, healthcare delivery is evaluated via three categories of measurement namely, structure, process and outcome (Donabedian, 1980). The progress report “America's best hospitals” released annually by the US News & World Report since 1990, incorporates all the three quality measures in attempting to rate the best hospitals nationwide in USA (US News and World Report, 1990). The structure of the hospitals is assessed by the human and material resources available at each site. Outcomes are usually evaluated by the standardized mortality ratio which is the ratio of the observed to expected mortality rate in each hospital. Process strategy of hospitals is difficult to be measured by specific metrics. The authors of the annual progress report have acknowledged that there is inherent difficulty in measuring the process of care in hospitals (US News and World Report, 1996). Hence they relied on a survey involving physicians for the evaluation of the process of healthcare delivery in hospitals. They selected a cross-section of physicians from the American Medical Association's master-file and asked them to name the five “best” hospitals in their respective field. Obviously this is a highly subjective assessment because the physicians were not given any criteria to

rate the hospitals. Although process was considered as the primary aspect of assessment among all the three measures of quality, there have been few methods developed so far to reliably measure the process of care in a healthcare institution.

Based on the hospital performance measurement literature review, it concluded that:

The literature on performance measurement has revealed that there is no one single criterion or a set of criteria approved between scholars for performance measurement (Cameron and Whetten 1983; Parks, 1984; Lewin and Minton, 1986; Venkatraman and Ramanujam, 1986; Coyne, 1986; Yavas et al, 1994; Bazzoli et al, 2000; Meliones, 2001; Behn, 2003). Marketing strategy researchers have generally agreed that business performance measurement is complex, problematic and troublesome (Cameron and Whetten 1983; Parks, 1984; Lewin and Minton, 1986; Bazzoli et al, 2000; Meliones, 2001; Behn, 2003).

Hospital performance measurements should be measured multidimensionally in a broader perspective of business performance conceptualisation in order to recognise different aspects of the hospital marketing strategy. This has been supported by an extensive amount of research in marketing strategy literature (Conant et al, 1990; Cunningham, 1991; Yavas et al, 1994; Palmer, 1996; Eddy, 1998; Davies, 1998; Roper and Cutler, 1998; Ramanathan's, 2005).

Consequently, the literature has shown that there are advantages and disadvantages for each set of performance measurement criteria; financial, quality, customers, and marketplace. Therefore, using one set of criteria alone is insufficient. Building on the performance literature review, this research used a combination of financial, quality, customer, and marketplace criteria for hospital performance measurement criteria to achieve the advantages for each kind of criteria (Yavas et al, 1994; Palmer, 1996; Eddy, 1998; Shemwell and Yavas, 1999; Yavas and Shemwell, 2005).



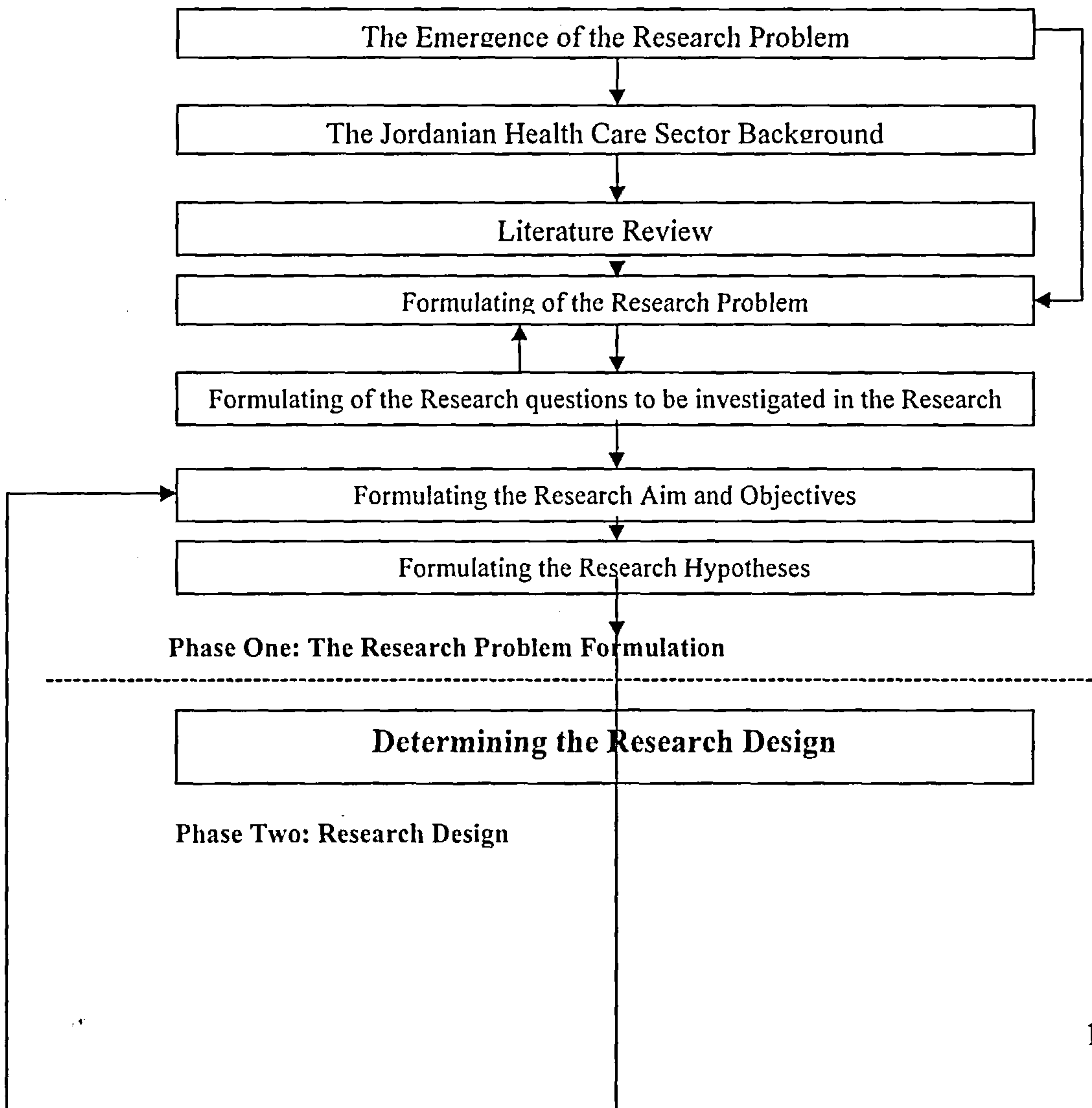
# Chapter Six

## Research Methodology

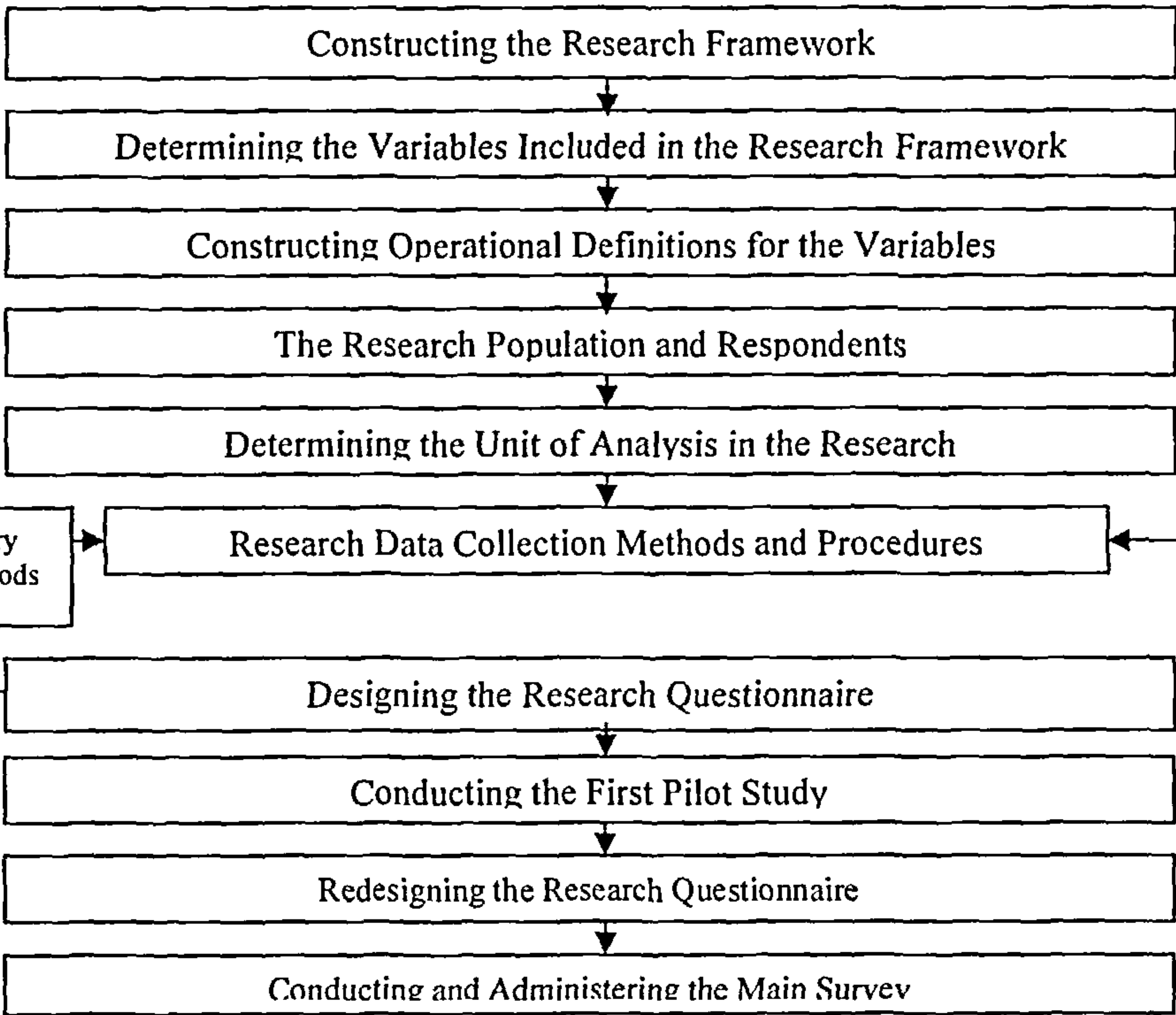
### 6.1 Introduction

This chapter provides the methods and the instrument by which it will be possible to generate empirical evidence and assess the validity and reliability of the findings. While the main method of this study is quantitative, a qualitative research method was conducted in the triangulation approach where two methods that have offsetting biases are used to assess a given phenomenon, and the results of these methods may corroborate one another (Greene et al, 1989) and then enhance the validity of findings from the research. Thus, this triangulation approach required that two methods (quantitative and qualitative) be used to assess the same conceptual phenomenon (Greene and McClintock, 1985). Figure 6.1 below illustrates the research methodology diagram.

Figure 6.1 Research Methodology Diagram



**Phase Three: Detailed Research Methodology**

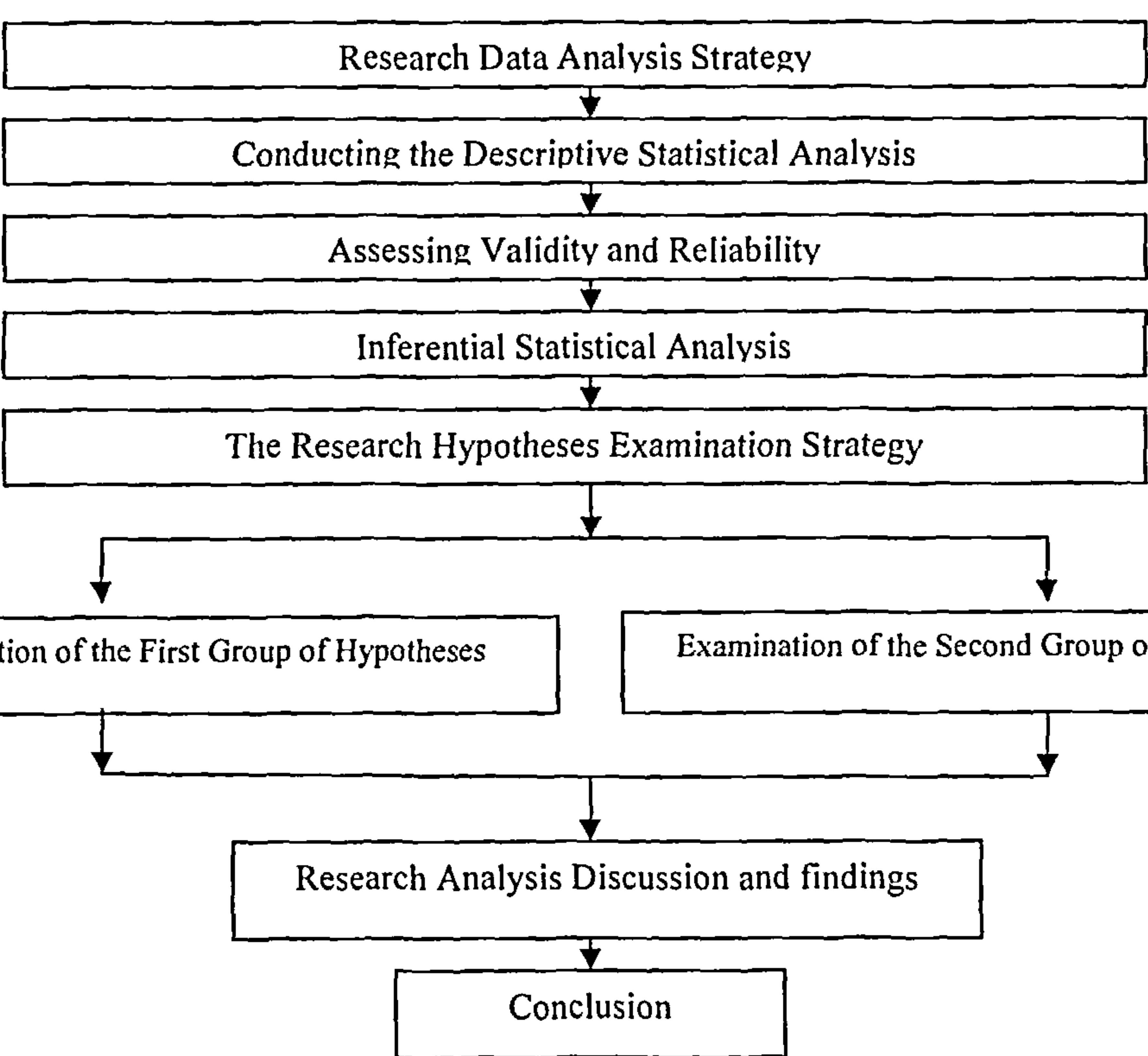


Secondary Data Methods

Primary Data Methods

Visiting the Research Objectives

**Phase Four: The Research Data Analysis, Discussion and Conclusions**



Visiting the Research Objectives

## 6.2 Research Objectives

The research is aimed at achieving these objectives:

1. To establish and define the components of the marketing mix strategy of the private sector hospitals in Jordan.
2. To identify the factors which constitute the competitive environment profile for Jordanian private sector hospitals.
3. To determine the influences of the competitive environment factors on the marketing mix strategy components in Jordanian private sector hospitals.
4. To determine the effects of the marketing mix strategy components on the performance of the private sector hospitals in Jordan.

## 6.3 Research Hypotheses

Based on the marketing mix strategy components and competitive environment factors the researcher formulated a number of hypotheses to assist in investigating the research problem and fulfilling its aim and objectives.

The first group of hypotheses was based on marketing mix strategy components and the competitive environment factors. Five hypotheses, which are designed to examine the effect of competitive environment factors on marketing mix strategy in Jordanian private sector hospitals, were used.

The general hypothesis in the first group is:

**H1: Competitive environment factor have a positive significant influence on services marketing mix strategy components in Jordanian private sector hospitals.**

The null hypothesis in the first group is:

**H0: Competitive environment factor does *not* have a positive significant influence on services marketing mix strategy components in Jordanian private sector hospitals.**

This general hypothesis was divided into five sub-hypotheses.



**H1a- Government regulations** have a positive significant influence on marketing mix strategy components in Jordanian private sector hospitals.

**H1b- Competitors** have a positive significant influence on marketing mix strategy components in Jordanian private sector hospitals.

**H1c- Suppliers** have a positive significant influence on marketing mix strategy components in Jordanian private sector hospitals.

**H1d- Customers** have a positive significant influence on marketing mix strategy components in Jordanian private sector hospitals.

**H1e- Third party payers** have a positive significant influence on marketing mix strategy components in Jordanian private sector hospitals.

The second group of hypotheses examined the effect of the marketing mix strategy components on the performance of Jordanian private sector hospitals.

**H2: Services marketing mix strategy components** have a positive and significant effect on the performance of Jordanian private sector hospitals.

**H0: Services marketing mix strategy components** does *not* have a significant effect on the performance of Jordanian private sector hospitals.

This general hypothesis was divided into seven sub-hypotheses:

**H2a- Health service strategy** has a positive significant effect on the performance of Jordanian private sector hospitals.

**H2b- Pricing strategy** has a positive significant effect on the performance of Jordanian private sector hospitals.

**H2c- Distribution strategy** has a positive significant effect on the performance of Jordanian private sector hospitals.

**H2d- Promotion strategy** has a positive significant effect on the performance of Jordanian private sector hospitals.

**H2e- Physical evidence strategy** has a positive significant effect on the performance of Jordanian private sector hospitals.

**H2f- Process strategy** has a positive significant effect on the performance of Jordanian private sector hospitals.

**H2e-Personal strategy** has a positive significant effect on the performance of Jordanian private sector hospitals.

#### **6.4 Research Design**

Researchers classify research design into three groups: exploratory, descriptive, and analytical (Crimp, 1985; Janroelf and Foekens, 1993; Crimp and Wright, 1995). This research is both a descriptive and analytical research of the actual relationships that may exist between dependent and independent variables as stated in the research hypotheses. The research design constructed here is based on the hypotheses formulated. These hypotheses were formulated inductively from the researcher's observation and from the literature. The descriptive part is needed to describe and identify the research factors, which constitute the competitive environment profile for Jordanian private hospitals i.e. the independent variables in the research. It is also used to identify empirically the marketing mix strategy components in those hospitals, which are the dependent variables in the research.

In the analytical part, the research model is being tested through examining the relationship between the Jordanian health competitive environment factors and marketing mix strategy in Jordanian private sector hospitals in order to explore how far hospital managers perceive these factors when making their decisions.

Furthermore, this part contributes to testing the related hypotheses which are designed to analyse how the influence of these factors vary according to the type of hospital existent in Jordan's market and the manager's background experience (marketing, medicine, administration). Developing an effective research design is one of the fundamental parts of any research project (Chisnal 2001; Creswell 2003). The research design determines (1) research methodology (2) the primary data collection techniques (developing and designing the research questionnaire) (3) research data analysis and (4) interpretation methods, which all affect the way the research aim and objectives are realised (Hussey and Hussey, 1997; Creswell, 2003).

In general, there are two philosophical paradigms of research design; **positivism and phenomenological** (Easterby-Smith et al 2002; Creswell 2003). The two leading paradigms or philosophies are normally used in social sciences in general and

marketing literature in particular. They have significant assumptions and methodological implications regarding how they interpret the social world and how social science should be conducted (Creswell, 2003). Researchers in the management field adopt a pragmatic view by deliberately combining methods drawn from both philosophies (Easterby-Smith et al, 2002).

Hussey and Hussey (1997) argue that the terms that relate to each paradigm tend not to be interchangeable and have arisen as a result of personal preferences of different authors. Table 6.1 summarises some of the more common terms used in literature.

**Table 6.1 Alternative Terms for the Main Research Paradigms**

<b>Positivistic paradigm</b>	<b>Phenomenological paradigm</b>
Quantitative	Qualitative
Objectivist	Subjectivist
Scientific	Humanistic
Experimentalist	Interpretivist
Traditionalist	Postpositivist
Empiricist	Naturalistic

Sources: Adapted from Creswell (1994, p.4) and Hussey and Hussey (1997, p.47)

The positivistic (quantitative) paradigm is called the traditional, the experimental, or the empiricist paradigm (Creswell, 2003). This paradigm seeks to deduce or identify a testable hypothesis about the relationship between two or more variables from a theory, which is then tested empirically by gathering data on the relevant variables and then applying statistical tests to the data in order to identify significant relationships. The findings may either confirm the theory or result in the modification of the theory in light of the findings (Saunders, et al 2000; Hussey and Hussey, 1997). This paradigm relies on the belief that studying human behaviour should be conducted in the same way as studies conducted in the natural sciences (Hussey and Hussey, 1997). According to Ryan, Scapens, and Theobald (1992) contingency theory research which attempts to determine general relationships that are replicated across a large number of organisations provides a good illustration of the positivistic paradigm. Hussey and Hussey (1997) argue that the dominant paradigm in business research is the positivistic paradigm.



On the other hand, the phenomenological (qualitative) paradigm arose as a result of criticisms of the positivistic paradigm. The former is called the naturalist or interpretative approach or post positivist or postmodern perspective or constructivist approach (Creswell, 2003). The phenomenological philosophy, in investigating social sciences, views the reality as not objective and exterior, instead reality is socially constructed and emerges as a result of the social practices of organisational participants.

The importance attached by positivism to producing generalisations was criticised on the basis that business situations are complex and unique to each organisation. Thus, looking for a universal law and generalisation across organisations is neither realistic nor of crucial importance (Saunders et al, 2000). With the phenomenological paradigm, the context in which a phenomenon, such as marketing practices occurs is more significant. Therefore, in contrast to the positivistic paradigm, the phenomenological paradigm requires a holistic orientation in which a phenomenon is studied in its wider organisational, social and political context over time. Moreover, one of the major differences between the two paradigms is that the aim of the positivistic (quantitative) is to generalise from a sample of a population whereas the aim of phenomenological (qualitative) paradigm is to generate theory or discover or explore new ideas (Creswell, 2003). Nonetheless, most research projects use a combination of positivism and phenomenological paradigms (Easterby-Smith et al 2002; Creswell, 2003). Because of weaknesses and strengths in each philosophy; such a combination would maximise the strong points and minimise the weakness points. One of the strong points of the positivism philosophy (quantitative) methods is that those that have a wider range of situation are faster and more economical than their qualitative counterparts whilst the positivism methods are inflexible and artificial in understanding processes or the significance that people attach to actions.

Meanwhile, the strong points of the phenomenological philosophy and qualitative methods are that they have the ability to understand people, interpretations, generate new theories, and provide more depth to the research being investigated compared with their quantitative counterparts. However, the weak points are that they are more time-consuming, costly, and the analysis and interpretation of data may be problematic (Hussey and Hussey, 1997; Easterby-Smith et al, 2002). Therefore, it is

valuable for the researcher to be pragmatic in mixing research approaches and methods in a single study of social phenomena. Pragmatists do attempt to integrate methods of quantitative and qualitative paradigms in investigating a single study (Creswell, 2003).

## **6.5 Type of Research**

This type of research is a cross-sectional research survey in which all the private sector hospitals operating in the Jordanian health market are included. It is a single cross-sectional design in which the collection of information from the research population and respondents was performed once only (Oppenheim, 1992; Hussey and Hussey, 1997; Churchill, 2000; Sekaran, 2000). This research aimed to investigate marketing mix strategy components, competitive environment factors, and the performance measurement criteria in Jordanian private sector hospitals.

## **6.6 Research Methodology**

According to Hussey and Hussey (1997) research methodology is more than simply the methods by which data are collected. It refers to an overall approach to the research process that involves theoretical development, data collection and analysis. In business research there is no right or wrong research methodology which can be employed in the research project to achieve the research aim and objectives (Oppenheim, 1992; Silverman, 2001; Easterby-Smith et al, 2002; Creswell, 2003).

### **6.6.1 The Research Population**

#### **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 Hashemite Kingdom of Jordan. The population in this research is defined as all the hospitals of the Jordanian governorates which are licensed as private hospitals by the Ministry of Health. Therefore, the hospitals which are licensed as single medical specialisation hospitals were not included in the research population. The number of hospitals included in this research as research population was 40. These were classified according to location, size, and specialisation.

## Hospital Location

Table 6.2 shows that private hospitals in six governorates: Amman, Irbid, Zarqa, Madaba, Karak, and Aqaba were included in the research. These governorates were selected because they contain private general hospitals.

**Table 6.2 Hospital Location**

Location of the hospital	No. of hospitals
Amman	27
Irbid	3
Zarqa	5
Madaba	1
Karak	2
Aqaba	2
Total	40

## Hospital Size

In this research, table 6.3 shows that hospitals were classified according to the number of available beds into large (more or = 150 beds) medium (80-149 beds) and small (less than 80) hospitals. 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).

**Table 6.3 Hospital Size**

Size of hospital	No. of hospitals
Large (more or = 150 beds)	4
Medium (80-149 beds)	10
Small (less than 80)	26
Total	40



## **Hospital Specialisation**

Hospitals are also categorized into, single medical specialisation (e.g. obstetric and gynecology hospital) and multi-medical specialisation (general) hospitals.

This research focused on the multi-medical specialisation (general hospitals) alone.

Lastly, hospitals in Jordan are either government hospitals (Ministry of Health, Ministry of Defence, and university hospitals) or private hospitals or hospitals run by charitable organisations.

## **The Research Respondents**

The rationale for selecting the respondents is that they have a sound knowledge and greater responsibility for managing relations with the environmental factors than the lower level managers in the hospitals.

The research included top management teams in Jordanian private hospitals as displayed in table 6.4 below:

**Table 6.4 Research Respondents**

<b>No</b>	<b>Samples</b>
1	General Director
2	Medical Manager
3	Administrative Manager
4	Marketing Manager (if any)
5	Public Relations Manager
6	Out Patient Clinic Manager

### **6.6.2 Data Collection Methods**

Generally speaking there are two methods of data collection that can be used by any marketing researcher. These methods are secondary data and primary data collection methods.

#### **Secondary Data Collection Methods**

The secondary data collection methods used in this research are:

- Library sources; recent and previous related journal articles, books and reports.
- Electronic sources represented by databases and web pages.
- Conference papers.
- Reports from the Jordanian Ministry of Health and the Jordanian private sector hospital.
- International organisations' reports. For example, World Bank and USAID (United State Agency for International Development).
- Selected statistics from the General Statistics Department in Jordan.

### **Primary Data Collection Methods**

In this research, both qualitative and quantitative approaches were used for the purpose of gaining a more comprehensive picture of the issues in question. The rationale for using quantitative and qualitative method, in both paradigms, is that it has advantages (strengths points) and disadvantages (weaknesses points). However, it is valuable for the researcher to employ multiple methods for primary data collection and/or triangulate between methods, which would allow the research more scientific rigour (Hussey and Hussey, 1997; Sekran, 2000; Malhorta and Birks, 2000; Creswell, 2003).

Saunders et al (2000) define an interview as a purposeful discussion between two or more people. It helps to collect valid and reliable data that are relevant to research questions and objectives. Also, Hussey and Hussey (1997) define an interview as a method of collecting data in which participants are asked questions in order to find out what they do, think or feel. This method could be used under phenomenological methodology. Therefore, an interview is a face to face conversation that is directed and conducted by a researcher to obtain or elicit relevant data, information, expression, opinions, and beliefs that are relevant to the research objectives. It is a widely used method for data collection in social science in general and in management and marketing in particular.

The qualitative methods of data collection include methods of in-depth interviews (interviews with the highest level of management within the Jordanian private sector hospitals).

The interviews were conducted for the purpose of gathering information about the marketing mix strategy components within the Jordanian private sector hospitals. Moreover, the researcher hopes to gather information about the respondents' opinions regarding the competitive environmental profile for Jordanian private hospitals.

Peil et al (1982) maintained that interviews of well-qualified informants are used to supplement information available from records and they are especially advantageous in providing up to date information on policy related issues. The interviews were conducted using the open-ended questions format for the purpose of permitting the respondents the freedom to provide useful information concerning the research questions.

The rationale for using semi structured interviews in this research was that other Arab researchers have chosen the face to face semi structure interview technique as a means of data collection, in addition to a survey questionnaire, to conduct their research (Al-Faleh, 1987; Al-Rasheed, 1996; Al-Ali, 1999; Al-Bahusseini, 2000). They found that this technique is very successful in Arab organisations, where managers prefer to talk rather than to complete a questionnaire. In this regard, Muna (1980) states, "there is a strong preference within an Arab culture for business transactions of all kinds to be based on personal contact".

The questionnaire utilised in this research survey is highly structured whereby most of its questions were fixed response alternative questions that required the respondents to select from responses by using five Likert scales.

**The questionnaire method was used in this research for the following reasons:**

- It is the most common and popular method of primary data collection used in marketing research surveys (Sekaran, 2000).



- It has been used extensively in previous researches of marketing strategy.
- It can be managed successfully.
- It is an efficient method to collect data from research respondents.

**In- depth interviews were used in this research for the following reasons:**

- The in-depth interviews provide great in-depth insights and, a rich vein of data for the marketing research (Hussey and Hussey, 1997; Sekran, 2000; Churchill, 2001).
- They generate an open exchange of information between researcher and interviewees.

The survey was subsequently distributed in a sample of 40 hospitals to staff including 193 (research sample) staff of different senior ranks within the hospitals. The survey was distributed and collected by drop-off and pick-up and, also, on occasion, by remaining with the respondents during the answering of the questionnaire. The other method was conducted by mail distribution in three governorates wherein 143 questionnaires were collected resulting in a 74 % response rate.

### **6.6.3 Research Questionnaire Design**

Two types of questions are available for constructing the questionnaire, the open-ended and close-ended types (De Vaus, 1993). Both types have their advantages and disadvantages. The questions addressed in this research were close-ended questions where the respondents are offered a set of answers and asked to select the answer that most closely represented their views.

According to De Vaus (1993) there is no right or wrong approach and the choice of open or closed questions depends on respondent motivation to participate, method of administration, type of respondent and nature of question content.

Answers to close- ended questions can be more elaborate, straightforward to pose and quick to answer; they require no writing by either the respondent or the interviewer, and their analysis is practical. Their major drawback is that they may introduce bias,

either by forcing the respondent to choose from given alternatives or by causing the respondent to select alternatives that might not have otherwise come to mind (Frankfort-Nachmias and Nachmias, 1992). Such a drawback could be minimised by pilot interviews, pre-testing the questionnaire through experts and a sub sample of the population. However, it is almost impossible to produce a perfect questionnaire at a first attempt. Questionnaires, when they are initially drafted, are full of questions that are ambiguous, contain cumbersome double negatives and are double-barrelled or too vague (Webb, 2000). Instruction may be confusing as it may be too long and variables that should have been included may have been omitted. To issue a questionnaire that has not been pre-tested is foolhardy. The pre-test is a means of discovering faults before it is too late to remedy them (Webb, 2000). Therefore, the questionnaire had to be piloted using two types of piloting according to Williams (1986) and Bagozzi (1996). First, academic piloting was used to provide data for the development of measuring scales.

One academic from the UK and one from Qatar University/ Qatar and five academic staff in Jordan performed the above. Questionnaire piloting, designed to ensure the efficiency of the questions, had been conducted by piloting the questionnaire among a sample of respondents in Jordan. This procedure resulted in further refinements enhancing the questionnaire to arrive at the final and accepted form as displayed in appendix (C).

Hence, the questionnaire was designed based on guidelines set by established methodology texts (Churchill, 1999). The questionnaire as shown in appendix (C) was developed to provide the following types of data:

**Section One: Data About Respondents;** demographic and hospital characteristics including age, educational level, academic background, number of years experience, job title, hospital size, and hospital location.

### **Section Two: Strategic Marketing**

**Subsection One:** The marketing activity in the hospital.

This section was concerned with investigating the marketing activity in the hospital and the degree of importance for these activities.

**Subsection Two:** The marketing objectives of the hospital.

This section was concerned with investigating the marketing objectives in the hospital and the degree of importance for these activities.

**Subsection Three:** The participation in formulating the marketing mix strategy.

This section investigated the degree of participation for departments and personal in formulating and implementing marketing mix strategy.

**Subsection Four:** The environmental data sources.

This section investigated the sources of information concerning competitive environment.

### **Section Three: Marketing Mix Strategy Components**

This section was concerned with investigating the key components of marketing mix strategy which private sector hospitals in Jordan used while formulating their marketing strategy. This section was divided into seven subsections: service strategy, pricing strategy, distribution strategy, promotion strategy, physical evidence, process, and personal strategies.

### **Section Four: The Influence of Competitive Environmental Factors on the Marketing Mix Strategy of the Hospital**

This section investigated how significant the influence of each of the Jordanian competitive environment factors is in the marketing mix strategy components in the hospital. This section was divided into five subsections: government, competitors, suppliers, customers, and third party payers.

### **Section Five: Hospital Performance Measurement Criteria**

**This section investigated the main measurement criteria in hospital industry.**

#### **6.6.4 Translation of the Questionnaire**

The questionnaire was initiated in English in the UK and was translated into Arabic in Jordan before the fieldwork phase using the back translation approach (Douglas and Craig, 1999). The English version was translated into Arabic and the Arabic version was back translated into English by linguistics in both English and Arabic. Differences in translation were resolved as a result of comparison between the two versions.

#### **6.6.5 Question Types and Formats**

In this research, the type of questions used in constructing the questionnaire was the ranking type. A ranking question asks the respondent to place items in a rank order so as to determine their significance to the respondent.



The type of closed questions used in this questionnaire was scale or rating questions. Rating questions include a list of alternatives that range from not much of a particular attribute to a great deal of that same attribute (Mangione, 1995). Rating scales are often used in terms of a Likert scale in which respondents indicate how strongly they agree or disagree with a statement of services by ticking a box or number. According to Hussey and Hussey (1997) rating scale questions have the advantage of listing different statements that do not require much space and are quicker for respondents to complete and for researchers to code. This type of question was used throughout this questionnaire to measure the main research variables including marketing mix strategy components, competitive environment factors, and performance measurement criteria variables. In addition a few open questions in the form of “others” (please specify) were used at the end of each block.

**Questions** must be worded in a clear way so that the respondents can understand them. The wording for this questionnaire was taken during the translation of the questionnaire by seven (7) academic professors, one of them in the UK, one at Qatar University and the others at Jordanian private and public universities. Words possibly open to interpretation were either avoided or qualified. Leading questions (questions phrased in such a manner that it seems to the respondent that the researcher expected a certain answer) are also avoided to minimise distorted responses. Double barrelled questions (two questions in one) were further prevented to avoid confusing the respondents who might agree with one aspect of the question and disagree with another.

**Length and Format** it is vital to consider the length of the questionnaire and the time spent by the respondent answering the questions. The researcher in this study tried to ensure that the questionnaire’s length would not limit respondents from fully filling out the questionnaire. The approximate time scale for completing the questionnaire was between 20-25 minutes which was ensured in this study.

**Cover Letter:** after the questionnaire has been constructed the next step was to include an introductory paragraph to explain the purpose of the survey to the respondents and to encourage a high response rate as demonstrated in appendix (B) (Frankfort-Nachmias and Nachmias, 1992). The cover letter used in this research

attempts to motivate the respondents to answer the questions very seriously. The letter explained the purpose of the research, clarified its importance and the significance of filling out the questionnaire, and assured the respondents that any information provided would be held in the strictest confidence. In general, the cover letter for a mail or drop and collect questionnaire needs to be more detailed than the introductory statement in a personal interview. In an interview, the interviewer is always there to explain or persuade the respondent should it become necessary (Frankfort-Nachmias and Nachmias, 1992). With this questionnaire, the cover letter is all there is, and thus its function is very significant.

**Questionnaire Pre-Testing Procedures:** Although considerable effort was expended to produce a well-designed questionnaire, it was essential to pilot or test the questionnaire before distribution on occurred. Pre-testing the questionnaire prior to data collection is vitally important to ensure that the final version contains questions that are specific, clearly understandable and capable of being answered by respondents (Chisnall, 2001; Saunders et al, 2001). Moreover, pre-testing was essential to identify any construction defects, to establish face validity of the questionnaire and to improve the format and the scales (Dillman, 1978; Saunders et al, 2001).

According to Remenyi, Williams, Money and Swartz (1998) pre-testing can be informal involving and consulting colleagues, experts or people of diverse opinions. Alternatively it can be formal involving a pilot study which replicates the main survey, but on a small scale. Three groups of people were consulted for testing and refining the questionnaire including colleagues, experts or academics and practitioners or people representing the targeted respondents. Each of these groups provided divergent insights and comments, which aided improvement of the questionnaire. This is also consistent with recommendations to include people from various fields and with different perspectives in the pre-testing stage to obtain a range of insights and ideas (Dillman, 1978: Oppenheim, 1992: Mangione, 1995; Hussey and Hussey, 1997).

The initial stage of pre-testing commenced with distributing the first draft of the questionnaire to three colleagues at Manchester Business School and Nottingham

Business School. Minor changes resulted in relation to the wording of questions and instructions.

The second stage of pre-testing was conducted with seven professors of various subjects including marketing, organisational theory, psychology, Arabic language and strategic management at different universities in the United Kingdom, Jordan, and Qatar. Useful comments were received from this group including suggestions for changes to the wording and scales of certain questions.

The third stage of pre-testing involved a meeting with the administrative director of a large hospital in Jordan. The purpose of this meeting was to obtain feedback from persons similar to respondents in the research sample.

Two types of scales were adopted in the research, which are the nominal scale and the ordinal scale (Likert scale). The nominal scale was used to obtain information about the gender, age, etc. of the respondents and, further, to obtain information about the respondents and their hospitals. The aim of using the nominal scale was to categorise the respondents according to questions in the questionnaire, which are related to demographic data.

The predominant type of closed questions used in this research questionnaire was rating scale questions. Rating scales are often used in terms of a Likert scale in which respondents indicate how strongly they agree or disagree with a statement by ticking a box or number. According to Hussey and Hussey (1997) rating scale questions have the advantage of listing different statements that do not require much space and are quicker for respondents to complete and for researchers to code. This type of question was used throughout this questionnaire to measure the research variables including marketing mix strategy components, environmental, success criteria, and other factors.

## **6.7 Validity and Reliability**

The validity and reliability of research measures are crucial parts of any survey, which must be assessed and examined in order to ensure the goodness of the measures used in the research. The rationale for examining and assessing research measures validity



and reliability is that the research measures must be valid and reliable (Moser and Kalton, 1971; Oppenheim, 1992; Creswell, 1994, Sekaran, 2000; Malhorta and Birks, 2000; Chisnall, 2001; Churchill, 2001). Validity is the degree to which a measure accurately respondents what it is supposed to measure. If validity is assured the researcher must also consider the reliability issue. Reliability is the degree to which the observed variable measures the true value and is error free. That is, if the same measure is asked repeatedly, for example, more reliable measures will display greater consistency than less reliable measures (Hair et al, 1998).

### **Validity Analysis**

Three types of validity test are recommended by researchers in marketing research methodology: content/face, criterion and construct validity (Parasurman, 1986; Bogozzi, 1996; Churchill, 1999).

### **Face Validity**

Face validity is the degree to which a measurement appears to measure what it is supposed to (McDaniel and Gates, 1999, p.309). The face validity in this research was obtained by the consistent effort of the researcher throughout the questionnaire development process. Firstly by relating literature; secondly by receiving feedback from academics and practitioners locally and abroad and thirdly by piloting the questionnaire to capture the appropriate right face validity. For this research content validity or face validity is the assessment of the correspondence of the variables to be included in a summated scale and its conceptual definition (Hair et al, 1998). According to McDaniel and Gates (1999), four steps were recommended to secure the content validity of research instruments.

1. With awareness defining what is going to be measured. Here, this has been enacted through the literature review phase, which leads to a clear definition of the research issue and objectives of the research.
2. Conducting a wide-ranging and thorough literature search to identify all possible items to be included in the scale. In this research an exploratory pilot study was conducted with administrative and general managers in order to develop the questionnaire to be valid in content with the respondents' understanding and conception.

3. A panel of experts can be asked for their comments and ideas regarding the inclusion or exclusion of some items. This stage has been done with the aid of seven academic staff at various universities to ensure the translation equivalence and contents of the questionnaire. Accordingly, the research questionnaire has benefited greatly from this procedure by enhancing the translation process with the help of these academics who are extremely conscious of both the inherent language and cultural differences. As such, the researcher is grateful for the assistance of the panel in redirecting the questionnaire to be more rational and acceptable to the respondent's level of communication.
4. Conducting a pilot study prior to commencement of the fieldwork.
5. Finally, pre-testing the questionnaire. This was pre-tested by five managerial and medical employees in the health sector in Jordan who additionally asked the respondents to highlight any comments, concerns or difficulties in comprehending questions.

### **Construct Validity**

Construct validity differs from face validity in that it involves relating an instrument to a general theoretical framework in order to determine whether an instrument is related to the conceptual assumptions that are used (Nahmias and Nahmias, 1992). Two types of construct validity are suggested in the literature, convergent and discriminate validity (Churchill, 1979; Nahmias and Nahmias, 1992; Diamantopoulus and Schlegelmilch, 1997; Hair et al, 1998). Convergent validity assesses the degree to which two measures of the same concept are correlated. Discriminant validity ensures that the scale sufficiently varies from other similar concepts to be distinct (Hair et al, 1998).

### **Criterion Validity**

Criterion validity can be divided into two subdivisions: concurrent validity and predictive validity. Predictive validity is defined as "the degree to which the future level of a criterion can be forecasted by a current measurement scale" (McDaniel and Gates, 1999, P 311). They also defined the concurrent validity as "the degree to which a variable measured at the same point in time as the variable of interest can be predicted by the measurement instrument".

## Reliability Analysis

Reliability analysis is concerned with including a scale that is free from random error, an error that is not produced consistently every time a measurement is taken (Diamantopoulos and Schlegelmilch, 1997). There are a number of different reliability coefficients and one of the most commonly used is Cronbach's alpha, which is based on the average correlations of items within a test if the items are standardised (Coakes and Steed, 2001). The values of Cronbach's alpha range from zero to one. The closer the Cronbach's alpha coefficient (reliability) gets to one the better the scale and instrument. Bryman and Cramer (2001) argue that reliability should be 0.80 or above. The criterion that is used in the research to examine the reliability of each variable is that if the variable reliability is less than 0.60, then it is considered to be of poor reliability. If the variable reliability is over 0.70, then it is considered as a reliable measure.

**Table 6.5 Reliability Coefficient for the Strategic Marketing**

Strategic Marketing	Number of Items	Reliability Coefficient
Marketing activity	17	0.822
Marketing objectives	12	0.795
Participants in making marketing strategy	6	0.527
Competitive environment data source	12	0.834

Table 6.5 shows the reliability coefficient for the strategic marketing variables. It demonstrated that the reliability coefficient of three variables were above 0.795 and only one variable was below 0.700 (participants in making marketing strategy) at 0.527.

The generally agreed upon lower limit for Cronbach's alpha is 0.70 and it may decrease to 0.60 in exploratory study (Robinson, et al 1991). However, alpha coefficient was not applied for any scale for less than three items as it should not be according to Peter (1979) because Cronbach's alpha has a positive relationship to the number of items in the scale. Therefore, it will be very low for scales that contain fewer than three items.



**Table 6.6 Reliability Coefficients for the Marketing Mix Strategy**

<b>Marketing Mix Strategy Components</b>	<b>Number of Items</b>	<b>Reliability Coefficient</b>
Health service strategy	13	0.768
Pricing strategy	9	0.571
Distribution strategy	8	0.838
Promotion strategy	6	0.664
Physical evidence strategy	8	0.734
Process strategy	10	0.698
Personnel strategy	8	0.678

Table 6.6 shows the reliability coefficient for the marketing mix strategy components. Just one variable was below 0.60 (the pricing strategy) at 0.571.

**Table 6.7 Reliability Coefficients for the Environmental Factors at the Hospital**

<b>Environmental Factors</b>	<b>Number of Items</b>	<b>Reliability Coefficient</b>
Government	7	0.723
Competitors	14	0.800
Suppliers	16	0.810
Customers	11	0.648
Third party payer	9	0.748

Table 6.7 however illustrates the environmental factors. It shows that the reliability coefficient for all variables exceeded all above 0.600.

**Table 6.8 Reliability Coefficients for the Performance Criteria Factors**

<b>Performance Criteria Factors</b>	<b>Number of Items</b>	<b>Reliability Coefficient</b>
Financial criteria	3	0.6128
Quality criteria	6	0.7684
Customer service criteria	4	0.7316
Marketplace criteria	6	0.7552

Table 6.8 displays the reliability coefficient for the performance criteria factors. It shows that the reliability coefficient for three criteria factors was above 0.700, which is acceptable. All variables were above 0.600.

## **6.8 Building the Research Framework**

The main aim for this section is to provide a description for building the research framework and developing hypotheses. It is mainly based upon key findings from the literature review of competitive environment, marketing mix strategy, and hospital performance measurement criteria research. Furthermore, a number of hypotheses have been formulated based on the research framework to be tested.

### **6.8.1 Building the Research Framework**

The research framework includes three interrelated parts, which are competitive environment factors, marketing mix strategy components, and hospital performance criteria. Figure 6.1 displays the research framework and the relationships between variables. It is of central importance at the outset to explain what these parts mean.

- The first part is the competitive environment factors that number five in total (government regulations, competitors, suppliers, customers, and third party payers).
- The second part is concerned with the marketing mix strategy components. These are the seven components of the services marketing mix strategy framework in the Jordanian private sector hospitals. The health services marketing mix strategy framework is investigated within the domain of the services marketing mix framework, as advocated in chapter three.
- The third part is hospital performance criteria factors, which is concerned with investigating the main performance criteria that are being used by the Jordanian private sector hospitals for evaluating their success, as advocated in chapter five.

The approach used in building the research framework is aimed at achieving the research objectives. Building the research framework section is concerned with a detailed clarification of the arguments and justifications that are used to construct it.

Moreover, these arguments and justifications are key findings from the competitive environment and marketing mix strategy components besides resulting from hospital performance criteria.

Examination of the competitive environment components literature has indicated that it (Porter, 1986; Savage et al, 1991; Walsh, 1991; Clarkson, 1995; Lovelock and Yip, 1996; Emerson, 1999; Rugman and Verbeke, 2002; Fahey, 2002; Swinehart et al, 2004; Svensson, 2004) has shown that the competitive environment factors differ from business to business, and from sector to sector e.g. the competitive environment factors which influence the private sector hospital are different from those that influence the banking industry.

The primary argument in this research is that the main elements of the competitive environment factors are namely; government regulations, competitors, suppliers, customers, and third party payers. This argument has had substantial support in the strategic and marketing literature (Baird and Meshoulam, 1988; Scrivens, 1991; Walsh, 1991; Eherth, 1993; Green et al, 1995; Swinehart, 1995; Hejase et al, 2000; Glouberman and Mintzberg, 2001; Begun and Kaissi, 2004; Swinehart et al, 2004; Ilegu, 2005).

The review of the marketing mix strategy components literature has indicated that the literature (Kotler et al, 1987; Brunner's, 1989; Rafiq, 1995; Harvey, 1996; Ronald, 1999; Kotler, 1999; Ziethaml, 2000; Lovelock, 2001; Lovelock, 2001; Judd, 2003) has demonstrated that the traditional four Ps; product, price, place, and promotion, of the marketing mix strategy components have been criticised by many marketing scholars. The above literature advocates that as the traditional components of marketing mix strategy, the 4Ps are insufficient to formulate a marketing strategy in service sector businesses.

One of the fundamental arguments in this research is that the new elements of the expanded services marketing mix strategy components framework, namely; physical evidence, process, and personal should be separate, distinct, and strategic variables in the services marketing mix framework as well as in the service marketing strategy variables. This argument has had substantial support in the strategic and marketing

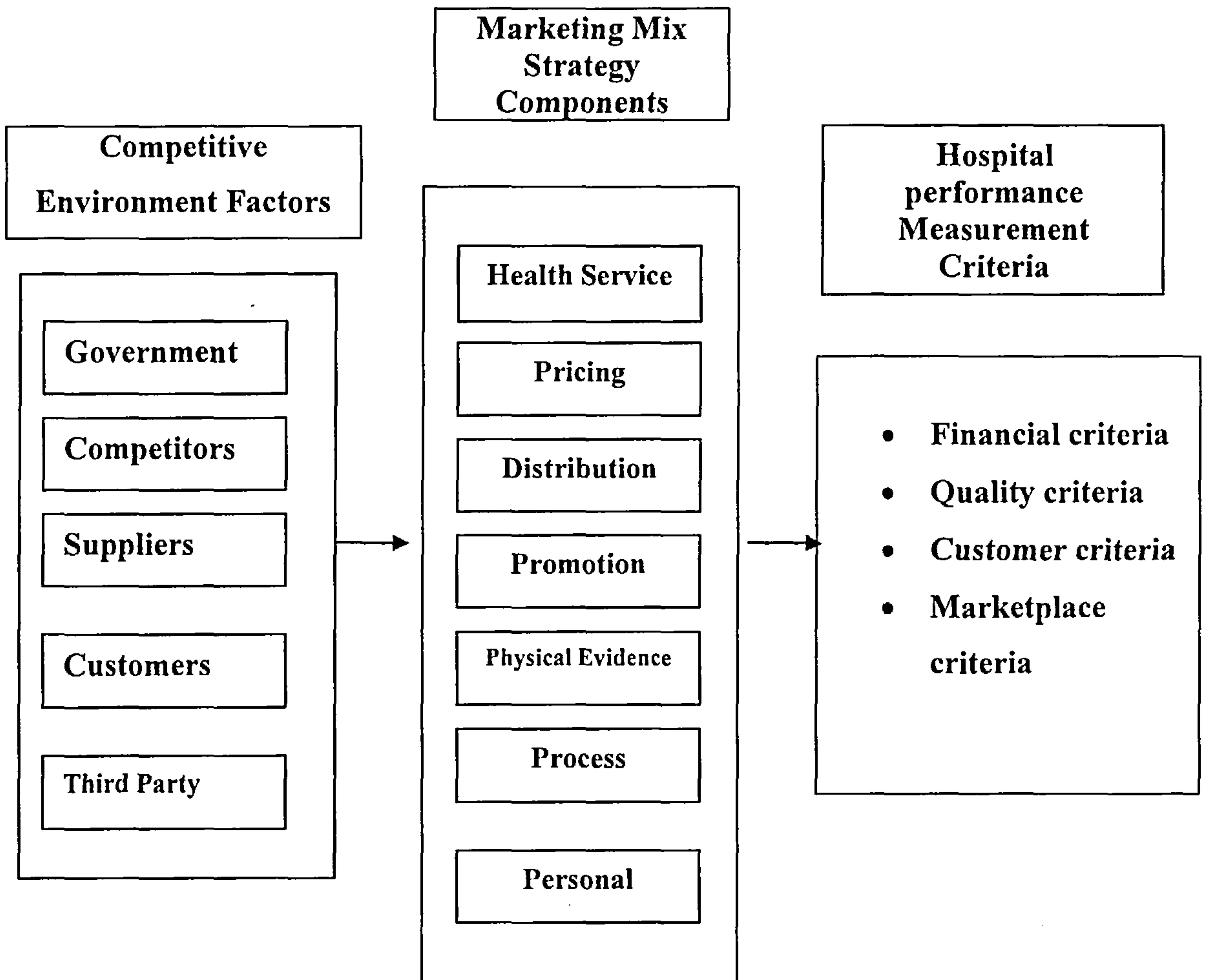


literature (Booms and Bitners, 1981; Cowell, 1984; Kotler et al, 1987; Brunner, 1989; Rafiq, 1995; Harvey, 1996; Goldsmith, 1999; Kotler, 1999; Ziethaml, 2000; Lovelock, 2001; Lovelock, 2001; Judd, 2003). The unique characteristics of services create special problems and challenges that require special marketing strategies to cope with them. Further, the marketing functions in service businesses should provide proper services to customers especially when customers have interactions with a service provider e.g. the interaction between patients and physicians.

Ennew and Watkins (1998) argue that most empirical research conducted within the services marketing mix area has tended to focus on a specific problem or upon problems which are related to the unique characteristics of services and not on the real practice of marketing management in service companies. Consequently, there is a need to investigate the real practices of marketing management concerning the services marketing mix framework within service companies.

Based on the literature review in competitive environment factors (chapter four), marketing mix strategy components (chapter three) and hospital performance measurement criteria (chapter five) it can be argued that explaining this part of the research framework is crucial. The rationale for the significance of this part is that the examination of the competitive environment and marketing strategy literature has revealed the influences of competitive environment on marketing mix strategy. This is advocated by a number of marketing scholars (chapters three and four). Figure 6.2 shows the original research model.

**Figure 6.2 Research Original Model**



### **6.8.2 Operational Definition of the Research Variables**

The main sources of constructing the operational definitions of the variables that are included in the research framework are:

- The examination of conceptualisation and previous empirical research in the fields of marketing mix strategy, competitive environment, and the organisation of performance measurement criteria.
- The theoretical literature on the research topics which provided very strong theoretical, but not empirical, arguments for the research variables.

## **Operationalising the Competitive Environment Variables**

In order to develop an operational definition for each variable included in this research framework a five point Likert scale was used which starts from (very influential) given the score of (5) to (not very influential) given the score of (1). The respondents were asked to indicate the importance of each question included for the competitive environment factors.

### **Government Regulations**

The questions were designed to define the main governmental regulations factors taken in Jordanian ministries and other governmental and non-governmental departments regarding the Jordanian private sector hospitals and determine which of these factors influence the marketing mix strategy components in Jordanian private sector hospitals.

The government regulation was operationalised by 7 items.

The respondents of the Jordanian private sector hospitals were asked: How significant is the influence of each of the Jordanian government's regulations on the marketing strategy in your hospital.

The policy of privatization.
The policy for health insurance for Jordanians.
Governmental decisions related to the health sector e.g. finance and administration.
Governmental control by the Ministry of Health.
Ministry of Health's decision related to prohibited hospital advertisements.
Tax ratio level on imported materials (e.g. medical equipment).
Governmental hospitals health service pricing list.

### **Competitors**

The aim of this question was to investigate the components, which constitute the competitors that influence the marketing mix strategy components in Jordanian private sector hospitals.

The competitor factor was measured by asking the respondents in Jordanian private sector hospitals about the competitor degree of influence on the marketing mix strategy in Jordanian private sector hospitals and determined the kinds of competitors for Jordanian private sector hospitals.

The competitor factor was operationalised by 14 component questions.



The respondents of the Jordanian private sector hospitals were asked about the competitor degree of influence on the marketing mix strategy in Jordanian private sector hospitals.

Size of Jordanian health market
The competitors' old experience in the Jordanian health market
Size and magnitude of local competition (number of local competitors)
External competition –external investment in the health sector (non Jordanian hospitals)
External competition –treatment outside Jordan, (USA, for instance).
Studying why some customers choose to use competitors
Unexpected additional marketing efforts conducted by local competitors
Identifying hospital's local competitors
Identifying hospital's external competitors
Determining competitor's objectives
Determining competitor's strategies
Assessing competitor's strengths
Assessing competitor's weaknesses
Estimating competitor's reactions

### Suppliers

The rationale for this section is to examine the key factors that comprise the supplier influence in marketing strategy in Jordanian private sector hospitals.

The supplier components were operationalised as 16 items. The respondents in Jordanian private sector hospitals were asked how significant they thought the influence of the supplier was on Jordanian private sector hospitals.

The quality of advanced medical equipment not yet available in Jordan's health market
The quality of advanced medical equipment availability in Jordan's health market
Updated methods of diagnosing and treating diseases
Availability of maintenance of medical equipment
Effect of telemedicine services with other Jordanian hospitals
New models/ methods of care
Hospital's external suppliers
Hospital's internal suppliers
Our suppliers are very important to our brand
Our suppliers are very important to our future profitability
Our suppliers are strongly dependent on us
Our suppliers are technological market leaders in our components /material which we need
Our suppliers have a great strategic importance for our technological development
Our suppliers provide a wide range of different items
We can easily replace our suppliers with other comparative suppliers
Our relationship with our suppliers is mainly based on their price offer

### Customers/ Patients

The major concern in investigating the customer/patient factor was to examine to what extent the customers influence the marketing mix strategy of the Jordanian

private sector hospitals. In addition, this part examines the disparate types of customer and how they influence the hospitals.

The customer component was operationalised by 11 items. The respondents of the Jordanian private sector hospitals were asked how significant the influence of customers to be on Jordanian private sector hospitals deemed.

Hospital's internal customers.
Hospital's external customers.
Customers' needs and wants.
Increasing health awareness for Jordanian people.
Customer's preferences and finding better ways to meet customer's needs and wants.
The Jordanian customer's confidence rate in our health services.
Income average for uninsured Jordanian people.
The non-Jordanian customer's confidence rate in our health services.
Customer's attitude toward foreign hospitals (e.g. American hospitals).
Customers' protection legislation.
Customers' spending upon health check-ups (e.g. Precaution tests).

### **Third Party Payers**

The rationale for this section is to examine the leading factors that comprise the third party payers' influence on marketing strategy in Jordanian private sector hospitals.

The third party payers' group was operationalised by 9 items.

The respondents of the Jordanian private sector hospitals were asked how significant the influence of third party payers' was on Jordanian private sector hospitals.

Health insurance companies in Jordan
Third party administrators
Self-insured companies and associations
Health insurance companies requirements
Health insurance companies regulations, legislations
Size of Jordanian people who are insured by these companies
Specify the ceiling on medication amount which insurance companies paid
Health insurance companies strategies
Employee class (the position in the company hierarchy)

## **Operationalising the Marketing Mix Strategy Variables**

### **Health Service Strategy**

In order to develop an effective health service strategy this element has included four major interdependent dimensions, which are:

- Health service range
- Branding of health services.
- New health service development.
- Customer service strategy.

The health service strategy factor was operationalised by 13 component questions. The respondents were asked the following: To develop an effective health service strategy our hospital:

Has a distinguished 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).
Has a good reputation for services and this becomes very important in our hospital success.
Has medical staff who play a crucial role in building our brand reputation.
Uses a formal plan for new health services types or programmes development.
Uses customer (patient) service as a central element in our service offering strategy.
Uses customer (patient) feedback to improve the quality and efficiency of our health service.
Has a good capacity to hold huge numbers during disastrous time.
Has structured and formalised procedures for new health programme. development process.
Understands our customers (patients) needs thoroughly.
Confidential about our customers (patients) cases.

### Pricing Strategy

The aim of the questions designed to measure health-pricing strategy was to investigate the key pricing policies used by the Jordanian private sector hospitals when formulating their pricing strategies. The pricing strategy variable was measured by asking the respondents in the Jordanian private sector hospitals to reveal the pricing strategies, which they use when they price their health services.

The health pricing strategy was operationalised by 9 items.

The respondents were asked to answer the following: When we price our health services we price them based upon:

The private hospital association and physicians association requirements.
Pricing strategy according to demand.
The different kinds of costs which our hospital incurs.
A predetermined rate of return that our hospital is looking for.
What customers (patients) are willing to pay?
The services which we introduce to our customers (patients).
Pricing strategy according to competition.
The ministry of health regulations.
Price discrimination according to market segments which we serve.



## **Distribution Strategy**

The questions used in operationalising this variable were designed to reveal the distribution strategy that the private hospitals in Jordan use when they formulate their distribution strategy.

Based on the literature review of distribution strategy in health services, it was operationalised by 8 items.

The respondents reflected upon the following point: When our hospital formulates its distribution strategy to access its services to its target markets we use:

Telemedicine to deliver our health consultation.
Electronic distribution channels such as e-health to distribute our health education to our society.
Mobile clinics to access our health services to rural areas.
Our branches to access our services to different geographical areas.
Flowcharts or diagrams which describe the steps and activities required to deliver our health services to customers.
A distinctive distribution capabilities e.g. the ability to open new branch of the hospital.
Convenient opening hours in our out patient clinics at the hospital.
Hourly service availability.

## **Promotion Strategy**

The intention of the questions was to investigate the components of the promotion strategy that the Jordanian private sector hospitals adopt when they formulate their promotion strategy. The promotion strategy was measured by asking the respondents in Jordanian private sector hospitals about the components of their promotion strategy when they promote their health services.

Consequently, the health promotion strategy was operationalised by 6 items. The answers sought from respondents were based upon: When our hospital formulates its promotion strategy to promote our health services we:

Advertises in media such as television, newspapers, magazines...etc.
Encourages our customer/ patient to use word of mouth communication to recommended our hospital to other patients.
Publicity and public relation to enhance our image.
Promotes sales such as , gifts, discounts, free medical days...etc.
Uses direct marketing methods such as e-health , direct mail ,the internet.
Sponsors special events such as sports charities, seminars...etc

## Physical Evidence Strategy

The primary concern in investigating physical evidence strategy was to examine the extent to which the health organisations were interested in creating a customer friendly atmosphere in their working environment. A critical examination of physical evidence strategy literature revealed that there was no single operational definition agreed upon by services marketing scholars. Furthermore, most of the physical evidence literature is conceptual or theoretical. However, examining the literature review has revealed that there are a number of "common themes", which make it possible to develop an operational definition for physical evidence strategy in the context of the hospitals in Jordan. Consequently, the physical evidence literature (Booms and Bitner, 1982; Bitner, 1992; Baker and Cameron, 1996; Stuart and Tax, 1997 Karl, 2003) has revealed the following 8 themes: The respondents were asked to comment on the following: In order to develop an effective working atmosphere at our hospital we focus on:

Comfortable environment with good directional signs.
The décor and atmosphere of our hospital.
Comfortable physical environment furnishing, colours, elevators, guides etc.
Enough parking for our patients and visitors.
Designed facilities to achieve specific marketing image objectives.
Up-to-date and well-maintained facilities and equipment.
The cleanliness and appearance of our hospital facilities.
Accessibility in terms of location.

## Process Strategy

The questions used in operationalising this variable were designed to reveal the process strategy that the private hospitals in Jordan use when they deliver their process strategy.

Based on the literature review of process strategy in health services, this was operationalised by 10 items.

Answers were elicited according to the following: When our hospital formulates its process strategy to access its services to its target markets it uses:

No delays in providing our health services and simple procedures.
Updated medical equipments.
Customer (patient) feedback to improve health services.
Confidentiality and privacy about our patient cases.
Privacy during treatment.
Services that are provided at appointed time.
A short waiting time of not more than one hour.
Dignity and respect when treating our patients.
Thorough explanation of medical conditions to patients.
Technology in service delivery process

**Personal Strategy**

The aim of the questions was to investigate the components of the people strategy that the Jordanian private sector hospitals use when they formulate their people strategy. The people strategy was measured through asking the respondents in Jordanian private sector hospitals about the components of their people strategy when they deliver their health services.

Consequently, the health people strategy was operationalised by 8 items. The respondents reflected that: When our hospital formulates its people strategy to deliver our health services it uses:

The appearance of our staff.
Training and development programmes to improve our employees capabilities to perform their service role.
Cash reward systems to improve our employees.
Non-cash reward systems to improve our employees such as prizes and competition.
Data gathering about our employees attitudes needs and wants regularly.
Continuous development of our employees skills and abilities.
The neatness and professionalism of doctors/staff.
The competence of doctors/staff.

**Operationalising Hospital Performance Measurement Criteria**

The literature review has revealed that business performance measurement is a complex, multi-dimensional, and controversial phenomenon (Venkatraman and Ramanujam, 1986; Clark, 1999; Fahey et al, 2000).

However, the most common shared theme which marketing strategy researches agreed on for business performance measurement is that traditional financial performance is inadequate for measuring business performance. In health services organisation performance measurement should go beyond those of financial measures towards using non-financial measures e.g. surgical operations, outpatients' clinic visits, medical negligence responsibilities (Conant et al, 1990; Yavas et al, 1994;



Palmer, 1996; Eddy, 1998; Davies, 1998; Roper and Cutler, 1998; Malcolm Baldrige Criteria for Performance Excellence, 1998; Ramanathan's, 2005).

The researcher depends on Jordanian Ministry of Health criteria and some international measurements' criteria collected from the literature to measure the performance criteria rate in Jordanian private sector hospitals.

Consequently, in order to overcome these problems in operationalising hospital performance this study has conducted in-depth interviews among Jordanian private sector hospitals. During these interviews the hospitals' departmental managers described the most common performance criteria factors in these hospitals, which agree with the criteria designed by Jordanian private sector hospitals. Most of these criteria are consistent with the literature but it is necessary to conduct this phase because the research was conducted in the Jordanian health market.

In order to develop an operational definition for performance measurement a five point Likert scale was used which starts from "Strongly agree" given the score of 5 to "Strongly disagree" given the score of 1. This part of the questionnaire investigated the extent to which Jordanian private sector hospitals are using the given performance criteria when they evaluate or measure the impact of marketing mix strategy components on the hospital's performance.

In similar vein, the same criteria were used in order to examine the role of these criteria to enhance the hospital situation. This was achieved by using the five point Likert scale which starts from "Very important" given the score of five to "Very unimportant" awarded the score of 1.

The items used in the questionnaire were:

<b>Financial Performance Measurement Criteria</b>
Return of investment
Hospital overall profitability
Hospital revenue
<b>Quality Performance Measurement Criteria</b>
Mortality rate
Infection rate
Clinical outcome
Medical negligence responsibilities
Patient's quality of life
Technological sophistication

<b>Customer Performance Measurement Criteria</b>
Waiting time
Patient loyalty to our hospital
Patient/customer satisfaction
Attracting anew patients within a certain period time
<b>Marketplace Performance Measurement Criteria</b>
Length of stay
Occupancy rate
Inpatients bed turnover
Surgical operation
Emergency department visit
Out patient clinic visits

## 6.9 Statistical Methods

Selecting the right statistical methods depends on the nature of the data and the relationship between the method and the research objective. As such, this study used what is relevant to the research question and framework. The main data analysis techniques used in the research are frequency analysis, factor analysis, and multiple regression technique. The descriptive analysis of the data is used to provide a summary of the respondents' demographic characteristics using means, frequencies, and standard deviations of the responses. The final statistical technique used is multiple regression analysis recommended by Hair et al (1998). In this research multiple regression analysis produced the adjusted R<sup>2</sup>, R, F and P values that were advantageous for testing the hypotheses.

## 6.10 Summary

This chapter attempted to provide an overall view of the methodology adopted in this study, starting by discussing the methodological underpinning of this research, indicating that this researcher will utilise both quantitative and qualitative research methods relying more upon the survey method to arrive at major findings for this research. This chapter continued to explain the means by which this study will be able to provide answers regarding the marketing mix strategy issue in examining the competitive environment factors and hospital performance criteria. Accordingly, the survey was fully explained using the qualitative phase study to form the basis for establishing a strong research instrument to examine constructs of this research. The questionnaire development and design procedures were discussed and explained using the right format and wording and rephrasing the questionnaire several times to suit the target informants. Furthermore, the questionnaire was initiated in English and

translated into Arabic to accommodate the respondents' mother tongue. Proper methodological considerations were accounted for in translating the questionnaire into Arabic. Monolingual and bilingual methods in both languages were used to ensure an appropriate translation. Furthermore, reliability analysis was also included in the internal consistency procedure. The final section details the statistical methods adopted in this research.



# **Chapter Seven**

## **Descriptive Analysis**

### **7.1 Introduction**

This chapter focuses on providing a descriptive analysis of the research data. The discussion of the respondents' demographic dimensions offers a clear perspective of the hospital managers investigated in this research and a better understanding of the analysis in general.

The chapter is divided into four sections. The first describes some of the demographic variables of the data, such as age, education level, and job position. This is succeeded by the strategic marketing of Jordanian private sector hospitals, marketing mix strategy components, and competitive environment factors. Such analysis provides an enhanced comprehension and explanation of forthcoming analysis.

### **7.2 General Demographic Analysis**

Describing the relationship between a sample and its population is very important. In order to convey such a relationship one must be able to describe it in terms of characteristics that are common to both the sample and its parent population (Oppenheim, 1992). This section is therefore largely concerned with presenting a descriptive analysis of the sample to evaluate and provide an overview of the respondents' characteristics according to the following criteria.

#### **7.2.1 Age**

Given the study population, the sample was biased towards the older age groups accounting for 37.1% (34.3% plus 2.8%) for people aged 51-60 years and people over 60 years old as shown in table 7.1. However, young people are less representative with 8.4% and 24.5% respectively for managers under 30 and those between 30 to 40. However, finding a higher ratio of managers belonging to the older age groups is due to the fact that private sector hospitals mostly hire managers with undergraduate university degrees or higher and with some prior experience. People, preferably from the public sectors, such as retirees from the two main public health institutions in Jordan- the Ministry of Health (MOH) and the Royal Medical Services (RMS).

**Table 7.1 Age**

Ages	Frequency	Percent	Valid Percent	Cumulative Percent
Under 30	12	8.4	8.4	8.4
30 – 40	35	24.5	24.5	32.9
41 – 50	43	30.1	30.1	62.9
51 – 60	49	34.3	34.3	97.2
Over 60	4	2.8	2.8	100.0
Total	143	100.0	100.0	

**7.2.2 Education**

Table 7.2 shows that 58% of managers in the Jordanian private sector hospitals hold a four-year university degree, mostly in business and related sciences; this result was supported by survey of the Jordanian private sector hospitals (Abu-Noktah, 2000).

**Table 7.2 Education**

Education	Frequency	Percent	Valid Percent	Cumulative Percent
College Degree	1	.7	.7	.7
Bachelor	83	58.0	58.0	58.7
Master degree	50	35.0	35.0	93.7
Doctoral degree	9	6.3	6.3	100.0
Total	143	100.0	100.0	

There is an influx of university graduates seeking jobs each year while the market supply is much higher than the demand. Thus, since the availability of qualified staff is not a major problem, diploma holders who have undergone a mere 2- year course, represent only a small percentage of 0.7%. Graduate students often have the necessary degree but lack the skills required for the job, which can only be acquired through training and experience. This is why only 35% of the sample are master's degree holders. It is additionally evident that those with the highest level of education (Ph.D.) are only represented by just 6.3% of the market share because they usually work in academic institutions. The reasons are that higher investments in Jordan's private universities offer superior remuneration to qualified people who are required to fill the vacancies in academic institutions.

### 7.2.3 Academic Background

Table 7.3 makes it clear that a high percentage of respondents, 62.9%, hold degrees in business, health service administration, marketing, or other managerial sciences, while only 37.1% have degrees in medical sciences. Such a distribution, however, seems logical when one considers the need for managerial and business skills in hospital administration services. Thus, in general, Jordanian private sector hospitals are more likely to hire candidates from hospital and health services management or business related areas rather than other fields of study, especially when they are easily available in the local employment market.

**Table 7.3 Academic Background**

Academic Background	Frequency	Percent	Valid Percent	Cumulative Percent
Medical	53	37.1	37.1	37.1
Administrative	90	62.9	62.9	100.0
Total	143	100.0	100.0	

### 7.2.4 Experience

Table 7.4 makes it evident that a high percentage of respondents, 32.8% and 31.5% of the sample, have experience of twenty years plus and 16-20 years respectively. Other experience from 5-9 years accounts for 15.4% of the sample. As such, less than 10% of the sample possessed experience of less than five years.

**Table 7.4 Experience**

Experience	Frequency	Percent	Valid Percent	Cumulative Percent
<5	14	9.8	9.8	9.8
5 -9	22	15.4	15.4	25.2
10 - 15	15	10.5	10.5	35.7
16 - 20	45	31.5	31.5	67.2
>20	47	32.8	32.8	100.0
Total	143	100.0	100.0	

### 7.2.5 Job Title

Table 7.5 gives a numerical overview of the types of jobs to which hospital managers are appointed. Administrative managers account for 27.3% of the sample, medical managers 24.5%, and out-patient clinic managers 16.1%. Marketing managers are the



lowest percentage of the sample because most hospitals (96.5%) do not have a marketing department. However, public relations managers do account for 20.3% of the research sample.

**Table 7.5 Job Title**

Job Title	Frequency	Percent	Valid Percent	Cumulative Percent
General manager	12	8.4	8.4	8.4
Medical manager	35	24.5	24.5	32.9
Administrative manager	39	27.3	27.3	60.1
Marketing manager	5	3.5	3.5	63.6
Out patient clinic manager	23	16.1	16.1	79.7
Public relationship manager	29	20.3	20.3	100.0
Total	143	100.0	100.0	

### 7.2.6 Hospital Size

The respondents of this study have been divided into three groups of hospitals depending on the number of inpatient beds. Table 7.6 shows that there are 26 small hospitals with 51.7% of respondents, only 4 large hospitals (more or = 150 beds) with 16.8% of respondents, and the rest are medium-sized hospitals (80-149 beds) with 31.5% respondents.

**Table 7.6 Hospital Size**

Hospital size	Frequency	Percent	Valid Percent	Cumulative Percent
Large (More or = 150)	24	16.8	16.8	16.8
Medium (80 – 149)	45	31.5	31.5	48.3
Small (Less than 80)	74	51.7	51.7	100.0
Total	143	100.0	100.0	

### 7.2.7 Hospital Location

As shown in table 7.7, most hospitals are located in the capital of the Kingdom, Amman, accounting for 72.7%. There are several explanations for this high percentage: Firstly, Amman is the largest city containing 38.8% of the entire population according to the Jordanian Department of Statistics (2004). Secondly it has a high income ratio. Thirdly, it is the best venue for non-Jordanian Arabs seeking health care because of the easy availability of complementary services such as choice

of hotels and infrastructure. Inversely, Madaba has the fewest hospitals corresponding to the small size of its population.

**Table 7.7 Hospital Location**

Hospital Location	Frequency	Percent	Valid Percent	Cumulative Percent
Amman	104	72.7	72.7	72.7
Madaba	2	1.4	1.4	74.1
Zarqa	13	9.1	9.1	83.2
Aqaba	6	4.2	4.2	87.4
Karak	3	2.1	2.1	89.5
Irbed	15	10.5	10.5	100.0
Total	143	100.0	100.0	

### 7.3 Strategic Marketing

This group covers the second part of the questionnaire and some questions from the interviews (to cross check the answers of the questionnaire).

This research focuses on the relationship between the Jordanian competitive environment and marketing mix strategy. It was critical to ascertain the approach to marketing in Jordanian private sector hospitals and discover the identity of the decision-making participants. These are the people who need to consider the surrounding environment. Hospitals require information about the environment within which they operate. As such, the questionnaire is designed to determine the participants taking strategic marketing decisions in the Jordanian private sector hospitals. Lastly, the questionnaire is designed to determine competitive environment data sources. The results are grouped as follows:

1. Marketing activity in Jordanian private sector hospitals.
2. Marketing objectives in Jordanian private sector hospitals.
3. Participants in marketing decisions in Jordanian private sector hospitals.
4. Competitive environment data sources for Jordanian private sector hospitals.

The general level analysis for this group is discussed in the following sequences. The general analysis, which was for the hospital as a whole, and the answers of all respondents for each were summarised using the Likert scale to illustrate the most and least important factors in each hospital. The numerical values of the scale running from 1 to 5 (Not important = 1, Low importance =2, Neither Important nor Unimportant = 3, Important = 4, and Very Important = 5).

## 1- Marketing Activity

Table 7.8 shows that studying a patient's needs and wants is the leading activity in Jordanian private sector hospitals with a percentage of very important and important together at 94.4%. Also developing the policies and tactics is a highly important activity with a percentage of 93.7% in both scales very important and important. These corroborate what the researcher found during interviews with hospital department managers. The least important activities are: Training programs for marketing staff and analysing the internal environment to identify strengths and weaknesses at 56% and 67.2% respectively.

**Table 7.8 Importance of Marketing Activities**

Degree of Importance	Very important	Important	Neither important nor unimportant	Low important	Not important	Mean	S.D
The Marketing Activity	%	%	%	%	%		
Analysing the internal environment to identify the strength and weakness.	21.7	45.5	25.2	7.7	0	3.81	0.86
Determining the strategic objectives	20.3	57.3	14.7	7.7	0	3.90	0.81
Choosing the generic strategy approaches	32.2	42.7	21.0	4.2	0	4.03	0.84
Developing the functional strategies	39.2	39.2	21.0	0.7	0	4.17	0.78
Developing the policies and tactics	37.1	56.6	5.6	0.7	0	4.30	0.61
Analysing market share (the providers penetration of the market)	39.2	44.1	15.4	0	1.4	4.20	0.80
Market demand (the total demand for a service within a given market)	20.3	67.8	11.9	0	0	4.08	0.56
Studying customer satisfaction	42.7	49.0	7.7	0.7	0	4.34	0.65
Studying physician's needs	42.0	46.9	10.5	0.7	0	4.30	0.68
Studying patients needs and wants	54.5	39.9	5.6	0	0	4.49	0.60
External communication of the hospital	39.9	42.0	17.5	0.7	0	4.21	0.75
Internal communication of the hospital	31.5	48.3	18.9	1.4	0	4.10	0.74
Training programs for medical staff	31.5	49.7	18.9	0	0	4.13	0.70
Training programs for non- medical staff	23.8	52.4	18.9	4.9	0	3.95	0.79
Training programs for marketing staff (if any)	15.4	40.6	30.8	9.8	3.5	3.55	0.98
Communications with our employees on an ongoing system e.g. regular meeting	25.2	53.1	18.2	3.5	0	4.00	0.76
Gathering data about their employees attitudes, needs and wants on regular basis	32.2	49.7	17.5	0.7	0	4.13	0.71

The activities of importance in private sector hospitals studies have each earned different scores, and are listed as follows in descending order:

1. Studying patients needs and wants.
2. Developing policies and tactics.



3. Studying customer satisfaction.
4. Studying physicians' needs.
5. Market demand (the total demand for a service within a given market).
6. Analysing market share (the providers penetration of the market).
7. External communication of the hospital.
8. Gathering data about their employees attitudes, needs and wants on regular basis.
9. Training programs for medical staff.

Training and motivation are available for both medical and non-medical staff, but are much more accessible for medical staff, as medical services are enhanced by adding new ones or developing those already in place. In contrast, changing non-medical services (i.e. medical records, hotels, accommodation, food), are awarded much less significance.

The above results, which are based upon the key of “very important” and “important” criteria, depend on the Likert’s fifth scale. This criterion was applied for all sections in this chapter.

## **2. Marketing Objectives**

For the general level analysis, table 7.9 demonstrates that the most important objectives in Jordanian private sector hospitals in descending order of importance are:

1. Sustaining a current position of introducing highly differentiated services.
2. Satisfying demands/ needs of patients.
3. Satisfying demands needs of other beneficiaries.
4. Formulating and implementing a strategy for customer service.
5. Effectively forecasting demand.
6. Making a hospital unique in its services.
7. Helping medical staff to attain their objectives.

The least critical objective is to penetrate new foreign markets locally and internationally. Other objectives, too, are important in Jordanian private sector hospitals, but with different scores for each objective. The following is a list in descending order of their relative importance in the hospitals studies:

1. Investing in employee skills.
2. Assuming the position of a low-cost leader among hospitals.
3. Gaining profit.
4. Promoting awareness of health issues amongst Jordanians – the reason being that the Ministry of Health (MOH) in Jordan bears the main responsibility of informing the public and conducting promotion campaigns, for instance, on the harmful effects of smoking.

**Table 7.9 The Importance of Marketing Objectives**

Degree of Importance	Very important	Important	Neither important nor unimportant	Low importance	Not important	Mean	S.D
<b>The Marketing Objective</b>	%	%	%	%	%		
Helping medical staff to attain their objectives	24.5	55.9	18.9	0.7	0	4.04	0.68
Satisfying demand (needs) of patients	36.4	51.0	12.6	0	0	4.24	0.66
Satisfying demand needs for other beneficiaries (not patients)	29.4	55.2	14.0	1.4	0	4.13	0.69
Effectively Forecasting demand	17.5	64.3	17.5	0.7	0	3.99	0.62
Promoting awareness of health issues amongst Jordanians	16.1	58.0	23.8	2.1	0	3.88	0.69
Making the hospital unique in its services	41.3	39.9	18.2	0.7	0	4.22	0.76
Formulating and implementing a strategy for customer service	35.0	46.9	16.8	1.4	0	4.15	0.74
Investing in employee skills	30.8	48.3	20.3	0.7	0	4.09	0.73
Penetrating new foreign market (locally and internationally)	33.6	39.2	23.8	3.5	0	4.03	0.85
Assuming the position of the low cost leader among hospitals	26.6	50.3	20.3	2.8	0	4.01	0.76
Sustaining a current position of introducing a high differentiated service	21.0	67.8	10.5	0	0.7	4.08	0.61
Gaining profit	26.6	53.1	17.5	2.8	0	3.99	0.76

### 3. Participants in Strategic Marketing Decisions

For the general level analysis, the respondents were asked about the degree of participation in the hospital to formulate marketing strategies at the external and internal level. The objective was to determine the extent to which there is participation from outside the hospital by people who are aware of the competitive environment and have related experience of strategic marketing decisions (e.g.

external marketing consultants). The objective was also to determine to what extent marketing considerations influence hospital decisions.

**Table 7.10 Participation in Strategic Marketing Decisions**

Degree of the Participant in the Hospital	Very important	Important	Neither important nor unimportant	Low important	Not important	Mean	S.D
<b>Departments/ Persons Participate in Making Marketing Strategy</b>	%	%	%	%	%		
Individual marketing department in the hospital	9.8	20.3	30.8	34.3	4.9	2.96	1.07
Medical committees in the hospital	4.2	26.6	42.7	25.2	1.4	3.07	0.86
Hospital board of trustees	39.9	35.7	11.9	11.2	1.4	4.01	1.10
External marketing consultant	5.6	25.9	48.3	18.9	1.4	3.15	0.84
Internal marketing consultant	9.8	35.0	32.2	21.0	2.1	3.29	0.98
Medical and administrative joint committees in the hospital	8.4	32.9	42.7	16.1	0	3.34	0.85

As shown in table 7.10 the most active participants in marketing strategy decision-making in Jordanian private sector hospitals is the hospital board of trustees, whereas the least active participants are the individual marketing departments. The field survey and interviews conducted made this clear, because most Jordanian private sector hospitals do not boast a marketing department. The other departmental or/and individual participation levels show different scores for each. The following lists them in descending order of relative importance:

1. Internal marketing consultant.
2. Medical and administrative joint committees in the hospital.
3. External marketing consultant.
4. Medical committee in the hospital.

These results were checked with the interview results, which demonstrate that the most active participants in these decisions are the joint committee of physicians, administrator, and the hospital board of trustees.

#### **4. Environmental Data Sources**

The respondents were questioned about the sources of information on the competitive environment to formulate marketing strategies in Jordanian private sector hospitals.



**Table 7.11 Environmental Data Sources**

<b>Degree of Importance</b>	Very important	Important	Neither important nor unimportant	Low important	Not important	Mean	S.D
<b>Competitive Environment Data Sources</b>	%	%	%	%	%		
The data gathered by the hospital own activities through:							
- The hospital own staff and managers	46.9	34.3	16.1	2.8	0	4.25	0.83
- Marketing research	9.8	22.4	27.3	24.5	16.1	3.08	1.08
- Hospital marketing information system	9.1	28.7	29.4	26.6	6.3	2.85	1.22
The ministry of Health reports and statistics	9.1	35.0	45.5	7.7	2.8	3.40	0.87
Managers in other Jordanian hospitals	8.4	23.8	53.8	14.0	0	3.27	0.80
Government reports	7.0	19.6	50.3	23.1	0	3.10	0.84
Medical journals	5.6	2.8	60.1	30.8	0.7	3.07	0.92
Web sites / online data services	8.4	16.8	32.9	39.9	2.1	2.90	0.99
Patients and other beneficiaries	13.3	16.1	23.1	37.1	10.5	2.85	1.21
Financial statements of competitors	5.6	14.7	24.5	37.1	18.2	2.52	1.12
Competitors' advertisement	6.3	10.5	23.1	34.3	25.9	2.37	1.16
Competitive intelligence system	3.5	14.0	18.9	35.0	28.7	2.29	1.13

Table 7.11 shows that the primary sources are the hospital staff and managers. Next in importance are the Jordanian Ministry of Health reports and statistics. The least important sources are medical journals, competitors' advertisements and competitive intelligence systems at the hospitals. The financial statements of competitors and web sites (online data services) are still limited as environmental data sources in Jordanian private sector hospitals. Other sources are critical in Jordanian private sector hospitals with varying scores for each statement in descending order:

1. Marketing research.
2. Hospital marketing information system.
3. Managers in other Jordanian hospitals.
4. Government reports.

These results were cross checked with the interview results which illustrate that all hospitals considered the data sources from the hospital's own staff and managers to be the foremost competitive environmental sources. The interviews' further made evident the fact that there is no active health information system in Jordan to support huge investments in the private health sector and to provide dependable data

necessary to reach prudent decisions on investment, or the extension of health services, especially high-cost elements.

#### 7.4 Components of Service Marketing Mix Strategy

The literature on marketing mix strategy (chapter three) suggests that such a strategy is composed of seven elements: Health service, pricing, distribution, promotion, physical evidence, process, and personal strategies.

##### 7.4.1 Health Service Strategy

The four elements that contribute to this strategy are health service range, developing new health services, customer services, and health services branding. Table 7.12 shows these statements of health service strategy and the number and percentages of levels of importance.

**Table 7.12 Health Service Strategy**

Degree of Importance	Very important	Important	Neither important nor unimportant	Low important	Not important	Mean	S.D
<b>Health Service Strategy</b>	%	%	%	%	%		
Has a distinguished hospital brand name	25.2	45.5	16.1	9.1	4.2	3.78	1.06
Introduces new health services	31.5	46.9	13.3	7.0	1.4	4.00	0.93
Understands customer needs in order to develop new health services	34.3	48.3	11.9	4.9	0.7	4.10	0.85
Offers a considerable (comprehensive) range of health care types (classes)	32.9	58.0	6.3	2.8	0	4.21	0.68
Has a good reputation for services and this becomes very important in our hospital success	33.6	55.9	8.4	1.4	0.7	4.20	0.71
Has medical staff who play a crucial role in building our brand reputation	35.7	50.3	9.8	4.2	0	4.17	0.77
Uses a formal plan for new health services types or programmes development	35.7	46.9	14.7	2.1	0.7	4.15	0.80
Uses customer (patient) service as a central element in our service offering strategy	32.9	51.7	11.9	3.5	0	4.14	0.76
Uses customer (patient) feedback to improve the quality and efficiency of our health service	35.0	46.9	14.0	2.8	1.4	4.13	0.86
Has a good capacity in disaster time	31.5	55.2	9.1	4.2	0	4.14	0.75
Has structured and formalised procedures for new health programme development process	41.3	42.7	11.2	4.9	0	4.20	0.83
Understands our customers (patients) needs thoroughly	37.8	51.7	8.4	1.4	0.7	4.24	0.72
Confidential about our customers (patients) cases	47.6	43.4	6.3	2.1	0.7	4.35	0.75

## **Health Service Range**

Table 7.12 shows that about 91% (very important and important) of Jordanian private sector hospitals offer a considerable range of health care types. The rationale for providing this range of health services is that the hospitals aim to meet the needs of local and foreign patients in their target markets. This result was supported by interviews with the Jordanian private sector hospitals. For instance, a medical manager in one of the larger aforementioned hospitals states: **“We have followed a differentiation strategy, by offering a wide range of services, providing all up-to-date latest medical technologies and providing an extremely high perceived level of care”**.

In an effort to achieve their strategic objectives such as retaining current patients and attracting new ones both locally and internationally, the more successful hospitals nowadays are attempting to expand health services.

## **Developing New Health Services**

Table 7.12 shows that the level of importance of introducing new health services as a competitive tool for hospital growth and continuation was relatively high at 78.40% in both very important and important scales. This result is supported by (Ennew, 1998; Johnson et al, 2000; Fitzsimmons and Fitzsimmons, 2001). This result was supported by interviews with the Jordanian private sector hospitals. For instance, the administrative manager of one of the larger of these states: **“We have developed many of the medical services in our hospital to strengthen on our competition in the Jordanian health market, and to increase satisfaction of Jordanian and Arab patients in our health services”**.

Table 7.12 shows that the level of importance of comprehending customer needs in order to develop new health services was 82.60%. Therefore, Jordanian private sector hospitals rely on customers’/ patients’ needs to develop new health services. This is an important rationale for hospitals to retain their current patients and penetrate new health markets. This result supports the literature (Lovelock and Young, 1984; Gronroos, 1990; Reicheld and Sasser, 1990; Cook et al, 1999; Avlonitis et al, 2001; Van Der Aa and Elfring, 2002).



Table 7.12 demonstrated that the importance level for using a strategic plan for new types of health services was high (82.60%) and the level of agreement for using structured and formalised procedures to develop these new services was 84%. These results provide support for a stream of research that advocates using formal and structured procedures, and for having a formal strategy for developing new services.

Lastly, the use of patients' services as a central element in hospital service strategy recorded an agreement level of 84.6%.

This provides support for the literature that advocates customer service as a strategic component for improvement of health services and to distinguish one hospital from another.

### **Health Service Branding**

Table 7.12 shows that the level of importance for a health care branding strategy by using the skills of medical staff to build their brands was high (86%). This provides strong support for branding literature for the hospital (Sirgy, 1982; Biel, 1992; Aaker, 1997; Malhotra, 1998; Keller, 1998; Austin, 1999; Sigvaw et al, 1999).

The analysis reveals that the level of importance for Jordanian private sector hospitals to possess a distinct hospital brand name was only 70.7%. This relatively low level of importance was supported by findings of the field survey. Not all Jordanian private sector hospitals brand their services through, for example, the name of the hospital itself or even of a well-known doctor or surgeon. The justification or rationale for putting such a strategy to use would be that health services are essentially intangible, despite being highly sophisticated and catering to a specific type of clientele. In other words, 'branding' could provide a perceivable image to what is mainly an insubstantial product – health service.

The level of importance concerning a hospital enjoying the capacity to hold huge numbers of patients in the event of disasters is 86.7%. Both interviews conducted and MOH reports support this result. Due to the low rate of occupancy in several of these hospitals, a large number of patients could be accommodated at any given time. Fortunately, thus far, Jordan has not suffered any serious natural disasters

## Health Customer Service

Table 7.12 shows that the highest level of importance (91%) among patient services was the focus on confidentiality vis-à-vis their customers (patients) cases. This provides support for the literature that advocates confidentiality and privacy in patients' cases which is considered to be one of the most important rights of a patient during his/her stay at the hospital, and following his/ her discharge from hospital (Al-ftlawi, 1997).

The level of importance (under Health Service Strategy) on the point that hospitals understand the needs of their patients thoroughly was 89.5%, whereas the level of importance on using patient feedback to improve service quality was less, and stood at 81.9%.

### 7.4.2 Health Pricing Strategy

Table 7.13 shows health pricing strategy policies and their percentages of levels of importance. This table illustrates that Jordanian private sector hospitals are disparate different kinds of pricing approaches when setting their health service pricing. Table 7.13 clearly indicates that there is a high level of importance (86%) among hospitals on formulating a pricing strategy based on the rules and regulations set by the MOH.

**Table 7.13 Health Pricing Strategy**

Degree of Importance	Very important	Important	Neither important nor unimportant	Low important	Not important	Mean	S.D
<b>Health Pricing Strategy</b>	%	%	%	%	%		
The private hospital association and physicians association requirements	41.3	35.0	20.3	3.5	0	4.14	0.86
Pricing strategy according to demand	26.6	44.8	22.4	6.3	0	3.92	0.74
The different kinds of costs which our hospital incurs	35.7	39.9	18.9	4.9	0.7	4.05	0.90
A predetermined rate of return that our hospital is looking for	17.5	58.7	21.7	2.1	0	3.92	0.69
What customers (patients) are willing to pay	18.2	42.0	23.8	16.1	0	3.62	0.96
The services which we introduce to our customers (patients)	18.9	52.4	21.7	7.0	0	3.83	0.81
Pricing strategy according to competition	29.4	50.3	19.6	0.7	0	4.08	0.72
The ministry of health regulations	30.1	55.9	11.9	2.1	0	4.14	0.70
Price discrimination according to market segments which we serve	28.7	46.2	20.3	4.9	0	3.99	0.83

The finance manager in one of the larger hospitals disclosed that:

**“The Jordanian MOH plays an active role in determining the policies of some medical procedures like X-ray. C.T Scan”.**

This conclusion supported was also by a member of staff/ Jordanian Ministry of Health.

The next level of importance was on pricing strategy based on competition (79.7%). Interviews with managers in Jordanian private hospitals have revealed that **“The rationale for using this strategy is that there is strong competition between hospitals in the Jordanian health market”**. This result provides support for the literature that advocates this pricing strategy (Payne, 1983; Channon, 1986; Kurtz and Clow, 1992; Zeithaml and Bitner, 1992; Palmer, 1994).

For instance, the finance manager in one of the biggest hospitals in Jordan admitted: **“Because of strong competition and a low occupancy rate, most of the time we depend on the competition criteria in the health market to set our health service pricing”**.

The administrative manager of a small hospital states:

**“Pricing of health services is a sophisticated issue in which many factors play an important role. The most critical thing is that we are dealing with special kinds of customers –patients. We therefore have to be rational when setting prices for our health services, especially the high cost ones”**.

Pricing based on the recommendations and requirements of the Private Hospital Association and Physicians’ Union has a fairly high (76.3%) level of importance.

Table 7.13 shows that the level of importance on using the approach of a predetermined rate of return sought by hospitals in setting their prices is relatively high (76.2%).

Pricing based on the varying kinds of costs that hospitals incur has a fairly high (75.6%) level of importance. This policy is very simple for hospitals to pursue and all the Jordanian private sector hospitals attempt to cover their entire costs when formulating establishment of pricing strategies. This result provides support to the



literature of pricing based on costs (Beard and Hoyle, 1976; Zeithaml et al, 1985; Palmer, 1994; Lovelock, 1996; Meidan, 1996).

Table 7.13 demonstrates that the level of importance of employing the policy of price discrimination according to market segments which the hospitals serves was 74.9%. This result provides support for the literature that advocates price discrimination (Avlonitis et al, 2005).

The general manager of a small hospital conceded:

**“We follow a policy of price discrimination usually when a package of offers is made, especially to big companies and universities”.**

The lowest level of importance (60.2%) is on pricing according to what the patients are willing to pay.

### **7.4.3 Health Service Distribution**

In table 7.14 various kinds of health service distribution strategies are referred to with percentages suggesting the levels of importance for each. The highest level of importance (81.9%) is for a round-the-clock availability of basic health services in Jordanian private sector hospitals. The justification for such a demand is that illness is often unpredictable and a sudden medical emergency could require immediate attention. Thus, a 24-hour emergency system with the availability of specialists (on call) seems to be a highly sought after service.

The next level of importance was on convenient opening hours for out patient clinics at (62.3%).

The analysis reflects that there was a the highest level of disagreement (90%) on hospitals to open branches for easy delivery of their services to different geographical areas of the kingdom. The field survey and MOH licences report support this statement. Just one hospital has a branch, and even that is considered more of a transfer point than a proper branch to the headquarters for the more sophisticated and critical cases.

**Table 7.14 Health Distribution Strategy**

Degree of Importance	Very important	Important	Neither important nor unimportant	Low important	Not important	Mean	S.D
Health Distribution Strategy	%	%	%	%	%		
Telemedicine to deliver our health consultation	11.9	21.0	26.6	36.4	4.2	3.00	1.11
Electronic distribution channels such as e-health to distribute our health education to our society	7.7	25.9	20.3	35.7	10.5	2.85	1.15
Mobile clinics to access our health services to rural areas	4.2	22.4	18.9	32.9	21.7	2.55	1.18
Our branches to access our services to different geographical areas	1.1	7.7	1.2	66.9	23.1	2.21	1.96
Flowcharts or diagrams which describe the steps and activities required to deliver our health services to customers	10.5	17.5	35.7	23.1	13.3	2.89	1.16
A distinctive distribution capabilities e.g. the ability to open new branch of the hospital	9.8	27.3	25.9	23.1	14.0	2.96	1.21
Convenient opening hours in our out patient clinics at the hospital	21.0	41.3	22.4	14.0	1.4	3.66	1.01
Hourly service availability	42.0	39.9	11.9	4.9	1.4	4.16	0.92

Table 7.14 indicates that the level of disagreement on using mobile clinics for easier expansion of health services into rural areas was (54.6%), while the importance level stood at only 26.6%. Mobile clinics would probably be useful because they enable hospitals to access patients, and promote their services, in a thus far untapped rural market. Another advantage is that such mobile clinics could literally become vehicles to target patients in rural areas as customers of the future, and also develop relationships with various strata of society in Jordan.

The analysis displayed a low level of importance (32.9%) for the use of telemedicine to deliver health services. An electronic distribution channel such as e-health, to educate society, had a low importance level (33.6%).

Electronic distribution in Jordanian private sector hospitals is mostly made to promote their hospitals and services. Some hospitals do use e-distribution methods and telemedicine through which famous international and research hospitals are contacted with regard to critical cases and also for exchange of consultation.

Table 7.14 indicates that the level of importance of distinctive distribution capabilities (the ability to open new branches of hospitals) was 37.1%.

#### 7.4.4 Health Promotion Strategy

Table 7.15 focuses on the elements of promotion strategies and related levels of importance.

**Table 7.15 Health Promotion Strategy**

Degree of Importance	Very important	Important	Neither important nor unimportant	Low important	Not important	Mean	S.D
<b>Health Promotion Strategy</b>	%	%	%	%	%		
Advertises in media such as television, newspapers, magazines...etc	27.3	49.7	18.9	4.2	0	4.00	0.80
Encourages our customer/ patient to use word of mouth communication to recommended our hospital to other patients	40.6	46.2	9.1	3.5	0.7	4.22	0.81
Publicity and public relation to enhance our image	31.5	49.0	14.7	3.5	1.4	4.06	0.85
Promotes sales such as , gifts, discounts, free medical days...etc	27.3	52.4	13.3	4.9	2.1	3.98	0.89
Uses direct marketing methods such as e-health , direct mail ,the internet	29.4	44.8	14.7	8.4	2.8	3.90	1.01
Sponsors special events such as sports charities, seminars...etc	39.9	37.1	16.8	5.6	0.7	4.10	0.92

Table 7.15 shows that the highest level of importance is (86.8%) to encourage customers (patients) to communicate their recommendation of health services to other customers by word of mouth. This method is followed by the use of public relations and publicity to enhance the hospital's image with a score of 80.5%.

As compared to other services, health services are characterized by certain unique elements that make it imperative for hospital staff (medical and administrative) to themselves adopt the role of publicity agents and promote their services. They are in an especially favourable position to do so since they often deal with sensitive psychological situations in their interactions with patients.

These results provide support for the literature that advocates using personal selling, personal customer contact, public relations, and publicity, for promoting services (Booms and Bitner, 1981; Mack and Burns, 1988; Bowers and Powers, 1991).



This finding is supported by interviews. The public relations officer of a medium-sized hospital revealed his strategy thus:

**“The main elements of our hospital promotion strategy are building a strong relationship with our patients, and using our staff as agents of our public relations to improve and enhance our image”.**

Table 7.15 demonstrates that sales promotion through; gifts, discounts, and free medical days has relatively high support 79.7%, while the use of sponsoring special events such as sports, charities, seminars, enjoy an importance level of 77%.

Using the direct marketing method is relatively high with a 74.2% level of importance. This is a growing area of promotion in Jordan, especially via e-health and direct mail.

Advertisements through the media such as television, magazines, newspapers, have a 77% level of importance. This view has been supported by interviews and hospital visits. However, television advertising is excluded because the government, represented by the MOH, does not allow it.

#### **7.4.5 Physical Evidence Strategy**

Table 7.16 shows the types of physical evidence strategy and the levels of importance.

The analysis strongly indicates that the highest level of importance was on the cleanliness and appearance of hospitals 95.8%. This result proves that the tangible elements in service quality can be used by hospitals to minimise effects of the high degree of intangibility in present day health services through an improved physical environment. Accessibility in terms of location has a high level of importance at 94.4%. Analysis also shows the same degree of agreement relating to the décor and atmosphere within their hospitals 94.4%.

Table 7.16 makes evident that the levels of importance for the other elements of physical evidence all enjoy a high range of support from 90.3% to 92.4%.

**Table 7.16 Physical Evidence Strategy**

Degree of Importance	Very important	Important	Neither important nor unimportant	Low important	Not important	Mean	S.D
Physical Evidence Strategy	%	%	%	%	%		
comfortable environment with good directional signs	56.6	34.3	7.0	2.1	0	4.45	0.72
The décor and atmosphere of our hospital	40.6	53.8	4.9	0.7	0	4.34	0.61
Confortable physical environment furnishing, colours, elevators, guides etc.	46.9	45.5	7.0	0.7	0	4.38	0.65
Enough parking for our patients and visitors	47.6	44.1	6.3	1.4	0.7	4.36	0.73
Designed facilities to achieve specific marketing image objectives	42.7	47.6	7.0	2.1	0.7	4.29	0.75
Up-to-date and well-maintained facilities and equipment	50.3	41.3	7.7	0.7	0	4.41	0.66
The cleanliness and appearance of our hospital facilities	55.2	40.6	2.8	0.7	0.7	4.49	.66
Accessibility in terms of location	55.2	39.2	3.5	2.1	0	4.48	0.67

Analysis indicates that all of the physical evidence strategy statements are considered critical. In general the analysis tends to show some support for the literature that advocates the use of physical evidence in a marketing strategy (Kotler, 1973; Levitt, 1981; Shostack, 1984; Bitner, 1992; Stuart and Tax, 1997; Kasper, 1999; Lovelock, 2001; Palmer, 2001; Karl, 2003).

#### 7.4.6 Health Process Strategy

Table 7.17 illustrates the levels of importance on health process strategies.

The highest level of importance 96.6% between Jordanian private sector hospitals is to avoid delays in providing their health services and to simplify procedures. There are several reasons for this. Firstly most patients do not tolerate delays and secondly, the Jordanian health market is highly competitive. Thus, it is extremely important to maintain a good image in the eyes of patients and their families by dealing with cases in a speedy and efficient manner.

The next highest level of importance was for using up-to-date medical equipment and technology to deliver health services to patients 91.6%. Most of the Jordanian hospitals have invested in both updated diagnostic and therapeutic technology

systems. During the research survey it was noticed that a majority of Jordanian private sector hospitals were keeping abreast of the international standards in medical technology.

**Table 7.17 Health Process Strategy**

Degree of Importance	Very important	important	Neither important nor unimportant	Low important	Not important	Mean	S.D
Process Strategy	%	%	%	%	%		
No delays in providing our health services and simple procedures	49.0	47.6	3.5	0	0	4.45	0.57
Updated medical equipments	34.3	57.3	8.4	0	0	4.26	0.60
Customer (patient) feedback to improve health services	47.6	40.6	10.5	1.4	0	4.34	0.72
Confidentiality and privacy about our patient cases	50.3	42.7	6.3	0	0.7	4.42	0.68
Privacy during treatment	55.9	38.5	2.8	2.8	0	4.48	0.69
Services that are provided at appointed time	46.2	46.9	6.3	0.7	0	4.38	0.64
A short waiting time of not more than one hour	48.3	44.8	6.3	0.7	0	4.41	0.64
Dignity and respect when treating our patients	46.9	46.2	5.6	1.4	0	4.38	0.66
Thorough explanation of medical conditions to patients	55.2	38.5	3.5	2.8	0	4.46	0.70
Technology in delivery service process	47.6	42.0	8.4	2.1	0	4.35	0.72

The analysis plainly clarifies that all process strategies were supported by high importance levels ranging from 88.2% to 96.6%. This reflects an understanding of the importance of developing customer friendly treatment for patients during their visits to or stays in the hospitals. Jordanian private sector hospitals are trying to use health process as an instrument tool to attract patients. In general, the analysis tends to show some support for the literature that advocates this process in the marketing strategy.

#### 7.4.7 Personal Strategy

Table 7.18 gives an indication of the levels of importance for the various kinds of personal strategy.



The use of training and development programmes to improve employee efficiency and performance feature at the top of the list with an importance level of 97.2%. This indicates that most hospitals nowadays concentrate on continuous improvement of staff capabilities to maintain a competitive edge over other hospitals. The second highest level of importance 95.8% was on the appearance of employees. This indicates that hospitals have recognised the significance of their staff's appearance due to the high degree of contact between patients and health service providers.

**Table 7.18 Health Personal Strategy**

Degree of Importance	Very important	Important	Neither important nor unimportant	Low important	Not important	Mean	S.D
	%	%	%	%	%		
<b>Health Personal Strategy</b>	%	%	%	%	%		
The appearance of our staff	62.2	33.6	3.5	0.7	0	4.57	0.60
Training and development programmes to improve our employees capabilities to perform their service role	46.2	51.0	2.8	0	0	4.43	0.55
Cash reward systems to improve our employees	43.4	51.0	2.8	1.4	1.4	4.34	0.73
Non cash reward systems to improve our employees such as prizes and competition	44.1	42.7	11.9	0.7	0.7	4.29	0.76
Data gathering about our employees attitudes needs and wants regularly	37.8	49.7	9.1	2.1	1.4	4.20	0.80
Continuous development of our employees skills and abilities	35.0	50.3	11.9	2.8	0	4.17	0.74
The neatness and professionalism of doctors/staff	37.8	53.8	8.4	0	0	4.29	0.61
The competence of doctors/staff	42.7	48.3	6.3	2.8	0	4.31	0.71

In general, it seems clear that Jordanian private sector hospitals are becoming more attentive to personal strategy.

The analysis provides support for the literature that advocates the role of personal strategy in marketing (Booms and Bitner, 1981; Cowell, 1984; Judd, 1987; Ennew and Watkins, 1998; Kasper et al, 1999; Lovelock, 2001).

### **7.5 Influence of Competitive Environment Factors on Marketing Mix Strategy**

This section includes section four of the research questionnaire and some questions from the interviews, designed to determine the influence of competitive environment factors on marketing mix strategy in Jordanian private sector hospitals.

### 7.5.1 Government Regulations

For the general level analysis, respondents were asked about the influence of government regulations and the extent to which these factors influence marketing mix strategy components in Jordanian private sector hospitals.

**Table 7.19 Government Regulation**

Government Regulation	Very strong influence	Strong influence	Neither influence nor not influence	Low influence	Not influence	Mean	S.D
	%	%	%	%	%		
The policy of privatisation	24.5	29.4	22.4	21.7	1.4	3.54	1.13
The policy for health insurance for Jordanians	23.1	51.7	17.5	4.2	3.5	3.87	0.94
Governmental decisions related to health sector .e.g. finance and administration	26.6	46.2	22.4	4.2	0.7	3.94	0.85
Governmental control by the Ministry of Health	27.3	53.8	14.0	4.9	0	4.03	0.78
Ministry of Health's decision related to prohibited hospital advertisements	26.6	53.1	17.5	2.8	0	4.03	0.75
Tax ratio level on the imported materials (e.g. medical equipment)	26.6	53.8	16.8	2.8	0	4.04	0.74
Governmental hospitals health services prices	47.6	42.0	8.4	2.1	0	4.35	0.72

Table 7.19 confirms that the most influential factors of government regulations affecting marketing mix strategy components in Jordanian private hospitals concern governmental hospitals health service prices. The level of influence was 89.6%.

An interview with an administrative manager in the Jordanian Ministry of Health yielded the comment: **“The Jordanian MOH hospitals provide the health services for all Jordanian people in minimum price setting”**.

The second strongest influence factor (81.1%) was government control through the Jordanian Ministry of Health. It must be noted that the privatisation factor was not taken into consideration, simply because the process of privatisation has not yet been initiated in the Jordanian health market.

## 7.5.2 Competitors

Table 7.20 shows that the most influential competitor factor in marketing mix strategy is the size and magnitude of local competition in the Jordanian health market. The level of influence stands at 88.2% due to the considerable number of hospitals and medical bodies providing health services to Jordanian and non-Jordanians. However, the number of Jordanian and Arab patients seems small in comparison with huge investments in the health sector. This conclusion is supported by the initial statement in this section i.e. the size of the Jordanian health market (84%).

**Table 7.20 Competitors**

Competitor	Very strong influence	Strong influence	Neither influence nor not influence	Low influence	Not influence	Mean	S.D
	%	%	%	%	%		
Size of Jordanian health market	35.7	48.3	14.7	1.4	0	4.18	0.53
The competitors' old experience in the Jordanian health market	28.7	56.6	11.2	3.5	0	4.11	0.55
Size and magnitude of local competition (number of local competitors)	49.0	39.2	9.1	1.4	1.4	4.15	0.52
External competition –external investment in the health sector (non Jordanian hospitals)	35.7	18.2	4.9	21.6	19.6	3.54	1.53
External competition –treatment outside Jordan, USA	41.3	46.9	9.1	1.4	0.7	4.10	0.80
Studying why some customers choose to use our competitors	35.0	43.4	18.9	2.8	0	4.09	0.71
Unexpected additional marketing efforts done by local competitors	30.8	55.2	10.5	3.5	0	4.13	0.77

The second most influential factor (85.3%) was the competitors' past experience within the Jordanian health market. Other factors of competition were also supported with a high level of influence ranging between 78.4% and 86%.

External competition i.e. non-Jordanian hospitals, was the sole factor that was clearly not of significant influence (53.9%).



**Table 7.21 Competitor Analysis**

Competitor	Very strong influence	Strong influence	Neither influence nor not influence	Low influence	Not influence	Mean	S.D
	%	%	%	%	%		
Identifying hospital's local competitors	34.3	47.1	14.0	2.8	1.4	4.33	0.81
Identifying hospital's external competitor	38.5	45.5	14.7	0.7	0.7	4.13	0.73
Determining competitor's objectives	30.1	49.7	18.9	1.4	0	4.10	0.85
Determining competitor's strategies	32.2	46.2	19.6	1.4	0.7	4.20	0.77
Assessing competitor's strengths	32.9	47.6	16.1	2.8	0.7	4.08	0.74
Assessing competitor's weaknesses	28.7	56.6	11.9	2.8	0	4.09	0.81
Estimating competitor's reactions	28.7	56.6	11.9	2.8	0	4.11	0.71

As shown in table 7.21, the highest-level agreement is that of assessing competitor's weaknesses and estimating competitor's reactions at the same level of agreements, which was 85.3%. This result indicates that the competitors have placed a strong emphasis on analysing the weaknesses and reactions of their competitors in the Jordanian private sector hospitals market. The above result is followed by the hospital identifying the external competitors with 84% whilst determining competitor's strategies recorded the least level of agreement at 78.4%.

### 7.5.3 Suppliers

Table 7.22 reveals the levels of influence of supplier/ technology on the marketing mix strategy components.

The most influential supplier factor is the up-to-date methods for the diagnosis and treatment of diseases. The level of influence was 90.2%.

Suppliers at hospitals were also highly rated. The percentage of agreement from respondents was 89.5%. This indicates how internal suppliers influence Jordanian private sector hospitals when they provide them with the requisite medical equipment whether reusable, disposable or new medical technology.

The other highest level of influence was hospitals supplier easily replaceable by others (86.0%) agreement.

**Table 7.22 Suppliers**

Supplier	Very strong influence	Strong influence	Neither influence nor not influence	Low influence	Not influence	Mean	S.D
	%	%	%	%	%		
The quality of advanced medical equipments not yet available in Jordan's health market	39.2	49.7	10.5	0	0.7	4.27	0.70
The quality of advanced medical equipments availability in Jordan's health market	29.4	55.9	13.3	1.4	0	4.13	0.68
Updated methods of diagnosing and treating diseases	34.3	55.9	6.3	2.1	1.4	4.20	0.76
Availability of maintenance of medical equipments	28.0	49.7	17.5	4.9	0	4.01	0.81
Effect of telemedicine services with other Jordanian hospitals	32.9	43.4	18.9	4.9	0	4.04	0.85
New models/ methods of care	28.7	55.2	14.0	2.1	0	4.10	0.71
hospital's external suppliers	35.7	46.2	12.6	5.6	0	4.12	0.83
hospital's internal suppliers	32.2	57.3	7.7	2.8	0	4.19	0.69
Our suppliers are very important to our brand	32.9	49.7	14.0	2.8	0.7	4.11	0.80
Our suppliers are very important to our future profitability	38.5	39.2	21.0	1.4	0	4.15	0.80
Our suppliers are strongly dependent on us	33.6	44.8	19.6	2.1	0	4.10	0.78
Our suppliers are technological market leaders in our components /material which we need	36.4	42.0	16.8	4.9	0	4.10	0.85
Our suppliers have a great strategic importance for our technological development	32.2	51.7	11.9	4.2	0	4.12	0.77
Our suppliers have a wide rang of different items	32.2	46.2	19.6	2.1	0	4.08	0.77
We can easily replace our suppliers with other comparative suppliers	35.7	50.3	10.5	3.5	0	4.18	0.76
Our relationship with those suppliers is mainly based on their price offer	41.3	39.9	16.1	2.1	0.7	4.19	0.83

The respondents in this table favourably rated the level of relationship between the supplier/ technology and the marketing mix strategy components. Here the agreement on influence rated from 76.3% (effect of telemedicine services with other Jordanian hospitals) to 90.2%.

#### 7.5.4 Customers

Table 7.23 shows the most influential factors of the customer/ patients on marketing mix strategy components.

**Table 7.23 Customers**

Customers	Very strong influence	Strong influence	Neither influence nor not influence	Low influence	Not influence	Mean	S.D
	%	%	%	%	%		
Hospital's internal customers	53.1	40.6	6.3	0	0	4.47	0.61
Hospital's external customers	36.4	51.7	9.1	2.8	0	4.22	0.72
Customers' needs and wants	42.0	50.3	7.7	0	0	4.34	0.62
Increasing health awareness for Jordanian people	39.2	46.2	11.9	2.1	0.7	4.21	0.79
Customer's preferences and finding better ways to meet customer's needs and wants.	37.8	54.5	7.7	0	0	4.30	0.61
The Jordanian customer's confidence rate in our health services	41.3	48.3	9.8	0	0	4.33	0.66
Income average for uninsured Jordanian people	43.4	46.9	8.4	1.4	0	4.32	0.69
The non Jordanian customer's confidence rate in our health services	35.0	57.3	4.9	2.8	0	4.24	0.67
Customer's attitude toward foreign hospitals (e.g. American hospitals)	40.6	46.9	12.6	0	0	4.28	0.68
Customers' protection legislation	44.8	39.2	9.1	5.6	1.4	4.20	0.92
Customers' spending in health check-ups (e.g. Precaution tests)	44.1	44.1	8.4	2.8	0.7	4.28	0.79

A hospital's internal Jordanian customer was considered the most influential in the marketing mix strategy, with the level of influence 93.7%. This is probably because Jordanians enjoy a wide range of options between health providers, such as the MOH, RMS, university hospitals, and Jordanian private sector hospitals.

The next most influential factors are three items at the same level of agreement (92.3%) from research respondents: Customers' needs, customers' preferences and investigating better ways to satisfy them, and the confidence rate of non-Jordanian customers in our health services.

Table 7.23 demonstrates that the income average for uninsured Jordanian people is influential at 90.3%. All of these factors bear influence as shown in the table.

### 7.5.5 Third Party Payers

Table 7.24 shows the components related to third party payers and their levels of agreement of influence on the marketing mix strategy.



**Table 7.24 Third Party Payers**

Third Party Payers	Very strong influence	Strong influence	Neither influence nor not influence	Low influence	Not influence	Mean	S.D
	%	%	%	%	%		
Health insurance companies in Jordan	51.0	42.0	4.2	2.1	0.7	4.41	0.73
Third party administrators	31.5	53.8	12.6	1.4	0.7	4.21	0.67
Self insured companies and associations	43.4	47.6	7.7	0.7	0.7	4.36	0.71
Size of Jordanian people who are insured by these companies	37.1	49.7	9.1	4.2	0	4.20	0.77
Health insurance companies regulations, legislations	41.3	46.3	7.0	4.2	1.4	4.22	0.86
Health insurance companies requirements	35.0	49.7	11.9	3.5	0	4.16	0.77
Specify the ceiling on medication amount which insurance companies paid	40.6	47.6	9.1	1.4	1.4	4.24	0.79
Health insurance companies strategies	32.9	57.3	7.7	2.1	0	4.12	0.76
Employee class (the position in the company ladder)	44.8	44.1	4.9	4.2	2.1	4.32	0.71

As displayed in the above table the most influential of the third party payers' factors on marketing mix strategy components is the health insurance companies in Jordan (93%). The next highest level of influence was the self-insured companies and associations at 91%.

As shown in the percentage table, all insurance companies influence the marketing mix strategy in Jordanian private sector hospitals.

The factor representing least influence (84.7%) health insurance companies requirements.

### 7.5.6 Performance Measurement Criteria

Table 7.25 reveals that the bed occupancy rate is the most significant factor occurring in the Jordanian private sector hospitals when they measure their performance, with a percentage of 91.6%. Also inpatient bed turnover from market share is a highly important factor with a percentage of 88.9. The least important factor is the hospitals' responsibility for medical negligence and emergency departments' visits with percentages of 14.7% and 20.3% respectively.

**Table 7.25 Performance Measurement Criteria**

Performance Measurement Criteria	Very Important	Important	Neither important nor unimportant	Not important	Very Not Important	Mean	S.D
	%	%	%	%	%		
Return of investment	54.1	25.9	16.1	3.5	0	4.24	0.71
Hospital overall profitability	51.0	30.1	17.5	1.4	0	4.20	0.80
Hospital revenue	61.1	19.6	17.5	1.4	0	4.06	0.70
Mortality rate	43.3	24.5	24.5	7.0	0.7	3.73	0.81
Infection rate	59.0	20.7	17.5	2.1	0.7	4.03	0.75
Clinical outcome	20.1	61.1	16.8	2.1	0	4.07	0.76
Medical negligence responsibilities	14.0	0.7	42.0	16.8	20.4	2.71	0.83
Patients quality of life	50.3	20.4	25.9	3.5	0	3.96	0.72
Technological sophistication	69.1	10.7	16.1	3.5	0.7	4.06	0.80
Waiting time	49.7	28.6	18.2	2.8	0.7	4.00	0.76
Patient loyalty to our hospital	70	0.7	22.4	6.3	0.7	3.97	0.92
Patient/customer satisfaction	50.3	21.4	24.5	2.1	1.4	4.01	0.84
Attracting anew patients within a certain period time	53.8	19.7	25.2	1.4	0	4.08	0.81
Length of stay	50.3	22.4	25.9	0	1.4	3.76	0.88
Occupancy rate	79.8	11.8	7.0	1.4	0	4.29	0.66
Inpatients bed turnover	50.3	38.6	9.8	1.4	0	4.05	0.79
Surgical operation	45.5	40.6	11.9	1.4	0.7	4.24	0.74
Emergency department visit	9.8	10.5	46.2	13.3	20.3	2.94	0.89
Out patient clinic visits	34.3	25.1	34.3	3.5	2.8	3.76	0.90

The measurement criteria of importance in Jordanian private sector hospitals studied have each earned separate scores and are listed as follows in descending order:

1. Occupancy rate.
2. Inpatients bed turnover.
3. Surgical operation.
4. Clinical outcome.
5. Hospital overall profitability.
6. Hospital revenue.
7. Return of investment.

8. Technological sophistication.
9. Infection rate.
10. Waiting time.
11. Attracting new patients within a certain period time.
12. Length of stay.
13. Patient/customer satisfaction.
14. Patients' quality of life.
15. Patient loyalty to our hospital.
16. Mortality rate.
17. Out patient clinic visits.
18. Emergency department visit.
19. Medical negligence responsibilities.

## **7.6 Summary**

This chapter introduced the descriptive data analysis for the demographic factors in the research instrument after the process of data collection. Generally, this chapter provides a contribution in describing the relationship between the sample and its population, describing such a relationship in terms of characteristics (i.e. age, education, etc...) that are common to both the sample and the population. The descriptive analysis with simple statistical indicators as the mean, and standard deviation, for example, provides insight into the respondents' perceptions toward marketing mix strategy components, competitive environment factors, hospital performance measurements and other dimensions in their hospitals. Accordingly, the first section commenced by illustrating and describing the demographic variables in frequency tables using SPSS to illustrate the basic statistical relationships. Furthermore, this chapter began to introduce the basic statistical analysis of the research dimensions.



## **Chapter Eight**

### **Data Analysis**

#### **8.1 Introduction**

The previous chapter presented descriptive statistics of the demographic characteristics of the research respondents and summarized information about the main variables of the research. However, the objective of this chapter is to provide a discussion of the hypothesis testing concerning the competitive environment factors and the Marketing Mix Strategy (MMS) using multiple regression techniques. This chapter begins with an analysis of the basic assumptions of the regression technique including the test of normality, linearity, and homoscedasticity, followed by an assessment of multi-collinearity. Further, the results of regression models based on both the hypothesized measures, which emerged from factor analysis, are discussed in the same chapter. Finally, the chapter presents a discussion of the performance measurement criteria of Jordanian private sector hospitals.

#### **8.2 Testing the Assumption of Multiple Regression**

Multiple regression analysis is a statistical technique that can be used to analyse the relationship between a single dependent variable and several independent (explanatory) variables. The objective of multiple regression analysis is to use the independent variables to predict the single dependent value selected by the researcher (Hair et al, 1998).

The variables in this research have been classified as both dependent and independent variables demonstrating causal relationships between a set of dependent and independent variables. In such relationships, Marketing Mix Strategy is examined as a major dependent variable influenced by five main independent variables: government regulations, competitors, suppliers, customers, and third party payers. The Marketing Mix Strategy components are acting additionally as an independent variable leading to hospital performance measurement criteria.

Moreover, the assumptions underlying multiple regression analysis apply to both dependent and independent variables and to the relationship as a whole (Hair et al, 1998). In multiple regression once the variate has been derived, it acts collectively in predicting the dependent variable. This necessitates assessing the assumptions not only for individual variables but also for the variate itself (Hair et al, 1998). Moreover, the assumptions of regression analysis need to be examined in order to check whether errors of prediction are caused by data characteristics not accommodated by the regression model or by the absence of a true relationship among the variables (Hair, 1998). As such, there are three basic assumptions defined as follows: the test of normality, linearity, and homoscedasticity. However, though it might often be expected these assumptions practically, the data will not perfectly and fully satisfy all these basic assumptions especially in the case of data collected about behavioral constructs like the ones in this study. Nevertheless, Hair et al (1998) assert that such assumptions can still be considered satisfied as long as the data do not significantly violate these assumptions.

### **8.2.1 Normality**

Multiple regression assumes that variables have normal distributions. Non-normally distributed variables (highly skewed or kurtotic variables, or variables with substantial outliers) can distort relationships and significance tests. There are several pieces of information that are beneficial to the researcher in testing this assumption: visual inspection of data plots, skew, kurtosis, and P-P plots, which afford researchers information about normality, as well as Kolmogorov-Smirnov tests, which provide inferential statistics on normality. Outliers can be identified either through visual inspection of histograms or frequency distributions, or by converting data to z-scores.

Bivariate/multivariate data cleaning can also be critical in multiple regression (Tabachnick and Fidell, 2001). Most regression or multivariate statistics texts (e.g., Pedhazur, 1997; Tabachnick and Fidell, 2001) discuss the examination of standardized or studentized residuals, or indices of leverage. The removal of univariate and bivariate outliers can reduce the probability of Type I and Type II errors and improve accuracy of estimates.

Outlier (univariate or bivariate) removal is straightforward in most statistical software. However, it is not always desirable to remove outliers. In this case, transformations (e.g., square root, log, or inverse) can improve normality but complicate the interpretation of the results and should be used deliberately and in an informed manner. A full treatment of transformations is beyond the scope of this research, but is discussed in many popular statistical textbooks (Hair et al, 1998).

### **8.2.2 Linearity**

Standard multiple regression can only accurately estimate the relationship between dependent and independent variables if the relationships are linear in nature. Because there are many instances in social sciences in which nonlinear relationships occur, it is essential to examine such relationship for nonlinearity. If the actual relationship between independent variables ( $X$ 's) and the dependent variable ( $Y$ ) is not linear as is being assumed, the results of the regression analysis will underestimate the true relationship. This underestimation carries two risks: increased chance of a Type II error for that independent variable ( $X$ ) and, in the case of multiple regression, an increased risk of Type I errors (overestimation) for other independent variables ( $X$ 's) that share variance with that independent variable ( $X$ ) (Hair et al, 1998).

Authors such as Cohen and Cohen (1983), Berry and Feldman (1985) and Pedhazur (1997) suggest three primary ways to detect nonlinearity. The first method is to use theory or previous research to inform current analyses. However, because many prior researchers have probably overlooked the possibility of nonlinear relationships, this method is not foolproof. A preferable method of detection is to examine residual plots of the standardized residuals as a function of standardized predicted values, readily available in most statistical software.

The third method is to routinely run regression analyses that incorporate curvilinear components (squared and cubic terms; Goldfeld and Quandt, 1976) or use the nonlinear regression option available in many statistical packages. It is crucial that the nonlinear aspects of the relationship be accounted for in order to best assess the relationship between variables.



### 8.2.3 Homoscedasticity

Homoscedasticity means that the variance of errors is the same across all levels of the independent variable (X). When the variance of errors differs at separate values of the independent variable (X), heteroscedasticity is indicated. According to Berry and Feldman (1985), slight heteroscedasticity has little effect on significance tests; however, when heteroscedasticity is marked, it can lead to serious distortion of findings and seriously weaken the analysis, thus increasing the possibility of a Type I error.

Such assumption can be checked by visual examination of a plot of the standardized residuals (the errors) by the regression standardized predicted value. Most modern statistical packages include this as an option.

Ideally, residuals are randomly scattered around 0 (the horizontal line), providing a relatively even distribution. Heteroscedasticity is indicated when the residuals are not evenly scattered around the line. Heteroscedasticity can take many forms, such as a bow-tie or fan shape. When the plot of residuals appears to deviate substantially from normal, more formal tests for heteroscedasticity should be performed. Possible tests for this are the Goldfeld-Quandt test wherein the error term either decreases or increases consistently as the value of the dependent variable Y increases as shown in the fan-shaped plot, or the Glejser tests for heteroscedasticity when the error term has small variances at central observations and larger variance at the extremes of the observations as in the bow tie-shaped plot (Berry & Feldman, 1985). In cases where skew is present in the independent variables (X's), transformation of variables can reduce the heteroscedasticity.

### 8.2.4 Multicollinearity

Multicollinearity is the intercorrelation of independent variables.  $R^2$ 's near 1 violate the assumption of no perfect collinearity, while high  $R^2$ 's increase the standard error of the beta coefficients and make assessment of the unique role of each independent variable difficult or impossible. While simple correlations indicate something about multicollinearity, the preferred method of assessing multicollinearity is to regress each independent variable on all the other independent variables in the equation. Inspection of the correlation matrix reveals only bivariate multicollinearity, with the

typical criterion being bivariate correlations  $> .80$ . To assess multivariate multicollinearity, one uses tolerance or VIF, which builds in the regressing of each independent on all the others. Even when multicollinearity is present, note that estimates of the importance of other variables in the equation (variables which are not collinear with others) are not affected (Hair et al, 1998).

### **8.3 Multiple Regression Analysis (MRA) - Competitive Environment**

This section underlines the influence of the competitive environment on the marketing mix strategy in general and of the components of the marketing mix strategy. The deliberations stem from the third objective of the research, which is *“to determine the influences of the competitive environment factors on the marketing mix strategy components”* and evolve around the main hypothesis which is that *“The competitive environment factors have a positive and significant influence on marketing mix strategy components”*.

Multiple regression analysis, included as part of the Statistical Package for Social Science (SPSS) version 12.0, was conducted in order to test the research hypotheses. Multiple regression analysis identifies how much of the variation in the dependent or outcome variable will be explained when several independent variables are theorized to simultaneously influence it. Hence, a multiple regression analysis is conducted by which the independent (predictor) variables are jointly regressed against the dependent (outcome) variable, in an effort designed to explain the variance in it. The individual correlations are collapsed into what is termed multiple regression or multiple correlation  $R_{y,X_1,X_2,\dots,X_K}$ . The square of Multiple correlation represents the amount of variation in the dependent variable explained by the predictors. When the R square value, the F statistic, and its significance level are known, it is possible to interpret the results from a multiple regression analysis (Hair et al, 1998; Field, 2000, Sekaran, 2000; Bryman and Gramer, 2001). The following sub-sections present the outcome of the multiple regression analysis conducted according to the guidelines specified by the aforementioned group of writers.

### 8.3.1 The Correlation Matrix

Field (2000) explains that the correlation matrix is extremely useful for obtaining a rough idea of the *relationships between predictors and the outcome*, and for a *preliminary search for multicollinearity* in the data. Thereafter, ought to be no substantial correlations ( $K > 0.8$ ) between predictors).

Table 8.1 shows the correlation matrix, which presents the value of the Pearson correlation coefficient between every pair of variables (8.1a), the 1-tailed significance of each correlation and the number of cases contribution (8.1b) to each correlation (N=143).

**Table 8.1a Competitive Environment and Marketing Mix Strategy**

Pearson Correlation	Marketing Mix Strategy	Government Regulation	Competitors	Suppliers	Customers	Third Party Payer
Marketing Mix Strategy	1.000	.318	.162	.223	.192	.137
Government	.318	1.000	.453	.348	.173	.190
Competitors	.162	.453	1.000	.495	.416	.340
Suppliers	.223	.348	.495	1.000	.603	.403
Customers	.192	.173	.416	.603	1.000	.470
Third Party	.137	.190	.340	.403	.470	1.000

**Table 8.1b Competitive Environment and Marketing Mix Strategy**

Sig. (1-tailed)	Marketing Mix Strategy	Government regulation	Competitors	Suppliers	Customers	Third Party Payer
Marketing Mix Strategy	.	.000	.027	.004	.011	.052
Government	.000	.	.000	.000	.020	.012
Competitors	.027	.000	.	.000	.000	.000
Suppliers	.004	.000	.000	.	.000	.000
Customers	.011	.020	.000	.000	.	.000
Third Party	.052	.012	.000	.000	.000	.
Marketing Mix Strategy	143	143	143	143	143	143
Government	143	143	143	143	143	143
Competitors	143	143	143	143	143	143
Suppliers	143	143	143	143	143	143
Customers	143	143	143	143	143	143
Third Party	143	143	143	143	143	143

With regard to the relationships among predictors and the outcome, 4 out of the 5 competitive environment factors had a significant positive correlation with the marketing mix strategy, at which the influences of the competitive environment affecting hospitals marketing mix strategy. Between these predictor variables "competitive environment factors" and the outcome factors "marketing mix strategy"



ranged from 0.137 to 0.318 with the correlation of all the 4 competitive environments being significant,  $p < 0.05$ .

The only capability found not to correlate significantly is the third party payers (Third Party Payer), but it is partially significant ( $r = 0.137$ ,  $P = 0.052$ ). As such, this result supports the proposition that all but one of the 5 "competitive environment" capabilities has significant positive relationship with marketing mix strategy, in that each has a significant correlation with marketing mix strategy.

However, among all the predictors, government regulation correlates best with the outcome of marketing mix strategy in that it has highest positive correlation with it, which is also significant: ( $r = 0.318$ ,  $P < 0.05$ ). Therefore, it is likely that this variable will best predict and/or explain the variance.

The correlation matrix did not reveal any significant correlation coefficient between two predictors that was  $> 0.9$ . The highest correlation is between customers and suppliers, which is significant ( $r = 0.603$ ,  $P < 0.05$ ).

### 8.3.2 Summary of the Multiple Regression Model

This section describes the overall multiple regression model and explains whether the model is successful in explaining what might contribute to the hospital manager in better responding and adapting to the influences in the competitive environments affecting the marketing mix strategy. Using the multiple linear regression model:

$$Y_i = B_0 + B_1X_{1i} + B_2X_{2i} + \dots + B_5X_{5i} + E_i$$

**Table 8.2 The Multiple Regression Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.354(a)	.125	.093	.31533	.125	3.919	5	137	.002

Predictors: (Constant), government, Competitors' Suppliers, Customers, Third Party Payers

Table 8.2 represents a model summary as produced by SPSS. This includes model 1, which indicates that all 5 predictors are being used. The table also provides important

information about the model: the values of R, R square and the adjusted R square. Further, it indicates what the dependent variable (outcome) is, and what the predictors in that model are.

The basic hypotheses are concerned with the impact of five independent variables namely, government regulations, competitors, customers (patients), suppliers, and third party payers. Likewise, the dependent variables are 7Ps (health service, price, distribution, promotion, physical evidence, process and personnel strategies). To this end multiple regression analysis is to be used in an attempt to test the hypotheses. The first regression suggests that marketing mix strategy should be observed as a function of government regulation, competitors, customers (patients), suppliers, and third party payers. That said, the overall regression is significant and thus the hypothesis on competitive environment (government regulation, competitors, suppliers, customers and third party payer) shows the significance at 9.3% (Adjusted  $R^2$ ) of the variation in marketing mix. However, table 8.1 illustrates that there is a significant relationship among four dimensions of competitive environment factors: government regulations, competitors, suppliers, and customers, where the third party payers' factors are partially significant related to the marketing mix strategy components  $P = 0.137$ . This indicates that the government regulations, competitors, suppliers, and customers have a positive impact on marketing mix strategy components.

From table 8.2, the column labelled R is the value of the multiple correlation coefficient among the predictors and the outcome. Multiple R is often referred to as the correlation between the observed values of Y (outcome) and the values of Y predicted by the multiple regression model. Therefore, large values of the multiple R represent a considerable correlation among the predicted and observed values of the outcome. In fact, a multiple R of 1 represents a situation in which the model perfectly predicts the observed data. As such, Multiple R is a gauge of how well the model predicts the observed data.

The value of multiple R for this model is 0.354, which is an indication that the model provides a reasonably good explanation of the observed values of the outcome variable: marketing mix strategy components (Hair et al., 1998).

The next column in table 8.2 gives the value of R Square, which is a measure of how much of the variability in the outcome is accounted for by the predictors included in

the model. This value is 0.125, which means that the 5 competitive environment factors included as predictors in the model account for 12.5% of the variation in the marketing mix strategy in responding to the competitive environment.

The adjusted R Square affords an idea of how well the model generalizes and ideally it is preferable if the value of the adjusted R Square is the same as, or close to the value of R Square. In the case of this model, the difference between R square and Adjusted R Square is 3.2% ( $0.125 - 0.093 = 0.032$ ). This shrinkage means that if the model were derived from the population rather than a sample, it would account for approximately 3.2% less variance in the outcome. The value of the adjusted R Square (0.093) is somewhat different from the observed value of R Square (0.125), which has a minimizing effect upon the cross-validity of this model.

The change statistics explain the change in the F-ratio resulting from constructing the multiple regression model. The F-ratio is a measure of how much the model has improved the prediction of the outcome, compared to the level of inaccuracy of the model. In this way, a good model should have a large F-ratio (greater than one (1) at least). It can be seen from table 8.2 that the model causes R Square to alter from zero to 0.125 and this change in the amount of variance explained gives rise to an F-ratio of 3.919, which is significant ( $p < 0.05$ ). Accordingly, the changed statistics illustrate the variance incurred by adding new predictors to the model.

Table 8.3 however reveals the succeeding part of the output, which contains an analysis of variance (ANOVA) that tests whether the model is significantly better at predicting the outcome rather than using the mean as a "best guess". Specifically, the F-ratio represents the ratio of the improvement in prediction as a result of fitting the model, relative to the inaccuracy that still exists in the model.

As such, the F-ratio is calculated by dividing the average improvement in prediction by the model ( $MS_M$ ) by the average difference between the model and the observed data ( $MS_R$ ). If the improvement due to fitting the regression model is much greater than the inaccuracy within the model, then the value of F will be greater than 1. For the model, the F-ratio is 3.919, which is significant ( $p < 0.05$ ) and, thus, very unlikely



to have happened by chance. These results can be interpreted as meaning that the model significantly improved our ability to predict the outcome variable (because the F-ratio is significant).

**Table 8.3 Analysis of Variance, for Multiple Regression Model**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.949	5	.390	3.919	.002(a)
	Residual	13.622	137	.099		
	Total	15.571	142			

a Predictors: (Constant), government, Competitors, Suppliers, Customers, Third party Payer

b Dependent Variable: Marketing Mix Strategy

Table 8.3 gives the value of the sum of squares for the model ( $SS_M$ ), which represents the improvement in prediction resulting from fitting a regression line to the data rather than using the mean as an estimate of the outcome. This value is 1.949. The table also provides the value of the residual sum of squares ( $SS_R$ ), which represents the total difference between the model and the observed data with the value of 13.622. For ( $SS_M$ ) and ( $SS_R$ ), the degrees of freedom (df) for each term is provided. In the case of improvement due to the model, this value is equal to the number of predictors (5 predictors in the case of this model), and for the  $SS_R$  it is the number of observations 143 minus the number of coefficients in the regression model. The model has 6 coefficients (one for the constant and five for the predictors). Therefore, the model has 137 degrees of freedom related to  $SS_R$ . The average sum of squares or Mean Square (MS) is then calculated for each term, by dividing each SS by its df. The F-ratio is calculated by dividing the average improvement in prediction by the model ( $MS_M$ ) by the average difference between the model and the observed data ( $MS_R$ ).

### 8.3.3 Model Parameters

The purpose of the previous section was to determine whether or not the model has improved the ability to explain the outcome of the variables. The results of the analysis have demonstrated that the multiple regression model, which consists of the five competitive environment factors, has significantly improved our ability to explain the outcome variable.

The following part of SPSS output, which is presented in table 8.4, is concerned with the parameters of the multiple regression model. Before interpreting the parameters displayed in 8.4, it is necessary to highlight the fact that in multiple regression, the model takes the form of an equation that predicts the value of the outcome variable Y from a combination of predictor variables, each multiplied by its own respective coefficient, plus a residual term.

**Table 8.4 Coefficient of the Multiple Regression Model**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.226	.390		5.705	.000
	Government	.188	.058	.297	3.248	.001
	Competitors	-.052	.082	-.064	-.633	.528
	Suppliers	.064	.091	.076	.698	.486
	Customers	.111	.106	.112	1.049	.296
	Third Party Payer	.014	.071	.018	.198	.843

Dependent Variable: Marketing Mix Strategy

$$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + E$$

*Where:*

*Y= the predicted value on the marketing mix strategy*

*B<sub>0</sub>= the Y intercept, the value of Y when all Xs are zero*

*X<sub>1</sub>= Government Regulations*

*X<sub>2</sub>=Competitors*

*X<sub>3</sub>=Suppliers*

*X<sub>4</sub>=Customers*

*X<sub>5</sub>=Third Party Payers*

*B= the various coefficients assigned to the IVs during the regression*

*E = an error term.*

These coefficients are referred to as B values, which indicate the individual contribution of each predictor to the model. By replacing the B values into the above equation, the model becomes defined. In this way, the B values inform the relationship among the marketing mix strategy components and the influences of the competitive environment factors. If the value is positive, this indicates a positive relationship between the predictor and the outcome, whereas a negative coefficient

represents a negative relationship. Viewing the B value under the first column, government regulation has the highest positive relationship with the outcome variable marketing mix strategy ( $B=0.188$ ). Similarly, customers ( $B=0.111$ ), suppliers ( $B=0.064$ ) and third party payers ( $B=0.014$ ), were also found to have a positive relationship with the outcome variable. In this sense, the B values reveal to what degree each predictor affects the outcome if the effects of all other predictors are held constant.

In this context, t-tests are derived in order to test whether a B value is significantly different from zero. Thus, t-tests are considered as measures of whether the predictor is offering a significant contribution to the model. Therefore, if the t-test associated with a B value is significant (if the value in the column labelled Sig. is less than 0.05) then the predictor is making a significant contribution to the model. The smaller the value of Sig. (and the larger the value of t) the greater the contribution of that predictor is. From this model, only one predictor, which is government regulation ( $t=3.248$ ,  $p<0.05$ ), emerged as a significant predictor of the competitive environment influencing the MMS.

The standardised versions of the B values are in many ways easier to interpret because they are not dependent on the units of measurement of the variables. The standardised beta values provided by SPSS and presented in table 8.4 reflect the number of standard deviations that the outcome will change, as a result of one standard deviation change in the predictor. All of the standardised beta values are measured in standard units and so are directly comparable. In other words, the standardized beta is representing the direct effect of its indicator on the outcome regardless of the amount of the relationship (correlation) between this indicator and other indicators in the model, which causes the amount of indirect effect of this indicator on the outcome through the other indicators correlated with it. Thus, they provide a better insight into the importance of a predictor in the model. From studying table 8.4, it is noted that government regulation has the highest standardized beta value (0.297), indicating that this variable has the highest degree of importance in the model, compared with the other predictors. This supports the result obtained via the t-test, in that government regulation also emerged as the most significant predictor of competitive environment.



## 8.4 Emerged Measurement Structures

The discussion in this subsection focuses on the emerged measurement structure after the factor analysis whereby some factors have been established for the MMS dimension.

### 8.4.1 The Competitive Environment

Seven dimensions were suggested to marketing mix strategy including (health service, price, distribution, promotion, physical evidence, process, and personal strategies). It additionally proposed that the competitive environment comprised five dimensions, namely, government regulations, competitors, suppliers, customers, and third party payers.

Modelling the competitive environment factors requires seven regressions for health service, price, distribution, promotion, physical evidence, process, and personal as dependent variables of government regulations (GR), competitors (Co), suppliers (S), customers (Cu), and third party payers (TPP).

### 8.4.2 Research Design of a Multiple Regression Analysis (Predictors of Marketing Mix Strategy Components)

**Health Service Strategy =f (GR, Co, S, Cu, TPP)..... (1)**

As shown, health service is the dependent variable in this model. while (Government regulations), (competitors), (suppliers), (customers), and (third party payers) are independent variables.

Health service strategy is the first dimension of MMS as illustrated in the following multiple regression table 8.5, which is the dependent variable of five predictors including government regulations, competitors, suppliers, customers, and third party payers.

R square is 0.202 as displayed in table 8.5 and the adjusted R square for the five variables is 0.173, which means that these five variables explain through such a model, about 20% of the variance of the health service dimension. However, viewing table 8.5 shows that three out of five variables having a significant effect. Government regulation is not significant  $P=0.930$  and third party payers are not

significant either at (P-value=0.198) while competitors and suppliers are both significant. Of the three significant variables, customers appear to have the greatest impact on health service based on the size of its standardised coefficient.

**Table 8.5 Coefficient of the multiple regression model/health service**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.723	.469		3.678	.000
	Government	-.006	.069	-.008	-.088	.930
	Competitors	.261	.099	.253	2.638	.009
	Suppliers	-.216	.110	-.206	-1.975	.040
	Customers	.416	.127	.334	3.273	.001
	Third Party	.110	.085	.115	1.294	.198
a Dependent Variable: Service Strategy		R <sup>2</sup> =0.202		adjusted R <sup>2</sup> =0.173	F=6.948	P<0.05

**Price Strategy =f (GR, Co, S, Cu, TPP)..... (2)**

The second major dimension of MMS after health service is price, which represents five items of the MMS variable.

The adjusted R square for the five variables (government regulations, competitors, suppliers, customers, and third party payer) is 0.140, which means that these five variables explain about 14% of the variance of price strategy. Table (8.6) illustrates that only one of these dimensions is significant in predicting the price strategy whereas the other four factors (government regulation, competitors, suppliers and third party payer) are not significantly related to the price strategy component (P-value = 0.628, 0.678, 0.411, 0.277) respectively. Therefore, customers have a positive impact on price strategy and the size of its standardized coefficient.

**Table 8.6 Coefficient of the Multiple Regression Model/Price Strategy**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.655	.446		3.707	.000
	Government	.032	.066	.043	.486	.628
	Competitors	.039	.094	.041	.416	.678
	Suppliers	.086	.104	.088	.825	.411
	Customers	.300	.121	.258	2.478	.014
	Third Party	.088	.081	.099	1.091	.277
a Dependent Variable: Price Strategy		R <sup>2</sup> =0.170		adjusted R <sup>2</sup> =0.140	F=5.629	P<0.05

$$\text{Distribution Strategy} = f(\text{GR, Co, S, Cu, TPP}) \dots \dots \dots (3)$$

Table 8.7 demonstrates that there is a significant relationship between one dimension of competitive environment factors and government regulation, where the other four dimensions are not significantly related to the distribution strategy component. These dimensions are competitors, suppliers, customers, and health insurance companies, where P-value = 0.723, 0.772, 0.225, 0.982 respectively. Therefore, government has a positive impact on distribution strategy and the size of its standardized coefficient.

**Table 8.7 Coefficient of the Multiple Regression Model/Distribution Strategy**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.731	.928		.788	.432
	Government	.403	.137	.274	2.931	.004
	Competitors	-.070	.196	-.037	-.356	.723
	Suppliers	-.063	.217	-.032	-.291	.772
	Customers	.307	.252	.133	1.219	.225
	Third party	-.004	.168	-.002	-.023	.982
Dependent Variable: Distribution Strategy			R <sup>2</sup> = 0.084	adjusted R <sup>2</sup> = 0.051	F = 2.520	P < 0.05

$$\text{Promotion Strategy} = f(\text{GR, Co, S, Cu, TPP}) \dots \dots \dots (4)$$

Table 8.8 demonstrates that there is a significant relationship between third party payers dimension of the competitive environment factors related to promotion strategy, where the remaining dimensions are not significantly related to the promotion strategy government regulation, competitors, suppliers and customers. P-value for these dimensions is 0.058, 0.336, 0.701, and 0.847 respectively. Therefore, third party payers have a positive impact on promotion strategy and the size of its standardized coefficient.



**Table 8.8 Coefficient of the Multiple Regression Model/Promotion Strategy**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.076	.617		3.365	.001
	Government	-.175	.091	-.169	-1.910	.058
	Competitors	.126	.130	.094	.965	.336
	Suppliers	.055	.144	.041	.384	.701
	Customers	-.032	.167	-.020	-.194	.847
	Third Party	.482	.112	.387	4.303	.000
Dependent Variable: Promotion Strategy			R <sup>2</sup> = 0.178	adjusted R <sup>2</sup> = 0.148	F = 5.992	P < 0.05

Physical Evidence Strategy = f (GR, Co, S, Cu, TPP)..... (5)

Table 8.9 shows that there is a significant relationship between one dimension of the competitive environment factors third party payers. Government regulation, competitors, suppliers and customers are not significantly related to the physical evidence strategy. P-value for these dimensions is 0.642, 0.879, 0.928, and 0.242 respectively. Therefore, third party payers have a positive impact on physical evidence strategy and the size of its standardized coefficient.

**Table 8.9 Coefficient of the Multiple Regression Model/Physical Evidence Strategy**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.693	.482		5.581	.000
	Government	.033	.071	.043	.465	.642
	Competitors	.016	.102	.016	.153	.879
	Suppliers	.010	.113	.010	.090	.928
	Customers	.154	.131	.128	1.175	.242
	Third Party	.191	.088	.205	2.176	.031
Dependent Variable: Physical Evidence Strategy			R <sup>2</sup> = 0.098	adjusted R <sup>2</sup> = 0.065	F = 2.990	P < 0.05

Process Strategy = f (GR, Co, S, Cu, TPP)..... (6)

The adjusted R square for the five variables is 0.040, which means that these variables explain about 4% of the variance in process strategy. Table 8.10 illustrates that none of these dimensions is significant in predicting the process strategy. P-value for these

dimensions is 0.197, 0.855, 0.615, 0.110, and 0.173 respectively. Therefore, none of the dimension has a positive impact on process strategy.

**Table 8.10 Coefficient of the Multiple Regression Model/Process Strategy**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.123	.417		7.481	.000
	Government	.080	.062	.122	1.297	.197
	Competitors	-.016	.088	-.019	-.183	.855
	Suppliers	-.049	.098	-.057	-.504	.615
	Customers	.182	.113	.177	1.607	.110
	Third Party	.104	.076	.131	1.370	.173
Dependent Variable: Process Strategy		R <sup>2</sup> =0.074		adjusted R <sup>2</sup> =0.040	F=2.181	P<0.05

**Personal Strategy =f (GR, Co, S, Cu, TPP)..... (7)**

Table 8.11 indicates that there is a significant relationship among three dimensions of the competitive environment factors, suppliers, and third party payer, where the rest of the dimensions are not significantly related to the personal strategy government regulation and customers. P-value for these dimensions is 0.058, and 0.507 respectively. Therefore, competitors have a positive impact on personal strategy and the size of its standardized coefficient.

**Table 8.11 Coefficient of the Multiple Regression Model/Personal Strategy**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.993	.421		4.732	.000
	Government	-.119	.062	-.163	-1.914	.058
	Competitors	.228	.089	.240	2.570	.011
	Suppliers	.194	.098	.200	1.974	.050
	Customers	.076	.114	.066	.666	.507
	Third Party	.172	.076	.194	2.248	.026
Dependent Variable: Personal Strategy		R <sup>2</sup> =0.244		adjusted R <sup>2</sup> =0.217	F=8.858	P<0.05

### 8.5 Hospital Performance Measurement Criteria

The fourth objective of this research is *“to determine the effects of the service marketing mix strategy components on the performance of Jordanian private sector hospitals”*.

Modelling the marketing mix strategy components requires four regressions for financial, quality, customer, and marketplace criteria as dependent variables of health service, pricing, distribution, promotion, physical evidence, process, and personal strategies, the independent variables.

In order to explore this objective, seven subgroups of hypotheses are formulated to examine the effect of marketing mix strategy components on hospitals' performance according to the performance criteria; financial, quality, customer, and marketplace.

The general hypothesis for this section is “*Service marketing mix strategy components have a positive and significant effect on the performance of Jordanian private sector hospitals*”

Table 8.12 shows the correlation matrix, which presents the value of the Pearson correlation coefficient between every pair of variables (8.12a), the 1-tailed significance of each correlation and the number of cases contribution (8.12b) to each correlation (N=143).

**Table 8.12a Marketing Mix Strategy and Hospital Performance Criteria**

Pearson Correlation	Hospital Performance Criteria	Health Service Strategy	Price Strategy	Distribution Strategy	Promotion Strategy	Physical Evidence	Process Strategy	Personal Strategy
Hospital Performance Criteria	1.000	.520	.337	-.074	.300	.389	.391	.217
Health Service Strategy	.520	1.000	.316	.034	.286	.452	.306	.254
Price Strategy	.337	.316	1.000	.236	.272	.183	.328	.220
Distribution Strategy	-.074	.034	.236	1.000	.235	-.117	.032	-.040
Promotion Strategy	.300	.286	.272	.235	1.000	.220	.361	.313
Physical Evidence	.389	.452	.183	-.117	.220	1.000	.495	.338
Process Strategy	.391	.306	.328	.032	.361	.495	1.000	.351
Personnel Strategy	.217	.254	.220	-.040	.313	.338	.351	1.000



**Table 8.12b Marketing Mix Strategy and Hospital Performance Criteria**

Sig. (1-tailed)	Hospital Performance Criteria	Service Strategy	Price Strategy	Distribution Strategy	Promotion Strategy	Physical Evidence	Process Strategy	Personal Strategy
Hospital Performance Criteria	.	.000	.000	.191	.000	.000	.000	.005
Health Service Strategy	.000	.	.000	.345	.000	.000	.000	.001
Price Strategy	.000	.000	.	.002	.001	.014	.000	.004
Distribution Strategy	.191	.345	.002	.	.002	.082	.354	.318
Promotion Strategy	.000	.000	.001	.002	.	.004	.000	.000
Physical Evidence	.000	.000	.014	.082	.004	.	.000	.000
Process Strategy	.000	.000	.000	.354	.000	.000	.	.000
Personal Strategy	.005	.001	.004	.318	.000	.000	.000	.
Hospital Performance Criteria	143	143	143	143	143	143	143	143
Service Strategy	143	143	143	143	143	143	143	143
Price Strategy	143	143	143	143	143	143	143	143
Distribution Strategy	143	143	143	143	143	143	143	143
Promotion Strategy	143	143	143	143	143	143	143	143
Physical Evidence	143	143	143	143	143	143	143	143
Process Strategy	143	143	143	143	143	143	143	143
Personal strategy	143	143	143	143	143	143	143	143

With regard to the relationships among predictors and the outcome, 6 out of 7 marketing mix strategy components had a significant positive correlation with the health performance criteria at which shows the influence of the marketing mix strategy components on hospitals performance. Between the other predictor variables “marketing mix strategy components”, and the outcome factor “health performance criteria” Pearson correlation results ranged from 0.520 – 0.217 with the correlation of all 6 positive marketing mix strategy items being significant  $p < 0.05$ .

The only capability found not to show a significant positive correlation is the distribution strategy ( $r = -0.07$ ,  $p = 0.191$ ).

However, among all the predictors, health service strategy correlates best with the health performance criteria in that it has highest positive correlation with it, which is

also significant: ( $r = 0.520$ ,  $p < 0.05$ ). Therefore, it is likely that this variable will best predict and/ or explain the variance.

The results of the analysis have demonstrated that the multiple regression model, which consists of the marketing mix strategy components has significantly improved our ability to explain the outcome variable

**Table 8.13 Coefficient of the Multiple Regression Model/ Hospital Performance Criteria**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	Constant	.654	.456		1.435	.154
	Health Service Strategy	.346	.077	.360	4.494	.000
	Price Strategy	.172	.079	.167	2.167	.032
	Distribution Strategy	-.079	.038	-.151	-2.067	.041
	Promotion Strategy	.092	.058	.124	1.583	.116
	Physical Evidence	.085	.086	.086	.994	.322
	Process Strategy	.184	.099	.158	1.867	.064
	Personal strategy	-.042	.080	-.040	-.524	.601
Dependent Variable: Hospital Performance Criteria			$R^2 = 0.378$	Adjusted $R^2 = 0.346$	$F = 11.720$	$P < 0.05$

$$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + B_6X_6 + B_7X_7 + E$$

*Where:*

$Y$  = the predicted value on the hospital performance criteria

$B_0$  = the  $Y$  intercept, the value of  $Y$  when all  $X$ s are zero

$X_1$  = Health service strategy

$X_2$  = Pricing strategy

$X_3$  = Distribution strategy

$X_4$  = Promotion strategy

$X_5$  = Physical evidence strategy

$X_6$  = Process strategy

$X_7$  = Personal strategy

$B$  = the various coefficients assigned to the IVs during the regression

$E$  = an error term.

These coefficients as shown in table 8.13 are referred to as B values, which indicate the individual contribution of each predictor to the model. By replacing the B values into the above equation, the model becomes defined. In this way, the B values inform the relationship among the hospital performance criteria and the influences of the marketing mix strategy. If the value is positive, this indicates a positive relationship between the predictor and the outcome, whereas a negative coefficient represents a negative relationship. Viewing the B value under the first column, health service strategy has the highest positive relationship with the outcome variable hospital performance criteria (B=0.346). Similarly, pricing strategy (B=0.172), while distribution strategy has negative significance (B= -0.079). Whereas the other four components (promotion, physical evidence, process, and personal strategies) are not significantly related to the hospital performance criteria (P-value=0.092, 0.085, 0.184, -0.042) respectively.

### Financial Criteria

Financial criteria is the first dimension of hospital performance criteria as illustrated in the following multiple regression table 8.14 which is the dependent variable of seven predictors including, health service, price, distribution, promotion, physical evidence, process, and personal strategies.

**Table 8.14 Coefficient of the Multiple Regression Model/ Financial Criteria**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	Constant	-.802	1.018		-.788	.432
	Health Service Strategy	.413	.172	.220	2.400	.018
	Price Strategy	.415	.177	.207	2.349	.020
	Distribution Strategy	-.114	.085	-.112	-1.339	.183
	Promotion Strategy	.012	.130	.008	.094	.925
	Physical Evidence	.128	.191	.066	.667	.506
	Process Strategy	.071	.220	.031	.322	.748
	Personal strategy	.160	.178	.079	.902	.369
Dependent Variable: Financial Criteria		R <sup>2</sup> =0.186		adjusted R <sup>2</sup> =0.143	F=4.395	P<0.05



R square is 0.186 as displayed in table 8.14, and the adjusted R square for the seven components is 0.143, which means that these seven components of the model explain, about 14% of the variance of financial criteria dimensions. However, viewing table 8.14 shows that three out of seven variables have a significant effect. Distribution, promotion, physical evidence, process, and personal strategies are not significant  $P=0.183, 0.925, 0.506, 0.748, 0.369$  respectively, while health service and pricing strategies are both significant. Health service strategy appears to have the greatest impact on financial criteria, based on the size of its standardised coefficient.

### Quality criteria

The second major dimension of the hospital performance criteria is quality criteria, which represents seven components of the marketing mix strategy variables.

The adjusted R square for the seven components (health service, pricing, distribution, promotion, physical evidence, process, and personal strategies) is 0.172, which means that these seven variables explain about 17% of the variance of quality criteria. Table 8.15 illustrates that only three of these components are significant in predicting the quality criteria dimension, whereas the other four factors (pricing, promotion, physical evidence, and process strategies) are not significantly related to the quality criteria dimension ( $P\text{-value}=0.144, 0.09, 0.129, 0.855$ ) respectively. Therefore, health service strategy has a positive impact on quality dimension based on the size of its standardised coefficient.

**Table 8.15 Coefficient of the Multiple Regression Model/ Quality Criteria**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
1	(Constant)	2.733	.763		3.581	.000	
	Health Service Strategy	.282	.129	.197	2.188	.030	
	Price Strategy	.195	.132	.127	1.470	.144	
	Distribution Strategy	-.229	.064	-.296	-3.606	.000	
	Promotion Strategy	.166	.097	.150	1.705	.090	
	Physical Evidence	.219	.143	.148	1.528	.129	
	Process Strategy	.030	.165	.017	.183	.855	
	Personal Strategy	-.339	.133	-.219	-2.544	.012	
	Dependent Variable: Quality Criteria		$R^2 = 0.213$		adjusted $R^2 = 0.172$	$F=5.204$	$P<0.05$

## Customer criteria

Table 8.16 demonstrates that there is a significant relationship between only one dimension of the marketing mix strategy components and customer criteria, where the other dimensions are not significantly related to the customer criteria dimension. These dimensions are pricing, distribution, promotion, physical evidence, process, and personal strategies, where P-value=0.946, 0.222, 0.745, 0.268, 0.225, 0.460 respectively. Therefore, only health service strategy has a positive impact on customer criteria dimension based on the size of its standardised coefficient.

**Table 8.16 Coefficient of the Multiple Regression Model/ Customer Criteria**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.797	.884		.901	.369
	Service Strategy	.357	.149	.223	2.387	.018
	Price Strategy	-.010	.153	-.006	-.068	.946
	Distribution Strategy	-.090	.074	-.104	-1.226	.222
	Promotion Strategy	-.037	.113	-.030	-.326	.745
	Physical Evidence	.185	.166	.112	1.113	.268
	Process Strategy	.233	.191	.120	1.218	.225
	Personal Strategy	.114	.154	.066	.741	.460
Dependent Variable: Customer Criteria		R <sup>2</sup> = 0.155		adjusted R <sup>2</sup> = 0.111	F = 3.536	P < 0.05

## Marketplace criteria

Table 8.17 demonstrates that there is a significant relationship between health service, pricing and the process strategies of the marketing mix strategy components related to the marketplace criteria. P-value for these dimensions is 0.030, 0.040, and 0.022 respectively. The distribution, promotion, physical evidence, and personal strategies are not significantly related to the marketplace dimension criteria. P-value for these dimensions is 0.298, 0.869, 0.306, and 0.732 respectively. Therefore, process strategy has a positive impact on marketplace criteria strategy based on the size of its standardised coefficient.

**Table 8.17 Coefficient of the Multiple Regression Model/ Marketplace Criteria**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.160	.560		2.072	.040
	Service Strategy	.208	.095	.196	2.197	.030
	Price Strategy	.201	.097	.177	2.069	.040
	Distribution Strategy	-.049	.047	-.085	-1.045	.298
	Promotion Strategy	-.012	.071	-.014	-.165	.869
	Physical Evidence	.108	.105	.099	1.028	.306
	Process Strategy	.281	.121	.219	2.317	.022
	Personal Strategy	-.034	.098	-.029	-.343	.732
Dependent Variable: Marketplace Criteria		R <sup>2</sup> = 0.230		adjusted R <sup>2</sup> = 0.190	F = 5.752	P < 0.05

### 8.6 Summary

Overall evolution of all the above regressions suggested that all dimensions of marketing mix strategy are partially significant in aggregate. Specifically it demonstrates the importance of the marketing mix strategy construct in this study being affected by competitive environment factors, government regulations, competitors, suppliers, customers, and third party payers.

Consistently, this research found that there were differentiation influences between the competitive environment factors and marketing mix strategy components.

However, in this study, individual impact differs across regression models. Hence, a number of indicators are worth emphasising:

- Competitive environment factors was significant with marketing mix strategy components in the original model and the dimensions of competitive environment were almost entirely: apart from significant the third party payers which were found to be partially significant (P=0.052), which seems not to have an impact on marketing mix strategy components.
- Government regulation was significant. For example it was just significant with the distribution strategy and it was partially significant with the



promotion and personal strategies and non-significant with the remainder of the marketing mix strategies.

- Competitors were highly significant with health service strategy and personal strategy. However, pricing, distribution, promotion, physical evidence, and process strategies were non-significant with the competitors.
- Suppliers were significant with health service strategy and personal strategy. Therefore, it was non-significant with the rest of the strategies of the marketing mix components.
- Customers were significant with health service strategy and pricing strategy, where it was non-significant with the remaining strategies.
- Third party payers were partially significant with some strategies and non-significant with the rest of the strategies. It was significant with the promotion, physical evidence, and personal strategies, where it was non-significant with the other strategies.
- The aggregated adjusted R2 is illustrated in the following table 8.18:

Adjusted R Square for the six regressions with five independent factors and seven dependent variables.

**Table 8.18 Regressions with Five Independent Groups and Six Dependent Variables**

**Dependent Variables**

<b>Independent</b>	Health service	Pricing	Distribution	Promotion	Physical Evidence	Process	Personal	MMS
Competitive Environment	0.173	0.140	0.051	0.148	0.065	0.040	0.217	0.093

Table 8.19 which appears below summarized the type of relationship between all the variables in the regression test in the model. It illustrated the significant or non-significant relationship between the independent and dependent variables under study with those accepted and rejected hypotheses.

**Table 8.19 Significant and Non -Significant Relationship**

<b>Independent Variable</b>	<b>Dependent variable</b>	<b>P value</b>	<b>Sig /non significant</b>	<b>Do Not Reject H0</b>
<i>Government regulation</i>	<i>Health service strategy</i>	P=0.930	Non significant	Not reject
<i>Competitors</i>	<i>Health service strategy</i>	P<0.05	Significant	Reject H0
<i>Suppliers</i>	<i>Health service strategy</i>	P<0.05	Significant	Reject H0
<i>Customers</i>	<i>Health service strategy</i>	P<0.05	Significant	Reject H0
<i>Third Party Payer</i>	<i>Health service strategy</i>	P=0.198	Non significant	Not reject
<i>Government regulation</i>	<i>Price strategy</i>	P=0.628	Non significant	Not reject
<i>Competitors</i>	<i>Price strategy</i>	P=0.678	Non significant	Not reject
<i>Suppliers</i>	<i>Price strategy</i>	P=0.411	Non significant	Not reject
<i>Customers</i>	<i>Price strategy</i>	P<0.05	Significant	Reject H0
<i>Third Party Payer</i>	<i>Price strategy</i>	P=0.227	Non significant	Not reject
<i>Government regulation</i>	<i>Distribution strategy</i>	P<0.05	Significant	Reject H0
<i>Competitors</i>	<i>Distribution strategy</i>	P=0.723	Non significant	Not reject
<i>Suppliers</i>	<i>Distribution strategy</i>	P=0.772	Non significant	Not reject
<i>Customers</i>	<i>Distribution strategy</i>	P=0.225	Non significant	Not reject
<i>Third Party Payer</i>	<i>Distribution strategy</i>	P=0.982	Non significant	Not reject
<i>Government regulation</i>	<i>Promotion strategy</i>	P=0.058	Non significant	Not reject
<i>Competitors</i>	<i>Promotion strategy</i>	P=0.336	Non significant	Not reject
<i>Suppliers</i>	<i>Promotion strategy</i>	P=0.701	Non significant	Not reject
<i>Customers</i>	<i>Promotion strategy</i>	P=0.847	Non significant	Not reject
<i>Third Party Payer</i>	<i>Promotion strategy</i>	P<0.05	Significant	Reject H0
<i>Government regulation</i>	<i>Physical evidence strategy</i>	P=0.642	Non significant	Not reject
<i>Competitors</i>	<i>Physical evidence strategy</i>	P=0.879	Non significant	Not reject
<i>Suppliers</i>	<i>Physical evidence strategy</i>	P=0.928	Non significant	Not reject
<i>Customers</i>	<i>Physical evidence strategy</i>	P=0.242	Non significant	Not reject
<i>Third Party Payer</i>	<i>Physical evidence strategy</i>	P<0.05	Significant	Reject H0
<i>Government regulation</i>	<i>Process strategy</i>	P=0.197	Non significant	Not reject
<i>Competitors</i>	<i>Process strategy</i>	P=0.855	Non significant	Not reject
<i>Suppliers</i>	<i>Process strategy</i>	P=0.615	Non significant	Not reject
<i>Customers</i>	<i>Process strategy</i>	P=0.110	Non significant	Not reject
<i>Third Party Payer</i>	<i>Process strategy</i>	P=0.173	Non significant	Not reject
<i>Government regulation</i>	<i>Personal strategy</i>	P=0.058	Non significant	Not reject

<i>Competitors</i>	<i>Personal strategy</i>	P<0.05	Significant	Reject H0
<i>Suppliers</i>	<i>Personal strategy</i>	P=0.050	Significant	Reject H0
<i>Customers</i>	<i>Personal strategy</i>	P=0.507	Non significant	Not reject
<i>Third Party Payer</i>	<i>Personal strategy</i>	P<0.05	Significant	Reject H0
<i>Health Strategy</i>	<i>Financial Criteria</i>	P<0.05	Significant	Reject H0
<i>Price Strategy</i>	<i>Financial Criteria</i>	P<0.05	Significant	Reject H0
<i>Distribution Strategy</i>	<i>Financial Criteria</i>	P=0.183	Non significant	Not reject
<i>Promotion Strategy</i>	<i>Financial Criteria</i>	P=0.925	Non significant	Not reject
<i>Physical Evidence Strategy</i>	<i>Financial Criteria</i>	P=0.506	Non significant	Not reject
<i>Process Strategy</i>	<i>Financial Criteria</i>	P=0.748	Non significant	Not reject
<i>Personal Strategy</i>	<i>Financial Criteria</i>	P=0.369	Non significant	Not reject
<i>Health Strategy</i>	<i>Quality Criteria</i>	P<0.05	Significant	Reject H0
<i>Price Strategy</i>	<i>Quality Criteria</i>	P=0.144	Non significant	Not reject
<i>Distribution Strategy</i>	<i>Quality Criteria</i>	P<0.05	Significant	Reject H0
<i>Promotion Strategy</i>	<i>Quality Criteria</i>	P=0.090	Non significant	Not reject
<i>Physical Evidence Strategy</i>	<i>Quality Criteria</i>	P=0.129	Non significant	Not reject
<i>Process Strategy</i>	<i>Quality Criteria</i>	P=0.855	Non significant	Not reject
<i>Personal Strategy</i>	<i>Quality Criteria</i>	P<0.05	Significant	Reject H0
<i>Health Strategy</i>	<i>Customer Criteria</i>	P<0.05	Significant	Reject H0
<i>Price Strategy</i>	<i>Customer Criteria</i>	P=0.946	Non significant	Not reject
<i>Distribution Strategy</i>	<i>Customer Criteria</i>	P=0.222	Non significant	Not reject
<i>Promotion Strategy</i>	<i>Customer Criteria</i>	P=0.745	Non significant	Not reject
<i>Physical Evidence Strategy</i>	<i>Customer Criteria</i>	P=0.268	Non significant	Not reject
<i>Process Strategy</i>	<i>Customer Criteria</i>	P=0.225	Non significant	Not reject
<i>Personal Strategy</i>	<i>Customer Criteria</i>	P=0.460	Non significant	Not reject
<i>Health Strategy</i>	<i>Marketplace Criteria</i>	P<0.05	Significant	Reject H0
<i>Price Strategy</i>	<i>Marketplace Criteria</i>	P<0.05	Significant	Reject H0
<i>Distribution Strategy</i>	<i>Marketplace Criteria</i>	P=0.298	Non significant	Not reject
<i>Promotion Strategy</i>	<i>Marketplace Criteria</i>	P=0.869	Non significant	Not reject
<i>Physical Evidence Strategy</i>	<i>Marketplace Criteria</i>	P=0.306	Non significant	Not reject
<i>Process Strategy</i>	<i>Marketplace Criteria</i>	P<0.05	Significant	Reject H0
<i>Personal Strategy</i>	<i>Marketplace Criteria</i>	P=0.732	Non significant	Not reject

Accordingly, table 8.19 demonstrates that there are nineteenth rejected H0 and forty-four not rejected H0 hypotheses because of the non-significant relationship between them.



## **Chapter Nine**

### **Discussion of the Overall Quantitative and Qualitative Data and Findings**

#### **9.1 Introduction**

This research explores the concept of services marketing mix strategy in health services organisations. As a result, it is one of a limited number of studies (Green et al, 1995; Godiwalla et al, 1997; Andaleeb, 1998; Abu-Noktah, 2000), which have examined the importance, relevance, and applications of marketing mix concepts, (that had emerged from a primarily manufacturing organisation context), within the health care organisation setting. Such a health care organisation context is represented in this research by Jordanian private sector hospitals.

This chapter aims to discuss the findings and results that have emerged from the data analysis presented in chapters 7 and 8. It links the previous chapters and also links the theoretical literature with the empirical side of the research. It presents interpretation, triangulation and reflection of the quantitative and qualitative results presented in the previous two chapters; in addition, comparisons with other related studies are made.

#### **9.2 Characteristics of the Participating Hospitals and the Research Respondents**

##### **The participating hospitals**

There was one single group participating in this research: that of the general private sector hospitals in Jordan. The specialty hospitals were not included in this research (e.g. gynaecology hospitals). Thus, all of the general Jordanian private sector hospitals participated in this research. This full participation and cooperation could be explained by two reasons; first, the hospitals appreciated the importance of this research. Since this research is concerned with service marketing mix strategy, the Jordanian private sector hospitals is ought to pay more attention to learn more about the reality and importance of adapting marketing mix strategy in their hospitals. The second reason is that research respondents believed that the research questionnaire was particularly relevant and included much comprehensive and important information which they need especially when examining the influence of competitive

environment on marketing mix strategy components, and also the role of marketing mix strategy in enhancing the hospital performance. This is revealed in the comments they made in the end of the questionnaire or expressed directly to the researcher when he collected the completed questionnaire. In addition, most participants left their email and work addresses so the researcher could forward the findings and copies of the research once it was completed.

### **The participants**

Exploring the current characteristics of the people who were in charge of the marketing strategy activities in Jordanian private sector hospitals was a crucial requirement in this research. As shown in table 7.1 the majority of senior managers working in Jordanian private sector hospitals were aged between 41-50 and 51-60 years. However, finding a higher ratio of managers belonging to the older age groups is due to the fact that private sector hospitals mostly hire managers with undergraduate university degrees or higher and with some prior experience.

The majority of the participants hold a bachelor or higher degree, where diploma holders who have undergone a mere 2-year course represent a very low percentage of respondents. This is because the labour market supply is much higher than the demand in the Jordanian health market.

It has been argued that the job title of the people who are in charge of a marketing department's provision is a mirror of the importance of that provision within the organisation. In Jordanian private sector hospitals, as shown in table 7.5 marketing managers comprise the lowest percentage of the participants because most hospitals (96.5%) do not possess a marketing department.

The total work experience of the majority of Jordanian private sector hospitals managers was between 16 and 20 years and 20 years plus. However, finding a higher ratio of managers belonging to the highly experienced groups is due to the fact that private sector hospitals mostly hire managers, preferably from the public sector, such as retirees from the two major public health institutions in Jordan, the Ministry of Health and the Royal Medical Services.

This finding was further supported by the findings of the managers' opinions about marketing strategy personal in their hospitals. It was found that most of the top managers declared that their hospitals lacked well-qualified, experienced marketing people who need to be specialized and know how to conduct effective marketing strategies and deal with the competitive environment influences in their hospitals. This is, according to them, one reason for the poor marketing staff and, also, the reason for asking managers, owners, and trustees to conduct marketing programs on their behalf.

These findings, relating to the lack of well-qualified, experienced marketing professionals, are also supported by the findings of many other Arab researchers and authors. Al Faleh (1987), Al-Tayeb (1986), Atiyyah (1993), and Durra (1991) found that the lack of well-qualified, experienced managerial and marketing professionals has affected development projects and activities negatively, which are critical factors in development in these countries.

### **9.3 Findings Related to the Strategic Marketing of Jordanian Private Sector Hospitals**

#### **9.3.1 Marketing Activity**

It has been argued that those managers who occupy managerial roles in general and marketing people in particular in Jordanian private sector hospitals might be well-educated but they lacked experience in marketing. In addition training programs to analyze the internal and external environment to identify the strength and weaknesses in the internal environment and the opportunities and threats in the external environment are few and of inferior quality in content.

It could be argued that, in general, the study of patient needs and wants is the leading activity in Jordanian private sector hospitals. First, there is a high degree of competition in Jordanian private sector hospitals among the different kinds of providers. Second, the social responsibilities for these hospitals towards their target market, and how these hospitals can retain their current customers and try to attract other customer/ patients at the same time is of significance.



### 9.3.2 Marketing Objectives

The research respondents demonstrated that the most important objective is sustaining a current position by introducing highly differentiated services. The review of marketing strategy literature in chapter 3 shows that providing a highly extended health service range (diagnostic, therapeutic, and rehabilitation) assists the hospitals to satisfy the needs and wants of local and regional patients in their target market.

This result was supported by interviews with the Jordanian private sector hospitals. For instance, a medical manager in one of the larger aforementioned hospitals states: **“We have followed a differentiation strategy, by offering a wide range of services, providing all up-to-date latest medical technologies and providing an extremely high perceived level of care”**.

In an effort to achieve their strategic objectives such as retaining current patients and attracting new ones both locally and internationally, the more successful hospitals nowadays are attempting to expand health services.

The least important objective is penetrating new foreign markets. This result refers to difficulties which face the managers, owners, and trustees in these hospitals to comprehend the strategies and policies regarding, for example, WTO and ISO certificates.

### 9.3.3 Participants in the Strategic Marketing Decisions

The respondents were asked about the degree of participation in strategic marketing decisions in Jordanian private sector hospitals. The majority answered that medical and administrative joint committees are the most active participants in marketing strategy decision-making.

The least active participants are the individual marketing departments. The field survey and interviews conducted made this evident, because most Jordanian private sector hospitals do not possess a marketing department.

This is consistent with other researchers' findings. For example, Abu-Noktah (2000) found that most Jordanian private sector hospitals do not boast a marketing department in their hospitals.

#### **9.3.4 Environmental Data Source**

The respondents were asked about the sources of information they used on the competitive environment when formulating marketing strategies in Jordanian private sector hospitals. As shown in table 7.11 the primary sources are the hospital managers and staff. These results were cross-checked with the interview results, which illustrate that all hospitals considered the data from the hospital's own staff and managers to be the foremost competitive environmental sources.

The interviews further made evident the fact that there is no active health information system in Jordan to support huge investments in the private health sector and to provide dependable data necessary to reach prudent decisions on investment, or the extension of health services, especially in relation to high-cost elements.

#### **9.4 Discussion of the Hypotheses Relating to the Effects of Competitive Environment Factors on Marketing Mix Strategy**

The first group of hypotheses relate to five hypotheses concerning the potential relationship between competitive environment and service marketing mix strategy components. These hypotheses were tested in chapter eight by applying multiple regression tests.

##### ***Hypothesis H1: Competitive environment and marketing mix strategy***

*Competitive environment factors have a positive significant influence on services marketing mix strategy components in Jordanian private sector hospitals.*

Empirically the model assumed that competitive environment factors influence all marketing mix strategy components in Jordanian private sector hospitals. It additionally predicted that the influence of such factors on marketing mix strategy would differ according to the personal variables i.e. position, academic background, and organisational variables i.e. location and hospital size.

The results of the multiple regression analysis have indicated that there is a variation in the effect of competitive environment factors on the marketing mix strategy components. There is significant empirical evidence in this research indicating that competitive environment factors have a different degree of influence upon the marketing mix strategy as a whole and on the marketing mix strategy components individually.

This empirical evidence has provided significant support for the competitive environment literature, which advocates that competitive environment factors have an influence on the organisation and marketing mix strategy components (Anderson, 1991; Chaganti and Damanpour, 1991; Walsh, 1991; Hayden, 1993; Hamel and Prahalad, 1994; Hamel and Prahalad, 1994; Boonekamp, 1994; Swinehart, 1995; Green et al, 1995; Feurer, 1996; Naidu et al, 1999; Selen, 2000; Robson et al, 2002; Chaharbaghi and Nugent, 2004; Hough and White, 2004).

The empirical evidence presented the view that the competitive environment factors have a fundamental role to play in the marketing mix strategy in Jordanian private sector hospitals.

#### **9.4.1 Government Regulations**

##### ***Hypothesis H1a: Government regulations and marketing mix strategy***

*Government regulations have a positive significant influence on marketing mix strategy components in Jordanian private sector hospitals.*

The empirical evidence has provided significant support for the government regulatory literature which advocates that government regulations bear an influence upon private sector hospitals (Berwick, 1989; Solomon, 1990; Kitson, 1994; Boonekamp, 1994; NHS Executive, 1998; Hogan, 1999; Fleishman et al, 1999; Walshe, 2003).

Berwick (1989); 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 in the early 1990s.

Boonekamp (1994) suggested that government will continue to play a major role in health care. "Regulated competition" implies deregulation and market mechanisms and at the same time government control of the nature and degree of competition, so the government will continue to play a role in health-care networks by influencing the rules of the game.

Hogan et al (1999) demonstrate that increased government regulations have led hospitals to join and/or create large health care systems, placing them in a market arena not unlike that of commodity products. As a result, hospitals are faced with the realization that consumer awareness of products and services presented is paramount to economic survival.

The conduct of government regulations represents a major influence on the marketing mix strategy for these hospitals, due to diverse policies and strategies formulated by governmental ministries and departments.

An important influential factor is the government regulations at various levels in the country. In many countries, health care is considered as a crucial matter, one which is so important for society that the government considers itself responsible for guaranteeing it at a basic level. The Jordanian government represented by the MOH and other ministries and departments plays a significant role in health care. Jordanian MOH controls the nature and degree of competition, so the ministry continues to play a role in health-care networks by influencing the rules of the competition. Moreover, in Jordan the local, regional and national authorities continue to influence the planning and financing processes. Governmental influence implies that private sector hospitals are not entirely free, for instance, to set their prices, extend their facilities, or promote their health services on television. As the government continues to be a significant party, Jordanian private sector hospitals will have to work on relationships with government representatives. As such, other governmental departments play a critical role in the investment of high technology medical equipment.

The quantitative analysis has been supported by qualitative research data. For instance, the manager of one of the biggest hospitals in Jordan stated: **“I would argue that one of the powerful influence factors on our hospital is government regulations and legislation. I would like to add, one of those influences by government regulations is the prohibition on us to advertise our health and medical services by local and satellite television. This reflects the problem of promoting our hospitals in our target market”**.

The administrative manager of another large hospital states:

**“One of the most influential factors enacted by MOH is its pricing policy for non-insured Jordanian people”**.

MOH hospitals provide reasonable price offers for all Jordanian people, so these low prices will play a competitive role for private sector hospitals. As a result of the difficult economic situation faced by most of the non-insured Jordanian people the majority will opt to use the public hospitals. This in turn, will generate reduced demand for private hospitals' services.

The stability of Jordanian government regulations represents an opportunity for such hospitals to reduce uncertainty.

## **9.4.2 Competitors**

### ***Hypothesis H1b: Competitors and marketing mix strategy***

*Competitors have a positive significant influence on marketing mix strategy components in Jordanian private sector hospitals.*

Competitors are considered as one of the influential factors on the Jordanian private sector hospitals. In Jordan's health market there are various kinds of competitors.

Among them are the following:

- External competitors: some patients especially those who are wealthy in Jordan, prefer to have their treatment outside the country e.g. in American and European hospitals.

- Internal competitors: MOH hospitals, RMS hospitals, and university hospitals. Patients choose these hospitals for various reasons. For example, Al-Hussein Medical City Hospital one of the RMS hospitals, is highly renowned for open heart surgery by its high calibre staff. In addition it offers low prices. For these reasons many patients prefer to attend such a hospital.
- Lastly, competition within the same sector. This is because Jordan has 40 general private sector hospitals, and 15 speciality private hospitals.

These findings are not surprising. When Jordanian private hospitals challenge all these competitors, this might impact positively on the improvement of health services for all.

These findings are consistent with other researchers' findings. Higgins (1991) found that competition in health care enhances quality. However, Robinson and Luft (1987) reveal that costs increase with competition.

Boonekamp (1994) concludes that with the introduction of regulated competition in health care organisations in this sector, a growing need of instruments for adequate network management is emerging. Recently developed insights in marketing appear to offer clues for handling this issue.

### **9.4.3 Suppliers**

#### ***Hypothesis H1c: Suppliers and marketing mix strategy***

*Suppliers have a positive significant influence on marketing mix strategy components in Jordanian private sector hospitals.*

This finding is consistent with other researchers' findings. Kotler (1984) identified suppliers as a major factor influencing marketing effort and strategy. Doyle and Bondereau (1989) advocated hospital–supplier partnerships as a means to improve productivity, to control costs, and to improve quality of care. They suggest that long-



term relationships with suppliers based on trust, service, and effective coordination could lead to efficiencies and improved performance.

For hospitals, the modelling process and findings suggest a strategy of integrated growth by backward integration; for suppliers, they suggest intensive growth via market penetration and product development. In other words, a supplier can increase market share in current markets with current products (market penetration) and/or by adding new products (product development) (Malhotra, 1987).

Shapiro and Moriarty (1984) show that wise suppliers of health care products are realizing the necessity of supplementing transactional selling with attention to evolving customer needs (Shapiro and Moriarty, 1984).

Further, Doyle and Bondereau (1989) Breen and Crawford (2005) suggested that for suppliers to increase their market penetration, they must understand the decision-making process of hospitals as it relates to their services. These hospitals must recognize explicitly that the decision-making process could vary with the state-of-being characteristics of the hospital.

Heinbuch (1996), and Breen and Crawford (2005) remarked that though hospitals of different sizes confront the challenge of finding novel means to increase productivity and quality of health care, some seek a new relationship with their suppliers to help lower costs and improve quality.

#### **9.4.4 Customers/Patients**

##### ***Hypothesis H1d: Customers and marketing mix strategy***

*Customers have a positive significant influence on marketing mix strategy components in Jordanian private sector hospitals.*

A further examination of the results of the multiple regression analysis has indicated that the customer is the most influential factor on the health service strategy and pricing strategy from the marketing mix strategy components.

A prerequisite for survival and growth is that both the hospital and its patients and other customers have an interest in their joint relationship. In other words there should be a win-win situation. Improve the health service quality, reduce the waiting times etc – these factors build an effective relationship and increase the hospital customer base in the long run. Patient satisfaction is considered to be of limited value, unless the hospital has environmental control as well. By building up communication networks between the hospital and its environment “...management can convert uncontrollable environmental forces into controllable relationships” (Anderson, 1991).

It is important to state that local patients represent a central influence on the Jordanian private sector hospitals for diverse reasons e.g. the variety of parties, which provide the health services for Jordanian people. For this reason the patient has the option to select between the health service providers, MOH, RMS, or private hospitals. In the same vein, the foreign patient can select any of the afore mentioned parties.

Because of the high degree of competition between the health services providers in Jordan, patients evaluate the health services between providers depending upon the quality of health services and the costs for diagnosis and therapy procedures and treatment.

According to the research findings of *Consumerism in Health Care: New Voices* (KPMG, 1998) study: "consumers are the driving force in the delivery of health care services ... findings quantitatively support an emerging industry transformation..." whereby consumers are influencing the policy, strategy, operations and investment decisions of health care entities. The health care industry can anticipate an expanding requirement to measure and report the quality of performance and related outcomes.

Lim et al (1998) state that patient complaints can do much more than merely reflect dissatisfaction with the service provided. For more than a decade they have been seen as having the potential to form an essential component of a health care delivery system that seeks to assure quality of care and maintain standards of care (Winkler, 1993). Zeigenfuss and O'Rourke (1995) stated that patients, as customers of health

services, help provide a perspective on the quality of services and support staff and management capacity to identify and address issues and deficiencies associated with health services.

Wong (1990) suggests that health-care consumers may have become much more sensitive to price issues. Wong also predicts that consumers will shop for the best value. Consequently, if a hospital's advertising expenditure is perceived as an additional cost that gets tagged on to patients' bills, it is likely to be perceived unfavourably. In-depth surveys also revealed strong beliefs that customers have to bear the costs of hospital advertising, and this was not favourably regarded. Thus, Andaleeb (1994) proposed that competing for patients may not be the objective of the heavily subsidized healthcare institutions run by the government as they have a moral responsibility to be fully accountable for the efficient use of public resources (Sarji, 1996).

Terry and Healey (2000) and Urden (2002) found a high correlation between patient education regarding their condition and care and satisfaction with the overall care. Patient education is thus observed not only as value-added, but additionally as a necessary component of the treatment.

Stevenson et al (1999) suggest that patient demand is complex and may be affected by the relationship between patients and GPs. In addition they advocate that patient demand is a major influence on prescribing in those practices. They note that patients' expectations are related to their educational achievement as well as their income. These differences were illustrated neatly by one GP, who worked in a practice between three buildings in completely separate areas.

Heistand (1986) claimed that customers are relying less on doctors today than in the past to select the "right" hospital. Earlier Wagner (1985) proposed that more consumers are now selecting physicians via advertisements.



#### **9.4.5 Third Party Payers**

##### ***Hypothesis H1e: Third party payers and marketing mix strategy***

*Third party payers have a positive significant influence on marketing mix strategy components in Jordanian private sector hospitals.*

A further examination of the results has indicated that the third party payer is an influential factor on the marketing mix strategy in Jordanian private sector hospitals. Within health services third party payers are considered to be those who pay for a health service as opposed to the service users.

From the above discussion on the influence of competitive environment factors on the marketing strategy in the Jordanian 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.

#### **9.5 Discussion of the Hypotheses Relating to the Service Marketing Mix Strategy with Hospital Performance Criteria**

The second group of hypotheses examines the association between the marketing mix strategy components and the hospital performance criteria. Seven hypotheses were extracted from reviewing the theoretical and empirical literature. The hypotheses were presented in chapter six and tested by multiple regression in chapter eight.

##### **Hypothesis H2: Service marketing mix strategy and hospital performance**

*H2: Service marketing mix strategy components have a positive and significant effect on the performance of Jordanian private sector hospitals.*

Empirically the model assumed that marketing mix strategy components influence all the performance criteria of all Jordanian private sector hospitals. It also predicted that the influence of those components on hospital performance differs from one criteria to another.

The results of the multiple regression analysis have indicated that there are variations in the effect of services marketing mix strategy on hospital performance in the Jordanian private sector hospitals.

There is significant empirical evidence in this research to indicate that marketing mix strategy components represent separate parts in their effect on the performance, though they are slightly interrelated in their process. This is evidenced when the majority of the relationships between marketing mix strategy components and hospital performance have a weak association and are sometimes non-significant in nature.

This empirical evidence has provided significant support for the services marketing mix strategy literature, which advocates that services marketing mix strategy have an influence on the hospital performance (Cowell, 1984; Kotler and Clarke, 1987; McDonald, 1989; Chee and Harris, 1993; Lovelock, 2001; Palmer, 2001).

The quantitative analysis has been supported by the qualitative research data. For instance, the administrative manager in one of the medium-sized hospitals stated:

**“One of the critical sources of success in our hospital performance is marketing mix strategy implementation because we are not employing the marketing strategy in a systematic approach”.**

One hospital department manager claimed: **“Marketing in the health care industry is an unethical approach used to attract the patients and other beneficiaries”.**

The empirical evidence presented the findings that the marketing mix strategy components have a fundamental role to play in the performance of Jordanian private sector hospitals.

### **9.5.1 Health Service Strategy**

#### ***Hypothesis H2a: Health service strategy and hospital performance***

*Health service strategy has a positive significant effect on the performance of Jordanian private sector hospitals.*

An examination of the results of the multiple regression analysis indicates that the health service strategy is the most influential component on all of the hospital performance criteria (financial, quality, customer, and marketplace).

This finding is consistent with other researchers findings (Gronroos, 1980, 1990, 1990b; Blois, 1983; Cowell, 1984; Kotler and Clarke, 1987; Berry, 2000; Oravo and Tuominen, 2002; Keller, 2003).

This result was supported by interviews with the Jordanian private sector hospitals.

The medical manager of one of the biggest hospitals states:

**“One of the most influential components in our hospital performance is the health service strategy, as the health strategy plays a crucial role in our patients’ lives”.**

For instance, an administrative manager in one of the larger aforementioned hospitals states: **“We have followed a differentiation strategy, by offering a wide range of services, providing all up-to-date latest medical technologies and providing an extremely high perceived level of care”.** This qualitative result is supported by other research (Kumar et al, 1997).

For instance, the administrative manager of one of the larger of these hospitals states:

**“We have developed many of the medical services in our hospital to strengthen on our competition in the Jordanian health market, and to increase satisfaction of Jordanian and Arab patients in our health services”.**

### **9.5.2 Pricing Strategy**

#### ***Hypothesis H2b: Pricing strategy and hospital performance***

*Pricing strategy has positive significant effect on the performance of Jordanian private sector hospitals.*

The pricing strategy is considered as one of the influential factors on the performance of Jordanian private sector hospitals. The pricing strategy influences the financial and



marketplace criteria. This result is supported by the qualitative research. The administrative manager of one of the medium size hospital states:

**“Our pricing strategy plays an essential role in our marketing share and our return on investment”.**

This finding is consistent with other researchers findings (Channon, 1986; Cannon and Morgan, 1990; Bonnici, 1991; Payne, 1993; Palmer, 1994; Bateson, 1995; Drake and Llewellyn, 1995; Woodruff 1995; Ansari et al, 1996; Lovelock, 1996; Meidan, 1996; Zeithaml and Bitner, 1996; Hoffman and Bateson, 1997; Langeard, 2000; Avlonitis and Indounas, 2005)

Jordanian private sector hospitals are trying to employ the pricing strategy as a competition tool to expand their target market and market share.

### **9.5.3 Distribution Strategy**

#### ***Hypothesis H2c: Distribution strategy and hospital performance***

*Distribution strategy has a positive significant effect on the performance of Jordanian private sector hospitals.*

The multiple regression analysis has indicated that the distribution strategy is the most influential component on the quality criteria.

The empirical evidence presented the view that the distribution components have a fundamental role to play in the performance of Jordanian private sector hospitals.

This empirical evidence has provided significant support for the distribution literature, which advocates that distribution strategy has a partial influence on the hospital performance (Maister, 1985; Kotler and Clarck, 1987; Cartwright and Windsor, 1992; Wakefield and Blodgett, 1996; Grice and Kickham, 1997; Bashshur et al, 2001; Jones, 2003).

### **9.5.4 Promotion Strategy**

### *Hypothesis H2d: Promotion strategy and hospital performance*

*Promotion strategy has a positive significant effect on the performance of Jordanian private sector hospitals.*

The empirical evidence presented the result that the promotion strategy has a fundamental role to play in enhancing the performance of Jordanian private sector hospitals by communicating well to the targeted customers.

This finding is consistent with other researchers findings (Lauterborn, 1990; Thwaites, 1998; Lovelock, 2001)

The American Hospital Association (AHA) and the Federation of American Hospitals (FAH) formally recognised the need for hospitals to advertise their services (Berkowitz and Flexner, 1981). Later, when the Supreme Court (*Bates and O'Steen vs. The State of Arizona*) granted lawyers the right to advertise and the AHA, likewise, revised its guidelines (Andaleeb, 1994) a new era in hospital and medical advertising began. The loosening of advertising restrictions was greeted by an intense wave of consumerism (Green, 1988; Ferrini and Ferrini, 1992).

This result contrasts with the qualitative results. The administrative manager of one of the big size hospital states:

**“The Jordanian MOH prohibited us from advertising our health services in the satellite television channels”.**

The medical manager of another small hospital remarks:

**“I would argue that we consider marketing is part of the public relations in the hospitals”.**

These finding indicate that advertising/promotion will become an increasingly important marketing tool in the health care industry.

Advertising is expected to play a more prominent role in a hospital's quest for market share and profits. Several specific reasons account for this contention (Andaleeb,

1994). First, it is already apparent that competitive pressures have increased for hospitals. Many administrators seem to have increased their marketing efforts to respond to competition (Solomon, 1990). Advertising is a critical component of these efforts.

### **9.5.5 Physical Evidence Strategy**

#### ***Hypothesis H2e: Physical evidence strategy and hospital performance***

*Physical evidence strategy has a positive significant effect on the performance of Jordanian private sector hospitals.*

Empirically the model assumes that physical evidence strategy influences the performance in Jordanian private sector hospitals.

The results of the multiple regression analysis indicate that there is a variation in the effect of physical evidence strategy on hospital performance. There is significant empirical evidence in this research that has indicated that physical evidence strategy has a different degree of influence upon the hospital performance as a whole and on the hospital performance criteria individually.

This empirical evidence has provided significant support for the physical evidence strategy literature, which advocates that physical evidence strategy literature has an influence on hospital performance (Booms and Bitner, 1982; Bitner, 1992; Baker and Cameron, 1996; Stuart and Tax, 1997).

Shostack (1984) recognised the vital role of providing tangible evidence during the service delivery process. This evidence may include the setting, colour schemes, printed advertising material, and stationery.

Bitner (1992) identified the key role that the physical environment plays in services, and implied that the physical service setting could either aid or hinder the firm's ability to achieve its goals in service delivery. The proposed conceptual framework relates the aspects of the service scope to the behaviours of both customers and employees during service delivery.



The empirical evidence presented the view that the physical evidence strategy has a fundamental role to play in the performance of Jordanian private sector hospitals.

### **9.5.6 Process Strategy**

#### ***Hypothesis H2f: Process strategy and hospital performance***

*Process strategy has a positive significant effect on the performance of Jordanian private sector hospitals.*

The empirical evidence has provided significant support for the process strategy literature which advocates that process strategy influences hospital performance (Berwick, 1989; Solomon, 1990; Kitson, 1994; Boonekamp, 1994; NHS Executive, 1998; Hogan, 1999; Fleishman et al, 1999; Walshe, 2003).

This is because process strategy may influence the initial customer decision to purchase a service, and affects the level of customer satisfaction (Booms and Bitner, 1981; Collier, 1991; Smith and Saker, 1992; Kasper et al, 1999; Zeithaml and Bitner, 2000; Lovelock, 2001).

Multiple regression analysis indicates that the process strategy is the most influential factor on the marketplace criteria.

Booms and Bitner's (1981) construct of mechanisation, technology offers choices that managers must understand and make, as a means of enhancing performance in the service delivery processes (Fisk et al, 1993; Lovelock, 1992; and Lovelock, 1995). Heskett et al (1997) also identified "devices and policies" as one of the eight elements comprising a service delivery system. More recently, Stuart and Tax (1997) identified technology as one of a number of process issues that should be dealt with in assessing service systems when a company is considering a new service introduction.

Jordanian private sector hospitals are trying to use health process strategy as an instrument tool to attract patients and increase their market share. In general, the analysis tends to show some support for the literature that advocates this process in the marketing strategy.

### **9.5.7 Personal Strategy**

#### ***Hypothesis H2g: Personal strategy and hospital performance***

*Personal strategy has a positive significant effect on the performance of Jordanian private sector hospitals.*

Personal (administrative and medical) strategy plays a crucial role in health organisations especially during the service delivery process when the doctors have interactions with their patients.

A further examination of the results of the multiple regression analysis has indicated that the personal strategy is the most influential factor on the health service quality and hospital performance.

This finding is consistent with other researchers' findings (Cowell, 1984; Judd, 1987; Gummesson, 1991; Sharma, 1994; Alvesson, 1995; Lovelock et al, 1996; Wang and Mowen, 1997).

In health care more than in other services, the product is the person. When the patient thinks of medical care he or she thinks of the physician. The patient envisions medical care in terms of the people who deliver it. Thus the fifth P of marketing is the organisation's people (Kotler and Clarke, 1987).

### **9.6 The Modified Research Framework**

This section demonstrates the research framework that has emerged as a result of the quantitative analysis. The modified research has included one framework that is diagrammed according to the effect of competitive environment factors on the services marketing mix strategy components in the Jordanian private sector hospitals. Five competitive environment factors have constituted the competitive environment factors in this research. These five competitive environment factors (government regulations, competitors, suppliers, customers, and third party payers (TPP)) have been discussed throughout the thesis. Services marketing mix strategy refers to the

dependent variables and the five competitive factors are the independent factors. On the other hand, services marketing mix strategy refers to the independent variables and hospital performance criteria are the dependent variables. However, there are seven dimensions for the services marketing mix strategy. The first factor was the health service strategy factor with 13 items. The second factor was the pricing strategy with 9 items, the third factor was distribution strategy with 8 items, the fourth factor was the promotion strategy with 6 items, the fifth factor was the physical evidence strategy with 8 items, the sixth factor was the process strategy with 10 items, and the seventh and final factor was the personal strategy with 8 items.

Figure 9.1 illustrates the marketing mix strategy components model with its original relationships with competitive environment and hospital performance criteria. Figure 9.2 shows the effect of competitive environment on marketing mix strategy, the effect of marketing mix strategy on the hospital performance measurement criteria.



**Figure 9.1 The Original Model**

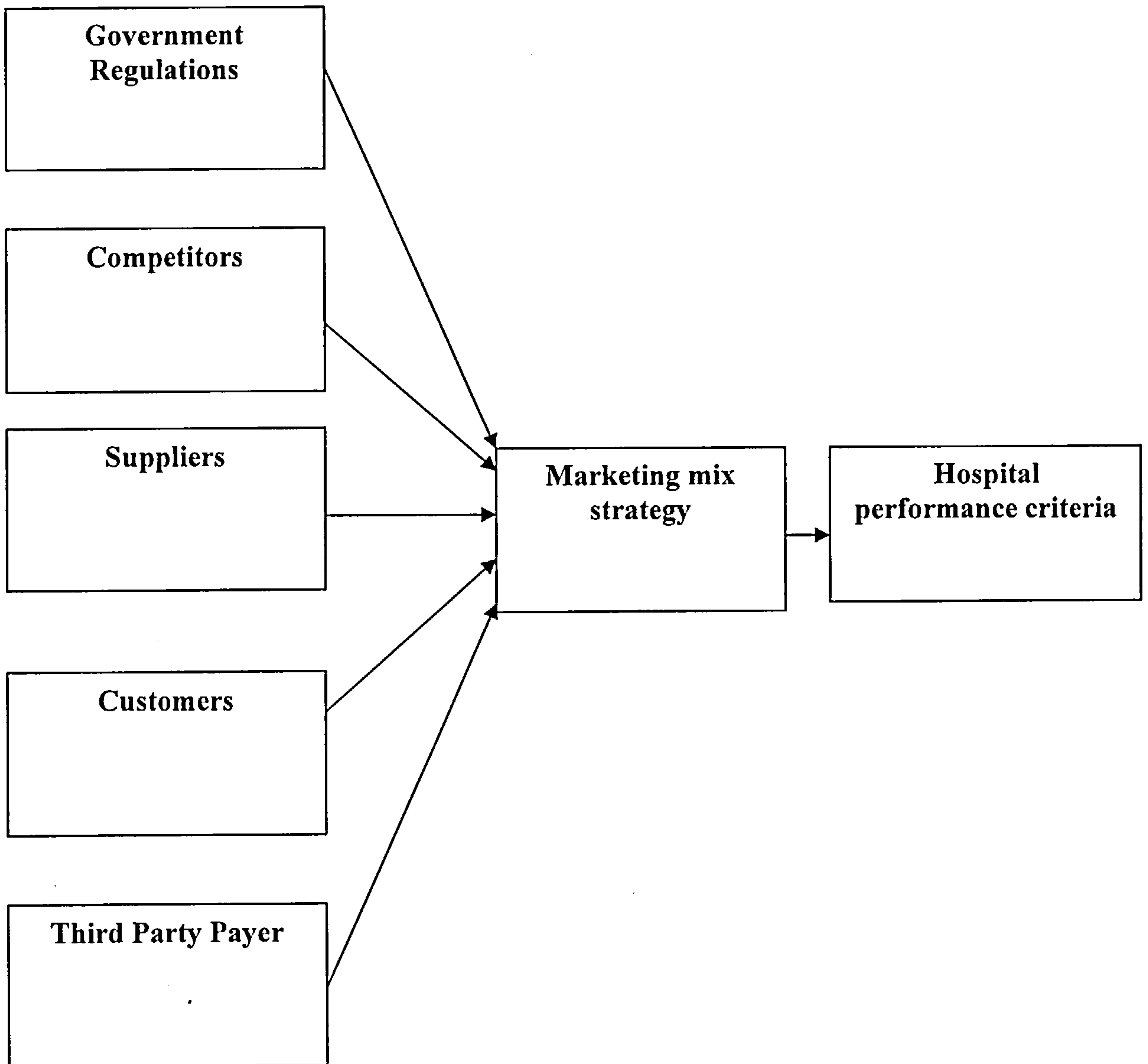
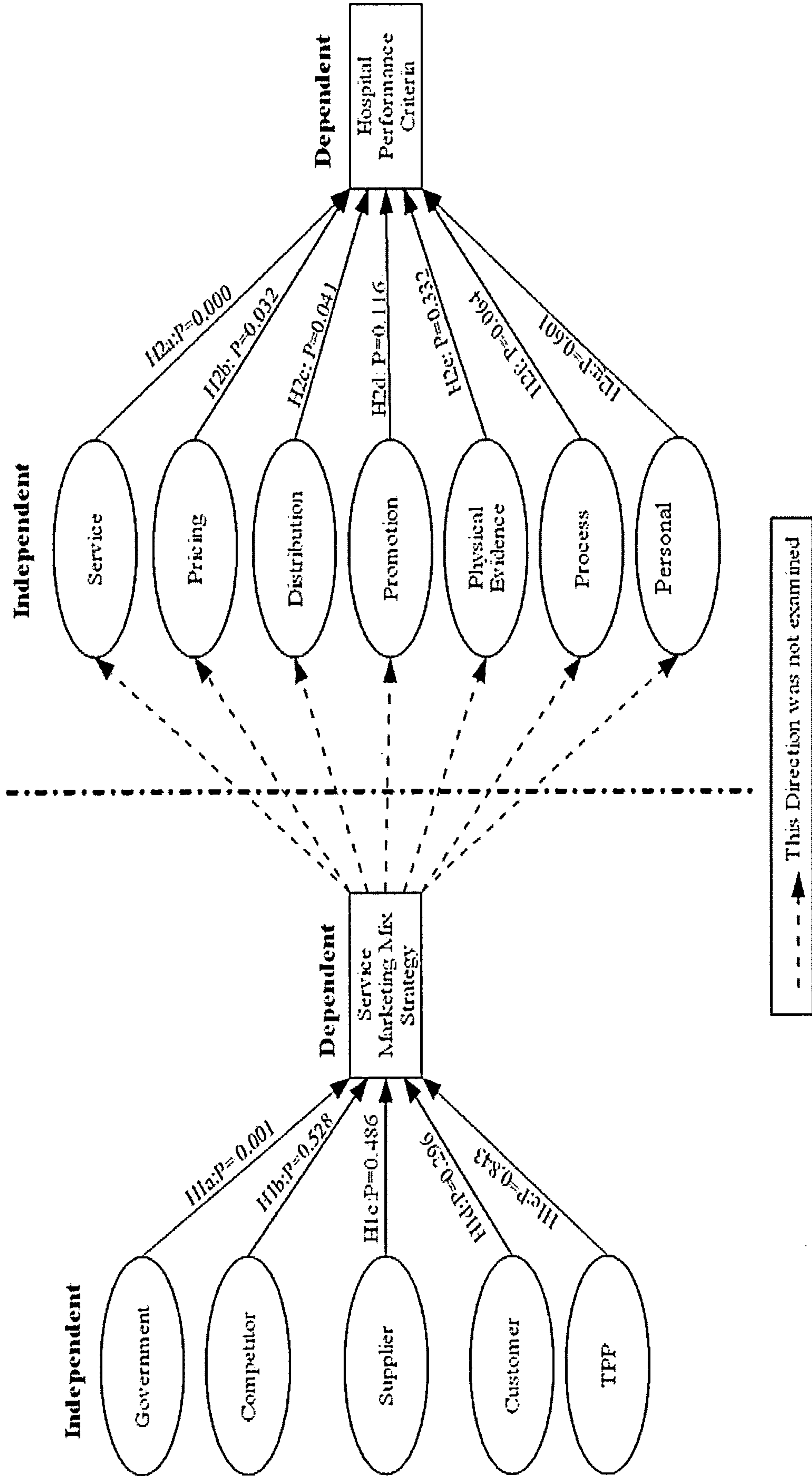


Figure 9.2 Hypothesised Relationships



## 9.7 Summary

This chapter is concerned with providing the research discussion of the overall qualitative and quantitative data and findings. The chapter provides a detailed discussion to fulfil the research objectives, which are designed to build up a comprehensive framework for the marketing of hospitals in Jordan.

This chapter has discussed the twelve hypotheses that were formulated in chapter six and tested in chapter eight. Since the research hypotheses were grouped into two categories the same categories were used to discuss, justify and compare the results wherever possible. Given that the findings relating to acceptance or rejection of each hypothesis were summarised in Table 8.19, they are not summarised again here.

The managerial and practical implications, research contribution, limitations, and areas of further researches are discussed in the next chapter.



# **Chapter Ten**

## **Conclusion**

### **10.1 Introduction**

This final chapter seeks to present a profile for the entire study that relates to future research in the study field. It additionally presents theoretical as well as empirical conclusions from the research, discusses the implications and limitations associated with the research, and presents directions for future research.

### **10.2 Research Objectives**

The research is aimed at achieving these objectives:

1. To establish and define the components of the service marketing mix strategy of the private sector hospitals in Jordan.
2. To identify the factors which constitute the competitive environment profile for Jordanian private sector hospitals.
3. To determine the influences of the competitive environment factors on the service marketing mix strategy components in Jordanian private sector hospitals.
4. To determine the effects of the service marketing mix strategy components on the performance of the private sector hospitals in Jordan.

### **10.3 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 in hospitals in particular. The research conclusions are drawn for each objective of the research.

#### **Marketing Mix Strategy Components-Objective One**

##### **Health Service Strategy**

It is found that the majority of Jordanian 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.

Developing and introducing new health services is applied in Jordanian private sector hospitals. The importance of introducing and developing new health services is two fold. First it is a competitive tool for the hospital's growth and continuations, and for enabling the hospital to meet needs and wants for the largest possible market. Second, in light of the updated medical technology world wide, it helps hospitals to gain opportunities that lead to increased market share and penetrate new markets. Jordanian private sector hospitals understand customer needs and wants when they act to develop a new health service that assists their hospitals to retain existing patients and attract new customers.

The research data indicates that patient services is a fundamental factor in a health service strategy and a crucial part of the marketing strategy, whereas the Jordanian private sector hospitals focus on customers' (patients) confidential cases. Also Jordanian private sector hospital managers comprehend their patients' requirements and they use patients' feedback to improve and enhance health service quality.

The research indicates that Jordanian private sector hospitals have a more than adequate capacity to hold huge numbers during times of disaster. Hospital brand reputation is the element, which is used to formulate the health service strategy by using the medical staff names. The majority hospitals do not brand their services because of the sophisticated characteristic of the health services.

### **Pricing Strategy**

The quantitative and qualitative data analysis in the Jordanian private sector hospitals indicated that there are disparate pricing strategies are frequently adopted within the hospitals. These strategies involve pricing based on government regulations, and the varying costs, which the Jordanian private sector hospitals incur. The pricing policy based on competition in the Jordanian health market and price discrimination according to market segment was utilised by Jordanian private sector hospitals. The most frequently adopted pricing policy is related to the government regulation controlled by the MOH.

### **Distribution Strategy**

It is found that the majority of Jordanian private sector hospitals provide an hourly service availability to match the non-programmed emergency and accident cases.

The research data indicates that Jordanian private sector hospitals have no branches in different governorates and cities in Jordan. This may be due to a high cost of establishment or/ the concentration policy in one branch. As such, most of Jordanian private sector hospitals do not have a mobile clinic.

### **Promotion Strategy**

The qualitative data analysis suggests that the most prominent method of promotion is by “word of mouth” communication where an existing patient recommends the hospital services to other customers in similar or different cases of illness.

The word of mouth communication, personal selling and customer personal contact, and public relation, and publicity for promoting health services were used by most Jordanian hospitals. The rationale behind using word of mouth communication in promoting health services is that the health service has unique complex characteristics especially the aspect of intangibility. Medical and administrative staff believe that the greatest means of promoting health service is by word of mouth. Furthermore, promoting health services is more problematic compared with other services or products.

The rationale behind using personal selling and patient relations office staff in promoting health services is that medical and health services are highly complex and sophisticated and intangible particularly for highly complicated and delicate surgical operations such as open heart.

The rationale underlying use of public relations and publicity (free medical days) to enhance the hospitals image in promoting their health service is that hospitals need to build trust and improve the reputation of their health services. The low use of other methods of promotion (advertising) remains a matter of debate among the health services in Jordan.

Jordan is still facing a weak professional promotion industry especially in the field of advertising with regard to regulations appertaining to television advertising in relation to hospital services owing to ethical and legal considerations.



However, the qualitative data and quantitative data analysis has revealed that the Jordanian private sector hospitals have not yet reorganised a specialised budget for the promotion of most hospitals considering marketing to be a part of the public relations department.

### **Physical Evidence Strategy**

The research data indicates that customer service is a fundamental objective in designing the physical evidence strategy of Jordanian private sector hospitals by which it can create a customer-friendly atmosphere and comfortable access to the health services. Therefore, the customers of hospitals face an altogether different psychological situation compared to customers of other service organisations, which need additional effort to help them reduce the degree of anxiety experienced by concentrating on the physical evidence atmosphere facilities. However, the research data also reveals that the Jordanian private sector hospitals have recognised the significance of the physical evidence element to achieve the marketing objectives such as hospital image. The research data indicates that the majority of Jordanian private sector hospitals recognised that the cleanliness and appearance of their hospital and accessibility in terms of location represent key attributes. This may reflect a good impression for patient and visitor and decrease the degree of anxiety felt by a number of their customers.

### **Health Process Strategy**

The research data reveals that the health/medical services delivery process strategy is the most sensitive and critical activity that the Jordanian private sector hospitals, as with any hospital around the world concentrates upon to deliver their services on time. Most medical cases do not accept any delay in treatment. Jordanian private sector hospitals also recognized satisfaction among their customers during delivering health services for two reasons: first, the social responsibilities, and second the great competition extent in the health care market.

The research data demonstrates that the Jordanian private sector hospitals use updated medical equipment technology when delivering diagnostic and therapeutic health services. This may increase the trust and confidence of the Jordanian private sector

hospitals locally and internationally which will lead to increased demand for their services.

### **Personal Strategy**

The data indicates that Jordanian private sector hospitals are generally improving their personal ability to perform their service role and to maintain a competitive level. They further concentrate on their staff's appearance because of the extreme contact occurring between staff and hospital patients. Serving customers in hospitals are critical activities that may earn customer satisfaction- or approbation, so excellent standards are essential within such an environment.

### **Competitive Environment Factors-Objective Two**

#### **Government Regulations**

The quantitative data suggests that the most significant influence statement of government regulations is Jordanian health regulations and legislation enacted and formulated by the government ministries and departments e.g. Jordanian MOH. The policy of privatisation does not have significant influence upon marketing mix strategy as there is no privatisation process for the public health sector in Jordan until now especially within MOH and RMS hospitals.

#### **Competitors**

The quantitative data analysis in the Jordanian private sector hospitals indicates that the most influential factor is the size and magnitude of the local competition in the Jordanian health market. This refers to the extensive number of licensed private hospitals; 55 hospitals and various kinds of health sectors in Jordan (MOH, RMS, and private hospitals). The external competition from non-Jordanian hospitals, which invest in the local market, is insignificant. The rationale behind this is that there is no external investment in Jordanian private sector hospitals e.g. American hospitals.

#### **Suppliers**

The quantitative data analysis in the Jordanian private sector hospitals 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 in the Jordanian health market which leads to the majority of the Jordanian private sector hospitals desiring possession of these technologies to compete successfully within the Jordanian 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 internal supplier in the Jordanian market is a significant influence on Jordanian private sector hospitals. Because of this most Jordanian private sector hospitals depend on the internal supplier when they require any medical equipment or technology. The rationale behind this reason is that most Jordanian suppliers are representatives for global companies in the medical equipment field.

### **Customers**

The quantitative data analysis in the Jordanian private sector hospitals indicates that the most influential factor is the internal customer base. This refers to the wide range of options between health services providers such as MOH, and RMS. Accordingly, customers in Jordan have alternatives when choosing between sectors and, between hospitals in the same sector.

### **Third Party Payer**

The quantitative data analysis in the Jordanian private sector hospitals indicates that the most influential factor is the self-insured companies and associations. The rationale underlying this reason is that the majority of large companies in Jordan e.g. Royal Jordanian Airlines insure their employees in the private hospitals sector.

### **The Relationship between Competitive Environment Factors and Marketing Mix Strategy Components-Objective Three**

1. Researchers besides health organisations are encouraged to regard the whole picture of relationships among the external influences considered in this research. Generally, researchers and practitioners place more emphasis on end results like market share, profit and revenue, ignoring the importance of the source of these outcomes. In particular this research would encourage managers and academics to award greater attention to the marketing mix strategy aspect and to scrutinise its outcomes.
2. In relation to the application of the marketing model in Jordanian private sector hospitals, two barriers exist. The first is that most private hospital managers do not consider the elements of competitive environment factors as



crucial inputs. Competitive environment information about – government regulations, the policy of foreign investment, WTO membership, external competition, up-to-date medical technology, health insurance, customer preferences, and suppliers' influence are not utilised. Competitive environment information is not used, not because of the lack of policy knowledge, but because of a scarcity of information about how far the policy will produce effective demand, due to the lack of marketing analysis in those hospitals from one side and a lack of information about volume of demand and the type of patients who require these services.

3. Government regulations and legislations represent, to a great degree the most important factors influencing the marketing mix strategy components. It is very necessary for both managers and researchers to investigate such factors and to seek answers to how, and to what extent government regulations influence hospital marketing mix strategy or how government regulations would improve the level of hospital marketing mix strategy and hospital performance.
4. While regulations and legislation are crucial influencing tools on hospitals, hospital managers are encouraged to examine these influences and discover the possibility of making these influences align the directions of hospital strategies and policies.
5. The stability of Jordanian governmental policies and strategies represent sound opportunities for those hospitals to reduce uncertainty. This is among the most influential factors affecting marketing mix strategy.
6. Competitors are additionally a significant influential factor on health service strategy and personal strategy. For this reason it is an important consideration given the attention by hospital managers to investigate the number of competitors in the health market and the kind of competition in the Jordanian health market if there are any external competitors that influence the hospital. As such, hospital managers must investigate their patients' personal needs and wants in order to become aware of the local and international competitors especially where unique specialists in different fields of medicine are to be found.
7. Regarding competition, hospitals in all surveyed cities- such as those in the Jordanian capital, Amman, face competition from both other hospitals and in

the same sector (direct competitors) or from various sectors like MOH or Royal Medical Services hospitals.

8. Some people in Jordan still prefer to receive their health services outside Jordan, specifically in America, and some European countries, which represent the external competitors to all Jordanian hospitals.
9. The supplier/ technology environment provides a marketing opportunity for some Jordanian private sector 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. On the other hand, it poses a threat to a number of other hospitals, which do not introduce such technology, which is known and needed by the Jordanian market. This is due to their increasing awareness in health and illness issues, external competition, and the dearth of benefit from introducing it because of the high cost or the specialised kind of training needed for personnel who are not qualified to use it at the outset.
10. Customer factor is the most influential in health service strategy and pricing 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 and set their costs. Therefore, how the hospital managers utilise those customers as a strong foundation to recommend the hospital services to other potential customers is paramount.
11. The compulsory health insurance policy for public and private universities and foreign employees are the most influential factors in marketing mix strategy components. This represents the major opportunity for Jordanian private sector hospitals to increase effective demand and construct good and long running contracts with these organisations.

### **The Relationship between Marketing Mix Strategy Components and Hospital Performance-Objective Four**

The analysis and findings from the quantitative research data analysis relating to the relationship between the marketing mix strategy and the hospitals' performance

criteria measured by financial, quality, customer, and marketplace criteria indicated the following conclusion:

The marketing mix strategy components, namely; health service, pricing, distribution, promotion, physical evidence, process, and personal strategies are found to have varied significant and insignificant effects on hospital performance by using the individual financial and non-financial criteria. This provides empirical evidence that the hospital performance measurement phenomenon is complicated and multidimensional in nature.

The quantitative data analysis indicates that several components of marketing mix strategy have a positive and significant effect on the hospital performance measured by financial criteria and non-financial criteria.

There is a significant use of the quality performance measurements for measuring hospital performance. This is a reasonable conclusion since the issue of quality is a core and crucial objective in health services when achieving safety and satisfactory quality results for patients. The most important quality criteria are mortality rate, infection rate, and clinical outcome. Alternatively, a medical negligence responsibility has been an insignificant aspect in Jordanian private sector hospitals to date.

#### **10.4 Theoretical Conclusion**

The theoretical underpinning of this study is based on literature from service marketing in general and health service marketing in particular, in addition to marketing mix strategy components (health service, pricing, distribution, promotion, physical evidence, process, and personal strategies). As such, the effect of competitive environment factors upon health care organisations is discussed in details. Finally, hospital performance criteria namely, financial, quality, customer service, and market place criteria were discussed. Service marketing scholars have begun to recognise and magnify the crucial nature of services and that they are, in fact altogether different from products because of their unique features, intangibility, inseparability, heterogeneity, and perishability (Berry, 1980; Shostack, 1982; Parasuraman et al, 1985; Zeithaml et al, 1985; Bowen and Schneider, 1988). The recognition of such characteristics has led researchers to recognise the key role played by service



marketers in improving service delivery (Parasuraman et al, 1985; Parasuraman, 1987; Crosby et al, 1991). This further shed light on the importance of exceptional consideration of marketing in service sectors especially in health service provision.

As such, this research is based on two theoretical models. The first is the competitive environment factors related to marketing mix strategy. The second is based on the marketing mix strategy with hospital performance criteria. These two models have been modified to develop the proposed research model of marketing mix strategy as illustrated in figure 9.1.

This model has been developed based upon literature from a range of marketing and organisation disciplines. Such literature has guided this research in building or integrating a model relating marketing mix strategy to five competitive environment factors including government regulation, competitors, suppliers, customers, and third party payers. Accordingly, the relationship between marketing mix strategy and hospital performance criteria has been constructed.

### **10.5 Empirical Conclusion**

The empirical conclusion that could be drawn from this research is a multifaceted one. This is mainly because this research had to investigate both controllable and uncontrollable issues (marketing mix strategy components and competitive environment factors). These main empirical conclusions are as follows.

Marketing mix strategy is a necessary strategy in service organisations to ensure these organisations' success. It is vital to marketing the hospitals in the target market and acts on behalf of the whole hospital or with coordination in dealing with competitive environment factors namely government regulations, competitors, suppliers, customers, and third party payers. These are the factors that the hospital is attempting to win via the marketing strategy application and the services delivered. This research argues that such strategy does not evolve simply by chance, but through a planned effort by the hospital management. Such effort would be insufficient and inadequate without considering five competitive environment factors, including government regulations, competitors, suppliers, customers, and third party payers. The link between these factors and the marketing mix strategy components was based on findings from the literature, pilot interviews, the qualitative study and results of this

research sample survey. The framework suggests that marketing mix strategy as a core construct in this research receives its vital role through the effect of marketing mix strategy on hospital performance. As a result, the argument of this study is that the marketing mix strategy is a mediating factor that relies on five competitive environments. Furthermore, marketing mix strategy itself leads to some impact on the hospital, including hospital performance.

Services are considered as the context for this research because, given the characteristics of services it is evident that most of the diagnostic and therapeutic health services in the hospital are delivered by direct contact between service provider and patients. For this reason hospital employees play a key role in the services. Hence, the customer might not observe more valuable tangibles than the health service employee who represents the service and the hospital in every service visit. Therefore, health service delivery relies on human interaction with the customers. The hospital industry is considered in this study as a major representative sector of the general service industry.

Finally, one issue related to the methodology adopted in this research offers more support to the theoretical conclusions. That is the use of triangulation, a mix of research methods approach, which combines qualitative and quantitative designs in order to compensate for the weaknesses of each and to benefit from their advantages (Greene et al, 1989; Creswell, 1994). The primary research design was the survey design and the exploratory pilot study that was used for development purposes to help inform the development of the quantitative method (Greene et al, 1989).

## **10.6 Research Contribution**

This thesis seeks to make an original contribution to knowledge by investigating the impact of competitive environment factors on marketing mix strategy components in the health care industry in Jordan. This thesis contributes to the services marketing discipline in finding out the role of marketing mix strategy in delivering a better health service within the service sector. It investigates the latter so as to demonstrate the uniqueness of service organisation and the importance of the service. Competitive environment factors namely, government regulations, competitors, suppliers, customers, and third party payers are the focus of this study as they all have an

influence on marketing mix strategy. As such, this study attempts to contribute to the marketing knowledge and health services marketing in particular by looking at the impact of these five dimensions on marketing mix strategy. It utilises both quantitative and qualitative methodologies to explore such a relationship in an environment where no previous research efforts have been made to investigate such relationships.

Another contribution of this thesis is discovering more about the role of marketing mix strategy in impacting hospital performance. As such, this study will provide an empirical analysis of the relationship between marketing mix strategy and hospital performance. Adopting the whole model is the overall contribution for this thesis by looking at the influences of competitive environment on marketing mix strategy, and investigating the marketing mix strategy relationship with hospital performance.

This research has dealt with a neglected area in Jordan, which is the marketing of health services. It is considered as new research in the diffusion of marketing in the area of health services to gain an understanding of the relevance, effect and contribution of marketing mix strategy to the Jordanian private sector hospitals.

Such contribution will be beneficial both academically and professionally. Academically, this work aims to focus academic attention upon a neglected domain in the context of this research. And, professionally, managers will also look at the practical implications of such effort and the possibility of implementing the implication of this research in their actual relationships with their stakeholders (competitive environment factors).

The research design and methodology that are specifically developed for the purpose of this research should assist researchers to conduct research projects in the field of health services marketing area in the developing countries.

### **10.7 Limitations and Avenues for Future Research**

While this study has provided valuable insight, there are some limitations, which may limit generalisability:



1. There were some difficulties with the distribution of the research questionnaire and the same method could not be used for all Jordanian private sector hospitals. Some hospitals, for example, refused to accept the survey; they believed that marketing in health service organisations is unethical; others accepted the survey and volunteered to distribute it to the research sample, while others allowed the researcher to deliver the survey to the research respondents individually. This might have created inconsistency in the data collection process.
2. One major difficulty with this research is that no studies have been previously performed regarding the implementation of competitive environment factors influencing the marketing mix strategy in the health sector. Although this will add to the originality and value of this study, the research will not have the added benefit of learning from others' mistakes.
3. This research has been conducted in a single service industry, the health service industry in Jordan, exclusively in the general Jordanian private sector hospitals, which implies that the generalisability of the research results are limited to the general private sector hospitals in Jordan within the Jordanian business environment context, and cannot be generalised to other health services markets either in developed or developing countries.

In conducting this research a number of areas were identified for further research and future study. These areas include:

1. Studying the proposed model in other Arab countries in order to gain more validation for the model and more generalised findings.
2. Studying other service sectors and other health sectors e.g. public sector (MOH hospitals or Royal Medical Services hospitals) in order to develop a model that represents the service sector more generally, rather than representing the private sector hospitals alone.
3. The same model could be used in a comparative study between the service sector and the industrial sector in order to test the differences of marketing mix strategy in both sectors and ascertain whether the model could be more standard across a range of industries.

4. Studying 1Ps or a 2Ps model appeal more than a 7Ps model. It would be preferable to research the development of hospital marketing in Jordan from 1Ps or a 2Ps model to 7Ps practice.
5. 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, perceptions of hospitals and satisfaction.
6. An in-depth study is required to estimate effective demand for the health service in general and for private hospitals in particular. So, too is a study on the influence of WTO membership on health care quality, demand pattern and competition in Jordan.
7. A study of financial, quality, customer service, and marketplace performance criteria is still required to test more fully how far Jordanian private hospitals achieve success and effectiveness as a result of applying marketing theory.
8. It is worth examining the influence of general environment (PEST) model on marketing mix strategy components.
9. A study of competitive environment factors influence on hospital performance criteria in order to develop a model of relationship between competitive environment factors and hospital performance criteria.

In summary, this research makes a positive contribution in the direction of competitive environment influences on marketing mix strategy in the health services. However, this research sought to overcome the limitations it encountered with the most methodological sound 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 competitive environment factors that influence marketing mix strategy components in the hope that such efforts will improve the relationship between the organisation, its managers and its customers with regard to greater mutual and common advantages and benefits.

# References

- Aaker, D, (1996), "Building Strong Brands", The Free Press, New York.
- Aaker, J, (1997), "Dimensions of brand personality", *Journal of Marketing Research*, Vol. 34 No.3, pp.347-56.
- Aas, I, (2001), "A Qualitative Study of the Organisational Consequences of Telemedicine", *Journal of Telemedicine and Telecare*, Vol.7, No.1, pp.18-26.
- Abela.A, (2006) "Marketing and consumerism A response to O'Shaughnessy and O'Shaughnessy' *European Journal of Marketing*. Vol. 40, No. ½, pp. 5-16
- Abel-Smith, B, (1992), "Health Insurance in Developing Countries: Lessons from Experience", *Health Policy and Planning*, Vol.9, No.3, pp 215-226.
- Abu- Noktah, A, (2000), "The Environmental Influences on Marketing Strategy in Jordanian Health Sector", unpublished MSc theses Baghdad university, Iraq
- Adler, N; Friedman, L; Sinuany-Stern, Z, (2002), "Review of ranking methods in the data envelopment analysis context", *European Journal of Operational Research*, Vol. 140, No.2, pp 249-65.
- Akan.O; Allen, R; Helms,M; Spralls, S, (2006) "Critical tactics for implementing Porter's generic strategies" *Journal of Business Strategy*, Vol. 27, No. 1 pp 43-53.
- Akber, Abdullah; Gough, Tom, (2003), "TeleHealth paradigm for Kuwait's healthcare", *Logistics Information Management*, Vol. 16, No. ¾, pp. 229-245
- Al- Faleh, M, (1987), "Cultural influences on Arab management development: A case study of Jordan", *Journal of management development*, Vol. 6, No.3, pp. 19-33.
- Al-ftlawi, Saheb, (1997), "Health Legislation", Dar-Wail, Amman-Jordan.
- Allen, R; Thanassoulis, E, (2004), "Improving envelopment in data envelopment analysis", *European Journal of Operational Research*, Vol. 154 No. 2, pp.363-79.
- Allsop, J; Mulcahy, L, (1998), "Maintaining professional identity: doctors' responses to complaints", *Sociology of Health and Illness*, Vol. 20, No.6, pp 847-69
- Al-Shammari, Minwir, (1999), "A multi-criteria data envelopment analysis model for measuring the productive efficiency of hospitals" *International Journal of Operations & Production Management*, Vol.19, No. 9, pp. 879-891
- Al-Shawi, A, MacEachern, .G.; Greco J, (2005), "Patient assessment of surgeons' interpersonal skills", Vol. 10, No. 3, pp 212-216
- Al-Tayeb, H, (1986), "Arab management development organisations, their current situation and future horizons", *Arab Organisations of Administrative Science*, Amman, Jordan (in Arabic).
- Alvarez, Begoña; Rodolfo, Alvarez; Casielles, Vázquez, (2005), "Consumer evaluations of sales promotion: the effect on brand choice", *European Journal of Marketing*, Vol. 39, No. ½, pp. 54-70
- Alvesson, M, (1995), "Management of Knowledge-Intensive Companies", Gruyter, Berlin.



American Hospital Association, (1974), "Classification of Health Care Institution", American Hospital Association.

American Hospital Association, (1991), "Guide to the Health Care Field", Chicago, American Hospital Association.

Ames, B; James D, (1984), "Managerial Marketing for Industrial Firms", New York: Random House, Inc.

Ammons, D, (1996), "Municipal Benchmarks: Assessing Local Performance and Establishing Community Standards", Sage Publications, Thousand Oaks, CA, .

Ancona, D, Caldwell, D, (1992), "Demography and design: predictors of the new product team performance", *Organisation Science*, Vol.3, pp321-41.

Andaleeb S, (1998), "Determinants of customer satisfaction with hospitals: a managerial model", *International Journal of Health Care Quality Assurance*, Vol. 11, No. 6, pp. 181-187.

Andaleeb, S, (1994), "Hospital Advertising the Influence of Perceptual and Demographic Factors on Consumer Dispositions", *Journal of Services Marketing*, Vol. 8, No. 1, pp. 48-59

Andersen, P; Petersen, N, (1993), "A procedure for ranking efficient units in data envelopment analysis", *Management Science*, Vol. 39 No.10, pp.1261-4.

Anderson, W, (1991), "Is the Purpose of the Organization to Create Satisfied Consumers? No!", *Marketing and Research Today*, Vol. 19 No.3, pp.127-41.

Anderson, J; Rungtusanatham, M; Schroeder, R, (1994), "A theory of quality management underlying the Deming management method", *Academy of Management Review*, Vol. 19 No.3, pp.472-509.

Anderson, P, (1999), "England publishes first tables of hospital performance", *British Medical Journal*, Vol. 318 No.7200, pp.1715.

Ansari, A; Siddarth, S; Weinberg, C, (1996), "Pricing a bundle of products or services: the case of nonprofits", *Journal of Marketing Research*, Vol. 33 No.1, pp.86-93.

Ansoff, H; McDonnell, E, (1990), "Implanting Strategic Management", Second Edition. Prentice/Hall International Inc.

Aquiar, A, (1985), "Professional advertising: how professional is it?", *Health Care Marketing Quarterly*, Vol. 1 pp.49-60.

Armstrong, Gray; Kotler, Philip, (2001), "Marketing: an Introduction", Pearson, Prentice-Hall.

Arnold, D; Hoffman, K; McCormick, J, (1989), "Service Pricing: a Differentiation Premium Approach", *Journal of Services Marketing*, Vol. 3 Issue. 3.

Asenso-Okyere, W, (1995), "Financing Health Care in China", *World Health Forum*, Vol. 16, No.1, pp 86-94.

Asher, M, (1989) "Measuring Customer Satisfaction" *The TQM Magazine*. Vol.1, No, 2.

Ashill Nicholas, Carruthers Janet, Krisjanous Jayne, (2005), "Antecedents and outcomes of service recovery performance in a public health-care environment", *Journal of Services Marketing*, Vol. 19, No, 5, pp. 293-308

- Athanassopoulos, A; Gounaris, C, (2001), "Assessing the technical and allocative efficiency of hospital operations in Greece and its resource allocation implications", *European Journal of Operational Research*, Vol. 133 No.2, pp.416-31.
- Atiyah, H, (1993), "Management Development in Arab Countries: the challenges of the 1990s", *Journal of Management Development*, Vol, 12, No, 1, pp 3-12.
- Atkinson, C; Eldabi, T; Paul, R; Pouloudi, A, (2002), "Integrated approaches to health informatics research and development", *Logistics Information Management*, Vol. 15, No. 2 pp. 138-152
- Aubert-Gamet, V, (1997), "Twisting servicescapes: diversion of the physical environment in a re-appropriation process", *International Journal of Service Industry Management*, Vol. 8, No. 1, pp. 26-41
- Austin, R; Sigauw, J; Mattila, A, (2003), "A re-examination of the generalization of the Aaker 's brand personality measurement framework", *Journal of Strategic Marketing*, Vol.11, June, pp.77-92
- Autry, P; Thomas, D, (1986), "Competitive strategy in the hospital industry", *Health Care Management Review*, Vol. 11 No.7, pp.7-14.
- Avlonitis J; Indounas A, (2005), "Pricing objectives and pricing methods in the services sector", *Journal of Services Marketing*, Vol. 19, No.1 pp 47-57
- Avlonitis, G; Papastathopoulou, P; Gounaris, S, (2001), "An empirically-based typology of product innovativeness for new financial services: success and failure scenarios", *The Journal of Product Innovation Management*, Vol.18, No 5, pp324-42.
- Badia, J; Babiano, E; Sans-Corrales, M; Sampietro-Colom,L; Aguado-Menguy, F; Cabezas-Peña,C; Gallo de Puelles, P, (2006), "Impact of economic incentives on quality of professional life and on end-user satisfaction in primary care", *Health Policy*, In Press, Corrected Proof, Available online 20 March
- Baggozi, R, (1996), "Measurement in Marketing Research: Basic Principles of Questionnaire Design, in Baggozi, R. (ed), (1996) *Principle of Marketing Research*", Black business, Cambridge, pp1-48
- Bagozzi, R, Jose, R, Kirti, S, Franciso, C, (1998), "Marketing Management", Prentice-Hall, Upper Saddle River, NJ
- Baird.L, Meshoulam.I, (1988), "Managing Two Fits of Strategic Human Resource Management", *Academy of Management Review*, Vol. 13, No. 1, pp. 116-128
- Baker, J; Cameron, M, (1996), "The effects of the service environment on affect and consumer perception of waiting time: an integrative review and research proposition", *Journal of the Academy of Marketing Science*, Vol. 24 No.4, pp.338-49.
- Baker, Michael, (2000), "Marketing Strategy and Management", Third Edition, Macmillan Business.
- Baldwin, Lynne; Clarke, Malcolm; Eldabi, Tillal; Jones, Russell, (2002), "Telemedicine and its role in improving communication in healthcare", *Logistics Information Management*, Vol. 15, No. 4, pp 309-319
- Bamford David, Xystouri Tatiana, (2005), "A case study of service failure and recovery within an international airline", *Managing Service Quality*, Vol. 15, No. 3, pp 306-322
- Banerjee, S, (2001), "Corporate environmental strategies and actions" *Management Decision*, Vol. 39, No, 1, pp 36-44
- Bangert, D; Doktor, R; Warren, J, (1999), "Introducing telemedicine as a strategic intent, This paper

appears in: System Sciences, 1999. HICSS-32. Proceedings of the 32nd Annual Hawaii International Conference, Vol. Track4,

Banker, R; Conrand, R; Strauss, R, (1986), "A comparative application of data envelopment analysis and translog methods: an illustrative study of hospital production", *Management Science*, Vol. 32 No.1, pp30-44.

Bansal, H; Voyer, P, (2000), "Word of mouth processes within a services purchase decision context", *Journal of Service Research*, Vol. 3 No.2, pp.166-77.

Barlow and Rober (1996), "Steering not Rowing: Co-ordination and Control in the Management of Public Services in Britain and Germany", *International Journal of Public Sector Management*, Vol. 9.

Barney, J, (1991), "Firm Resources and Sustained Competitive Advantage", *Journal of Management*, Vol. 17, No. 1, pp 99-120.

Bashshur, R; Reardon, T; Shannon, G, (2001), "Telemedicine: A New Health-Care Delivery System", *Annual Review of Public Health*, Vol. 21, No.1, pp 613-37.

Bateson, J, (1995), "Managing Services Marketing: Texts and Readings", 3rd ed., The Dryden Press, Orlando, FL.

Bayliss, P; Hill, P; Calman, K; Hamilton, J, (2001) "Education for clinical governance", *British Journal of Clinical Governance*. Vol. 6, No. 1, pp. 7-8

Bazzoli, G; Chan, B; Shortell, S; D'Aunno, T, (2000), "The financial performance of hospitals belonging to health networks and systems", *Inquiry*, Vol. 37, No.3, pp 234-53.

Beal, R, (2000), "Competing effectively: environmental scanning, competitive strategy, organizational performance in small manufacturing firms", *Journal of Small Business Management*, Vol. 38, No.1, pp 27-47.

Beard, L; Hoyle, V, (1976), "Cost accounting proposal for an advertising agency", *Management Accounting*, Vol. 58, pp.38-40.

Begun, J; Kaissi A, (2004a), "Definition and scope of health services administration" *The journal of health administration education*. *Journal of Health Administration Education*. Vol.21, No.2, pp 227-39.

Begun, J; Kaissi, A, (2004b), "Uncertainty in Health Care Environments: Myth or Reality?" , *Health Care Management Review*, Vol.29, No.1, pp 31-39, January/February/March

Behn, R, (2003), "Why measure performance? Different purposes require different measures", *Public Administration Review*, Vol. 63 No.5, pp.586-606.

Bendall, D; Powers. T, (2001), "The role of complaint management in the service recovery process", *The Joint commission journal on quality improvement*. 2001 May; Vol.27, No.5, pp.278-86.

Bennett, A, (1997), "The five Vs - a buyer's perspective of the marketing mix", *Marketing Intelligence & Planning*, Vol. 15, Issue.3, pp151-156.

Berman, E, (1998), "Productivity in Public and Non-profit Organizations: Strategies and Techniques", Sage Publications, Thousand Oaks, CA,

Berkowitz, E; William A, (1981), "The Market for Health Services: Is There a Non-Traditional Consumer", *Journal of Health Care Marketing*, Vol. 1 (Winter), pp. 25-34.

Berry, L, (2000), "Cultivating service brand equity", *Journal of the Academy of Marketing Science*, Vol.



28 No.1, pp.128-37.

Berry, L; Yadav, M, (1996), "Capture and Communicate Value in the Pricing of services", Sloan Management Review, Summer, pp 40-51.

Berry, L, (1980), "Services Marketing is Different", Business (Atlanta), Vol. May-June, pp 24-29.

Berry, W; Feldman, S, (1985), "Multiple Regression in Practice. Sage University Paper Series on Quantitative Applications in the Social Sciences", series no. 07-050). Newbury Park, CA: Sage.

Berwick, D, (1989), "Continuous improvement as an ideal in health care", New England Journal of Medicine, Vol. 320, No.1, pp.1424-5.

Berwick, D, (1995), "We buy health care to achieve health and any proposed change in the structure financing or work of health care should be tested against this purpose", Business and Health, Vol. 13 No.3, pp.4-5.

Biel, A, (1992), "How brand image drives brand equity", Journal of Advertising Research, Vol. 32, No.6, pp.RC6-RC12.

Bishop, M; Thompson, D, (1992), "Regulatory reform and productivity growth in the UK's public utilities", Applied Economics, Vol. 24, pp.1181-90.

Biswas, A, (1992), "The moderating role of brand familiarity in reference price perceptions", Journal of Business Research, Vol. 25, pp.69-82.

Bitner, M, (1990), "Evaluating Service Encounters: The Effects of Physical Surroundings and Employee Responses", Journal of Marketing, Vol. 54, No. 2, pp 69-82.

Bitner, M, (1992), "Servicescapes: The Impact of Physical Surroundings on Customers and Employees", Journal of Marketing, Vol. 56, pp 57-71.

Blenkharn.J, (2006), Lowering standards of clinical waste management:do the hazardous waste regulations conflict with the CDC's universal/standard precautions?' Journal of Hospital Infection, Vol. 62, Issue 4, pp 467-472

Blodgett, L, (1991), "Toward a resource-based theory of bargaining power in international joint ventures", Journal of Global Marketing, Vol. 5 No.1/2, pp.35-54.

Blois, K, (1983), "The structure of service firms and their marketing policies", Strategic Management Journal, Vol. 4 No.3, pp.251-61.

Blois, K, (1984), "Internal' marketing information in manufacturing firms", Marketing Intelligence & Planning, Vol. 1, No.3, pp.44-54.

Boisture, R, (1994), "Health reform speed shift to tax-exempt integrated managed care plans", Health Span, Vol. 11, No.5, pp.3-20.

Bolbol, A; Fatheldin, A; Omran, M, (2002), "Ownership Structure, Firm Performance, and Corporate Governance: Evidence from Selected Arab Countries", AMF Economic Paper No. 5, Abu Dhabi: Arab Monetary Fund.

Bonnici, L, (1991), "Pricing dimensions in health-care service", Journal of Professional Services Marketing, Vol. 8, No.1, pp.92-8.

Booms, B; Bitner, M, (1982), "Marketing services by managing the environment", The Cornell Hotel and

Restaurant Administration Quarterly, Vol. 23, No.1, pp 35-40

Booms, B; Bitner, M, (1981), "Marketing Strategies and Organisation Structures for Services Firms", in marketing of services: 1981 special educators' Conference Proceeding, James Donnelly and William George, (Eds), Chicago, American Marketing Association, pp 46-51.

Boonekamp C; Lucie, (1994), "Marketing for Health-care Organizations: An Introduction to Network Management", Journal of Management in Medicine, Vol. 08, No. 5, pp. 11-24

Boonekamp, C; De Roo, A, (1992), "To Whom Do GPs Refer? A Study of the Development and Change of Referral Networks of General Practitioners in the Netherlands", Journal of Management in Medicine, Vol. 6 No.3, pp.35-42.

Boscarino, J; Steiber, S, (1982), "Hospital shopping and consumer choice", Journal of Health Care Marketing, Vol. 2, pp 15-23.

Bourgeois,L, (1985). `Strategic Goals, Perceived Uncertainty, and Economic Performance in Volatile Environments` Academy of Management Journal, Vol. 28, No. 3 , pp 548-573

Bowers, R; Powers, T, (1991), "Personal Selling in Health Care Organizations: A Status Report", Journal of Health Care Marketing, Vol. 11, No.3, pp19-27.

Bowers, M; Powers T; Spencer, P, (1994), "Characteristics of the Sales force in the US Healthcare Service Industry: A Comparative Study of Selling Professional Services", Journal of Services Marketing, Vol. 8 No. 4, 1994, pp. 36-49

Boyd, W; Leonard, M; White, C, (1994), "Customer preferences for financial services: An analysis" International Journal of Bank Marketing, Vol.12, No.1, pp 9-15.

Boycko, M, Shleifer, A, Vishny, R, (1996), "A theory of privatisation", Economic Journal, Vol. 106, pp 309-19.

Bracker, J, (1980), "The historical development of the strategic management concept", Academy of Management Review, Vol. 5 No.2, pp.219-24..

Breen, L; Crawford, H, (2005), "Improving the pharmaceutical supply chain Assessing the reality of e-quality through e-commerce application in hospital pharmacy", International Journal of Quality & Reliability Management. Vol. 22, No.6, pp 572-590

Brook, R; McGlynn, E, (1996), "Measuring quality of care", New England Journal of Medicine, Vol. 335 pp.966-9.

Brosk, H. Abu El-Samen, T, (2000), "Jordan National Health Accounts", Technical Report No 49, Amman. Jordan.

Brown, S, Swartz, T, (1989), "A gap analysis of professional service quality", Journal of Marketing, Vol. 53 pp.92-8.

Brunner, G, (1989), "The marketing mix: time for reconceptualization", Journal of Marketing Education, Vol. 11, No.Summer, pp 72-7.

Bryman, A; Cramer, D, (2001), "Quantitative Data Analysis with SPSS release 10 for Windows: A Guide for Social Science", Routledge, Taylor& Francis Group.

Bstieler, L; Gross, C, (2003) ` Measuring the effect of environmental uncertainty on process activities, project team characteristics, and new product success` Journal of Business & Industrial Marketing. Vol.

Buchko, A, (1994), "Conceptualization and measurement of environment uncertainty: an assessment of the Miles and Snow perceived environmental uncertainty scale", *Academy of Management Journal*, Vol. 37 No.2, pp.410-25.

Bunk, O; Nackel, G, (1981), "Diagnosis-Related Groups Tool for Management," *Hospital and Health Services Administration*, Vol.26, (May), pp25-40.

Caldwell, C, (1997), "The Handbook for Managing Change in Health Care", ASQC Quality Press, Milwaukee, WI, .

Cahill, D, (1994), "Pricing: how not to succeed", *Pricing Strategy and Practice*, Vol. 2, No.1, pp.21-5.

Cameron, K, Whetten, D, (1983), "Organizational effectiveness: one model or several?", in Cameron, K.S., Whetton, D.A. (Eds), *Organizational Effectiveness: A Comparison of Multiple Models*, Academic Press, New York, NY, pp 261-77.

Cannon, H, Morgan, F, (1990), "A strategic pricing framework", *Journal of Services Marketing*, Vol. 4 No.2, pp.19-30.

Canziani, B, (1997), "Leveraging customer competency in service firms", *International Journal of Service Industry Management*, Vol.8, Issue.1, pp5-25.

Carbone, P; Haeckel, H, (1994), "Engineering customer experiences". *Marketing Management* Vol.3, No.3, pp 8-19.

Cardwell, R; Bolon, D, (1996), "Strategic alliances and hospitals: a US perspective", *Journal of Management in Medicine*, Vol. 10, No. 2, pp. 40-46

Carlzon, J, (1987), "Moments of Truth", Ballinger Publishing, Cambridge, MA, .

Carter, K, (1999), "Analysis of three decision-making methods: a breast cancer patient as a model", *Med. Decis. Making*, Vol. 19 pp.49-57.

Carter, Robert; Ennew, Christine; Wright, Mike, (1989), "Deregulation and Distribution of Personal Financial Services in the UK", *Journal of American Society of CLU&CHFC*, July, pp68-73.

Cartwright, A; Windsor, J, (1992), "Outpatients and Their Doctors", HMSO, London, .

Casebeer, Ann; Hannah, Kathryn, (1998), "The process of change related to health policy shift: reforming a health care system", *International Journal of Public Sector Management*, Vol. 11, No. 7, pp. 566-582

Caves, D; Christensen, L, (1980), "The relative efficiency of public and private firms in a competitive environment: The case of Canadian railroads". *Journal of Political Economy*, Vol.88, pp 958-976.

Cavusgil, S; Zou, S, (1994), "Marketing strategy-performance relationship: an investigation of the empirical link in export market ventures", *Journal of Marketing*, Vol. 58 pp.1-21.

Chaganti, Rajeswararao/Damanpour, Fariborz, (1991), "Institutional Ownership, Capital Structure, and Firm Performance", *Strategic Management Journal*, Vol. 12, pp. 479 - 491.

Chaharbaghi, K., Lynch, R, (1999), "Sustainable competitive advantage: towards a dynamic resource-based strategy", *Management Decision*, Vol. 37, No.1, pp.45-50.

Chaharbaghi, K; Nugent, E, (1994), "Towards the Dynamic Organization", *Management Decision*. Vol.



Chaharbaghi, K, Nugent, E, (1996), "A new generation of competitors", *Management Decision*. Volume 34 Number 10 1996 pp. 5-10

Chambers, Harrap, (1998), "The Chambers Dictionary", Chambers Harrap, Edinburgh.

Channon, F, (1986), "Bank Strategic Management and Marketing", John Wiley & Sons, Chichester, Ch. 8, pp.142-59.

Charnes, A; Cooper, W; Rhodes, E, (1978), "Measuring the efficiency of decision-making units", *European Journal of Operational Research*, Vol. 2 No.6, pp.429-44.

Charnes, A., Cooper, W; Lewin, A; Seiford, L, (1994), "Data Envelopment Analysis: Theory", *Methodology and Applications*, Kluwer, Boston, MA, .

Chase, R; Tansik, D, (1983) "The customer contact model for organization design", *Management Science*, Vol. 29 No. 9, pp. 1037-50.

Chase, R, Aquilano, N, Jacobs, F, (1998), "Operations Management for Competitive Advantage", McGraw-Hill, Boston, MA.

Chee, H; Harris, R, (1993), "Marketing: A Global Perspective", Pitman Publishing, London.

Chernatony, L; McDonald, M, (1998), "Creating Powerful Brands in Consumer, Service and Industrial Markets", Second Edition, Butterworth-Heinemann.

Chisnall, P, (2001), "Marketing Research, Sixth Edition", The McGraw-Hill Publishing Company.

Choi, T, Eboch, K, (1998), "The TQM paradox: relations among TQM practice, plant performance and customer satisfaction", *Journal of Operations Management*, Vol. 17 pp.59-75.

Choo, C, (2001) "Environmental scanning as information seeking and organizational learning", *Information Research*, Vol. 7, No. 1, October

Christensen, C; da Rocha, A; Gertner, R, (1987), "An empirical investigation of the factors influencing the exporting success of Brazilian firms", *Journal of International Business Studies*, Vol. 18, pp.61-77.

Christensen, M; Inguanzo, J, (1989), "Smart consumers present a marketing challenge", *Hospitals*, Vol. 63 pp.42-7.

Christopher, M; Adrian P; David B, (1991), "Relationship Marketing. Bringing Quality, Customer Service and Marketing Together", Oxford: Butterworh-Heinemann Ltd.

Churchill, G, (1999), "Marketing Research: Methodological Foundation", The Dryden Press, NY.

Churchill, G, (1979), "A Paradigm for Developing Better Measures of Marketing Constructs", *Journal of Marketing Research*, Vol.21.No.4, pp360-375.

Churchill, J; Gilbert, A, (2001), "Basic Marketing Research", Fourth Edition, The Dryden Press.

Clark, B, (1999), "Marketing Performance Measures: History and Interrelationships". *Journal of Marketing Management*, Vol. 15, No. 15, pp711-732.

Clarkson, M, (1995), "A Stakeholder Framework for Analyzing and Evaluating Corporate Social Performance' *Academy of Management Review*, Vol. 20, No. 1, pp. 92-117

Coakes, J; Steed, G, (2001), "SPSS Analysis without Anguish, Version 10.0 for Windows", John Wiley and Sons.

Coelli, T, (1996), "A guide to DEAP Version 2.1: a data envelopment analysis (computer) program", Working Paper No. 96/08, Centre for Efficiency and Productivity Analysis, University of New England, Armidale, available at: [www.uq.edu.au/economics/cepa/deap.htm](http://www.uq.edu.au/economics/cepa/deap.htm) (accessed July 2004), .

Cohen, J; Cohen, P, (1983), "Applied multiple regression/correlation analysis for the behavioral sciences", Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Collier, David, (1991), "New Marketing Mix Stresses Service", *The Journal of Business Strategy*, Vol.12, No.2, pp 42-45.

Collins, C; Hunter, D; Green, A, (1994), "The Market and Health Sector Reform" *Journal of Management in Medicine*, Vol. 8, No. 2, pp. 42-55

Conant, J; Mokwa, M; Varadarajan, R, (1990), "Strategic Types, Distinctive Marketing Competencies and Organisational Performance: A Multiple Measures-Based Study", *Strategic Management Journal*, Vol. 11, pp 365-383.

Contney, J, (1984), "Serving the Health Care Industry," *Textile Rentals*, Vol.67, (February), No.10.

Contractor, F, (1990), "Ownership patterns of US joint ventures abroad and the liberalization of foreign government regulations in the 1980s: evidence from the benchmark surveys", *Journal of International Business Studies*, Vol. 21 No.1, pp.55–73.

Cook, D; Goh, C; Chung, C, (1999), "Service typologies: a state-of-the-art survey", *Production and Operations Management*, Vol.8, No. 3, pp318-38.

Cooper, W; Seiford, L; Tone, K, (2000), "Data Envelopment Analysis: A Comprehensive Text with Models", Applications, References and DEA-Solver Software, Kluwer, Norwall, MA, .

Cowell, Donald, (1984), "The Marketing of Services", Heinemann Professional Publishing Ltd.

Coyne, J, (1986), "A financial model for assessing hospital performance: an application to multi institutional organizations", *Hospital and Health Services Administration*, Vol. 31, No.2, pp.28-41.

Creswell, J, (2003), "Research Design –Qualitative, Quantitative and Mixed Methods and Approaches", Second Edition, Thousand Oaks, Calif, Sage Publication.

Creswell, W, (1994), "Research Design: Qualitative and Quantitative Approaches", SAGE Publications, London.

Crimp, M, Wright, L, (1995), "The Marketing Research Process",, 4<sup>th</sup> ed, Prentice-Hall, London, .

Crimp, M, (1985), "The Marketing Research Process", 2nd, Prentice-Hall International, London, .

Cronin, J; Taylor, S, (1992), "Measuring Service Quality: a Re-examination and Extension", *Journal of Marketing*, 56, July, pp 55-68.

Cronin.J; Wright, J, (2005) 'Rapid assessment and initial patient treatment team – a way forward for emergency care' *Accident and Emergency Nursing*, Vol. 13, Issue 2, April, pp 87-92

Crosby, P, (1979), "Quality Is Free", McGraw-Hill, New York, NY, .

Crosby, L, (1991), "CSM: The Wave of the Future", *Managing Service Quality*, Vol. 1 No.3, pp.137-40.

- Croteau, A; Vieru, D, (2002), "Telemedicine adoption by different groups of physicians", Proceedings of the 35th Hawaii International Conference on System Sciences, IEEE, Big Island, HI. 7-10 January,
- Croteau, A; Vieru, D, (2002), "Telemedicine adoption by different groups of physicians", Proceedings of the 35th Hawaii International Conference on System Sciences, IEEE, Big Island, HI. 7-10 January,
- Csath, M, (1991), 'Strategic Alliances: Joint Ventures in Central and Eastern Europe |Problems and Opportunities: The Case of Hungary', International Review of Strategic Management, Vol. 2, No.2, pp.73-107.
- Cutler, B; Javalgi, R, (1992), "A cross-cultural analysis of the visual components of print advertising: the United States and the European Community", Journal of Advertising Research, pp.71-9.
- Cutler, B, Javalgi, R, (1993), "Analysis of print ad features: services versus products", Journal of Advertising Research, pp.62-9
- Cutlip, S; Center, A; Broom, G, (1999), "Effective public relations (8th ed.). Englewood Cliffs, NJ: Prentice-Hall.
- D'Aveni, R, (1994), "Hyper-competition: Managing the Dynamics of Strategic Maneuvering", The Free Press, New York, NY.
- Daft, R; Weick, K, (1984) "Toward a Model of Organizations as Interpretation Systems" Academy of Management Review, Vol. 9, No. 2, pp. 284-295
- Dale, B, (2003), "Managing Quality", 4th ed., Blackwell Publishing, Oxford, .
- Damanpour, F, (1991), "Organisational innovation: a meta-analysis of effects of determinants and moderators", Academy of Management Journal, Vol.34, September, pp555-90.
- Davies, H, (1998), "Performance management using health outcomes: in search of instrumentality", Journal of Evaluation in Clinical Practice, Vol. 4 pp.359-62..
- Day, G; Wensley, R, (1988), "Assessing Advantage: A Framework for Diagnosing Competitive Superiority", Journal of Marketing, Vol.52, (April), pp1-20.
- Dearden, J, (1978), "Cost accounting comes to service industries", Harvard Business Review, Vol. 56 pp.132-40.
- Den Hertog, P, (2000), "Knowledge-intensive business services as co-producers of innovation", International Journal of Innovation Management, Vol.4, No.4, pp 491-528.
- Department of Health, (2001), "Extending Choice for Patients", HMSO, London, .
- Department of Health, (1999), Clinical Governance: Quality in the New NHS, Department of Health, London, .
- Desmet, M; Chowdhury, A; Islam, K, (1999), "The potential for social mobilisation in Bangladesh: the organisation and functioning of two health insurance schemes", Social Science & Medicine, Vol.48, Issue 7 , pp 925-938
- Dess, G; Miller, A, (1993), "Strategic management", McGraw-Hill, New York, NY., .
- Dess, G; Robinson, R, (1984), "Measuring organisational performance in the absence of objective measures: the case of the privately-held firm and conglomerate business unit", Strategic Management Journal, Vol. 5 pp.265-73..
- Devlin, J; Gwynne, A; Ennew, C, (2002), "The Effects of a Change in Customer Disposition on the Zone



of Tolerance: A Longitudinal Study” *Australasian Marketing Journal*, Vol. 10, No. 1,

De Vaus, D, (1993), “*Surveys in Social Research*”, 3<sup>rd</sup> Edition (Sydney: Allen & Unwin).

Diamantopoulos, D, (1991), “Pricing: theory and evidence – a literature review”, in Baker, M.J. (Ed.), *Perspectives on Marketing Management*, John Wiley & Sons, Chichester, pp. 61-193.

Diamantopoulos, A; Schlegelmilch, B, (1997), “Taking the Fear out of Data Analysis”, London: The Dryden Press.

Dibb, S, Simkin, L; Bradley, J, (1996), *The Marketing Planning Workbook*, International Thomson Business Press, London,

Dibb, S; Smikin, L; Pride, W; Ferrell, C, (1997), “*Marketing: Concepts and Strategies*”, Third European Edition, Houghton Mifflin Company.

Dick, A; Kunal, B, (1994). Customer loyalty: toward an inte-grated conceptual framework, *Journal of the Academy of Marketing Science*, 22 (Spring), 99–113.

Dillman, D, (1978), “*Mail and Telephone Survey: The Total Design Method*” (NewYork: Wiley).

Dobree, J; Page, Anthony, (1990), “Unleashing the Power of Services Brand in the 1990s”, *Management Decision*, Vol.28, No. 6, pp 14-28.

Domney, M; Wilson, H, Chen E, (2005), “Natural monopoly privatisation under different regulatory regimes A comparison of New Zealand and Australian airports”, *International Journal of Public Sector Management*, Vol. 18, No. 3, pp. 274-292

Donabedian, A, (1980), "Basic approaches to assessment: structure, process and outcome", *The Definition of Quality and Approaches to Its Assessment*, Health Administration Press, Ann Arbor, MI, pp.77-128.

Donabedian, A, (1987), "Commentary on some studies of the quality of care", *Health Care Financing Review - Annual Supplement*, pp.75-85.

Donabedian, A, (1988), "The quality of care – how can it be assessed?", *JAMA*, Vol. 260 pp.1743-8.

Donnelly, M, (1999), "Making the difference: quality strategy in public sector", *Managing Service Quality*, Vol. 9 No.1, pp.47-52..

Doremus, H, (1992), "Managing competition in the health care industry", *Health Care Strategic Management*, pp.22-3..

Douglas, S; Craig, C, (1999), “*International Marketing Research*”, Prentice Hall.

Dove, R, (1987/88), "A consumer perspective on health care advertising", *Health Marketing Quarterly*, Vol. 5 No.1/2, pp.33-40.

Dow,G, (1988), “Configurational and Coactivational Views of Organizational Structure” *Academy of Management Review*, Vol. 13, No. 1 (Jan., 1988) , pp. 53-64

Doyle, Peter, (1995), “Marketing in the New Millennium”, *European Journal of Marketing*, Vol.29, No.13, pp23-41.

Doyle, S; Bondreau, J, (1989), “Hospital-Supplier Partnership”, *Journal of Health Care Marketing*, 9 (1) pp.42-47.

- Doyle, Y; Bull, A; Keen, J, (2000), "Role of private sector in United Kingdom healthcare system Commentary: Cooperation should be based on what the public wants and needs from its healthcare system", *British Medical Journal (BMJ)*, 321:563-565
- Drake, L; Howcroft, B, (1994), "Relative efficiency in the branch network of a UK bank: an empirical study", *OMEGA*, Vol. 22 No.1, pp.83-90.
- Drake, L; Llewellyn, D, (1995), "The pricing of bank payments services", *International Journal of Bank Marketing*, Vol. 13 No.5, pp.3-11.
- Duffy, J, (2000), "Knowledge exchange at GlaxoWellcome", *The Information Management Journal*, Vol. 34 No.3, pp.64-7.
- Duffy, J, (2000), "Measuring customer capital", *Strategy & Leadership*, Volume 28 Number 5 pp. 10-15.
- Duncan, R, (1972), "Characteristics of Organizational Environments and Perceived Environmental Uncertainty", *Administrative Science Quarterly*, Vol. 17, No. 3 (Sep., 1972) , pp. 313-327.
- Durra, A, (1991), "Assessment of training needs within the context of administrative reform in Jordan", *International Journal of Public Sector Management*, Vol, 4, pp. 45-47.
- Dvir, D; Shenhar, A, (1990), "Success factors of high-tech SBUs", *Journal of Product Innovation Management*, Vol. 7 pp.288-96.
- Dyer, J; Cho, D; Chu, W, (1998), "Strategic supplier segmentation: the next 'best practice' in supply chain management", *California Management Review*, Vol. 40 No.2, pp.57-77.
- Dyer, R; Forman, E, (1992), "Group decision support with the analytic hierarchy process", *Decision Support Systems*, Vol. 8 pp.99-124.
- Earl-Slater, A, (1996), "Health-care reforms in the Czech Republic", *Journal of Management in Medicine*
- Easingwood, C; Percival, J, (1990), "Evaluation of new financial services", *International Journal of Bank Marketing*, Vol.8, No.6, pp3-8.
- Eisenberg, Ning; Gregg, M, (2004), "The Roles of Government in Improving Health Care Quality and Safety", *Joint Commission Journal on Quality and Patient Safety*, Volume 30, Number 1, pp. 47-54.
- Easterby-S; Thorpe, R; Lowe, A, (2002), "Management Research", Second Edition, Sage Publications.
- Eddy, D, (1998), "Performance measurement: problems and solutions", *Health Affairs*, Vol. 17 pp.7-26..
- Edvardsson, B; Haglund, L; Mattsson, J, (1995), "Analysis, Planning, Improvisation and Control in the development of New Services", *International Journal of Service Industry Management*, Vol.6, No.2, pp24-35.
- Eiriz, V; Eiriz, J, (2005), "Quality evaluation in health care services based on customer-provider relationships", *International Journal of Health Care Quality Assurance*; Volume: 18 Issue: 6;
- Ehreth, J, (1993), "Hospital survival in a competitive environment: the competitive constituency model, hospital and health services administration", *journal of health care marketing*, Vol 38, No 1, pp23-41.
- Emerson J; Grimm, M, (1999), Buyer-seller customer satisfaction: the influence of the environment and customer service, *The Journal of Business & Industrial Marketing*, Volume 14 Number 5/6 1999 pp. 403-415

- Emrouznejad, A, (2001), "An Extensive Bibliography of Data Envelopment Analysis (DEA)" (in three volumes), Business School, University of Warwick, Coventry, available at: [www.deazone.com/](http://www.deazone.com/) (accessed July 2004), .
- Ennew, C; Watkins, T, (1992), "Marketing Strategy and Marketing Mix in Financial Services", in Baker, M.J. (ED), *Perspective on Marketing Management*, Vol.2, John Wiley & Sons Ltd, PP 199-222.
- Ennew, C; Watkins, T, (1998), "Insurance Marketing", in Ennew, Christine, Watkins, Trevor and Wright, Mike (Eds), "Marketing Financial Services", Second Edition, Butterworth Heinemann.
- Ennew, C, (1998), "Developing Marketing Strategy", in Ennew, Christine", Watkins, Trevor, and Mike, Wright (Eds), "Marketing Financial Services", Second Edition, Betterworth-Heinemann.
- Erdem, T, (1998), "An empirical analysis of umbrella branding", *Journal of Marketing Research*, Vol. 35 No.3, pp.339-51..
- Fahey, L, (2002), "Invented Competitors : a new competitor analysis methodology", *strategy and leadership* vol 30, no 6 pp 5-12.
- Fare, R; Grosskopf, S; Lindgren, B; Ross, P, (1994), "Productivity developments in Swedish hospitals: a Malmquist output index approach", in Charnes, A., Cooper, W.W., Lewin, A.Y., Seiford, L.M. (Eds), *Data Envelopment Analysis: Theory, Methodology and Applications*, Kluwer, Boston, MA, pp.253-72.
- Farquhar, P, (1989), "Managing brand equity", *Marketing Research*, Vol. 1 No. 9, pp. RC-7-RC-12.
- Farrell, M, (1957), "he measurement of productive efficiency", *Journal of the Royal Statistical Society*, Vol. 120 No.3, pp.253-81.
- Feldstein, P, (1988), "Health Care Economics", Wiley, New York, NY .
- Ferrini, A; Ferrini, R, (1992), "Medical care", *Health in the Later Years*, 2nd ed., WCW Brown and Benchmark, Madison, WI., .
- Fetter, R; Freeman, J, (1986), "Diagnosis related groups: product line management within hospitals", *Academy of Management Review*, Vol. 11 No.1, pp.41-54.
- Feurer, R; Chaharbaghi, K, (1997), "Training for Quality", Vol. 5 No.2, pp.58-70..
- Feurer, R; Chaharbaghi, K, (1996), "Competitive environments, dynamic strategy development capabilities and business performance", *Benchmarking for Quality Management & Technology*, Vol. 3 No. 3, 1996, pp. 32-49.
- Feurer, R; Chaharbaghi, K,(1994), "Defining Competitiveness A Holistic Approach", *Management Decision*, Volume 32 Number 2 pp. 49-58.
- Fifield, P., Gilligan, C. (1995), "Strategic Marketing Management - Planning and Control, Analysis and Decision", Butterworth-Heinemann, London, pp.6-11.
- Fishbein, M; Ajzen, I, (1975), "Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research", Addison-Wesley, Reading, MA., .
- Fisher, C; Anderson, C, (1990), "Hospital Advertising: Does It Influence Consumers?", *Journal of Health Care Marketing*, Vol. 10 No.4, pp.40-6.



Fisk, R; Brown, S; Bitner, M, (1993), "Tracking the Evolution of the Services Marketing Literature", *Journal of Marketing Management*, Vol. 69, No. 1, pp61-103.

Fitzerald, C; Erdmann, T, (1992), "American Automotive Industry Action Group", *Actionline*, No.October,

Fitzsimmons, J, Fitzsimmons, M, (2001), "Service Management, Operation, Strategy and Information Technology", 3rd ed., McGraw-Hill, New York, NY.

Fleishman R; Heilbrun, G; Mandelson, J; Shiraz, V, (1999), "Improving the quality of institutional care of urinary incontinence among the elderly: a challenge for governmental regulation", *International Journal of Health Care Quality Assurance*, Volume 12 Number 3 pp. 105-120

Florio,M, (2003), "Does Privatisation Matter? The Long-Term Performance of British Telecom over 40 Years", *Fiscal Studies*, Volume 24 Page 197 - June 2003

Fuchs, V, (1997), "Managed care and merger mania", *Journal of the American Medical Association*, Vol. 277 No.11, pp.921-2.

Fombrun, C; Shanley, M, (1990), "What's in a name: Reputation building and corporate strategy". *Academy of Management Journal*, 33: 233-258.

Fombrun, C, (1996), "Reputation: Realizing Value from the Corporate Image", Harvard Business School Press, Boston, MA .

Fottler, M, (1981), "Is management really generic?", *Academy of Management Review*, Vol. 6 pp.1-12..

Franck, L; Pendleton, E; Pittam, B; Preece, M; Green, A, (2004), "Quality assurance for clinical research: challenges in implementing research governance in UK hospitals", *International Journal of Health Care Quality Assurance*, Vol. 17, No. 5, pp. 239-247

Frankfort-Nachmias, C; Nachmias, D, (1992), "Research Methods in the Social Sciences", Fourth Edition, St.Martin's Press. New York.

Franks, A, (2001) 'Clinical governance as a restructuring of quality assurance processes: shifting the focus from corporate to clinical action'. *British Journal of Clinical Governance*. Vol. 6, No. 4, 2001 pp. 259-263.

Freeman, R, (1984), "Strategic Management: A Stakeholder Approach", Pitman, Lanham, MD, .

Freling, H; Forbes P, (2005), "An empirical analysis of the brand personality effect", *Journal of Product & Brand Management*, Vol. 14 No. 7 pp. 404-413.

Freling, T; Forbes, L, (2005), An empirical analysis of the brand personality effect, *Journal of Product & Brand Management*, Volume 14 Number 7 pp. 404-413.

Gaal, P, (2004), "Health care system in transition: Hungary", WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies, Copenhagen

Gaal, P; McKee, M, (2005), "Fee-for-service or donation? Hungarian perspectives on informal payment for health care" *Social Science & Medicine*, Volume 60, Issue 7, April, Pages 1445-1457

Gadrey, J; Gallouj, F; Weinstein, O, (1995), "New modes of innovation: how services benefit industry", *International Journal of Service Industry Management*, Vol. 6, No. 3, pp4-16.

Gagnon, Marie-Pierre; Lamothe, Lise; Fortin, Jean-Paul; Cloutier, Alain; Godin,Gaston; Gagné, Camille; Reinharz Daniel, (2005), "Telehealth adoption in hospitals:an organisational perspective", *Journal of*

Gale, B.T., (1994), "Managing Customer Value", The Free Press, New York, NY

Ganitsky, J; Rangan, S; Watzke, G, (1991), "Time perspectives in international joint ventures: implications for marketing management", *Journal of Global Marketing*, Vol. 5 No.1/2, pp.13-33.

General Statistics Bureau, (2003), "Comprehensive Economic Development Report", Amman, Jordan: GSB.

George, W; Berry, L, (1981), "Guidelines for the advertising of services", *Business Horizons*, Vol. 24, No. 4.

Gertler, P; John M, (1995) "Pricing Public Health Services: Lessons from a Social Experiment

Gilligan C; Lowe, R, (1995), "Marketing and health care organizations", Radcliffe Medical Press Ltd UK.

Gilly, M; Stevenson, W; Yale, J, (1991), "Dynamics of complaint management in the service organization", *Journal of Consumer Affairs*, Vol.25, No. 2, pp 295-322.

Gilly, M; Wolfenbarger, M, (1992), "Does advertising affect your nurses?" *Journal of Health Care Marketing*, Vol. 12 No.3, pp.24-31.

Gilmore, A; Moreland, L, (2000), "Call Centres: How Can Service Quality Be Managed, *Irish Marketing Review*, Vol.13, No. 1, PP 3-11.

Gimeno, J; Woo, C, (1996), "Hypercompetition in a multimarket environment: The role of strategic similarity and multimarket contact in competitive de-escalation". *Organization Science*, 7: 322-341.

Giokas, D, (2001), "Greek Hospitals: How Well Their Resources Are Used", *Omega*, Vol. 29, No.1, pp 73-83.

Glandon, G; Counte, M; Holloman, K; Kowalczyk, J, (1987), "An analytical review of hospital financial performance measures", *Hospital and Health Services Administration*, Vol. 32 No.4, pp.439-56.

Glassman, M; Glassman, N, (1981), "A marketing analysis of physician selection and patient satisfaction", *Journal of Health Care Marketing*, Vol. 1 pp.25-31.

Glouberman, S; Mintzberg, H, (2001), "Managing the Care of Health and the Cure of Disease – Part I: Differentiation." *Health Care Management Review* 26, no. 1, pp 56-69.

Glouberman S; Mintzberg H, (2004), "Managing the care of health and the cure of disease--Part I: Differentiation` Uncertainty in Health Care Environments. January/February/March, 29:1

Godiwalla Y; Godiwalla, Sh, (2002), "Marketing issues for the hospital industry", *International Journal of Health Care Quality Assurance*, Volume 15 Number 1 pp. 25-28.

Godiwalla, Y; Batra, H; Johnson, J; Godwalla, S, (1997), "Managing Hospitals in Dynamic Environment", *International Journal of Health Care Quality Assurance*, Vol, 10. No.5, pp202-207.

Goetz, J, (1985), "The pricing decision: a service industry's experience", *Journal of Small Business Management*, No. April, pp.35-46.

Golany, B; Thore, S, (1997), "The economic and social performance of nations: efficiency and returns to

- scale", *Socio-Economic Planning Sciences*, Vol. 31 No.3, pp.191-204.
- Goldsmith, J, (1980), "The Health Care Market: Can Hospitals Survive"?, *Harvard Business Review*, 58 (September-October), pp100-112.
- Goldsmith, J, (1981), "Can Hospitals Survive" Hom&noo6, IL: Dow Jones-Irwin
- Goldsmith, J, (1982), "Competition How Will It Affect Hospitals'?", *Hospital*
- Goldsmith, R, (1999), "The Personalised Marketplace: Beyond the 4Ps", *Marketing Intelligence & Planning*, Vol.17. No 4, PP 178-185.
- Gopal, C, Cypress, H, (1993), "Integrated Distribution Management", Irwin, Boston, MA., .
- Gouvêa, Maria Aparecida; Toledo, Geraldo Luciano; Nogueira, Lino; Filho, Rodrigues, (2001), "The prices of mailing services evaluated by companies", *Marketing Intelligence & Planning*, Vol. 19, No. 4, pp. 282-294
- Grace, D; O'Cass, A, (2005), "Examining the effects of service brand communications on brand evaluation", *Journal of Product & Brand Management*, Volume 14 Number 2, pp. 106-116
- Grant, R, (1995), "Contemporary Strategy Analysis", Blackwell, Oxford., .
- Green, J; Wintfield, N; Krasner, M; Wells, C, (1997), "In search of America's best hospitals – the promise and reality of quality assessment", *JAMA*, .
- Green, P; Donald, S, (1978), "Research for Marketing Decisions", 4th ed. Englewood Cliffs, NJ Prentice-Hall, Inc.
- Green, R; Rockmore, B; Zimmerer, T; (1995), "The impact of environmental turbulence on American hospital strategies", *Journal of Management in Medicine*, Vol. 9 No.6, pp.6-15..
- Green, S, (1988), "The key trends in health care", *Journal of Advertising Research*, Vol. 28 No.4, pp.RC 2-4..
- Green, R, (1995) ' The impact of environmental turbulence on American hospital strategies' *Journal of Management in Medicine*, Vol.9, No. 6, pp. 6-15
- Greene, C, Caracelli, J, Graham, F, (1989), "Toward a Conceptual Framework for Mixed-Method Evaluation Designs", *Educational Evaluation and Policy Analysis*, Vol. 11, No. 3, pp. 255-274
- Greenley, G; Hooley, G; Saunders, J, (2004), "Management processes in marketing planning", *European Journal of Marketing*. Volume: 38 Issue: 8 Page: 933 – 955
- Grice, H; Kickham, N, (1997), Establishing and developing health promotion in an Acute Trust, *International Journal of Health Care Quality Assurance*, Volume 10 Number 6 pp. 233-235.
- Gronroos, C, (1978), "A Service-Orientated Approach to Marketing of Services", *European Journal of Marketing*, Vol.12 NO. 8
- Gronroos, C, (1989), "Defining Marketing: A Market-Oriented Approach", *European Journal of Marketing*, Vol.23, No.1, pp52-60.
- Gronroos, C, (1990), "Service Management and Marketing", Lexington Books, Lexington, MA.
- Grönroos, C, (2000), "Service Management and Marketing. A Customer Relationship Management



Approach”, Wiley & Sons, Chichester, .

Gronroos, C, (1980), “Designing a Long Range Marketing Strategy for Services”, Long Range Planning, Vol.13.No.2 (April), pp36-42.

Gronroos, C, (1990a), “Relationship Approach to Marketing in Service Context: The Marketing and Organisational Behaviour Interface”, Journal of Business Research, Vol. 20, Part 1, pp3-11.

Gronroos, C, (1990b), “Service Management and Marketing: Managing the Moments of Truth in Service Competition”, Lexington Books.

Gronroos, C, (1984), “A Service Quality Model and Its Marketing Implications”, European Journal of Marketing, Vol.13, No.4, pp36-44.

Grunig, J; Hunt, T, (1984), “Managing Public Relations”, Holt Rinehart & Winston, New York, NY, .

Grunig, J; Grunig, L, (1998), “The relationship between public relations and marketing in excellent organizations: evidence from the IABC study”, Journal of Marketing Communications, Volume 4, Number 3 / September 1, pp141 – 162

Guest, D, (1989), "Human resource management: its implications for industrial relations and trade unions", New Perspectives on Human Resource Management, Routledge, London.

Guiltinan, Joseph, (1987), “The Price Bundling of Services: A Normative Framework”, Journal of Marketing, Vol.51 (April), 74-85.

Gummesson, E. (2000), "Sustainable service strategies: lessons from health care", in Edvardsson, B., Brown, S., Johnston, R., Scheuing, E. (Eds), Service Quality in the New Economy: Interdisciplinary and International Dimensions, Proceedings of QUIS7, Publications of the International Service Quality Association (ISQA), New York, NY, .

Gummesson, E, (1987), “The New Marketing –Developing Long –Term Interactive Relationships”, Long Range Planning, Vol.20, No, pp10-21.

Gummesson, E, (1991), “Marketing-Orientation Revisited: The Critical Role of the Part-Time Marketer”, European Journal of Marketing, Vol.25, No.2, pp60-75.

Gummesson, E, (1994), “Making Relationship Marketing Operational”, International Journal of Service Industry Management, Dec Volume: 5 Issue: 5 Page: 5 – 20

Gummesson, E, (1997), “Relationship marketing as a paradigm shift: some conclusions from the 30R approach”, Management Decision, Vol 35 Issue 4 pp 267 – 272

Gupta, A; Govindarajan, V, (1984), "Business unit strategy, managerial characteristics, and business unit effectiveness at strategy implementation", Academy of Management Journal, Vol. 27 No.1, pp.25-41..

Gupta, A, (1995), “Productivity measurement in service operations: a case study from the healthcare environment”, Managing Service Quality Vol. 5, No. 5 pp. 31-35

Hacket, M, (1996), "Competitive strategy for providers", Health Manpower Management, Vol. 11 No.6, pp.4-8..

Hafer, J, (1984), "Telemarketing Hospital Services- Benefits, Pitfalls and the Ranning Process," Journal of Health Care Marketing, 4 (Spring), 29-35

Haim, A, (1993), "Does quality work? A review of relevant studies", Report no. 1043, The Conference

Board, Inc., New York, NY,

Haines, W, (1988), "Making planning work in developing countries", Long Range Planning, Vol. 21 No.2, pp.91-6.

Hair, J; Anderson, R; Tatham, R; Black, W, (1998), "Multivariate Data Analysis", 5th Edition, Prentice-Hall.

Halliday, S, (2004), "How "placed trust" works in a service encounter", Journal of Services Marketing, Volume 18. Number 1. pp. 45-59

Hambrick D; Lei, D, (1985), "Toward an Empirical Prioritization of Contingency Variables for Business Strategy", Academy of Management Journal, Vol. 28, No. 4, pp. 763-788

Hamel, G; Prahalad, C, (1994), "Competing for the future". Boston, Massachusetts: Harvard Business School Press.

Hannan, E; Kumar, D; Racz, M; Sui, A; Chassin, M, (1994), "New York State's cardiac surgery reporting system: four years later", Annals of Thoracic Surgery, Vol. 58 No.6, pp.1852-7..

Hancock, T, (1999), "Creating health and health promoting hospitals: a worthy challenge for the twenty-first century", Leadership in Health Services, Vol.12, No. 2, pp. 8-19

Hariharan, S; Dey, P; Kumar, A; Moseley, H; (2003), "Service performance measurement of intensive care units in hospitals – a case of Barbados", Proceedings, Portland International Conference for Management of Engineering and Technology (PICMET),

Hariharan, S; Moseley, H; Kumar, A, (2002), "Outcome evaluation in a surgical intensive care unit in Barbados", Anaesthesia, Vol. 57 pp.434-41.

Hariharan, S; Dey, P; Moseley, H; Kumar, A; Gora, J, (2004), "A new tool for measurement of process-based performance of multispecialty tertiary care hospitals", International Journal of Health Care Quality Assurance, Vol. 17, No. 6, pp. 302-312

Harrington, H, (1991), "Business Process Improvement: The Breakthrough Strategy for Total Quality", Productivity, and Competitiveness, McGraw-Hill, New York, NY., .

Harrison, T, (2000), "Financial Services Marketing", Pearson Education Limited.

Hart, O, (1995), "Corporate Governance: Some Theory and Implications", Economic Journal, Vol. 105, No. 430, pp. 678-689

Harvey, M; Lusch, R; Cavarkapa, B, (1996), "A Marketing Mix for the 21st Century", Journal of Marketing Theory and Practice, Vol. 4, No. 4, pp 1-15.

Hattam, P, (2004), "The effectiveness of orthopaedic triage by extended scope physiotherapists", Clinical Governance: An International Journal, Volume 9 Number 4 pp. 244-252.

Hatten, K; Schendel, D; Cooper, A, (1978), "A Strategic Model of the U.S. Brewing Industry: 1952-1971", Academy of Management Journal, Vol. 21, No. 4, pp. 592-610

Hayden.V, (1993), "How to Increase Market Orientation", Journal of Management in Medicine. Vol. 7, No. 1.

Health Ministry of Israel, (1997), "Statistical Data on Patients", Ministry of Health, Tel Aviv, .

Hennig-Thurau, T; Klee, A, (1998), "The impact of customer satisfaction and relationship quality on



- customer retention: A critical reassessment and model development", *Psychology and Marketing*, Vol.14, Issue, 8, pp737 – 764
- Heinbuch.S, (1996), "Achieving effective service-contracting results: the process is the key to success", *International Journal of Health Care Quality Assurance*. Vol. 9, No. 3, pp. 32-40
- Heistand, M, (1986), "NY Hospitals Treat Marketing-Ills", *Adweek*, Vol. 27 No.27 July, pp.2.
- Hejase, H; Baltagi, D; Kassak, K, (2000), "Assessment of strategic management practice in private non-profit hospitals in Greater Beirut", Beirut, Lebanon, The First Arab Conference on Health Care Management Present and Future Challenges, .
- Hendricks, K; Singhal, V, (1997), "Does implementing an effective TQM program actually improve operating performance? Empirical evidence from firms that have won quality awards", *Management Science*, Vol. 43 No.9, pp.1258-74.
- Heneman, H, (1974), "Comparisons of self and superior ratings of managerial performance", *Journal of Applied Psychology*, Vol. 59 pp.638-42..
- Henriques, I; P, Sadorsky, (1999), "The relationship between environmental com-mitment and managerial perceptions of stakeholder importance", *Academy of Management Journal*, 42: 87–99.
- Henriques, I; P, Sadorsky, (1996) 'Export-led growth or growth-driven exports? The Canadian case.' *Canadian Journal of Economics* 29, 540-55
- Herbig, P., Milewicz, J, (1993), "The relationship of reputation and credibility to brand success", *Journal of Consumer Marketing*, Vol. 10 No.3, pp.18-24.
- Herzlinger, R, (1997), "Market-Driven Health Care: Who Wins, Who Loses in the Transformation of America's Largest Service Industry", Addison-Wesley, Reading, MA, .
- Heskett, J; Sasser, W; Schlesinger, L, (1997), "The Service Profit Chain: How Leading Companies Link Profit and Growth to Loyalty, Satisfaction, and Value", Free Press, New York, NY, .
- Higgins, C, (1991), "Myths of competitive reform", *Health Care Management Review*, Vol. . 16 No.1, pp.65-72.
- Hill, C; Winfrey, K, (1995), "Index of Hospital Quality", National Opinion Research Centre, University of Chicago, Chicago, IL,
- Hill, C, (1988), "Differentiation versus low cost or differentiation and low cost: a contingency framework", *Academy of Management Review*, Vol. 13 No.3, pp.401-12..
- Hill, C; Jones, G, (1998), "Strategic Manage-ment: An Integrated Approach", Houghton Mifflin Company, Boston, NY.
- Hisrich, R; Michael P, (1982), "Comparison of Perceived Hospital Affiliation and Selection Criteria by Primary Market Segments," *Journal of Health Care Marketing*, 2 (Summer), pp 24-30.
- Hitt, M; Hillman, A, (1999) 'Corporate Political Strategy Formulation: A Model of Approach, Participation, and Strategy Decisions', *Academy of Management Review* 24(4): 825-842.
- Hoffman, K; Arnold, D, (1989), "Professional service pricing: an extended cost-oriented approach", *Journal of Professional Services Marketing*, Vol. 5 No.1, pp.29-39.
- Hoffman, K; Bateson, J, (1997), "Essentials of Services Marketing", The Dryden Press, Orlando, FL.
- Hogan, B; Oswald, S; Henthorne, T; Schaninger, W, (1999), "Promotion and advertising agency



- utilization: a nation-wide study of hospital providers”, *Journal of Services Marketing*, Volume 13 Number 2 pp. 100-112
- Hollander, N; Rauch, M, (1998), Technical Report No. 27:Assessment of Third Party Payers in Jordan.
- Hough, J; White, M, (2004), “Scanning actions and environmental dynamism Gathering information for strategic decision making”, *Management Decision*, Vol. 42, No. 6, pp. 781-793
- Hsieh Y; Thomas, D; Rotem, A, (2005), “The organisational response to patient complaints: a case study in Taiwan”, *International Journal of Health Care Quality Assurance*, Volume 18 Number 4 pp. 308-320
- Hsieh, A; Yen, Ch; Chin, Ko-Chien, (2004), “Participative customers as partial employees and service provider workload”, *International Journal of Service Industry Management*, Volume 15 Number 2 pp. 187-199
- Hummel, J, (2000), “Medical technology assessment: the use of analytic hierarchy process as a tool for multidisciplinary evaluation of medical devices”, *International Journal of Artificial Organs*, Vol. 23 pp.782-7.
- Hurst, K, (2003), “Professional self-regulation in the context of clinical governance”, *International Journal of Health Care Quality Assurance*, Vol. 16, No. 4, pp. 199-212
- Ittner, C; Larcker, D, (1996), “Measuring the impact of quality initiatives on firm financial performance”, in Fedor, D.F., Ghosh, S. (Eds), *Advances in Management of Organization Quality*, JAI Press, Greenwich, CT, Vol. 1 pp.1-37.
- Jaklevic, M, (1995), “Hospitals’ advertising up 11.4 percent”, *Modern Healthcare*, Vol. 25 No.14, pp.56.
- Janiszewski, C; Van Osselaer, S, (2000), “A connectionist model of brand-quality associations”, *Journal of Marketing Research*, Vol. XXXVII pp.331-50.
- Janroelf, B; Foekens, E, (1993), “An Analytical Approach to Marketing Decisions”, *International Journal of Research in Marketing*, Dec,
- Japsen, B, (1997), “Ad budget drop”, *Modern Healthcare*, Vol. 27 No.7, pp.70-1.
- Johansson, J.K., Yip, G.S. (1994), “Exploiting globalization potential: U.S. and Japanese strategies”, *Strategic Management Journal*, October, pp.579-601.
- Johns, J; Moser, H, (1989), “How Consumers View Dental Advertising”, *Health Marketing Quarterly*, Vol. 6 No.4, pp.3-15.
- Johnston, R, (1995), “The determinants of service quality: satisfiers and dissatisfiers”, *International Journal of Service Industry Management*, Vol. 6, Issue: 5, pp. 53 – 71
- Johnson, G; Scholes, K, (1993), “Exploring corporate strategy”, 3rd ed., Prentice-Hall International, Hertfordshire., .
- Johnson, S; Menor, L; Chase, R; Roth, A, (2000), “A critical evaluation of the new services development process: integrating service innovation and service design”, Fitzsimmons, J.A., Fitzsimmons, M.J., *New Service Development, Creating Memorable Experiences*, Sage Publications, Thousand Oaks, CA.
- Joint Commission on Accreditation of Health-care Organizations (JCAHO) (1993), “Accreditation Manual for Hospitals”, Vol. 1: Standards, JCAHO, Chicago, IL, .
- Jordan National Information System, (2002), “Jordanian Government Reports”, [www.nis.gov.jo](http://www.nis.gov.jo)

Jordan National Information System, (2004), "Jordanian Government Reports" , [www.nis.gov.jo](http://www.nis.gov.jo)

Jones, R, (2003), "Making health information accessible to patients", *Aslib Proceedings*, Vol. 55, No. 5/6, pp. 334-338

Jordan Times, (2002a), "Private hospitals fill niche with medical tourism", *Jordan times*. Amman.

Jordan Times, (2002b), "Plans for Major reforms to remedy Jordan's health sector", *Jordan Times*. Amman.

Jordanian General Health Law, (1980), Act No 85/1980 Private Sector Hospitals Act, No. 21/1971.

Jordan Times, (2000), "King Approves ECC'S Blueprint to Rejuvenate Private Medical Centre", *Jordan Times*. Amman.

Joseph, P; Weingrants, J, (1999), "Cooperative ventures in a competitive environment: the influence of regulation on management decisions", *Journal of health care management*, Vol. 44, issue. 4 p 282.

Josephson, G, (1997), "Private hospital care for profit? A reappraisal", *Health Care Management Review*, Vol. 22 No.3, pp.64-73..

Judd, C, (2003), Achieving a customer orientation using "people-power, the "5th P *European Journal of Marketing*, Vol. 37, NO. 10, pp. 1301-1313

Judd, C, (1987), "Differentiate with the 5TH P: People", *Industrial Marketing Management*, Vol. 16, pp241-247.

Juran, J, (1988), *Juran on Planning for Quality*, The Free Press, New York, NY, .

Kalwani, M; Narayandas, N, (1995), "Long-Term Manufacturer-Supplier Relationships: Do They Pay off for Supplier Firms? ", *Journal of Marketing*, Vol. 59, No. 1 (Jan., 1995) , pp. 1-16

Kamins, M, (1990), "An investigation into the 'match-up' hypothesis in celebrity advertising: when beauty may be only skin deep", *Journal of Advertising*, Vol. 19 No.1, pp.4-13.

Kaplan, R; Norton, D, (1992), "The balanced scorecard, measures that drive performance", *Harvard Business Review*, pp.71-80.

Karagiannopoulos G; Georgopoulos, N; Nikolopoulos, K, (2005), "Fathoming Porter's five forces model in the internet era" *info* Vol. 7, Issue: 6 PP: 66 – 76

Karnani, A, (1984), "Generic competitive strategies: an analytical approach", *Strategic Management Journal*, Vol. 5 No.4, pp.367-80..

Kartik, N, (1996), "European health ins.mkt. emerges. (health insurance market)(International life&health insurance report)", *national underwriter life &health –financial services edition*. Oct 28 No.44, p.2.

Kasper, H; Helsdingen, P; Vries J, (1999), "Services Marketing Management: An International Perspective", John Wiley & Sons Ltd.

Kazandjian, V; Lied, T, (1998), "Cesarean section rates: effects of participation in a performance measurement project", *Joint Commission Journal on Quality Improvement*, Vol. 24 No.4, pp.187-96..

Keller, K, (1993), "Conceptualising, measuring, and managing customer-based brand equity", *Journal of Marketing*, Vol. 57 pp.1-22.

Keller, K, (1998), "Strategic Brand Management", Prentice-Hall, Englewood Cliffs, NJ

Keller, K, (2003), "Strategic Brand Management: Building, Measuring, and Managing Brand Equity", 2nd ed., Prentice-Hall, Englewood Cliffs, NJ.

Kelley, S; Turley, L, (2001), "Consumer perceptions of service quality attributes at sporting events", *Journal of Business Research*, Vol. 54 pp.161-6.

Kelley, S; Donnelly, J; Skinner, S, (1990), "Customer participation in service production and delivery", *Journal of Retailing*, Vol. 66 pp.315-35.

Kelly, S. (1996), "Data Warehousing: the Route to Mass Customisation", John Wiley & Sons, New York, NY., .

Kelly, S, (1989), "Efficiency in Service Delivery: Technological or Humanistic Approaches", *Journal of Services Marketing*, Vol. 3, No. 3, pp 43-50.

Kelly, J; Swindell, D, (2002), "A multiple-indicator approach to municipal service evaluation: correlating performance measurement and citizen satisfaction across jurisdictions", *Public Administration Review*, Vol. 62 No.5, pp.610-21.

Keehley, P; Medlin, S; McBride, S; Longmire, L, (1997), *Benchmarking for Best Practices in the Public Sector: Achieving Performance Breakthroughs in Federal, State and Local Agencies*, Jossey-Bass, San Francisco, CA, .

Kelly, S, (1990), "Customer Orientation of Bank Employees and Culture", *The International Journal of Bank Marketing*, Vol.8, No.6, pp25-29.

Khoman, S, (1997), "Subsidizing government hospital services Who benefits most in Thailand?" *International Journal of Social Economics*, Vol. 24, No. 7/8/9, pp. 958-987

Kim, C; Kim, S; Im, S; Shin, C, (2003), "The effect of attitude and perception on consumer complaint intentions", *Journal of Consumer Marketing*, Vol. 20, No. 4, pp. 352-371.

King, K; Haefner, J, (1988), "An Investigation of the External Physician Search Process", *Journal of Health Care Marketing*, Vol. 8 No.2, pp.4-13.

King, N; Anderson, N, (2002), "Managing Innovation and Change: A Critical Guide for Organizations", Thomson, London.

Kingman-Brundage, J, (1991), "Technology, design and service quality", *International Journal of Service Industry Management*, Vol. 2 No.3, pp.47-59.

Kingman-Brundage, J, (1989), "Blueprinting for the Bottom Line" i *Service Excellence: Marketing's Impact on Performance*. Chicago, IL: AMA,

Kirk, Y, (1994), "Promotion and Advertising", *Retailing of Financial Services*, pp 240-265.

Kitchener, M; Whipp, R, (1998), "Tracks of change in hospitals: a study of quasi-market transformation", *Journal of Management in Medicine*, Vol. 12 No.4/5, pp.241-55..

Kitson, A, (1994), "Achievements with quality improvement in the NHS", *Quality in Health Care*, Vol. 3 No.suppl. pp.S25-S30.

Kitson, A, (1994), "Playing the rules", *Quality in Health Care*, Vol. 1 No.1, pp.149-50..

KPMG Peat Marwick LLP and Northwestern University Institute for Health Services Research and Policy Studies, (1998), *Consumerism in Health Care: New Voices*, KPMG Peat Marwick LLP and



- Northwestern University Institute for Health Services Research and Policy Studies, Washington, DC, .
- Knorr, J; Ragland, R; Strak, D, (1998), "Telerradiology: experiences with magnetic resonance imaging using this new technology", *Journal of the American Osteopathic Association*, Vol. 98 No.2, pp.97-101.
- Knox, R; Peet, R; Christensen, N, (1989), *Population Dynamics in Loblolly Pine Stands: Changes in Skewness and Size Inequality Ecology*, Vol. 70, No. 4 (Aug., 1989) , pp. 1153-1167
- Knox, E; Lancashire, R; Armstrong, E, (1986), "Perinatal mortality standards: construction and use of a health care performance indicator", *Journal of Epidemiology and Community Health*, Vol. 40 No.3, pp.193-204.
- Kotha, S; Nair, A, (1995), "Strategy and Environment as Determinants of Performance: Evidence for the Japanese Machine Tool Industry", *Strategic Management Journal*. 16(4): 497-518. (8), 579-601.
- Kotler P; Clarke R, (1987), "Marketing for health care organisations", Prentice-Hall.
- Kotler, P; Andreasen, A, (1996), "Strategic Marketing for Nonprofit Organizations", 5th ed., Prentice-Hall, Upper Saddle River, NJ, .
- Kotler, P; Andreason, A, (1991), "Strategic Marketing for Nonprofit Organizations", Prentice-Hall, Englewood Cliffs, NJ,
- Kotler, P; Bloom, P, (1984), "Marketing Professional Services", Prentice-Hall, Englewood Cliffs, NJ,
- Kotler, P, (1975), "Marketing for Nonprofit Organizations", Englewood Cliffs, NJ Prentice-Hall, Inc.
- Kotler, P, (1982), "Marketing for Nonprofit Organizations", 2nd ed. Englewood Cliffs, NJ- Prentice-Hall, Inc
- Kotler, P, (1984a), "Marketing Management Analysis, Planning, and Control", Englewood Cliffs, NJ Prentice- Hall, Inc.
- Kotler, P, (1984b), *Marketing Essentials* Englewood Cliffs, NJ Prentice- Hall, Inc.
- Kotler, P, (1973-1974), "Atmospherics as a Marketing Tool", *Journal of Retailing*, Vol. 49, No. 4, pp48-64.
- Kotler, P, (1997), "Marketing Management: Analysis, Planning, Implementation, and Control", Ninth Edition, Prentice Hall International.
- Kotler, P, (1999), "Kotler on Marketing: How to Create, Win and Dominate Markets", New York, Press Free.
- Kotler, P, (2000), "Marketing Management: The Millennium Edition, Tenth Edition", Prentice Hall International Inc.
- Kotler, P; Gary, A, (1996) "Principles of Marketing", 7 th Edition, Prentice Hall, Inc.
- Kokkinaki, F; Ambler, T, (1999), *Marketing Performance Assessment: An Exploratory Investigation into Current Practice and the Role of Firm Orientation*, Marketing Science Institute, Cambridge, MA, .
- Kumar, K; Subramanian, R; Yauger, Ch, (1997), "Pure versus hybrid: performance implications of Porter's generic strategies", *Health Care Management Review*, Vol. 22 No.4, pp.47-60..
- Kurtz, D; Clow, K, (1998), "Services Marketing", John Wiley & Sons, New York, NY, .
- Kurz, R; Wolinsky, F, (1992), "Who picks the hospital: practitioner or patient?", *Hosp Health Serv Adm.*

1985 Mar-Apr;30(2):95-106.

Kutzin, J, (1995), "Experience with Organisational and Financing Reform of the Health Sector", Division of Strengthening of Health Services: World Health Organisation.

Lages, C; Lages L, (2005), "Antecedents of managerial public relations: a structural model examination", European Journal of Marketing, Volume 39 Number 1/2 pp. 110-128

Landes, W; Posner, R, (1987), "Trademark law: an economic perspective", Journal of Economics, Vol. 30 pp.265-309.

Langeard, E, (2000), "Specificity of the pricing policy in service activities", Innovations and Perspectives in the International Research Seminar in Service Management, Le Londe Les Maures, No. June, pp.243-56.

Larkin, H, (2000), "Harder to borrow", Hospitals and Hospital Networks, Vol. May pp.26-8.

Lassar, W; Mittal, B; Sharma, A, (1995), "Measuring customer-based brand equity", Journal of Consumer Marketing, Vol. 12 No.4, pp.11-19..

Lauterborn, B, (1990), "New marketing litany: four Ps passé: C-words take over", Advertising age. 61 (41), October , p26

Laws, P, (1997), "Using technology in teaching: using integrated computer tools for data acquisition, data analysis and modeling in introductory physics courses", Campus-Wide Information Systems, Vol. 14, No. 4, pp. 117-119.

Leaffer, T; Gonda, B, (2000), "The Internet: an underutilized tool in patient education. Computers in Nursing", Vol.18, No.1, pp.47-52.

Ledingham, J; Bruning, S, (1998), "Relationship Management in Public Relations: Dimensions of an Organization-Public Relationship", Public Relations Review, Vol.24, No.1, p55-65.

Lee, S; Alexander, J, (1999), "Managing hospitals in turbulent times: do organizational changes improve hospital survival?", Health Services Research, Vol. 34 No.4, pp.923-5.

Lega, F, (2005), "Developing a marketing function in public healthcare systems: A framework for action", Health Policy, In Press, Corrected Proof, Available online 19 December, Health Care Manage Rev. 2001 Winter; Vol.26, No.1, pp. 85-7; discussion 89-90

Legg, D; Baker, J, (1987) "Advertising Strategies for Service Firms," in Add Value to Your Service, ed. C. Suprenant; Chicago: American Marketing Association, pp 98-116.

Lehtinen, U; Lehtinen, J, (1982), "Service quality: a study of quality dimensions", Service Management Institute, Helsinki., working paper, .

Lehtinen, J, (1986), "Quality Oriented Services Marketing<sup>2</sup>, Department of Business Economics and Business Law, Tampere University, Tampere, .

Lied, T; Kazandjian, V, (1999), "Performance: a multi-disciplinary and conceptual model", Journal of Evaluation in Clinical Practice, Vol. 5 No.4, pp.393-400.

Leidecker, J; Bruno, A, (1984), "Identifying and using critical success factors", Long Range Planning, Vol. 17 pp.23-32.

Lester, R; Certo, T; Dalton, D; Dalton, D; Cannella, A, (2006), "Initial Public Offering Investor Valuations: An Examination of Top Management Team Prestige and Environmental Uncertainty" Journal of Small Business Management. Vol.44, P.1 - January

- Levitt, T, (1981), "Marketing Intangible Products and Product Intangibles", Harvard Business Review, Vol.59, No.3, pp 94-102.
- Levitt, T, (1983), "The Marketing Imagination", The Free Press. Collier Macmillan Publishers, London.
- Lewin, A; Morey, R; Cook, T, (1982), "Evaluating the administrative efficiency of courts", OMEGA, Vol. 10 pp.401-11.
- Lewin, A; Minton, J, (1986), "Determining organizational effectiveness: another look, and an agenda for research", Management Science, Vol. 32 No.5, pp.514-38.
- Lewington, V; Farmer, J, (1995), "Getting better: health information provision in Guernsey", New Library World, Vol. 96, No. 7, pp. 8-14
- Lied, T, (2001), "Small hospitals and performance measurement: implications and strategies", International Journal of Health Care Quality Assurance, Vol. 14, No.4, pp. 168-173.
- Lievens, A; Moenaert, R, (2000a), "Project team communication in financial service innovation", Journal of Management Studies, Vol.37, No.5, pp733-66.
- Lievens, A, Moenaert, R, (2000b), "Communication flows during financial service innovation", European Journal of Marketing, Vol.34, No.9/10, pp1078-110.
- Liljander, V; Tore, S, (1995), "Estimating Zones of Tolerance in Perceived Service Quality," International Journal of Service Industry Management, Vol 4, No. 2, 6-28.
- Lim, P; Tang, N, (2000), "A study of patients' expectations and satisfaction in Singapore hospitals", International Journal of Health Care Quality Assurance", Vol.13, Is. 7 pp 290 – 299
- Lim, H; Tan, C; Goh, L; Ling, S, (1998), "Why do patients complain? A primary health care study", Singapore Medical Journal, Vol. 3 No.9, pp.390-5.
- Lindsey- Mullikin, J, (2003), "Beyond reference price: understanding consumers' encounters with unexpected prices", Journal of Product & Brand Management, Vol.12, No. 3, pp. 140-153
- Longford, M, (1980), "Health Insurance in Jordan, London: International Division", Department of Health and Social Security.
- Lovell, C, (1993), "Production frontiers and productive efficiency", in Fried, H, Lovell, C.A, Schmidt, S. (Eds), The Measurement of Productive Efficiency: Techniques and Applications, Oxford University Press, New York, NY, pp.3-67.
- Lovelock, C, (1992), "Designing and managing the customer-service function", in Lovelock, C. (Eds), Managing Services (Marketing, Operations and Human Resources), Prentice-Hall, Englewood Cliffs, NJ.
- Lovelock, C, (1995), "Competing on service: technology and teamwork in supplementary services", Planning Review, Vol. July/August pp.32-9.
- Lovelock, C; Young, R, (1979). "Look to Consumers to Increase Productivity." Harvard Business Review(May-June): 168 - 178.
- Lovelock, C, (1996), "Services Marketing", 3rd ed., Prentice- Hall, Englewood Cliffs, NJ.
- Lovelock, C; Wright, L, (1999), "Principles of Service Marketing and Management", Prentice-Hall,



Upper Saddle River, NJ, pp.227-30.

Lovelock, C; Yip, G, (1996), "Developing global strategies for service businesses", California Management Review, Vol. 38 No.2.

Lovelock, C, (1996), "Services Marketing", 3rd ed., Prentice-Hall, Englewood Cliffs, NJ, .

Lovelock, C, (1983), "Classifying Services to Gain Strategic Marketing Insights", Journal of Marketing, Vol. 47, No.3, PP 9-20.

Lovelock, C, (2001), "Services Marketing People, Technology, Strategy", Fourth Edition, Prentice Hall.

Lovelock, C; Vandermerwe, S; Lewis, B, (1996), "Services Marketing: A European Perspective", Third Edition, Prentice Hall Europe.

Lowendahl, B, (2000), "Strategic Management of Professional Service Firms", Copenhagen Business School Press, Copenhagen, .

Lowengart, O; Mizrahi, S; Yosef, (2003), "Effect of consumer characteristics on optimal reference price", Journal of Revenue and Pricing Management, Volume 2, Number 3, October ,pp. 201-215(15)

Lozada, H; Calatone, R, (1996), "Scanning behavior and environmental variation in the formulation of strategic responses to change", Journal of Business & Industrial Marketing. Vol. 11 NO. 1 pp. 17-41

Ludke, R; Levitz, G, (1983), "Referring Physicians: The Forgotten Market", Health Care Management Review, Vol. 8 No.4, pp.13-22

Lumpkin, G, Dess, G, (1995), "Simplicity as a Strategy-Making Process: The Effects of Stage of Organizational Development and Environment on Performance` Academy of Management Journal, Vol. 38, No. 5 , pp. 1386-1407.

Lynch, R, (2000), "Corporate strategy", 2nd ed. London: Financial Times/ Prentice Hall,

Lysonski, S; Durvasula, S; Watson, J, (2003), "Should marketing managers be concerned about attitudes towards marketing and consumerism in New Zealand? A longitudinal view", European Journal of Marketing. Volume: 37 Issue: 3/4 Page: 385 – 406

Lytle, R; Mokwa, M, (1992), "Evaluating health care quality: the moderating role of outcomes", Journal of Health Care Marketing, Vol. 12 pp.4-14.

Mack, K; Burns, S, (1988), "Sales: Why it Should be Everyone's Business", in Sanchez, P. (Eds), Marketing: Everybody's Business, Academy for Health Services Marketing of the American Marketing Association, Chicago, IL, .

MacStravic, S, (1995), "Patient loyalty to physicians", Journal of Health Care Marketing, Vol. 14 No.4, pp.53-8.

MacMillan, I; McCaffery, M, (1984), "Strategy for financial services: cashing in on competitive inertia", Journal of Business Strategy, Vol. 4 No.3, pp.58-65.

MacStravic, S, (1988), "The patient as partner: a competitive strategy in health care marketing", Hospital and Health Services Administration, Vol. 33 pp.15-24.

Madden, W, (1999), "Excess capacity: markets, regulation, and values", Health Services Research, Vol. 33 No.6, pp.1651-6.

Magnussen, J, (1996), "Efficiency measurement and the operationalization of hospital production",

Health Services Research, Vol. 31 No.1, pp.21-37.

Maister, D, (1985), "The psychology of waiting lines", in Czepiel, J.A., Solomon, M.R., Surprenant, C.F. (Eds), *The Service Encounter*, Lexington Books, Lexington, MA.,

Malcolm Baldrige Criteria for Performance Excellence, (1998), "US Department of Commerce – National Institute of Standards and Technology", Gaithersburg, MD, .

Malhotra, N, ( 1989), "Segmenting Hospitals for Improved Management Strategy", *Journal of health care marketing* vol 9 no 3 September, pp45-52

Malhorta, N; Birks, D, (2000), "Marketing Research: An Applied Approach", European Edition, Financial Times-Prentice Hall.

Malhotra, N, (1988), A Methodology for measuring consumer preference in developing countries, *International Marketing Review*, Vol. 5, No. 3, pp 52-66

Malhotra, N, (1987), "A marketing orientation to modeling the hospital-supplier probabilistic approach", *Journal of Health Care Management*, Vol. 7, No. 2, pp. 6-14

Malmquist, S, (1953), "Index numbers and indifference surfaces", *Trabajos de Estadística*, Vol. 4 No.4, pp.209-42.

Mandil, S, (1995), "Telemedicine in healthcare in Kuwait",

Mangione, T, (1995), "Mail Survey- Improving the Quality" (Thousand Oaks, CA: Sage).

Mangold, G; Miller, F; Brockway, G, (1999), "Word-of-mouth communication in the service marketplace", *Journal of services Marketing*, Volume 13 Number 1 pp. 73-89.

Mangold, G; Miller, F; Brockway, G, (1999), "Word-of-mouth communication in the service marketplace", *Journal of Services Marketing*, Vol. 13, No. 1, pp. 73-89

Mannion, R; Goddard, M, (2004), "General practitioners' assessments of hospital quality and performance", *Clinical Governance: An International Journal*, Vol. 9, No. 1, pp. 42-47

Manthei, R, (1983), "Client choice of therapist or therapy", *Personnel and Guidance Journal*, Vol. 61 pp.334-40.

Manthei, R; Vitalo, R; Ivey, A, (1982), "The effect of client choice of therapist on therapy outcome", *Community Mental Health Journal*, Vol. 18 No.3, pp.220-9.

Manthei, R, (1988), "Client choice of therapist: rationale and implications", *Psychotherapy*, Vol. 25 No.3, pp.463-70.

Marn, M; Rosiello, R, (1992), "Managing price, gaining profit", *Harvard Business Review*, Vol. 70, September-October, pp. 84-94.

Marriott, R, (2002), "Yes, but how do we know if it's working? Evidence regarding impact on clinical practice of access for health service staff to bibliographic databases and full text electronic journals", *Library Review*, Volume 51 Number 7 pp. 358-363

Martin, S; Parker, D, (1997), "The Impact of Privatisation: Ownership and Corporate Performance in the UK", Routledge, London.

Masella, C; Rangone, A, (2000), "A contingent approach to the design of vendor selection systems for different types of co-operative customer/supplier relationships", *International Journal of Operations &*

Production Management. Volume 20 Number 1 pp. 70-84

Mathews, J; Katel, P, (1992), "The cost of quality faced with hard times", Newsweek, Vol. September 7 pp.48-9.

Mathur, S, (1988), "How firms compete: a new classification of generic strategies", Journal of General Management, Vol. 14 No.1, pp.30-60..

Mayer, D, (1988), "Hospitals use TV and video marketing to entertain, inform, and advertise", HealthWeek, Vol. 8 pp.15-19.

Mayer, K; Bowen, J; Moulton, M, (2003), "A proposed model of the descriptors of service process", Journal of Services Marketing, Vol. 17 No 6 pp. 621-639.

McCarthy, J, (1964), "Basic Marketing: A Managerial Approach", Second Edition, Richard D.IRWIN, INC.

McDaniel, C; Gates, R, (1999), "Contemporary Marketing Research", Fourth Edition, Cincinnati, Ohio: South -Western Publishing College.

McDonald, M, (1989), "The Marketing Plans: How to Prepare Them: How to Use Them", Second Edition, Betterworth Heinemann.

McDonald, M, (2002), "Marketing Plans: How to Prepare Them, How to Use Them", Fifth Edition, Butterworth-Heinemann.

McIver, C; Naylor, G, (1986), "Marketing Financial Services", 2nd ed., The Institute of Bankers, Canterbury.

McLaughlin, C; Coffey, S, (1990), "Measuring productivity in services", The International Journal of Services Industry Management, Vol. 1 No.1, pp.46-64.

McLaughlin, C; Kaluzny, A, (1999), Continuous Quality Improvement in Health Care, Aspen Publications, Gaithersburg, MD .

McNeal, J; Zerren, L, (1981), "Brand name selection for consumer products", MSU Business Topics, Vol. 29 No.2, pp.35-9.

Medhurst, J, (1993). "Environmental Costs and Industry Competitiveness," Environmental Policies and Industrial Competitiveness, OECD Documents: 37-47.

Megginson, L; Netter, J, (2001), "From State to Market: A Survey of Empirical Studies on Privatization", Journal of Economic Literature, Vol. 39, No. 2 (Jun., 2001) , pp. 321-389

Meidan, A, (1996), "Marketing Financial Services", Macmillan Business Press, London.

Melek, S, (2005), "The Bottom Line on Behavioral Health Care Costs", Health Section News, March, Society of Actuaries, Schaumburg, Illinois.

Melek, S, (2005), "The Cost of Mental Health Parity", Health Section News, March, Society of Actuaries, Schaumburg, Illinois.

Melin, A; Granath, J, (2004), "Patient focused healthcare: an important concept for provision and management of space and services to the healthcare sector", Facilities, Vol. 22 No. 11/12, pp. 284-289.

Meliones, J; (2001), "Get connected, get results and get smarter", *Physician Executive*, Vol. January



pp.20-8.

Mellor, S; Barnes-Farrel, J; Stanton, J, (1999), "Unions as justice promoting organizations: the interactive effect of ethnicity, gender, and perceived union effectiveness", *Sex Roles: A Journal of Research*, Vol. 40 No.5/6, pp.331.

Melnick, G; Zwanziger, J, (1988), "Hospital behavior under competition and cost containment policies - the California experience, 1980 to 1985", *Journal of American Medical Association*, Vol. 260 No.18, pp.2669-75.

Menke, T, (1997), "The effect of chain membership on hospital costs", *Health Services Research*, Vol. 32 No.2, pp.177-97.

Miles, G, (1993), "In search of ethical profits: Insights from strategic management". *Journal of Business Ethics*, 12(3), pp. 219-225.

Miles, R; Snow, C, (1978), "Organizational Strategy, Structure and Process", McGraw Hill, New York, NY.,

Miller, C, (1996), "Hospitals boost marketing expenses by 25 percent", *Marketing News*, Vol. 30 No.13, pp.2.

Miller, D, (1992), "The generic strategy trap", *Journal of Business Strategy*, Vol. 13 No.1, pp.37-42..

Miller, D; Friesen, P, (1986), "Porter's (1980) generic strategies and performance: an empirical examination with American data. Part 1: Testing Porter", *Organisation Studies*, Vol. 7 No.1, pp.37-55..

Miller, J; Adam, E, (1996), "Slack and performance in health care delivery", *International Journal of Quality and Reliability Management*, Vol. 13 No.8, pp.63-74.

Miller, K, (1993), "Industry country effects of managers, perceptions of environmental uncertainty", *Journal of International Business Studies*, Vol. 24 No.4, pp.693-794.

Milliken, F, (1990), "Perceiving and Interpreting Environmental Change: An Examination of College Administrators' Interpretation of Changing Demographics", *Academy of Management Journal*, Vol. 33, No. 1 (Mar., 1990) , pp. 42-63

Milward, H; Provan, K, (1995), "A Preliminary Theory of Inter organisational Network Effectiveness: A Comparative Study of Four Community Mental Health Systems" *Administrative Science Quarterly*, Vol. 40, 1995

Mingfang, L; Simerl, R, (1998), "The moderating effect of environmental on the dynamism on the ownership and performance relationship", *Strategic Management Journal*, Vol. 19, 169-179 (1998)

Ministry of Health, (2000), "Annual Health Report, Directorate-General of Planning", Muscat Sultanate of Oman .

Ministry of Health, (1990), "The Annual Statistical Report, MOH publications", Amman, Jordan, .

Ministry of Health, (2000), "Annual Report", Amman, Jordan. [www.moh.gov.jo](http://www.moh.gov.jo)

Ministry of Health, (2003), "Annual Report", Amman, Jordan. [www.moh.gov.jo](http://www.moh.gov.jo)

Ministry of Health, (2004), "Annual Report", Amman, Jordan.

Mintzberg, H, (1994), "The Rise and Fall of Strategic Planning", Prentice-Hall International,

Hertfordshire., .

Mintzberg, H, (1997), "Toward healthier hospitals", *Health Care Management Review*, Vol. 22 No.4, pp.9-18..

Mitchell, R; Agle, B; Wood, D, (1997), "Toward a theory of stakeholder identification and salience: defining the principle of who and what really count", *Academy of Management Review*, Vol. 22 No.4, pp.853-86.

Mitra, K; Capella, L, (1997), "Strategic pricing differentiation in services: a re-examination", *The Journal of Services Marketing*, Vol. 11, No.5, pp.329-43.

Mittal, V; Kamakura, W, (2001), "Satisfaction, repurchase intent, and repurchase behaviour: investigating the moderating effect of customer characteristics", *Journal of Marketing Research*, Vol. 38 No.1, pp.131-42.

Mod. Health Care (1995), "Hospitals have PR field day as 'honor roll' is published", No.25, pp.92.

Moore, J, (1997), "A healthcare Baldrige?", *Modern Healthcare*, Vol. 27 No.34, pp.28-9.

Morgan, R; Hunt, S, (1994), "The commitment-trust theory of relationship marketing", *Journal of Marketing*, Vol. 58 pp.20-38.

Morgan, J; Everett, T, (1990), "Introducing quality management in the NHS", *International Journal of Health Care Quality Assurance*, Vol. 3 No.5, pp.23-37.

Morgan, R; Hunt, S, (1994), "The Commitment-Trust Theory of Relationship Marketing", *Journal Marketing*, Vol. 58 (July): pp.20-38.

Moser, C; Kalton, G, (1971), "Survey Methods in Social Investigation", Second Edition, Dartmouth.

Moullin, M, (2004), "Evaluating a health service taskforce", *International Journal of Health Care Quality Assurance*, Volume: 17 Issue: 5 Page: 248 – 257

Mulhall K; Ahmed, A; Masterson, E, (2002), "The "doctor-customer relationship: Hippocrates in the modern marketplace", *International Journal of Health Care Quality Assurance*, Volume 15 Number 1 pp. 9-10

Mullikin, J, (2003), "Beyond reference price: understanding consumers' encounters with unexpected prices", *Journal of Product & Brand Management*, Volume 12 Number 3 pp. 140-153

Murray, A, (1988), "A contingency view of Porter's generic strategies", *Academy of Management Review*, Vol. 13 pp.390-400..

Nagle, J; McMahon, K; Barbour, M, Sayed-Farshi, Z; Allen, D, (1991), "Patient Satisfaction with the Accessibility of a Group Practice", *Journal of Management In Medicine*, Vol. 5, No. 2.

Nagle, T; Holden, R, (1995), "The Strategy and Tactics of Pricing", Prentice-Hall, Englewood Cliffs, NJ.

Naidu, G; Parvatiyar; A; Sheth, N; Westgate, L, (1999), "Does Relationship Marketing Pay? An Empirical Investigation of Relationship Marketing Practices in Hospitals", *Journal of Business Research*  
Address correspondence to Atul Parvatiyar, Goizueta Business School, Emory University,

Narasimhan, R, (1983), "An analytical approach to supplier selection", *Journal of Purchasing and Materials Management*, Vol. 19 No.1, pp.27-32.

Narver, J; Slater, S, (1990), "The effect of market orientation on business profitability", *Journal of Marketing*, Vol. 54 pp.20-35..

- National Audit Office, (1991), "NHS Outpatient Services", HMSO, London, .
- Naumann, S; Bennett, N, (2000), "A case for procedural justice climate: development and test of a multilevel model", *Academy of Management Journal*, Vol. 43 No.5, pp.881-9.
- Naumann, S; Miles, J, (2001), Managing waiting patients' perceptions: The role of process control, *Journal of Management in Medicine*, Vol. 15, No. 5, pp. 376-386
- Naveh, E; Stern, Z, (2005), "How quality improvement programs can affect general hospital performance", *International Journal of Health Care Quality Assurance*, Vol. 18, No. 4, pp. 249-270
- Neale, M, (1993), "Hospital survival in a competitive environment: the competitive constituency model' hospital and health services administration", *Journal of Health Care Marketing*, 38 (1), 23-41 Vol. 13, Issue 3.
- Nelson, C; Goldstein, A, (1989), "Health Care Quality: The New Marketing Challenge", *Health Care Management Review*, Vol. 14 No.2, pp.87-95.
- New York Times, (1993), "Ratings of hospitals is delayed in an effort for stronger data", section A, No.June, pp.19.
- Newman, K, (2001), "Interrogating SERVQUAL: a critical assessment of service quality measurement in a high street retail bank", *The International Journal of Bank Marketing*, Vol. 19, No. 3, pp. 126-139.
- Ngamkroeckjot, C; Johri, L, (2003), "Coping with hypercompetition in the financial services industry in Thailand: environmental scanning practices of leaders and followers" *International Journal of Bank Marketing*. Vol. 21, No. 6/7, pp. 359-368
- NHS Executive, (1998), "A first-class service: quality in the new NHS", available at: [www.doh.gov.uk/newnhs/quality.htm](http://www.doh.gov.uk/newnhs/quality.htm), .
- Nicholas, D; Huntington, P; Williams, P, (2002), " The impact of location on the use of information systems: Case study – health information kiosks", *Journal of Documentation*, Jun Vol. 58 Iss. 3 pp 284 – 301.
- Nie, Norman H., C Hadlai Hull, Jean G. Jenkins, Karin Steinbrenner, and Dale H Bent (1975), *Statistical Package for the Social Sciences*, 2nd ed New York: McGraw-Hill Book Company
- Norman, M; Stoker, B, (1991), "Data Envelopment Analysis: The Assessment of Performance", John Wiley & Sons, Chichester.
- Normand, C; Weber, A, (1994), "Social Health Insurance, A Guidebook for Planning, International Labour Office", World Health Organisation: Geneva.
- Normand, S; Glickman, M; Sharma, R; McNeil, B, (1996), "Using admission characteristics to predict short-term mortality from myocardial infarction in elderly patients: results from Cooperative Cardiovascular Project", *JAMA*, Vol. 275 pp.1322-8.
- Nunnally, J, (1978), "Psychometric theory", 2nd ed., McGraw-Hill, New York, NY., .
- Nydick, R; Hill, R, (1992), "Using the analytic hierarchy process to structure the supplier selection procedure", *International Journal of Purchasing and Materials Management*, pp.31-6..
- O'Cass, A, (2001), "Consumer self-monitoring, materialism and involvement in fashion clothing",



Australasian Marketing Journal, Vol. 9 No.1, pp.46-60.

O'Cass, A; Julian, C, (2003), "Examining firm and environmental influences on export marketing mix strategy and export performance of Australian exporters", *European Journal of Marketing*. Vol. 37, No. 3/4, pp. 366-384

O'Cass, A, (2003), "An exploratory perspective of service brand associations" *Journal of Services Marketing* Vol.17, No. 5 pp. 452-475

Ohmae, K, (1983), "The Mind of the Strategist", Penguin Books, New York, NY., .

Ojasalo, J, (1999), "Quality Dynamics in Professional Services", Swedish School of Economics and Business Administration, Helsinki, .

Olsen, R; Ellram, L, (1997), "A portfolio approach to supplier relationships", *Industrial Marketing Management*, Vol. 26 No.2, pp.101-13

Omran, M, (2004), "Performance Consequences of Privatizing Egyptian State-Owned Enterprises: The Effect of Post-Privatization Ownership Structure on Firm Performance", *Multinational Finance Journal*, vol. 8, no. 1 & 2, pp. 73-114.

Onkvisit, S; Shaw, J, (1989), "Service Marketing: Image, Branding, and Competition", *Business Horizon*, Vol. 32, No.1, pp 13-20.

Oppenheim, N, (1992), "Questionnaire Design, Interviewing and Attitude Measurement", New edition, Printer Publishers, London.

Orava, M; Tuominen, P, (2000), "The quality of the surgical service process in a private hospital", in Edvardsson, B., Brown, S., Johnston, R., Scheuing, E. (Eds), *Service Quality in the New Economy: Interdisciplinary and International Dimensions. Proceedings of QUIS7, International Service Quality Association (ISQA)*, New York, NY, .

Orava, M; Tuominen, P, (2002), "Curing and caring in surgical services: a relationship approach", *Journal of Services Marketing*,

O'Shaughnessy, J, (1995), "Competitive Marketing", Routledge, London and New York, NY.

Osborne, J; Christensen, W; Gunter, J, (2001), "Educational Psychology from a Statistician's Perspective: A Review of the Power and Goodness of Educational Psychology Research". Paper presented at the national meeting of the American Education

Osborne, D; Geabler, T, (1992), "Reinventing Government", Addison-Wesley Publ. Co.,

Ottawa Character for Health Promotion, (1986), "The Adelaide Recommendation on Healthy Public Policy", WHO, Geneva.

Ovretveit, J, (1992), "Health Service Quality: An Introduction to Quality Methods for Health Services", Blackwell, London., .

Ovretveit, J, (2000), "The economics of quality", *International Journal of Health Care Quality Assurance*, Vol. 13 No.5, pp.200-7.

Oxenfeldt, A, (1983), "Pricing decisions: how they are made and how they are influenced", *Management Review*, No. November, pp.23-5.

Ozcan, Y; Luke, R; Haksever, C, (1987), "Ownership and organizational performance. A comparison of

technical efficiency across hospital types", *Medical Care*, Vol. 30 No.9, pp.781-94.

Palmer, A, (1994), "Principles of Services Marketing", McGraw-Hill, London,

Palmer, A. and Cole, C, (1995), "Services Marketing", Prentice-Hall, Inc., Englewood Cliffs, NJ.

Palmer, H, (1996), "Measuring clinical performance to provide information on quality improvement", *Quality Management in Health Care*, Vol. 4 pp.1-2..

Palmer, Adrian, (2001), "Principles of Services Marketing", Third Edition, McGraw-Hill Publishing Company UK.

Palmer, R, (1997), "Process-based measures of quality: the need for detailed clinical data in large health-care databases", *Ann. Intern. Med.*, Vol. 127 pp.733-8.

Parasuraman, A; Zeithaml, V; Berry, L, (1985), "Problems and Strategies in Services Marketing", *Journal of Marketing*, Vol. 49, No. 2 (Spring, 1985) , pp. 33-46

Parasuraman, A, (1986), "Marketing Research/A Parasuraman. Reading", (Mass). Addison-Wesley.

Parasuraman, A, Zeithaml, V, and Berry, L, (1988), "SERVQUAL: A Multi-item Scale for Measuring Consumer Perception of Service Quality", *Journal of Retailing*, 64, Spring, 12-40.

Parasuraman, A, Zeithaml, V, and Berry, L, (1990), "An Empirical Test of the Extended Gaps Model of Service Quality", Marketing Science Institute, Working Paper No. 90-122.

Parasuraman, A, Zeithaml, V, and Berry, L, (1994), "Reassessment of Expectations As a Comparison Standard in Measuring Service Quality: Implications for Future Research", *Journal of Marketing*, Vol.58, pp.111-124.

Parks, R, (1984), "Linking objective and subjective measures of performance", *Public Administration Review*, Vol. 44 No.2, pp.118-27.

Parker, D; Newbrander, W, (1994), "Tackling wastage and inefficiency in the health sector", *World Health Forum*, Vol. 15 pp.107-13.

Parker, J, (2000), "Keeping the faith: building investor confidence in the absence of profits", *CMA Management*, Vol. 74 No.7, pp.16-21..

Parker, D, (2003), "Performance, risk and strategy in privatised, regulated industries The UK's experience", *International Journal of Public Sector Management*. Volume 16 Number 1 pp. 75-100

Payne, A, (1993), "The Essence of Services Marketing", Prentice-Hall, London, .

Pearce, J; Robbins, D; Robinson, R, (1987), "The impact of grand strategy and planning formality on financial performance", *Strategic Management Journal*, No.8, pp.125-34.

Peck, H; Payne, A; Christopher, M; Clark, M, (1999), "Relationship Marketing. Strategy and Implementation", Butterworth-Heinemann, Oxford,

Pedhazur, E, (1997), "Multiple Regression in Behavioral Research", (3<sup>rd</sup> ed.). Orlando, FL: Harcourt Brace.

Peil, M; Mitchell; Rimmer, D, (1982), "Social Science Research Method. An African Handbook". London: Hodder and Stoughton Educational Ltd.

Peters, T; Waterman, R, (1982), "In Search of Excellence: Lessons from America's Best-Run Companies", Harper and Row, New York, NY., .

Peters, J, (1979), "Reliability: A review of Psychometric Basics and Recent Marketing Practices",

Journal of Marketing Research, Feb, PP.6-17.

Piercy, N, (1995), "Customer satisfaction and the internal market marketing our customers to our employees", Vol. 1, No. 1, pp 22-44.

Piercy, N, (1999), "Personal address at the Special Conference on Relationship Marketing", Cranfield University, Cranfield, June, .

Piercy, N, (1999), "Relationship marketing myopia", Marketing Business, pp.40-1

Pomey, M; Contandriopoulos, A; François, P; Bertrand, D, (2004), "Accreditation: a tool for organizational change in hospitals? ", International Journal of Health Care Quality Assurance. Vol. 17 No. 3, pp. 113-124

Popovich, M, (2002), "If most intensive care units are graduating with honors, is it genuine quality or grade inflation?", Crit. Care Med., Vol. 30 pp.2145-6.

Porter, M, (1987), "From Competitive Advantage to Corporate Strategy", Harvard Business Review (May-June, pp. 43-59.

Porter, M, (1980), "Competitive Strategy". The Free Press, New York.

Porter, M, (1985), "Competitive Advantage: Creating and Sustaining Superior Performance", The Free Press, New York, NY., .

Porter, M, (1998), "Competitive Strategy", (2 nd Edition). New York: Free Press.

Porter, M, (1986), "Changing Patterns of International Competition." California Management Review, 28 (2), 9-40.

Porter, M, (1979), "The Structure within Industries and Companies' Performance", Review of Economics and Statistics, Vol. 61, No. 2, pp. 214-227

Powell, T, (1992), "Organizational alignment as competitive advantage", Strategic Management Journal, Vol. 13 No.2, pp.119-34.

Powills, S, (1986), "Hospital Advertising Invisible to Consumers", Hospitals, Vol. 60 No.5 January, pp.66.

Price, D; Pollock, A, (2002), "Extending choice in the NHS", British Medical Journal, Vol. 325 pp.293-4.

Proctor, (2000), "Strategic Marketing Management for Health Management: Cross Impact Matrix and Twos", journal of management in medicine, vol.14, No. 1 .pp 47-56.

Puig-Junoy, J, (2000), "Partitioning input cost efficiency into its allocative and technical components: an empirical DEA application to hospitals", Socio-Economic Planning Sciences, Vol. 4, No.2/3, pp.1-20.

Raaij, M; Van Erik, (2005), "The strategic value of customer profitability analysis", Marketing Intelligence and Planning, Vol. 23, No. 4 pp. 372-381

Rafiq, M; Ahmed, P, (1995), "Using the 7Ps as Generic Marketing Mix: an Exploratory Survey of UK and European Marketing Academics", Marketing Intelligence & Planning, Vol.13 .No. 9, pp4-15.

Rajiv, D; Banker, Richard C. Morey, (1986), "Efficiency Analysis for Exogenously Fixed Inputs and Outputs", Operations Research, Vol. 34, No. 4, pp. 513-521



- Rahman, Zillur, (2004), "Developing customer oriented service: a case study", *Managing Service Quality*, Vol. 14, No. 5, pp. 426-435
- Rakich, J; Longest, B; Darr, K, (1985), *Managing Health Services Organizations*, 2nd ed. WB Saunders Company, Philadelphia PA.
- Ramanathan, R, (2003), "An Introduction to Data Envelopment Analysis: A Tool for Performance Measurement", Sage Publications, New Delhi,
- Ramanathan, R, (2005), "Operations assessment of hospitals in the Sultanate of Oman", *International Journal of Operations & Production Management*, Volume 25 Number 1 pp. 39-54.
- Ratza, C, (1993), "A client-driven model for service pricing", *Journal of Professional Services Marketing*, Vol. 8 No.2, pp.55-64.
- Rawabdeh, A, (2005), "Health care cost containment strategies: the Jordanian experience", *The International Journal of Health Planning and Management* Volume 20, Issue 1 , Pages 53 – 66 Published Online: 24 Feb
- Reichheld, F, Sasser, W; Earl, J, (1990), "Zero Defections: Quality Comes to Services", *Harvard Business Review*, Vol.68, No.5, pp 105-111.
- Reidenbach, E, Sandifer-Smallwood, B, (1990), "Exploring perceptions of hospital operations by a modified SERVQUAL approach", *Journal of Health Care Marketing*, Dec;10(4):47-55.
- Renner, C; Palmer, E, (1999), "Outsourcing to increase service capacity in a New Zealand hospital", *Journal of Management in Medicine*, Vol.13, No. 5, pp. 325-338
- Renner, C; Palmer, E, (1999), "Outsourcing to increase service capacity in a New Zealand hospital", *Journal of Management in Medicine*, Volume 13 Number 5 pp. 325-338.
- Roper, W; Cutler, C, (1998), "Health plan accountability and reporting. Issues and challenges", *Health Affairs*, Vol. 17 pp.152-5..
- Roberts, Keith; Varki, Sajeev; Brodie, Rod, (2003), "Measuring the quality of relationships in consumer services: an empirical study", *European Journal of Marketing*, Vol. 37 No. 1/2, pp. 169-196
- Roberts, Carolyn; Beck, Eugene, (1989), "Marketing in Small and Rural Hospitals", AHA, American Hospital Publishing, USA.
- Robinson, J; Shaver, P; Wrightsman, L, (1991), "Criteria for Scale Selection and Evaluation, in Measures of Personality and Social Psychology Attitudes", Robinson, J. Shaver, P and Wrightsman, L, (eds), San Diego, CA: Academic Press.
- Robinson, J; Luft, H, (1987), "Competition and the cost of health care, 1972-1982", *Journal of Health Economics*, Vol. 4, pp.333-56.
- Robinson, L; Philip, C, (1980-81), "Roadblocks to Hospital Marketing," *Journal of Health Care Marketing*, 1 (Winter), 18-24.
- Rose, R; Uli, J; Abdul, M; Looi, Ng Kim, (2004), "Hospital service quality: a managerial challenge", *International Journal of Health Care Quality Assurance*, Volume 17 Number 3 pp. 146-159.
- Rowley, J, (2000), "From users to customers?" *OCLC Systems & Services* Volume 16 Number 4 pp. 157-167.

- Rugman, A; Verbeke, A, (1998), "Corporate strategy and international environmental policy, *Journal of International Business Studies* 29(4), pp. 819-833.
- Rugman, A; Verbeke, A, (2002), "Edith Penrose's contribution to the resource-based view of strategic management," *Strategic Management Journal*, Volume 23, Issue 8 , Pages 769 – 780 Published Online: 28 Mar 2002
- Rusnáková, V, (2000), "Building capacities for training in quality improvement in the Slovak health service", University of Leeds, Leeds., Dissertation MBA Health and Social Services, .
- Rust, R; Zahorik, A; Keiningham, T, (1996), "Services Marketing", HarperCollins College Publishers, New York, NY.
- Saal, D; Parker, D, (2000), "The impact of privatisation and regulation on the water and sewerage industry in England and Wales: a translog cost function model", *Managerial and Decision Economics*, Vol. 21 pp.253–68.
- Saal, D; Parker, D, (2001), "Productivity and price performance in the privatised water and sewerage companies of England and Wales", *Journal of Regulatory Economics*, Vol. 20 No.1, pp.61–90.
- Saaty, T, (1980), *The Analytic Hierarchy Process*, McGraw-Hill, New York, NY, .
- Salancik, G; Pfeffer, J, (1978) "A Social Information Processing Approach to Job Attitudes and Task Design", *Administrative Science Quarterly*, Vol. 23, No. 2, pp. 224-253
- Sander, N; Ritzman, L, (2004), "Integrating judgmental and quantitative forecasts: methodologies for pooling marketing and operations information", *International Journal of Operations & Production Management* Volume 24 Number 5 pp. 514-529
- Sarkis, J; Talluri, S, (2002), "Efficiency measurement of hospitals: issues and extensions", *International Journal of Operations & Production Management*, Volume 22 Number 3 pp. 306-313
- Sarji, A, (1996), "The Civil Service of Malaysia: Towards Efficiency And Effectiveness", Government of Malaysia, Kuala Lumpur, .
- Saunders, K, (2001). "Teaching Methods and Assessment Techniques for the Undergraduate Introductory Finance Course: A National Survey," *Journal of Applied Finance*, Fall 2001, Volume 11, No. 1, p. 110-112.
- Saunders, M; Lewis, P; Thornhill, A, (2000), "Research Methods for Business Students", London: Pitman.
- Savage, G; Nix, T; Whitehead, C; Blair, J, (1991), "Strategies for assessing and managing organizational stakeholders", *Academy of Management Executive*, Vol. 5 No.2, pp.61-75.
- Scally, G; Donaldson, L, (1998), "Clinical governance and the drive for quality improvement in the new NHS in England", *British Medical Journal BMJ*, Vol. 317 pp.61-5.
- Schaffer, R; Thomson, H, (1992), "Successful change programs begin with results", *Harvard Business Review*, Vol. January/February.
- Schlissel, M; Chasin, J, (1991), "Pricing of services: an interdisciplinary review", *The Services Industries Journal*, Vol. 11, No.3, pp.271-86.
- Scherer, F; Ross, D, (1990) "Industrial Market Structure and Economic Performance", 3rd edn. Houghton Mifflin Company, Boston.
- Schmalensee, R, (1984), "Gaussian demand and commodity bundling", *Journal of Business*, Vol. 57

pp.211-30.

Schmittiel, J; Selby, J; Grumbach, K; Quesenberry, J, (1997), "Choice of a personal physician and patient satisfaction in a health maintenance organization", JAMA, Vol. 278 No.19, pp.1596-9.

Schneider, S; De Meyer, A, (1991), "Interpreting and responding to strategic issues: the impact of national culture", Strategic Management Journal, Vol. 12 No.4, pp.307-20.

Schrage, L, (1991), "An Optimization Modeling System", 4th ed, Boyd & Fraser Publishing Company, Danvers, MA,

Scrivens, E, (1991), "Is there a role for marketing in the public sector?", Public Money and Management, pp.17-23.

Sekaran, U, (2000), "Research Methods for Business", Third Edition, John Wiley & Sons, Inc.

Selen, W, (2000), "Knowledge management in resource-based competitive environments: a roadmap for building learning organizations", Journal of Knowledge Management, Vol.4, No. 4, pp. 346-353.

Selznick, P, (1985), "Focussing organizational research on regulation", i Noll (red): Regulatory Policy and the Social Sciences, Berkeley Los Angeles: The University of California Press.

Seth, A; Thomas, H, (1994), "Theories of the firm: Implications for strategy research", Journal of Management Studies, 31(2): pp165-191.

Shapiro, B; Moriarty, R, (1984), "Organizing the national account force", Marketing Science Institute, MA, working paper,

Sharkey, P; Dehaemer, M; Horn, S, (1993), "Assessing the severity of patient's illness to better manage health care resources", Interfaces, Vol. 23 No.4, pp.12-20.

Sharma, H; Gupta, S; Gupta, A, (1994), "Entropy, Quality and Wastivity: A Unified View of System Performance", Kybernetes, Vol. 23, No. 8, pp. 47-54

Sherck, J; Shatney, C, (1996), "ICU scoring systems do not allow prediction of patient outcomes or comparison of ICU performance", Crit. Care Clin., Vol. 12 pp.515-23.

Shemwell, D; Yavas, U, (1999), "Measuring service quality in hospitals: scale development and managerial applications", Journal of Marketing Theory and Practice, Vol. 7 No.3, pp.65-74.

Sherman, H, (1984), "Hospital efficiency measurement and evaluation: empirical test of a new technique", Medical Care, Vol. 22 No.10, pp.922-38.

Shimp, T, (1993), "Promotion Management and Marketing Communications", The Dryden Press, Fort Worth, TX., .

Shiple, D; Jobber, D, (2001), "Integrative pricing via the pricing wheel", Industrial Marketing Management, Vol. 30 No. 3, pp. 301-14.

Shirley, M; Patrick, W, (2000), "Public Versus Private Ownership: The Current State of the Debate", The World Bank, Washington, DC.

Shleifer, A; Robert, V, (1994) "A Survey of Corporate Governance." The Journal of Finance 52, 2,737-783.

Shortell, A; Kaluzny, M, (1994), "Health Care Management: Organization Design and Behavior", Delmar Publishers, Albany, NY., .



- Shortell, S, (1993), "Diversification strategy benefits innovative leader", Modern Healthcare, Vol. 20 No.10, pp.38..
- Shostack, L, (1977a), "Breaking Free From Product Marketing", Journal of Marketing, Vol.41, No.2, pp 73-80.
- Shostack, L, (1977b), "Banks Sell Services-Not Things", The Bank's Magazine, Vol. Winter, pp40-45.
- Shostack, L, (1984), "Designing Service That Deliver", Harvard Business Review, Vol. 62, No.1, pp133-139.
- Shostack, L, (1987), "Service Positioning through Structural Change", Journal of Marketing, Vol. 51 No.January, pp.34-43.
- Shostack, L, (1982), "How to design a service", European Journal of Marketing, Vol. 16 No.1, pp.49-64.
- Siddharthan, K; Jones, W; Johnson, J, (1996), "A priority queuing model to reduce waiting times in emergency care", International Journal of Health Care Quality Assurance, Volume 9 Number 5 pp. 10-16.
- Siguaw, J; Mattila, A; Austin, J, (1999), "The brand-personality scale", Cornell Hotel and Restaurant Administration Quarterly, No.June, pp.48-55.
- Silverman, D, (2001), "Interpreting Qualitative Data: Methods for Analysing Talk", Text and Interaction, Second Edition, Sage Publications.
- Simon, H, (1992), "Pricing opportunities and how to exploit them", Sloan Management Review, Vol. 33 No. 2, pp. 52-62.
- Sirgy, J, (1982), "Self-Concept in Consumer Behavior: A Critical Review", Journal of Consumer Research, Vol. 9, No. 3, pp. 287-300
- Sloane, E; Liberatore, M, (2002), "Medical decision support using the analytic hierarchy process", J. Health-care Inf. Management, Vol. 16 pp.38-43.
- Sloane, E; Liberatore, M; Nydick, R; Luo, W; Chung, Q, (2003), "Using the analytic hierarchy process as a clinical engineering tool to facilitate an iterative, multidisciplinary, microeconomic health technology assessment", Computers & Operations Research, Vol. 30 pp.1447-65.
- Slovensky, D, (1996), "Quality assessment and improvement", in Abdelhak, M., Grostick, S., Hanken, M.A., Jacobs, E. (Eds), Health Information: Management of a Strategic Resource, W.B. Saunders, Philadelphia, PA, pp.320-57.
- Smith, A, Swinehart, Kerry, (2001), "Integrated systems design for customer focused health care performance measurement: a strategic service unit approach", International Journal of Health Care Quality Assurance
- Smith, G; Saker, J, (1992), "Developing Marketing Strategy in the Not-for-Profit Sector", Library Management, Vol.13, No.4, pp6-21.
- Smyth, J, (1998), Competition as a means of procuring public services Lessons for the UK from the US experience, Journal of Management in Medicine, Vol. 12 No. 4/5, pp. 215-240.
- Smyth, S; Phillips, P, (1999), "Competitors co-operating: Establishing a supply chain to manage genetically modified canola." International Food and Agribusiness Management Review. Special 2000

issue. Forthcoming.

Succi, M; Lee, S; Alexander, J, (1997), "Effects of market position and competition on rural hospital closures", *Health Services Research*, Vol. 31 No.6, pp.679-99.

Solnik, C, (2001), "Jury still out on success of hospital systems", *LI Business News*, No.43, pp.3b.

Soloman, R, (1990), "Using a Patient Survey for Marketing a Professional Health Care Practice", *Journal of Health Care Marketing*, Vol. 10 No.2, pp.47-53.

Solomon, M, (1985), "Packaging the service provider", *Service Industries Journal*, Vol. 5 No.July, pp.64-72.

Som, C, (2004), "Clinical governance: a fresh look at its definition", *Clinical Governance: An International Journal*. Volume 9 Number 2 pp. 87-90

Steiber, S, (1987), "Hospital Advertising Okayed by 62% of Public", *Hospitals*, Vol. 61 No.5 April, pp.81.

Stern, Z; Naveh, E, (1997), "A model of quality management in a general hospital", *Clinical Performance and Quality Health Care*, Vol. 5 No.3, pp.129-32.

Stevenson, F; Greenfield, S; Jones, M; Nayak, A; Bradley, C, (1999), "GPs' perceptions of patient influence on prescribing", *Family Practice* Vol. 16, No. 3, 255-261

Stewart, J, Walsh, K, (1992), "Change in the Management of Public Services", *Public Administration*, Vol. 70 pp.499-518.

Storbacka, K, (1993), "Customer Relationship Profitability in Retail Banking", *Swedish School of Economics and Business Administration, Helsinki, Finland, Research Report, No.29, .*

Storbacka, K, (1994), "The Nature of Customer Relationship Profitability. Analysis of Relationships and Customer Bases in Retail Banking", *Swedish School of Economics and Business Administration, Helsingfors, No.55, .*

Storbacka, K; Strandvik, T; Grönroos, C, (1994), "Managing Customer Relationships for Profit: The Dynamics of Relationship Quality", *International Journal of Service Industry Management*, Vol.5, Issue.5, pp.21-38.

Stuart, F; Tax, S, (1997), "Designing and implementing new services: the challenge of integrating service", *Journal of Retailing*, Vol. 73 No.1, pp.105-34.

Studin, I, (1995), "Strategic Healthcare Management – Applying the Lessons of Today's Top Management Experts to the Business of Managed Care", *Irvin Professional Publishing, Chicago, IL.,*

Sutton, Howard, (1988), "Competitive intelligence". New York, NY: The Conference Board.

Svensson, G, (2004), "Supplier segmentation in the automotive industry: A dyadic approach of a managerial model" *International Journal of Physical Distribution & Logistics Management*. Vol. 34, Issue 1, pp 12 – 38

Swan, J; Combs, L, (1976), "Product Performance and Consumer Satisfaction: A New Concept", *Journal of Marketing*, Vol. 40, No. 2 (Apr., 1976) , pp. 25-33

Swinehart, K, Smith, A, (2004), "Customer focused health-care performance instruments: making a case for local measures", *International Journal of Health Care Quality Assurance*, Volume 17 Number 1 pp. 9-16

- Swinehart, K; Zimmerer, W; Thomas, Oswald Sharon,(1995), "Adapting a strategic management model to hospital operating strategies :A model development and justification", *Journal of Management in Medicine*, Volume 9 Number 2 1995 pp. 34-47
- Szwergold, J, (1992), "Why most quality efforts fail", *Management Review*, Vol. August pp.5.
- Tabachnick, B; Fidell, L, (2001), "Using Multivariate Statistics", (4th ed.). Needham Heights, MA: Allyn and Bacon.
- Tang, N; Eisenberg J; Meyer G, (2004), "The roles of government in improving health care quality and safety", *The joint commission journal on quality and safety*. Harvard University, Boston, USA. Jan; 30(1):47-55.
- Tarnow-Mordi, W; Ogston, S; Wilkinson, A; Reid, E; Gregory, J; Saeed, M; Wilkie, R, (1990), "Predicting death from initial disease severity in very low birth-weight infants: a method for comparing the performance of neonatal units", *British Medical Journal*, Vol. 300 No.23, pp.1611-14.
- Taylor, S; Cronin, J; Okiphant, G, (1990), "The hospital marketing paradox", in Capella, L., Nash, H.W., Starling, J.M., Taylor, J.M. (Eds), *Proceedings of the Southern Marketing Association*, .
- Terrey, P; Healey, M, (2000), "Does the distribution method for self-care materials affect patient satisfaction with physician communication? A comparison of mailed versus physician-delivered education". *Journal Family Practice*, Vol.49, pp.314-8.
- Thanassoulis, E; Boussofiene, A; Dyson, R, (1995), "Exploring output quality targets in the provision of perinatal care in England using data envelopment analysis", *European Journal of Operational Research*, Vol. 80 No.3, pp.588-607.
- Thanassoulis, E; Allen, R, (1998), "Simulating Weights Restrictions in Data Envelopment Analysis by Means of Unobserved DMUs", *Management Science*, Vol. 44, No. 4, pp. 586-594
- Thanassoulis, E; Dyson, R; Foster, M, (1987), "Relative efficiency assessments using data envelopment analysis: an application to data on rates departments", *Journal of the Operational Research Society*, Vol. 38 No.5, pp.397-411.
- Thawaites, D, (1998), "Advertising and Promotion", in Ennew, Christine; Watkins, Trevor; and Wright, Mike (Eds), *Marketing Financial Services*, Second Edition, Butter worth-Heinemann.
- The communication network for America's health care billers, (2005), "Health care biller Third-Party Payor Basics", *Essential Keys to Good Patient Customer Service*
- Theobald, P, (1992). "Rural philosophy for education: Wendell Berry's tradition. Charleston", WV: ERIC Clearinghouse on Rural Education and Small Schools. (ED 345 930)
- Thurau, T, Klee, A, (1997), "The impact of customer satisfaction and relationship quality on customer retention: A critical reassessment and model development", *Psychology and Marketing*. Vol.14, Issue. 8 , pp. 737 - 764
- Todd, T; Baker, G III, (1998), "Institutional effectiveness in two-year colleges: the southern region of the United States", *Community College Review*, Vol. Winter pp.57-77.
- Tomes, A; Chee, S; Ng P, (1995), "Service quality in hospital care: the development of an in-patient questionnaire", *International Journal of Health Care Quality Assurance*, Vol. 8 No 3 pp. 25-33
- Tomkins, C; Green, R, (1988), "An experiment in the use of data envelopment analysis for evaluatign the efficiency of UK university departments of accounting", *Financial Accountability & Management*, Vol. 4



No.2, pp.147-64.

Trinh, H, (1999), "Are rural hospitals 'strategic'?", *Health Care Management Review*, Vol. 24 No.3, pp.42-54..

Tung, W; Capella, M; Louis; T; Peter, K, (1997), "Service pricing: a multi-step synthetic approach", *Journal of Services Marketing*, Vol. 11, No 1, pp. 53-65

Turner, D, (1993), "Exploring customer satisfaction in regional health care: a comparative analysis of direct and indirect experiences", Auburn University, AL., Master's thesis, .

Turner, P; Pol, L (1995), "Beyond patient satisfaction", *Journal of Health Care Marketing*, Vol. 15 No.3, pp.45-57.

Tucker, J; Adams, Sh, (2001), "Incorporating patients' assessments of satisfaction and quality: an integrative model of patients', evaluations of their care, *Managing Service Quality*, Vol. 11, Issue 4, pp. 272 – 287

Twible, J; Hensel, S, (1991), "Services versus Goods. An Empirical Study of Vivid Information in Advertising. in *Enhancing Knowledge Development in Marketing*", Chicago, American Marketing Association.

Uhl, K; Upah, G, (1983), "The marketing of services: why and how is it different?", *Research in Marketing*, No. 6, pp.231-57.

Urden, L, (2002), "Patient Satisfaction Measurement: Current Issues and Implications", *Lippincott's Case Management*. Vol.7, No.5, pp194-200,

US News & World Report, (1990), "America's best hospitals", No. April 30, pp.51-85.

US News & World Report, (1996), "America's best hospitals", John Wiley & Sons, New York, NY,

Van der Aa, W; Elfring, T, (2002), "Realizing innovation in services", *Scandinavian Journal of Management*, Vol.18, No2, pp155-71.

Van Raaij, E, (2005), "The strategic value of customer profitability analysis", *Marketing Intelligence & Planning*, Vol. 23, No. 4, pp. 372-381

Van Waterschoot, W; Van den, B, (1992), "The 4P Classification of The Marketing Mix Revisited", *Journal of Marketing*, Vol.56, No. 4, pp120-143.

Van Weele, A, (2000), "Purchasing and Supply Chain Management", Business Press, Thomson Learning, London, .

Varadarajan, P; Jayachandran, R, (1999), "Marketing Strategy: An Assessment of the Field and Outlook", *Journal of Academy of Marketing Science*, Vol. 27, No.2, pp120-143.

Venkatraman, N; Ramanujan, V, (1986), "Measurement of Business Performance in Strategy Research: A Comparison of Approaches", *Academy of Management Review*, Vol.11, No.4, pp 801-814.

Verma, R, (2000), "An Empirical Analysis of Management Challenges in Service Factories, Service Shops, Mass Service and Professional Services", *International Journal of Service Industry Management*, Vol.11, No.1, pp8-25.

Vickers, J; Yarrow, G, (1988), "Privatization: An Economic Analysis", MIT Press, Cambridge, MA, .

Villalonga, B, (2000), "Privatization and efficiency: differentiating ownership effects from political,

- organizational, and dynamic effects”, *Journal of Economic Behavior & Organization*, Vol. 42 (2000) 43–74
- Vitaliano, D; Toren, M, (1994), "Cost and efficiency in nursing homes: a stochastic frontier approach", *Journal of Health Economics*, Vol. 13 No.3, pp.281-300.
- Venkatraman, N; Ramanujam, V, (1986), "Measurement of business performance in strategy research: a comparison of approaches", *Academy of Management Review*, Vol. 11 No.4, pp.801-14.
- Vukmir, R, (2006), "Customer satisfaction", *International Journal of Health Care Quality Assurance*, Vol.19 No. 1, pp. 8-31.
- Wagner, J; Gooding, R, (1997), "Equivocal Information and Attribution: An Investigation of Patterns of Managerial Sense making", *Strategic Mangement Journal*, Vol.18, Issue.4, pp275-286.
- Wagner, M, (1985), "Physicians Write Advertising Prescription", *Advertising Age*, No.24 October, pp.33-4.
- Wakefield, K; Blodgett, J, (1996), "The effect of the servicescape on customers' behavioral intentions in leisure service settings", *JOURNAL OF SERVICES MARKETING*, Volume 10 Number 6 pp. 45-61
- Walker, B, (2004), "Final Report of the Special Commission of Inquiry into Campbelltown and Camden Hospitals", *Special Commission of Inquiry into Campbelltown and Camden Hospitals*, Sydney, .
- Walsh, K, (1991), "Citizens and consumers: marketing and public sector management", *Public Money and Management*, pp.9-15.
- Walters, D; Jones P, (2001), "Value and value chains in healthcare: a quality management perspective", *The TQM Magazine*, Volume 13, Number 5, September 2001, pp. 319-
- Walshe, K, (2003), "Regulating healthcare: a prescription for improvement?" Open University press.
- Wang, C; Mowen, J, (1997), "The separateness-connectedness self-schema: Scale development and application to message construction", *Psychology and Marketing*, Vol. 14, Issue 2 , Pages 185 – 207
- Wangenheim, F; Bayón, T, (2004), "The effect of word of mouth on services switching Measurement and moderating variables", *European Journal of Marketing*, Vol. 38 No. 9/10 pp. 1173-1185
- Ward, K, (1989), "Financial Aspects of Marketing", Heinemann Publishing, Oxford.
- Wartik, S; Cochran, P, (1985), "The evolution of the corporate social performance model", *Academy of Management Review*, 10.
- Webb, J, (2000), "Questionnaires and their Designs", *The Marketing Review*, 1, 197-218.
- Webster, Frederick E , Jr. (1979), "Industrial Marketing Strategy", New York John Wiley & Sons, Inc
- Webster, R; Kennedy, S; Johnson, L, (1998), "Comparing techniques for measuring the efficiency and productivity of Australian private hospitals", *Working Paper*, No. 98/3, Australian Bureau of Statistics, Sydney, .
- Weick, K, (1979), "The Social Psychology of Organizing", (2nd Edition), NewYork, McGraw-Hill.
- Weil, P; Battistella, R, (1998), "A blended strategy using competitive and regulatory models", *Health Care Management Review*, Vol. 23 No.1, pp.37-45..
- Westphal, J; Gulati, R; Shortell, S, (1997), "Customization or conformity? An institutional and network perspective on the content and consequences of TQM adoption", *Administrative Science Quarterly*, Vol. 42 No.2, pp.366-94.

- Weyrauch, K, (1996), "Does continuity of care increase HMO patients' satisfaction with physician performance?", *JABFP*, Vol. 9 No.1, pp.31-6.
- Wheelan, T; Hunger, J, (1995), "Strategic Management and Business Policy", 5th ed, Addison-Wesley Longman, Reading, MA, .
- Wheelen, T; Hunger, J, (2002), "Strategic Management and Business Policy", 8th ed., Prentice-Hall, Upper Saddle River, NJ, .
- White, J; Blamphin, J, (1995), "Priorities for research into public relations practice in the United Kingdom", *International Public Relations Review*, Vol. 3 No.September, pp.1-11.
- White, R, (1986), "Generic business strategies, organisational context and performance: an empirical investigation", *Strategic Management Journal*, Vol. 7 No.3, pp.217-31..
- Wilcox-Gok, V, (2002), "The effects of for-profit status and system membership on the financial performance of hospitals", *Applied Economics*, Vol. 34 No.4, pp.479-90.
- Willcocks, S; Conway, T, (1998), "Strategic marketing and clinical management in health care: a possible way forward", *Journal of Management in Medicine*, Volume 12 Number 2 pp. 120-134
- Wilson, R; Gilligan, C, (1997), "Strategic Marketing Management: Planning, Implementation and Control", 2nd Edition, Butterworth-Heinemann.
- Winsted, K, (2000), "Patient satisfaction with medical encounters – a cross-cultural perspective", *International Journal of Service Industry Management*, Vol. 11, Issue. 5 pp 399 – 421
- Winkler, F, (1993), "Complaint by patients", *British Medical Journal*, Vol. 306 pp.472-3.
- Wong, W, (1990), "Cost to remain driving force of health care in the 1990s", *Marketing News*, Vol. 24 No.2, pp.8.
- Woodruff, H, (1995), "Services Marketing", Pitman Publishing, London, .
- World Bank, (1999), "Jordan Economic and Social Development Project.
- World Bank, (1989), "Hashemite Kingdom of Jordan: Quality, Organisation, and Finance Issues in the Health Sector", June 1, EMENA Country Department 111, Population and Human Resources Division/ The World Bank.
- World Bank, (1994), "Reports on Jordan Health Insurance System". Washington D. C .World Bank, Jordan ministry of health.
- World Bank, (2000), "World Development Indicator".<http://www.worldbank.org> World Bank.
- Wu, J; Neubert, M, (2006), "An investigation of the generalizability of the Houghton and neck revised self-leadership questionnaire to a Chinese context", *Journal of managerial psychology*, Vol.21, No.4, pp360-373
- Yavas, U; Shemwell, D, (1996), "Competing for patients and profit", *Journal of Health Care Marketing*, Vol. 16 No.2, pp.30-7.
- Yavas, U; Eroglu, D; Eroglu, S, (1994), "Sources and management of conflict: the case of Saudi-US joint ventures", *Journal of International Marketing*, Vol. 2 No.3, pp.61-82.
- Yavas, U; Romanova, N, (2005), "Assessing performance of multi-hospital organizations: a measurement approach", *International Journal of Health Care Quality Assurance*, Vol.18, No. 3, pp. 193-203.



- Yavas, U; Shemwell, D, (2001), "Modified importance-performance analysis: an application to hospitals", *International Journal of Health Care Quality Assurance*, Volume 14 Number 3 pp. 104-110.
- Yezdi, G; Shirley, G, (2002), "Marketing issues for the hospital industry", *International Journal of Health Care Quality Assurance*, Volume 15 Number 1 2002 pp. 25-28.
- Yip, G, (2000), "Global Strategy in the Internet Era": *Business Strategy Review*, Vol. 11, No. 4, pp. 1-14.
- Yu, H, (2002), "Web accessibility and the law: recommendations for implementation", *Library Hi Tech*, Volume 20 Number 4 pp. 406-419.
- Zalkind, D; Eastaugh, S, (1997), "Mortality rates as an indicator of hospital quality", *Journal of Healthcare*, Vol. 42 No.1, pp.3-15.
- Zailocco, R; Benoy, J; Harvey, D, (1984), "Strategic Market Planning for Hospitals," *Journal of Health Care Marketing*, 4 (Spring), 19-28.
- Zeithaml, V; Bitner, M, (1996), "Services Marketing", McGraw-Hill Companies, New York, NY.
- Zeithaml, V; Parasuraman, A; Berry, L, (1985), "Problems and strategies in services marketing", *Journal of Marketing*, Vol. 49, Spring, pp. 33-46.
- Zeithaml, V; Bitner, M, (1996), "Services Marketing", McGraw-Hill, Singapore, .
- Zeithaml, V; Parasuraman, A; Berry, L, (1985), "Problems and strategies in services marketing", *Journal of Marketing*, Vol. 49, No.4, pp.33-46.
- Zeithaml, V; Bitner, J, (1996), "Services Marketing", McGraw-Hill, Singapore.
- Zeithaml, V, (2000), "Service Quality, Profitability, and the Economic Worth of Customers: What We Know and What We Need t Learn", *Journal of Academy of Marketing Science*", Vol.28. No. 1, pp67-85.
- Zeithaml, V; Bitner M, (2000), "Services Marketing: Integrating Customer Focus Across the Firm", Second Edition, Irwin McGraw-Hill.
- Zeithaml, C; Zeithaml, V, (1984), "Environmental Management: Revising the Marketing Perspective", *Journal of Marketing*, Vol. 48, No. 2 , pp. 46-53
- Zeigenfuss, J; O'Rourke, P, (1995), "Ombudsmen, patient complaints, and total quality management: an examination of fit", *Joint Commission Journal on Quality Improvement*, Vol. 21 pp.133-42.
- Zelman, W, (1996), "The Changing Health Care Marketplace: Private Ventures", *Public Interests*, Jossey-Bass Publishers, San Francisco, CA.
- Zhu, J, (2001), "Super-efficiency and DEA sensitivity analysis", *European Journal of Operational Research*, Vol. 129 No.2, pp.443-55.
- Zifko-Baliga, G; Krampf, R, (1997), "Managing perceptions of hospital quality", *Marketing Health Services*, Vol. 17 No.3, pp.28-31.
- Zuckerman, S; Hadley, J; Iezzoni, J, (1994), "Measuring hospital efficiency with frontier cost functions", *Journal of Health Economics*, Vol. 13 No.3, pp.255-80.

# **Appendix A**

## **Profile of Health Sub-System in Jordan**

Benefits by Health Subsystems	Coverage/Special Categories	Principal Financing Sources	Provider – Payer Relationship	Percentage of Population Covered or Eligible	Size of Operation
Describes types of services and benefits available.	Describes coverage and eligibility criteria, special programs for specific population groups.	Describes main sources of financing.	Describes relationship between financing and service delivery functions.	Number of people covered or eligible by health system nationwide.	As indicated by staff, beds, or number of facilities.
<b>Government Services/MOH</b>					
<p>a) Provides comprehensive public health services; primary, preventive, and curative care through its facilities.</p> <p>b) Performs the following financing functions:</p> <ul style="list-style-type: none"> <li>- Administers Civil Insurance Program (CIP).</li> <li>- Insurer of last resort for the poor.</li> </ul>	<ul style="list-style-type: none"> <li>- Civil servants and dependents; individuals certified as poor, disabled, and blood donors.</li> <li>- Highly subsidized primary and curative care for the entire population.</li> </ul>	<ul style="list-style-type: none"> <li>- Ministry of Finance (general tax revenues)</li> <li>- Ministry of Social Affairs</li> <li>- Service fees collected at health facilities</li> <li>- Co-payments for services and pharmaceuticals</li> <li>- Payroll deductions</li> <li>- Donor assistance</li> <li>- World Bank loan</li> </ul>	Ministry of Health integrated delivery system – services provided by government facilities financed through budget and salaried civil service staff.	23 percent (persons enrolled in CIP). Under public law, MOH is required to provide subsidized care to all Jordanian citizens.	Operates <ul style="list-style-type: none"> <li>- 52 comprehensive health centres</li> <li>- 340 primary health centres</li> <li>- 353 maternity and child health care centres</li> <li>- 250 dental clinics</li> <li>- 12 chest diseases centers</li> <li>- 29 hospitals</li> <li>- 3,587 hospital beds</li> </ul>
<b>Royal Medical Services</b>					
Primary and curative care services.	Military personnel and their dependents. Other referrals from MOH and JUH, KAU, and contractual agreements with	<ul style="list-style-type: none"> <li>- Government budget</li> <li>- User fees</li> <li>- Co-payments (based on army rank and status)</li> </ul>	Integrated delivery system comprising RMS outpatient clinics and hospitals. Referrals to MOH	35 percent	Operates: <ul style="list-style-type: none"> <li>- 81 ambulatory care centres</li> <li>- 5 clinics</li> <li>- 10 hospitals</li> <li>- 1,801 hospital beds</li> </ul>



	public firms.	- Minor cost sharing for pharmaceuticals	facilities.		
<b>Jordan University Hospital</b>					
a) Serves as a fee for-service referral centre for other public programs and private payers. b) Owns and operates outpatient clinics and inpatient facilities for primary and curative care.	Covers its employees and dependents.	- Ministry of Finance - Ministry of Health - User fees	Serves as fee-for service referral centre for other public programs and private payers.	Less than one-half of one percent.	- 1 hospital - 540 hospital beds
<b>King Abdullah University Hospital</b>					
a) Serves as a fee for-service referral centre for other public programs and private payers. b) Owns and operates outpatient clinics and inpatient facilities for primary and curative care.	Covers its employees and dependents.	N/A	Serves as fee-for service referral centre for other public programs and private payers.	N/A	- 1 hospital - 283 hospital beds
<b>United Nations Relief Works Agency</b>					

a) Owns and runs primary health care centers. b) Refers hospital care to MOH or private facilities.	Provides care to 400,000 Palestinian refugees.	Financed through outside donor contributions.	Operates and owns primary health care clinics managed by its own staff.	400,000 Palestinian refugees	23 clinics
<b>Private Health sector</b>					
a) Owns and operates private clinics and hospitals for primary and curative care. b) Owns and operates pharmacies.	<ul style="list-style-type: none"> <li>- Beneficiaries of any private health plan self-insured.</li> <li>- Company employees and their dependents.</li> <li>- All citizens with willingness to pay.</li> </ul>	<ul style="list-style-type: none"> <li>- Direct out-of-pocket payments.</li> <li>- Payments from insurance plans.</li> <li>- Payments from employees and employers.</li> </ul>	Private hospitals and clinics, by contract. Fee-for-service, or through a third-party payer (insurance company or employer).	All citizens with a willingness to pay are eligible.	<ul style="list-style-type: none"> <li>- 55 hospitals</li> <li>- 3532 hospital beds</li> <li>- 1,700 pharmacies</li> </ul>

Source: Adapted from Brosk (2000) and MOH Reports (2003)

# **Appendix B**

## **Covering Letter**



**The University of Huddersfield/UK  
Huddersfield University Business School (HUBS)  
Department of Marketing**

*Dear Respondent*

My name is Aladdin Ahmad; I am studying for a PhD at Huddersfield University in the UK. My research is investigating the “Competitive Environment Influences on the Marketing Mix Strategy in Developing Countries”.

My research is dependent on your participation and your response to be a success. I appreciate you are very busy; however, I hope you will spare some of your valuable time to answer the attached questionnaire.

You may rest assured that any data collected will be treated in the strictest confidence. Only aggregated data will be used. It will not be necessary to identify any respondents. Please be kind enough to complete the questionnaire.

If you have got any questions regarding completion of the questionnaire or you would like to know more about this research please contact me on the telephone numbers listed below.

Sincerely yours,

*Aladdin Mohd Khalaf Ahmad*

PhD Research student in Marketing

Tel. Home: 02-7575773

Mobile: 0777-313831

Irbid- Jordan

# **Appendix C**

## **Questionnaire**

**The University of Huddersfield/UK  
Huddersfield University Business School (HUBS)  
Department of Marketing**

**Research questionnaire**

**The Impact of Competitive Environment on Marketing Mix Strategy  
of Health Organisations in Developing Countries:  
A Case Study of Jordanian Private Sector Hospitals**

**Aladdin Ahmad**

**Doctoral student at Huddersfield University Business School (HUBS)**

**Department of Marketing**

**Supervised by Professor Norman E Marr**

**2005**



## Section one: Demographic Data

This section is designed to collect general information about the respondents and their hospitals. Please tick the appropriate box in the following questions:

### 1.1 Age

- Under 30     30-40     41-50     51-60     over 60

### 1.2 Educational Level

- High school     College degree     Bachelor's degree     Masters degree  
 Doctoral degree     other, please specify.....

### 1.3 Academic Background

- Medical     Administrative     Other, please specify.....

### 1.4 Number of years you have been working in the health services sector

- Less than 5     5-9     10-15     16-20     over 20

### 1.5 Your Position

- General manager     medical manager     Administrative manager  
 Marketing manager     Out-patient's clinic manager  
 General relationship manager     Other, please specify.....

### 1.6 Hospital Size

- Large (more than 150 beds)     Medium (80-150 beds)     Small (less than 80 beds)

### 1.7 Hospital Location

- |                                |                                 |                                |
|--------------------------------|---------------------------------|--------------------------------|
| <input type="checkbox"/> Amman | <input type="checkbox"/> karak  | <input type="checkbox"/> Zarqa |
| <input type="checkbox"/> Aqaba | <input type="checkbox"/> Madaba | <input type="checkbox"/> Irbed |

**Section two: Strategic Marketing (The marketing activity)**

2.1 Here is a list of marketing activities usually taken in hospitals, please specify the importance of each activity in your hospital. For each statement please, mark (X) in the box, which best describes your opinion to what extent you agree or disagree with each described statement.

*Notice: Giving (5) means that the activity is very important in the hospital, (1) not important.*

<b>Degree of Importance</b>	<b>Very important</b>	<b>Important</b>	<b>Neither important nor unimportant</b>	<b>Low important</b>	<b>Not important</b>
<b>The marketing activity</b>	5	4	3	2	1
Analysing the internal environment to identify the strength and weakness.					
Determining the strategic objectives					
Choosing the generic strategy approaches					
Developing the functional strategies					
Developing the policies and tactics					
Analysing market share (the providers penetration of the market)					
Market demand (the total demand for a service within a given market)					
Studying customer satisfaction					
Studying physician's needs					
Studying patients needs and wants					
External communication of the hospital					
Internal communication of the hospital					
Training programs for medical staff					
Training programs for non- medical staff					
Training programs for marketing staff (if any)					
Communications with our employees on an ongoing system e.g. regular meeting					
Gathering data about their employees attitudes, needs and wants on regular basis					

**Section two: Strategic Marketing (The marketing objectives)**

2.2 Here is a list of marketing objectives usually taken in hospitals, please specify the importance of each in your hospital. For each statement please mark (X) in the box which best describes your opinion to what extent you agree or disagree with each described statement.

Degree of Importance	Very important	Important	Neither important nor unimportant	Low important	Not important
<b>The Marketing Objectives</b>	5	4	3	2	1
Helping medical staff to attain their objectives					
Satisfying demand (needs) of patients					
Satisfying demand needs for other beneficiaries (not patients)					
Effectively forecasting demand					
Promoting awareness of health issues amongst Jordanians					
Making the hospital unique in its services					
Formulating and implementing a strategy for customer service					
Investing in employee skills					
Penetrating new foreign market (locally and internationally)					
Assuming the position of the low cost leader among hospitals					
Sustaining a current position of introducing a high differentiated service					
Gaining profit					

**2.3** There may be many participants in making marketing strategy. Here is a list of these participants. *In your opinion*, please specify how important you believe these participants are by ticking the appropriate box that expresses the case in your hospital.

Degree of Participation in the Hospital	Very important	Important	Neither important nor unimportant	Low important	Not important
<b>Departments/ Persons Participate in Making Marketing Strategy</b>	5	4	3	2	1
Individual marketing department in the hospital					
Medical committees in the hospital					
Hospital board of trustees					
External marketing consultant					
Internal marketing consultant					
Medical and administrative joint committees in the hospital					



2.4 The following are some sources of information about competitive environment of hospitals, please indicate the importance of each source as used by your hospital.

<b>Degree of Its Importance in the Hospital</b>	<b>Very important</b>	<b>Important</b>	<b>Neither important nor unimportant</b>	<b>Low important</b>	<b>Not important</b>
<b>Competitive Environment Data Sources</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
The data gathered by the hospital own activities through:					
- The hospital own staff and managers					
- Marketing research					
- Hospital marketing information system					
The ministry of Health reports and statistics					
Managers in other Jordanian hospitals					
Government reports					
Medical journals					
Web sites / online data services					
Patients and other beneficiaries					
Financial statements of competitors					
Competitors' advertisement					
Competitive intelligence system					

### Section Three: Marketing Mix Strategy Components

This section is concerned with marketing mix strategy components for health services.

Listed below are statements in relation to the marketing mix strategy components. For each statement please mark (X) in the box which best describes your opinion to what extent you agree or disagree with each described statement of marketing mix strategy components.

<b>5= Very important</b>	<b>4=Important</b>	<b>3= Neither important nor unimportant</b>	<b>2= Low important</b>	<b>1= Not important</b>
--------------------------	--------------------	---	-------------------------	-------------------------

**To develop an effective *health service strategy* our hospital.....**

<b>Degree of Importance</b>	<b>Very important</b>	<b>Important</b>	<b>Neither important nor unimportant</b>	<b>Low important</b>	<b>Not important</b>
<b>Health Service Strategy</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
Has a distinguished 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)					
Has a good reputation for services and this becomes very important in our hospital success					
Has medical staff who play a crucial role in building our brand reputation					
Uses a formal plan for new health services types or programmes development					
Uses customer (patient) service as a central element in our service offering strategy					
Uses customer (patient) feedback to improve the quality and efficiency of our health service					
Has a good capacity to hold huge numbers during disastrous time					
Has structured and formalised procedures for new health programme development process					
Understands our customers (patients) needs thoroughly					
Confidential about our customers (patients) cases					

**When we price our health services we price them based on**

<b>Degree of Importance</b>	<b>Very important</b>	<b>Important</b>	<b>Neither important nor unimportant</b>	<b>Low important</b>	<b>Not important</b>
<b>Health Pricing Strategy</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
The private hospital association and physicians association requirements					
Pricing strategy according to demand					
The different kinds of costs which our hospital incurs					
A predetermined rate of return that our hospital is looking for					
What customers (patients) are willing to pay					
The services which we introduce to our customers (patients)					
Pricing strategy according to competition					
The ministry of health regulations					
Price discrimination according to market segments which we serve					

**In developing our *distribution (access) strategy*, our hospital uses**

<b>Degree of Importance</b>	<b>Very important</b>	<b>Important</b>	<b>Neither important nor unimportant</b>	<b>Low important</b>	<b>Not important</b>
<b>Health Distribution Strategy</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
Telemedicine to deliver our health consultation					
Electronic distribution channels such as e-health to distribute our health education to our society					
Mobile clinics to access our health services to rural areas					
Our branches to access our services to different geographical areas					
Flowcharts or diagrams which describe the steps and activities required to deliver our health services to customers					
A distinctive distribution capabilities e.g. the ability to open new branch of the hospital					
Convenient opening hours in our out patient clinics at the hospital					
Hourly service availability					

**To develop an effective *promotion strategy* our hospital**

<b>Degree of Importance</b>	<b>Very important</b>	<b>Important</b>	<b>Neither important nor unimportant</b>	<b>Low important</b>	<b>Not important</b>
<b>Health Promotion Strategy</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
Advertises in media such as television, newspapers, magazines...etc					
Encourages our customer/ patient to use word of mouth communication to recommended our hospital to other patients					
Publicity and public relation to enhance our image					
Promotes sales such as , gifts, discounts, free medical days...etc					
Uses direct marketing methods such as e-health , direct mail ,the internet					
Sponsors special events such as sports charities, seminars...etc					



To develop an effective *physical evidence strategy*, our hospital uses

Degree of Importance	Very important	Important	Neither important nor unimportant	Low important	Not important
<b>Physical Evidence Strategy</b>	5	4	3	2	1
comfortable environment with good directional signs					
The décor and atmosphere of our hospital					
Comfortable physical environment furnishing, colours, elevators, guides etc.					
Enough parking for our patients and visitors					
Designed facilities to achieve specific marketing image objectives					
Up-to-date and well-maintained facilities and equipment					
The cleanliness and appearance of our hospital facilities					
Accessibility in terms of location					

To develop an effective *process strategy* our hospital uses....

Degree of Importance	Very important	Important	Neither important nor unimportant	Low important	Not important
<b>Process Strategy</b>	5	4	3	2	1
No delays in providing our health services and simple procedures					
Updated medical equipments					
Customer (patient) feedback to improve health services					
Confidentiality and privacy about our patient cases					
Privacy during treatment					
Services that are provided at appointed time					
A short waiting time of not more than one hour					
Dignity and respect when treating our patients					
Thorough explanation of medical conditions to patients					
Technology in delivery service process					

To develop an effective *personnel strategy* our hospital concentrates on

Degree of Importance	Very important	Important	Neither important nor unimportant	Low important	Not important
	5	4	3	2	1
<b>Health Personal Strategy</b>					
The appearance of our staff					
Training and development programmes to improve our employees capabilities to perform their service role					
Cash reward systems to improve our employees					
Non cash reward systems to improve our employees such as prizes and competition					
Data gathering about our employees attitudes needs and wants regularly					
Continuous development of our employees skills and abilities					
The neatness and professionalism of doctors/staff					
The competence of doctors/staff					

#### Section Four: The Impact of Competitive Environment Factors on Marketing Mix Strategy of the Hospital

From your point of view, how significant the influence of each of Jordanian competitive environment factors is on the marketing strategy in your hospital. You are kindly asked to mark (X) the appropriate box that expresses your viewpoint in the following:

Degree of Influence	5= very strong influence	4= strong influence	3= Neither influence nor not influence	2= low influence	1= not influence
	5	4	3	2	1
<b>Government</b>					
The policy of privatisation					
The policy for health insurance for Jordanians					
Governmental decisions related to health sector .e.g. finance and administration					

Governmental control by the Ministry of Health					
Ministry of Health's decision related to prohibited hospital advertisements					
Tax ratio level on the imported materials (e.g. medical equipment)					
Governmental hospitals health services prices					

Degree of Influence	5= very strong influence	4= strong influence	3= Neither influence nor not influence	2= low influence	1= not influence
	5	4	3	2	1
<b>Competitor</b>					
Size of Jordanian health market					
The competitors' old experience in the Jordanian health market					
Size and magnitude of local competition (number of local competitors)					
External competition –external investment in the health sector (non Jordanian hospitals)					
External competition –treatment outside Jordan, USA					
Studying why some customers choose to use our competitors					
Unexpected additional marketing efforts done by local competitors					

How important, in general, are the following dimensions in analysing competitors in the Jordanian private hospitals market? Please circle the most appropriate number (where 1=very unimportant and 5= very important)

Degree of Influence	Very important	Important	Medium	Low important	Not important
	5	4	3	2	1
<b>Dimensions</b>					
Identifying hospital's local competitors					
Identifying hospital's external competitor					
Determining competitor's objectives					
Determining competitor's strategies					
Assessing competitor's strengths					
Assessing competitor's weaknesses					
Estimating competitor's reactions					



Degree of Influence		1 = not influence	2 = low influence	3 = Neither influence nor not influence	4 = strong influence	5 = very strong influence
<b>Supplier</b>						
The quality of advanced medical equipments not yet available in Jordan's health market						
The quality of advanced medical equipments availability in Jordan's health market						
Updated methods of diagnosing and treating diseases						
Availability of maintenance of medical equipments						
Effect of telemedicine services with other Jordanian hospitals						
New models/ methods of care						
Hospital's external suppliers						
Hospital's internal suppliers						
Our suppliers are very important to our brand						
Our suppliers are very important to our future profitability						
Our suppliers are strongly dependent on us						
Our suppliers are technological market leaders in our components /material which we need						
Our suppliers have a great strategic importance for our technological development						
Our suppliers have a wide rang of different items						
We can easily replace our suppliers with other comparative suppliers						
Our relationship with those suppliers is mainly based on their price offer						

Degree of Influence		1 = not influence	2 = low influence	3 = Neither influence nor not influence	4 = strong influence	5 = very strong influence
<b>Customers</b>						
hospital's internal customers						
hospital's external customers						

customers' needs and wants					
Increasing health awareness for Jordanian people					
Customer's preferences and finding better ways to meet customer's needs and wants.					
The Jordanian customer's confidence rate in our health services					
Income average for uninsured Jordanian people					
The non Jordanian customer's confidence rate in our health services					
Customer's attitude toward foreign hospitals (e.g. American hospitals)					
Customers' protection legislation					
Customers' spending in health check-ups (e.g. Precaution tests)					

Degree of Influence	5= very strong influence	4= strong influence	3= Neither influence nor not influence	2= low influence	1= not influence
	<b>Third Party Payer</b>				
health insurance companies in Jordan					
Third party administrators					
Self insured companies and associations					
health insurance companies requirements					
health insurance companies regulations, legislations					
size of Jordanian people who are insured by these companies					
Specify the ceiling on medication amount which insurance companies paid					
health insurance companies strategies					
employee class ( the position in the company ladder)					

### Section Five: Marketing Mix Strategy and Hospital Performance Measurement

This section is concerned with your hospitals performance evaluation. Listed below are statements that are pertaining to hospital performance evaluation criteria for private hospitals in Jordan. For each statement please mark X in the suitable place which best describes your hospital uses for performance evaluation purposes.

Please indicate the extent to which you agree or disagree that your hospital uses the following performance evaluation criteria to examine the performance of marketing mix strategy on your hospital performance.

Degree of Important	1=Very Unimportant	2=Unimportant	3= neither Important nor Unimportant disagree	4=Important	5=Very Important
---------------------	--------------------	---------------	---	-------------	------------------

**Hospital Performance Measurement Criteria**

Return of investment					
Hospital overall profitability					
Hospital revenue					
Mortality rate					
Infection rate					
Clinical outcome					
Medical negligence responsibilities					
Patients quality of life					
Technological sophistication					
Waiting time					
Patient loyalty to our hospital					
Patient/customer satisfaction					
Attracting anew patients within a certain period time					
Length of stay					
Occupancy rate					
Inpatients bed turnover					
Surgical operation					
Emergency department visit					
Out patient clinic visits					

**Section Five: Establishing Hospital Performance Measurement**

Listed below are statements that are pertaining to the dimensions of establishing performance measurements that are appropriate for private hospitals in Jordan. For each statement please mark X in the suitable place which best describes the importance of each dimension for establishing performance measurements.

Please indicate how important you believe the following statements are in measuring hospital performance.



Degree of Important	5=Very Important	4=Important	3= neither Important nor Unimportant disagree	2=Unimportant	1=Very Unimportant
<b>Hospital Performance Measurement Criteria</b>					
Return of investment					
Hospital overall profitability					
Hospital revenue					
Mortality rate					
Infection rate					
Clinical outcome					
Medical negligence responsibilities					
Patients quality of life					
Technological sophistication					
Waiting time					
Patient loyalty to our hospital					
Patient/customer satisfaction					
Attracting anew patients within a certain period time					
Length of stay					
Occupancy rate					
Inpatients bed turnover					
Surgical operation					
Emergency department visit					
Out patient clinic visits					

Anything you want to add.....

Thanks for your co-operation

# **Appendix D**

## Interview Process

## **The Interviews Questions**

### **Question One**

What are the main competitive environment factors usually influence your hospital?  
(Government regulations, competitors, suppliers, customers, and third party payers).  
Which of them the most influential factor?

### **Question Two**

What are the main marketing mix strategy components usually found in your hospital?  
(Health service strategy, pricing strategy, distribution strategy, promotion strategy, physical evidence strategy, process strategy, and personal strategy).  
- Which of them the most important strategy?

### **Question Three**

What are the most important problems that are facing the Jordanian private sector hospitals in implementing the marketing mix strategy components?

### **Question Four**

What are the main techniques that are being used in order to evaluate the performance of Jordanian private sector hospitals when they used the following criteria?

- Financial criteria.
- Quality criteria.
- Customer criteria.
- Marketplace criteria.

**Thank You Very Much**