

**INFLUENCE OF HUMAN RESOURCE MANAGEMENT PRACTICES
ON SERVICE QUALITY IN THE HOSPITAL SECTOR:
AN INTEGRATED CAUSAL APPROACH**

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By

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Under the Guidance of
Prof. (Dr.) James Manalel



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Influence of Human Resource Management Practices on Service Quality in the Hospital Sector: An Integrated Causal Approach

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Certificate

This is to certify that the thesis entitled “**Influence of Human Resource Management Practices on Service Quality in the Hospital Sector: An Integrated Causal Approach**” is a record of the bona fide research work done by part-time research scholar, Mr. Simon Jacob C under my supervision and guidance.

The thesis is the outcome of his original work and has not formed the basis for the award of any degree, diploma, associateship, fellowship or any other similar title or recognition from this or any other Institute or University and is worth submitting for the award of the Degree of Doctor of Philosophy under the Faculty of Social Sciences, Cochin University of Science and Technology. It is also certified that all the relevant corrections and modifications suggested by the audience during the pre-synopsis seminar and recommended by the Doctoral Committee of the candidate have been incorporated in the thesis. Plagiarism was checked for the thesis at the University Library and found to be three percent, which is within the acceptable limits.

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I hereby declare that the thesis entitled “**Influence of Human Resource Management Practices on Service Quality in the Hospital Sector: An Integrated Causal Approach**” submitted to the Cochin University of Science and Technology for the award of the Degree of Doctor of Philosophy in Management under the Faculty of Social Sciences is a record of the bona fide research work done by me, under the supervision and guidance of Prof. (Dr). **James Manalel**, Professor, School of Management Studies under the Faculty of Social Sciences of Cochin University of Science and Technology.

I further declare that this thesis has not previously formed the basis for the award of any degree, diploma, associateship, fellowship or any other similar title or recognition.

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Abbreviations

AGFI	:	Adjusted Goodness of Fitness Index
AMO	:	Ability, Motivation and Opportunities to Participate
AMOS	:	Analysis of Moment Structures
ANOVA	:	Analysis of Variance
APC	:	Affective Professional Commitment
ASSOCHAM	:	The Associated Chambers of Commerce of India
ASV	:	Average Shared Variance
AVE	:	Average Variance Extracted
AYUSH	:	Ayurveda, Yoga, Unani, Siddha and Homeopathy
CAGR	:	Compound Average Growth Rate
CBHI	:	Central Bureau of Health Intelligence
CCS	:	Commitment to Customer Service
CEO	:	Chief Executive Officer
CFA	:	Confirmatory Factor Analysis
CFA	:	Confirmatory Factor Analysis
CFI	:	Comparative Fit Index
CII	:	Confederation of Indian Industry
CMB	:	Common Method bias
CMIN/DF	:	Chi square Minimum/Degrees of Freedom
CN	:	Critical Number
COM	:	Communication
COP	:	Compensation
CP	:	Career Planning
CPC	:	Continuance Professional Commitment
CR	:	Composite Reliability
CRISIL	:	Credit Rating Information Services India Limited
CRM	:	Customer Relationship Management
CSQ	:	Commitment to Service Quality
DIPP	:	Department of Industrial Policy and Promotion
DMO	:	District Medical Officer
DV	:	Dependent Variable
EC	:	Employee Competence
EFA	:	Exploratory Factor Analysis
EMP	:	Empowerment

ES	:	Employee Selection
FDI	:	Foreign Direct Investment
FLSE	:	Front-line Service Employees
GDP	:	Gross Domestic Product
GFI	:	Goodness of Fitness Index
GSDP	:	Gross State Domestic Product
HHP	:	National Health Policy
HMIS	:	Health Management Information System
HPWS	:	High Performance Work Systems
HR	:	Human Resources
HRI	:	Human Resource Indicators
HRM	:	Human Resource Management
HRMIS	:	Human Resource Management Information System
HRMP	:	Human Resource Management Practices
ICRA	:	Information and Credit Rating Agency
IMR	:	Infant Mortality Rate
ISO	:	International Organisation for Standardization
ISQua	:	International Society for Quality in Healthcare
IV	:	Independent Variable
JC	:	Job Content
JCAHO	:	Joint Commission on Accreditation of Healthcare Organisation
JCI	:	Joint Commission International
KASH	:	Kerala Accreditation Standards for Hospitals
KMO	:	Kaiser Meyer Olkin
KMSCL	:	Kerala Medical Services Corporation Ltd
KPHA	:	Kerala Private Hospital Association
LLCI	:	Lower Level Confidence Intervals
LSD	:	Least Significant Difference
MCI	:	Medical Council of India
MLE	:	Maximum Likelihood Estimator
MLM	:	Marketing Lens Model
MMR	:	Measles, Mumps and Rubella
MSV	:	Maximum Shared Variance
NABH	:	National Accreditation Board for Hospitals and Healthcare Providers
NABL	:	National Accreditation Board for Laboratories

NFI	:	Normed Fit Index
NITI	:	National Institution for Transforming India
NPC	:	Normative Professional Commitment
NSSO	:	National Sample Survey Office
OC	:	Organisational Commitment
OCB	:	Organisation Citizenship Behaviour
OLS	:	Ordinary Least Squares
PA	:	Performance Appraisal
PC	:	Professional Commitment
PCA	:	Principal Components Analysis
PRO	:	Public Relations Officer
R&D	:	Research & Development
RMSEA	:	Root Mean Square Error of Approximation
RMSR/ RMR	:	Root Mean Square Residual
RR	:	Reward and Recognition
SAS	:	Statistical Analysis System
SC	:	Service Climate
SEM	:	Structural Equation Modelling
SERVQUAL	:	Service Quality
SHRM	:	Strategic Human Resource Management
SPSS	:	Statistical Package for the Social Science
SQ	:	Service Quality
SQP	:	Service Quality Perception
SRMR	:	Standardized Root Mean-square Residual
TIFAC	:	Technology Information, Forecasting and Assessment Council
TLI	:	Tucker Levis Index
TPA	:	Training and Performance Appraisal
TQM	:	Total Quality Management
TW	:	Teamwork
ULCI	:	Upper Level Confidence Intervals
VIF	:	Variance Inflation Factors
WHO	:	World Health Organisation

Chapter 1

INTRODUCTION

C o n t e n t s	1.1	<i>Introduction</i>
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	1.4	<i>Statement of the Problem</i>
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	1.11	<i>Structure of the Thesis</i>

1.1 Introduction

The topic under research has a bearing on the age-old adage: Health is wealth. Sociologically speaking, the health of a society depends largely on the physical and mental health of the people who constitute a society. If this is so, what do we see around us? We find an unprecedented mushrooming of hospitals, clinics, dispensaries, medical laboratories, X-ray and scan centres, ayurvedic spas, physiotherapy centres, telemedicine, medical tourism, medical insurance and so on. Pharmaceutical companies, Pharmacies and drug stores and hospital equipment stores have shown an exponential growth. Healthcare sector in terms of revenue and employment

has become one among the largest sectors in India and the sector is growing at a fast pace with the assistance of increasing expenditure by the public as well private players (<http://www.ibef.org/industry/healthcare-india.aspx>). Looking at the mental health of the society, we find the number of mental hospitals, de-addiction centres, counselling centres, police stations and prison houses are ever increasing. Medical colleges catering to all systems of medicine are also on the rise. Medical tourism, euphemistically speaking, attracts lots of patients from within and without, to savour the ‘luxury’ of treatment and health care. On a different note, the present scenario of rising ill health interrogates the saying: ‘a sound mind in a sound body’.

We can authentically measure a nation’s economic status by assessing the investment they make in the healthcare sector, for the ultimate purpose of any business is to provide means to enjoy life (Gulshan, 2001) by being healthy and active. People wish to live longer and with all the comforts if economic conditions are fairly good. Rather an individual’s standard of living improves as the economy develops. The mushrooming of hospitals and the vibrant growth in the healthcare sector is a reflection of the importance the society attaches to good health. People want to live healthier and for that, they look for the best provider of healthcare services. This makes people differentiate the services provided by the different hospitals based on the service quality among various other perspectives in regard to hospital services. Hospitals, by being into the service sector, have understood this demand/requirement of their customers/patients and have started acting on it by implementing appropriate human resource management practices.

As per Government of India, Department of Industrial Policy and Promotion report (GoI, DIPP, 2015-16), India has received US\$ 29.44 billion foreign direct investment (FDI) during April –December 2015 which is an all-time high annual investment. More than half the FDI in 2015 came into the service sector, comprising software, financial services, trading, hospital and tourism. The hospital and diagnostic centres alone had an FDI of US\$4.09 billion worth investment between April 2000 and September 2016.

This introductory chapter presents the background of the study from which dwells the statement of the problem which thus provides an insight into the research area. The chapter also discusses the research questions, objectives in general, the significance of the study, the expected outcomes and scope of the research. The scheme of the thesis is presented at the end of the chapter.

1.2 Importance of the Hospital Sector

Hospitals have become an important part of our lives and most people begin and end their lives there. People also spend a substantial part of their lives visiting the hospital for their own or others' illnesses. Healthcare sector has gained tremendous attention at the national and international level due to various reasons like the advent of newer diseases, newer inventions and also due to various technological advancements. Hospitals can often make the difference between life and death to an individual. Since they deal with 'lives', it is imperative that the quality of medical care needs to be assessed and benchmarked.

In the recent past because of the availability of cost-effective healthcare, India has become a popular spot for medical tourism. Various

favourable conditions like political stability, climate, and availability of human resources have also supported the growth of the hospital sector in India. Hospital sector in Kerala too pitched on the climatic and human resources advantage along with investment made in technology and infrastructure development. Hence this sector has become a significant contributor to the nation's economy. Details and relevance of the hospital sector in India are provided in Chapter 2.

1.3 Rationale of the Study

Today, service industries are dominant in developed countries, whereas services are among the fastest growing sectors in emerging countries, like India (<https://www.ibef.org/pages/economic-survey-2013-14>). The importance of the service sector to the economy continues to increase. Due to the phenomenal growth of the service sector in contemporary society (National Institution for Transforming India - NITI Aayog, <http://niti.gov.in/content/services-annual-growth-rate-2014-15>), the importance of managing the service and ensuring better service quality has become vital. The service sector can differentiate its service by the service delivery processes which ensure better service quality by providing an experience which is memorable to the customer. Processes are considered to be the product in the case of service since the production and consumption take place simultaneously in an open system where the customer is a co-producer of service (Fitzsimmons & Fitzsimmons, 2006). Healthcare sector is no exception to this requirement of service. Hence among the service encounter triad (Bateson, 1985) viz., service organisation, customer, and service personnel, service personnel's

encounter with the customers is considered to be critical in deciding the outcome of service delivery processes. Only when organisations deploy personnel with the necessary commitment to service quality, can they render quality service to the customer by differentiating their service by providing a memorable experience. Any decline or compromise in the quality of service can be detrimental to the organisation.

Service economy shapes the economy of the world today. Technology, either by being obsolete or by easy replication is no more a differentiating factor in gaining or maintaining a sustainable competitive advantage. Hence firms focus on differentiating their services and stage a service competition. Service competition in the present arena has given way to experience economy (Pine & Gilmore, 1998). The differentiating strategy of a firm is no more relevant in providing the service sought by a customer, but instead, the strategy is to make him experience the service rendered. Hence in a labour-intensive service industry, especially in the hospital sector and in the hospitality industry, the role of the human resource gets prime importance.

Advancement in technology has brought out efficiency in production. Investment in R&D activities further augmented technological advancement which facilitated organisations to go for advanced technology with lesser capital investment. Product differentiation and cost leadership have no more a pivotal role in gaining competitive advantage for an organisation. This situation opened the door of service competition. The opening up of the world economy during the 20th century and subsequent digital revolution as a catalyst in the 21st century augmented service competition which resulted in the evolution of experience economy (Pine & Gilmore, 1998). In the experience economy with the quicker processing of information with the

help of information technology and the presence of right personnel for rendering service, the customer is made to experience the service. In fact, this became another form of differentiation i.e. providing service with an element of experience both for the service provider and for the customer.

In the recent past due to economic growth, people's accessibility and expectations of service quality in the hospital sector has gone up significantly. Medical insurance, by making it more affordable has boosted up this expectation. Especially after the liberalisation and globalisation, India has been witnessing an increased apprehension regarding the quality of medical care. Consumers' expectations on the quality of healthcare are increasing at a faster rate and it influences their selection of hospitals (Lynch & Schuler, 1990). The high cost of quality healthcare in most of the developed and developing countries has made India a sought-after destination to obtain economical as well as quality treatment and cure for various illnesses. God's Own Country, the state of Kerala with its congenial climate, skilled and committed workforce availability, international seaports and airports, people with high literacy rate and well versed in English language (The Federation of Indian Chambers of Commerce and Industry – ficci.in), is ideally suited for medical tourism (Cherukara & Manalel, 2008). All the above have contributed to the increasing importance of the hospital sector in the country and in the state of Kerala.

1.4 Statement of the Problem

Healthcare system in India has an overwhelming task of meeting peoples' expectations. The human resource management practices and

subsequent behaviour of healthcare providers are mentioned as one of the major reasons of poor perception about healthcare service quality (Scotti, Harmon, & Behson, 2009). Competence and commitment of healthcare personnel have an effect on the quality of the service delivery (Mosadeghrad, 2014). Managing human resources appropriately can influence their perception of service quality and which in turn will reflect on the quality service delivery by the employees, as reported by the customers/patients (Ramseook-Munhurrun, Lukea-Bhiwajee, & Naidoo, 2010)

Customer experience at a service encounter is very important since every organisation wants to differentiate their service by providing best service and also due to technological advancement that facilitates consumers to make their assessments immediately and widely known to the public at large, through various social media. Services, generally possess interrelated characteristics such as:

- 1) The complexity mounting from and the diversity and unpredictability of customer needs and the timing of those needs (Argote, 1982).
- 2) The difficulty of evaluating service quality due to its intrinsic intangibility and need to co-produce services with customers (Bowen & Schneider, 1988).

Service delivery in hospitals experiences stiff challenges of complexity, co-production, and service intangibility. Hence research in hospital sector is of paramount significance to identify the antecedents of service quality as perceived by the hospital employees.

As mentioned earlier, among the service personnel-dominated encounter triad (service organisation, customer and contact personnel) such as in the hospitals, the contact personnel (employees) are the major determinants of service quality (Fitzsimmons & Fitzsimmons, 2006). This is so because service quality is the outcome of the human interaction between service provider and the customer (Zeithaml, Parasuraman, & Berry, 1990). At the same time, increased demand for medical professionals abroad and relaxation of migration formalities even for entry into developed countries has increased the attrition among hospital staff. According to the Compensation Trends Survey 2012 by Deloitte Human Capital Advisory Services, healthcare sector along with pharmaceutical and life sciences faces the highest attrition rate of 22 percent (<http://www.yieldopedia.com/paneladmin/reports/>). Hence sourcing, maintaining and retaining the right people with appropriate attitudes have become the burden of the Human Resource Management (HRM) function. Human resource management practices and various process variables which influence service quality by ensuring both the outcome and experience have become vital to gain a competitive advantage and maintain sustainability.

In the service sector, unlike the other sectors committed and competent employees can mark a difference in service delivery which would enhance the quality of service. Thus every quality service encounter eventually allows the customer to experience the service. Based on the theoretical framework conceived in the study (Discussed in Chapter 4), Service Quality (SQ) in the service sector is an index (tell-tale indicator) of employees' level of competence (EC), organisational (OC)

and professional commitment (PC) which are the HRM outcomes of HRM practices like employee selection, training, performance appraisal, communication, compensation, rewards and recognition, job content, teamwork, career planning and empowerment. Human resource management (HRM) practices also influence the employees' performance-related outcome such as service quality. Therefore it is relevant to examine the implications of various HRM practices and attributes of employees in different profiles, who interact with the customers/ patients, especially in labour-intensive services like in the case of the hospital sector. Service climate (SC) also exerts an influence on the link between HRM practices, process variables, and performance-related outcomes.

Hence the research study aims at understanding the role of HRM practices and HRM outcomes (employee attributes such as EC, OC & PC) of private hospital (allopathic) employees on their Commitment to Service Quality (CSQ) and Service Quality Perception (SQP) moderated by Service Climate (SC). Hospitals in allopathic systems are generally bigger than the other systems and private hospitals with a bed strength of over 200 and a minimum of five years standing only were considered for the study. The scope of the study in the Government hospitals is found to be insignificant since these hospitals are constrained to follow the government rules and regulations.

1.5 Research Gap

Researchers of the 21st century are now at crossroads to identify the process variables amidst the service encounter triad (service organisation, service personnel and customer) which guarantee an experience to the customer by ensuring superior service quality. This has become one of the

biggest challenges before HRM practitioners. Hence every effort is made to identify and establish value-adding process variables so that by managing them, excellence in providing quality service can be achieved.

Various studies have established the relationship between human resource management (HRM) practices and their impact on service quality (SQ). Research studies have also provided evidence of variables like organisational and professional commitment, employee competency and service climate among other variables, which are influencing service quality perception and commitment of employees in various settings (explained in Chapter 4). Hence an attempt has been made to identify the process variables and their influence as mediating variables in the integrated link between HRM practices and commitment to service quality and service quality perception of employees in the hospital sector.

Establishing and maintaining strategic resources that are "valuable, rare and inimitable brings in a competitive advantage to a firm" (Paul & Anantharaman, 2001, p 260). Becker and Gerhart (1996) argued that creative human capital built up by an apt HRM system with scientific recruitment and selection, training and development and retention programs cannot be replicated by competitors within a short span of time due to "the process of path dependency and causal ambiguity" (as cited by Paul & Anantharaman, 2001, p 260).

Theories of HRM can be improved by conducting research studies on the three facades which comprise of the nature of HRM, its outcomes and the nature of linkages (Guest, 1997). There were no empirical studies identified by the researcher, linking HRM practices, HRM outcomes and

its performance outcomes such as CSQ and SQP. This research gap gave the impetus for the present study in order to understand theoretical and practical issues related to selected HRM practices, employee competence, professional and organisational commitment which result in influencing employees' service quality perception and commitment in the healthcare sector along with the interacting role of service climate.

1.6 The Research Questions

Background of the study, statement of the problem and the research gap identified lead to the following research questions. The research questions thus framed provide a theoretical framework to study the integrated causal linkage among employees' perception of HRM practices, employee competence, organisational and professional commitment, service climate, commitment to service quality and employees' service quality perception (Discussed in Chapter 4).

Researchers in the HRM area have proposed different models/theories/ approaches of HRM practices depending upon the nature of performance-related outcomes. Employees in different settings perceive it differently and the outcomes also vary. This assumption offered the rationale to formulate the **first** research question: *What is the influence of selected HRM practices (collectively and severally) on identified performance-related outcomes such as commitment to service quality (CSQ) and service quality as perceived (SQP) by employees?*

HRM practices directly influence the HRM outcomes. Different practices influence the outcomes differently. The **second** research question was therefore framed to understand the effect of various HRM practices on identified process/mediating variables (such as employee

competence, and the organisational and professional commitment of employees) collectively and severally. Hence the question - *What is the influence of different HRM practices collectively and severally on the process/mediating variables?*

HRM practices, through HRM outcomes, can influence directly as well as indirectly the performance-related outcomes. The **third** research question was therefore framed to understand the mediating role of process variables (as HRM outcomes) which link and transform the influence of HRM practices to enhance performance-related outcomes (CSQ/SQP). It is stated as follows: *Is there any influence of process variables in the link between selected HRM practices and commitment to service quality (CSQ)/ service quality perception (SQP) of employees?*

HRM practices, service quality, organisational and professional commitment and employee competence are influenced by the service climate in the organisation. Hence the **fourth** research question is formulated as - *What is the role and influence of service climate in the link between HRM practices, process/mediating variables and CSQ/SQP?*

Higher commitment to service quality can lead to increased service quality perceived by the employee. This led to the fifth and **last** research question in the study as - *Is there any connect between commitment to service quality and the service quality perceived by the employees?*

1.7 Research Objective in General

From these research questions, the objectives of the study were developed (detailed in Chapter 5). Based on the objectives the theoretical framework was evolved which explain the various relationship among

different variables and subsequently the corresponding hypotheses were formulated (detailed in Chapter 4) to test and confirm the objectives.

In general, the objective of the study was to validate the integrated causal model, linking HRM practices, process variables (EC, OC & PC) and Service Quality (CSQ &SQP). The research also attempted to study the moderating effect of service climate into the various links (explained in Chapter 4).

1.8 Significance of the Study

Research outcomes of empirical studies in HRM and Service Operations have established the association and causal relationship between HRM practices and service quality. Research findings also stated the relationship among organisational commitment, professional commitment, employee competency (capability) and service quality. But the direction of these relationships has not been studied. The possibility of reverse causality among these variables cannot be undermined. This ambiguity demands an empirical study to focus attention on the process variables between HRM practices, Commitment to Service Quality and employees' Service Quality Perception.

Analysis of prior research works on HRM has acknowledged some direct effect of HRM practices as HRM Outcomes. But to date, there has been no empirical research that enunciates the process through which HRM practices influence the performance outcomes such as employees' commitment to service quality and the service quality perception. Identifying this gap can possibly link the service economy with

experience economy which is the result of unique human interactions and increased service quality as outcomes of various HRM practices.

1.9 Expected Outcomes of the Study

Analysis of this study based on the research questions evolved and subsequent objectives framed would provide valuable insights into the interactive processes involved in ensuring increased service quality. The study would help to identify the important HRM practices and their capacity to induce organisational and professional commitment and to enhance employee competency. It is expected that the study would also help to understand the influence of process variables in enhancing commitment to service quality and service quality perception of employees in the hospital sector. Validating and analysing the paths of the integrated causal models developed for the study possibly will educate on service quality issues in the hospital sector by identifying and appreciating the holistic influence of various HRM practices, its outcomes and their impact on performance outcomes. The moderating effect of service climate (on various links) in enhancing the performance outcomes could be established. And finally, the influence of commitment to service quality on employees' perception of service quality can also be better understood.

1.10 Scope of the Research

The objective of the thesis is to examine the linkages among HRM practices, employee competence, organisational and professional commitment, employees' perceived service climate, commitment to service quality and service quality as perceived by employees in the

hospital sector settings in India. To understand employees' perception of these aspects, data were collected from various hospital employees of different profiles like doctors, nurses and other staff who interact with patients/customers in the hospitals. The collected data were analysed to confirm the research objectives. The views of hospital managers, directors, senior executives and HR managers were considered for identifying various HRM practices followed, and to identify the probable outcomes of those practices prior to the main study. The data for the study were collected from employees who had at least one year of experience with the current hospital. The study was carried out among hospital staff employed in hospitals with a capacity of 200 or more beds in two districts of Kerala based on the highest number of bigger hospital concentration.

The Hospital sector was considered for the study of linkage among HRM practices, employee competence, organisational and professional commitment, service climate, commitment to service quality and service quality perception of employees because of the very nature of the service delivered in this sector. It is a labour-intensive (Fitzsimmons & Fitzsimmons, 2006) service sector where human interaction derives the quality of service delivery. The present trends of hospitals launching advertisements to attract their customers/patients were unimaginable earlier. Now hospitals want to differentiate themselves by being unique in various parameters. Differentiation in labour-intensive and highly customised service sector is possible only when hospitals have unique employees with appropriate competence. HRM practices play a vital role in addressing these challenges faced by the hospital sector today.

1.11 Structure of the Thesis

Chapter 1: Introduction

Chapter 2: The Hospital Sector in India: An Overview

Chapter 3: Review of Literature

Chapter 4: Theoretical Framework

Chapter 5: Research Methodology

Chapter 6: Data Analysis and Interpretation

Chapter 7: Findings, Discussion and Conclusion

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Chapter 2

THE HOSPITAL SECTOR IN INDIA: AN OVERVIEW

C	2.1	<i>Introduction</i>
o	2.2	<i>The Hospital Sector in India</i>
n	2.3	<i>Role of Hospitals in the Indian Economy</i>
t	2.4	<i>Structure of Indian Healthcare Sector</i>
e	2.5	<i>Importance of Service Quality in Hospitals</i>
n	2.6	<i>Classification of Hospital</i>
t	2.7	<i>Hospital Sector in Kerala</i>
s	2.8	<i>Human Resources in the Healthcare Sector</i>
	2.9	<i>Accreditation of Hospitals</i>
	2.10	<i>Recent Trends in Hospital Sector in Kerala</i>
	2.11	<i>Medical Tourism</i>
	2.12	<i>Key Challenges in Hospital Sector</i>

2.1 Introduction

The word ‘hospital’ is derived from the Latin word *hospitalis* which comes from *hospes*, meaning host. The English word ‘hospital’ comes from the French word *hospitale*. In this sense, the term ‘hospital’ means an establishment for temporary occupation by the sick and the injured. According to the Directory of Hospitals in India (1988), a hospital is considered as an institution which is functioned for the medical, surgical and /or obstetrical care of in-patients and which is treated as a hospital by the Central/State government/ local body/private and licensed by the suitable

authority. A hospital is a healthcare organisation and is defined by the World Health Organization (WHO, 1968) as “an integral part of the medical and social organisation which is to provide for the population complete health care, both curative and preventive, and whose outpatient services reach out to the family in its home environment. The hospital is also a centre for the training of health workers, and for bio-social research." Hospitals are a complex organisation having many departments and functions.

Hospitals play an important role in our lives since healthy human beings make a healthy society and health is considered as wealth. The quality of one's life is influenced by the health one possesses. According to the Bhore Committee on Health (1946), the term health implies more than an absence of sickness in the individual. This indicates a state of harmonious functioning of body and mind in relation to one's physical and social environment. It enables an individual to enjoy life to the fullest extent and allows to reach his maximum level of productivity.

Quality health care can be provided by quality hospitals with quality employees who deliver quality service. Hospital sector is coming under the labour-intensive service industry, where the employees delivering the service determine the quality of service. Service employees must be competent and empowered sufficiently to provide service as per the needs and health issues of the customers/patients. Complexity and dynamism required for the customised service delivery in this sector demand appropriate human resource management practices to keep the employees committed to their profession and organisation and also to equip them with necessary competence.

In India, the healthcare sector is considered not only as a profession but as a commercial activity too. It is covered by Consumer Protection Act, 1986 and includes allopathy/English medicine, homoeopathy, naturopathy, ayurveda, unani, nature care, pranic healing, reiki etc. The main service products available in this industry are hospitals, pathological labs, ambulance services, private mortuaries, pharmacy centres, paramedical services relating to fitness centres, beauty clinics dealing with obesity and skin problems and academic institutions like medical colleges, nursing schools, research centres etc. (Anvekar & Ramaiah, 2012).

This chapter discusses in general about the hospital sector (Allopathic System) in India and its role in the economy and in the standard of living of the citizens on various facets.

2.2 The Hospital Sector in India

Traces of Indian medicine and surgery could be seen from the ancient days. As stated by Goyal (2005) hospitals were in India since the ancient past even before other countries in the world. During 6th century B.C., during the time of Buddha, there were a number of hospitals to take care of the poor and the crippled. More such hospitals were opened by the Buddhists later on in different parts of India and outside the country. The hospital built by King Ashoka (273-232 B.C.) was considered to be exceptional in those days. Charaka and Sushruta of ancient India were famous physicians. Indian system of medicine was taught in the universities of Taxila and Nalanda, which perhaps contributed to the development of Arabic medicine. Various descriptions of hospital buildings, labour rooms and children wards can be seen from the *Upakalpa - niyam Adhyayam* of Charaka Sutrasthanam. Hospital attendants and

nurse's qualification along with specifications for hospital equipment, utensils, instruments, and diets were also given. The proclamations of Chola and Malakapuram reveal the fact that there were many hospitals in South India in the olden days (Sharma & Goyal, 2010).

According to Goyal (2005) in India, the use of the allopathic system of medicine commenced in the 16th century with the arrival of European missionaries in South India. During the 17th and 18th centuries, there was a slow but steady growth of the modern system of medical practice in India. In the 19th century, the modern medicine established its roots firmly and spread all over India, mainly through the efforts of the missionaries. After India attained independence, there was rapid industrialisation and at the same time, the continuous growth of population caused a lot of medical and health problems (Sharma & Goyal, 2010). Various committees were set up to give solutions to address those issues like the Bhore Committee (1946), the Mudaliar Committee (1961), the Jain Committee (1966), the Kartar Singh Committee (1973), the Bajaj Committee ((1986), etc. After the establishment of the Planning Commission in 1950, the healthcare sector also witnessed a planned growth through various five-year plans. The government has been constantly keeping sufficient funds out of the total plan for the health plans of the country. Through the plans, specific programmes were formulated, buildings were built, nursing and para-medical personnel were trained, etc. In spite of various reports submitted by the different committees, modern hospitals in India have faced a lot of bottlenecks in performing their operations and there were frustrations and inefficiencies associated with hospital functioning. Alongside these issues, the unhealthy growth of trade unions in hospitals added the need of

dynamic HRM department to manage the valuable and highly vulnerable human resources (Sharma & Goyal, 2010).

Hospital operations in India, especially in the past three decades has undergone severe criticism, as is reflected by increasing labour turmoil and raising public remarks against existing medical conditions. This necessitated the need for restructuring the hospital organisation which was suited to a previous century. Organisational change is a prerequisite for organisational improvement. Only a planned change can be effective. Increasing specialisation led to increased functional departments and the configuration of these departments to derive synergy has become one among the important hospital functions (Sharma & Goyal, 2010).

Since hospital sector is considered as a service, to supplement usual medical and nursing care, facilities such as infrastructure, facilitating goods (medical supplies), information (patient medical records) etc. need to be developed and maintained as adjunct services. Medical social work, linen and laundry management, nutrition, housekeeping, medical record technology, medical laboratory, hospital accounting, physiotherapy, legal requirements etc., are among few allied functions that have evolved over the years. These requirements further increased the complexity of hospital operations. The need for highly skilled personnel and better facilities made the hospital operations costly. This also resulted in the need for having professionals in handling hospital administration and human resource management functions. Medical insurance schemes, pre-payment plans for medical expenses and increased awareness and greater attention to the quality of hospital service and medical care made hospitals to

continuously expedite their standard of service delivery to meet the changing needs of people (Anvekar & Ramaiah, 2012).

As per the National Sample Survey Office (NSSO) report, 2015 (www.mospi.gov.in/) 90 percent of the population (in both urban and rural sectors) go for allopathy treatment. Private Doctors were the most important single source of treatment in both the sectors (rural & urban). More than 70 percent (72% in the rural areas and 79 % in the urban areas) spells of ailment were treated in the private sector (consisting of private doctors, nursing homes, private hospitals, charitable institutions, etc.). In rural India, 42 percent hospitalised treatment was carried out in public hospitals and 58 percent in the private hospitals. In the case of urban India, the corresponding figures were 32 percent and 68 percent. Considering the medical expenditure per hospitalisation, on an average people spend a higher amount (Rs. 25,850) in the case of the private hospitals than the public hospitals (Rs. 6,120). The highest expenditure was recorded for the treatment of Cancer (Rs. 56,712) followed by that for Cardiovascular diseases (Rs. 31,647). Average medical expenditure per non-hospitalisation case was Rs.509 in rural India and Rs.639 in urban India.

2.3 Role of Hospitals in the Indian Economy

According to 2016 Business Report by Indian Business (www.indianbusiness.nic.in), hospital sector is considered an important component of the value chain in Indian Healthcare industry rendering a set of essential services and is recognised as the most important healthcare delivery segment of the healthcare industry. This industry is growing at an incredible rate due to its widening coverage, services and growing

expenditure by the public as well as private players. The report predicted that during 2008-20, the market is expected to record a CAGR (Compound Average Growth Rate) of 16.5 percent and the total industry size is projected to touch US\$ 160 billion by 2017 and US\$ 280 billion by 2020.

According to the report published by India Brand Equity Foundation (<http://www.ibef.org/industry/healthcare-india.aspx/>), the healthcare delivery includes hospitals, nursing homes, and diagnostics centres, and pharmaceuticals which constitute 65 percent of the overall market. The healthcare spending as a percentage of Gross Domestic Product (GDP) is rising and rural India, where 70 percent of the population resides is emerging as a potential demand source. Rising incomes, easier access to high-quality healthcare facilities and greater awareness of personal health and hygiene could be the reason for this shift. Greater awareness and dispersion of health insurance have assisted the rise in health care spending and is a tendency that is likely to strengthen in the coming years.

The augmented prosperity of many Indian households is stimulating the demand for high-quality medical care which transforms the healthcare delivery sector into a profitable industry (<http://www.reuters.com/article/>). Medical tourism is also changing the face of the traditional healthcare industry in India. India's excellence in the field of modern medicine and its ancient methods of physical and spiritual well-being make it the most favourable destination for good health and peaceful living. India's cost advantage and the explosive growth of private hospitals, equipped with the latest technology and skilled healthcare professionals have made it a preferred destination for medical tourism. The Indian medical tourism industry has touched US\$ 3 billion per annum, with tourist arrivals estimated

at 230,000 (<http://www.ibef.org/industry/healthcare-India.aspx>) and is expected to reach US\$ 6 billion by 2018, with the number of people arriving in the country for medical treatment set to double over the next four years.

India provides a lot of opportunities for global and domestic players in the medical devices industry. The country has also become one of the leading destinations for high-end diagnostic services. The tremendous capital investment made in the advanced diagnostic facilities helped the hospital sector to serve a greater proportion of the population. Indian medical service consumers have also become more conscious towards their healthcare upkeep. The rise in population and increasing life expectancy emphasise the high domestic demand for healthcare services. Along with medical tourism, India also offers huge opportunities in R&D. Due to all these developments, there are vast opportunities for investment in healthcare infrastructure in both urban and rural India (www.indianbusiness.nic.in). Based on the World Health Organisation's (WHO) health indicators for India, CRISIL research has estimated that the Indian healthcare delivery industry will post a healthy growth of 12 percent CAGR between 2014-15 and 2019-20, driven by strong essentials and increasing affordability (<http://www.crisil.com/crisil-young-thought-leader-2010/dissertations/Topic7-JanhaviShah>). India's fast-growing economy, rising incomes and increased urbanisation have been influential in changing the perception of patients as consumers. Nowadays they are more demanding and selecting healthcare providers-hospitals by expecting quality service for their money spent.

Availability of a large pool of well-trained medical professionals and cost leadership provide a competitive advantage to India over its peers in Asia and Western countries. The cost of surgery in India is about

one-tenth of that in the US or Western Europe. In the case of Kerala with a greater number of hospitals getting accredited, receiving recognition and greater awareness on enhancing quality to meet international standards, the State aims to become India's healthcare hub in the next five years (<http://www.ibef.org/industry/healthcare-india.asp>).

Owing to the demographic, social, and cultural changes that are underway, there is great pressure on healthcare providers to be available, reasonable and responsive (<http://www.cisco.com>). All sectors in India are undergoing a change from unorganised to an organised structure and this is true for hospitals also. Since hospitals are considered as a social sector most of the large hospitals are either Government or charitable hospitals (<http://www.indiamart.com/proddetail/hospital-services/>). Today, healthcare in India is facing two extreme challenges with high-end, multi-speciality private healthcare services at one end and lack of doctors, support staff, medicines and facilities are at the other end (<http://info.shine.com/industry/healthcare-medical/>).

2.3.1 Draft National Health Policy 2015

The National Health Policies of India drafted in 1983 and in 2002 had guided the approach towards the health sector in the five-year plans. The new draft National Health Policy 2015, has tried to address the questions of universal health coverage, reduction of maternal and infant mortality, access to free drugs and diagnosis and corresponding amendment in laws to make them more appropriate (www.mohfw.nic.in). The following are the salient features of the draft National Health Policy 2015:

- i) Improve the care delivery system
- ii) A National Health Rights Act to make health a Fundamental Right
- iii) Denial of health care to be made justiciable
- iv) Raise public health expenditure to 2.5 percent of GDP from current spending of 1.04 percent of GDP
- v) Creation of health cess on the lines of educational cess
- vi) Ensure universal access to free drugs and diagnosis in government hospitals
- vii) States may voluntarily opt to adopt the Act through a resolution in the Legislative Assembly.

2.4 Structure of Indian Healthcare Sector

The sector comprises hospital and allied sectors that include:

- a) Medical care providers which include physicians, specialist clinics, nursing homes and hospitals.
- b) Diagnostic service centres and pathology laboratories.
- c) Medical equipment manufacturers.
- d) Contract research organisations and pharmaceutical manufacturers.
- e) Third party support service providers (catering, laundry, medical insurance etc.)

(<http://www.ibef.org/industry/healthcare-india.asp>).

In India, 80 percent of all the healthcare expenditure is borne by the patients. This results in a higher price sensitivity and the advanced healthcare facilities are therefore out of reach for the vast majority of patients (Saini, 2011).

Though there is an improvement in the health status of India's population, healthcare infrastructure needs to look at creating superior healthcare delivery systems and technology to improve the quality of

healthcare service. The Central Government's role is limited to family welfare and disease control programmes and it is the State Governments who are mainly responsible for primary and secondary medical care in their respective states. Considering the increasing incidence of non-communicable lifestyle-related diseases, both the government and private sector are struggling to meet the basic demand. Today the private sector plays a major role in meeting the healthcare demand of people in India. The government's share in the healthcare delivery market is only 20 percent while 80percent is with the private sector (www.ita.doc.gov/td/health/india_indicators).

There are many and fragmented private institutions providing health care services in India and it consists of private practitioners, for-profit hospitals and nursing homes, and charitable hospitals. Some private providers are even practising without minimum standards and the quality of treatment varies from one another. This phenomenon is attributed to the absence of a national regulatory body (http://www.ita.doc.gov/td/health/india_indicators). The average size of private hospitals/ nursing homes is less than 30 beds which are very low in comparison with other countries (Table 2.1).

Table 2.1 Percentage of Private Hospitals with Different Bed Sizes

Number of Beds	Percent of Private Hospitals
Less than 30 beds	84 percent of private hospitals
30 to 100 beds	10 percent
100 to 200 beds	05 percent
Above 200 beds	01 percent

Source: ICRA report on Indian Healthcare and TIFAC, 2005.

According to ICRA report *Indian Healthcare sector (2005)*, the demand for quality healthcare has increased since patients prefer to use private healthcare facilities. However the quality of private healthcare service varies significantly and they cater to the needs of the rich, middle class and urban segments of the population. The growing prosperity of Indian middle-class is also influencing this demand. The report also indicates that among total hospitals of 15, 393 in the healthcare infrastructure, only 26 percent (4049) are under the public sector and the remaining 74 percent (11,344) are in the private sector.

2.5 Importance of Service Quality in Hospitals

The quality of service has been considered as a major differentiating factor to ensure sustenance and growth. Hence delivery of quality service is ranked among the highest priority by the hospital managements to differentiate and maintain a competitive advantage. Service quality in the hospitals mainly depends upon the quality of service delivery personnel (Epstein, 2005).

The main purpose of a hospital is providing services to cure specific ailments and hence maintaining the well-being of the persons who come to hospitals for availing various treatments. The requirements of patients are highly heterogeneous and treated accordingly. Hence understanding the requirements of patients/ customers and suitable delivery of service determines the quality of service in the hospitals. Service quality and profitability are correlated as this increases the patients' dependability, increased visits and word of mouth (Ashill, Carruthers & Krisjanous, 2006).

2.6 Classification of Hospital

In India, ownership/control of hospitals is coming under categories such as public hospitals, voluntary, private and corporate hospitals (Goyal, 2005). Public hospitals are run by the central or state government or local bodies and the purpose is to provide free/concessional treatment for anyone who needs the service. Private hospitals provide services to the rich and are basically established to make profits. Most of the voluntary hospitals are established as trusts or charitable institutions and provide free medical services for the poor or at subsidised rates. The corporate hospitals are established under the Companies Act as public limited companies and are run on commercial lines. The operation strategy and the quality of service may vary according to the nature of ownership and functions of hospitals.

Table 2.2 Classification of Hospitals

Basis of Classification	Types
Type of services offered	Primary care/dispensaries Nursing Homes Secondary care Tertiary care
Complexity of ailment	Primary Secondary Tertiary
Objectives	General hospitals Speciality hospitals Teaching cum research hospitals
Ownership	Government/Public Semi-governemnt/local bodies Volunatary/private Charity / trusts
Systems of Medicine	Allopathic Ayurveda Yoga Unani Siddha Homoeopathy

Source: planningcommission.gov.in (Ayush report, 2007).

Hospitals have been classified in many ways and a few classifications used in India according to Ayush report (2007) are as mentioned in Table 2.2. Apart from the classification based on various parameters and nomenclature including hospitals under public and private sector, an easy way of classification of hospitals is based on the number of hospital beds

2.7 Hospital Sector in Kerala

According to Panikar and Soman (1984), trade and commerce with the western world since ancient days helped Kerala to have organised health care from the very past. Both indigenous and western systems of medicine have played a crucial role in the overall development of the state. Availability of various medicinal plants in the state had made the practice of Ayurvedic system of medicine very popular in Kerala and it dates back to centuries of handing down the traditions from generation to generation. Colonial power, since the late 17th century brought their medical care system initially to treat their own people. In the 19th century, the princely rulers of the erstwhile States of Travancore and Cochin took the initiative in making the western system of medical care available to all. Missionary hospitals played an important role in spreading medical care facilities into every nook and corner of the state (Kutty, 2000).

As per the Human Development Report (2002), Kerala stood at the forefront both in providing education and healthcare facilities. With the use of the latest technology for diagnosing and treatments and also the availability of modern medicines, utilisation of health care facilities has increased over the past decades. This has led to an increase of private

hospitals in the state. Kerala has the maximum number of private hospitals and beds. Available statistics show that a number of hospitals have sprung up in the private sector. Among the different systems of medicine, the allopathic hospital has outnumbered other systems like Ayurveda and homoeopathy (Table 2.3). Hence there would be a higher number of employees in allopathic hospitals than in the other systems. Effective management of these employees is possible only with appropriate HRM practices. This would positively reflect in their delivery of quality service. The private sector plays a very significant role in imparting health to the public in Kerala. The famous 'Kerala Model of Health' was the result of the low cost of healthcare and its universal accessibility and availability even to the poorer sections of the society (Anita, 1999).

Table 2.3 System-wise Details of Private Medical Institutions (Hospitals) in Kerala

System of Medicine	Year 1995 Number	%	Year 2004 Number	%	% of growth
Allopathy	4288	34	4825	37.4	+11.1
Ayurveda	4922	39	4332	33.5	-13.6
Homeo	3118	25	3226	25.0	+3.3
Others (siddha, yoga, unani, marma, etc)	290	2	535	4.1	+45.8
Total	12618		12918		(+2.3)

Source: Report on Survey of Private Medical Institutions in Kerala, 2004, Department of Economics and Statistics, Thiruvananthapuram (As per the latest report available).

The above survey result reveals that, in Kerala, among private medical institutions (Hospitals) when compared to other systems of medicine, a higher number of medical institutions are found under the allopathic system. The survey result of the Report on Private Medical Institutions in Kerala (2004) also reveals that about 87.14 percent of

private medical institutions are functioning as a proprietorship, 2.92 percent in trusteeship, 5.4 percent in partnership, 0.74 in Co-operatives, 1.41 percent under limited companies and the rest were mentioned under 'other category'. In the case of allopathic hospitals alone, a total of 4,825 is functioning under a different type of ownership/management. Among these approved hospitals amount to only 2,450. Government approval is essential for the proper functioning of the medical institutions. This shows that as per the survey only 50.8 percent of institutions are approved by the Government while the remaining 48.7 percent (2350) of institutions are not approved. Not reported cases were found to be 25 (0.5 %). This discrepancy in getting Government approval is attributed to the non-renewal of approval within the set intervals by the private hospitals in the subsequent years of their operation (as reported by the office of District Medical Officer).

Kerala has a vast healthcare infrastructure under Allopathy, Ayurveda and Homoeopathy system of medicine. In the health sector, the role of the private sector is significant. Though old, as per the available survey report of 2004, under the private sector, the main three systems together have 12,383 medical institutions. The total bed strength in these three main systems viz., Allopathy, Ayurveda, Homoeo came to 63,386. Out of this, 90 percent of beds and 39 percent of medical institutions were under Allopathy, 35 percent medical institutions and 8.7percent beds in Ayurveda. Homoeopathy institutions constituted 26 percent and beds under it came to 1.3 percent (Table2.4).

Table 2.4 System-wise Private Medical Institutions and Bed Details in Kerala

System of Medicine	No. of hospitals in 2004	% of Hospital as per system	No. of Beds as per system	% of Beds as per system
Allopathy	4825	39	57071	90
Ayurveda	4332	35	5502	8.7
Homeo	3226	26	813	1.3
Total	12383		63386	

Source: Report on Survey of Private Medical Institutions in Kerala - 2004, Department of Economics and Statistics, Thiruvananthapuram.

As per Kerala Private Hospital Association (KPHA) hospitals are classified as per the number of beds into ‘Type-I’ 25 beds or less, ‘Type II’ 26 to 100 beds, ‘Type III’ 101 to 200 beds, ‘Type IV& Type V’ 201 to above, ‘Type VI’ Private Medical College and ‘Type VII’ Eye Hospitals. The size of hospitals is an important factor in understanding the complexity of service operations a hospital does undertake.

2.7.1 Medical Institutions under Government Sector in Kerala

As per the *Kerala Economic Review* (2004) under government sector, there is at least one healthcare institution in each Grama Panchayath. The three systems of medicine viz. Allopathy, Homoeopathy, and Ayurveda together have 2,696 institutions (excluding sub-centres and grant in aid institutions) in the Government sector with a total bed strength of 48,834. When compared to the private medical institutions, the number of bed facilities provided under government sector is very low. The respective numbers under private sector were 12,383 hospitals and 63,386 beds accounting for 82 percent and 56 percent of the total strength in the State. From this, it can be seen that when compared to the government sector the facilities provided under the private sector is high. As per the Kerala State Planning Board’s *Economic Review* (2015), the government has

recognised the need for it to engage the private sector healthcare providers within a regulatory framework. The review also envisages providing health security to each and every one by 2030 by ensuring a highly innovative, affordable and accessible health system for all Keralites whenever they need it and which they can trust upon.

According to Kutty (2000), the factors affecting the growth of health services in the government and private sectors in Kerala can be summarised under two heads as factors affecting demand and supply. The factors affecting demand are as follows:

- 1) Growth of education, especially female education and awareness about health-related matters
- 2) Settlement patterns and growth of roads and communication favouring easy accessibility
- 3) Government provided facilities sensitising the public to the need for sophisticated care
- 4) Enhancement of income for a good proportion of households

Factors affecting supply includes:

- 1) Tradition of government-provided health care services
- 2) Government policy that continued to fund the health sector even during times of financial stress
- 3) Subsidised medical and nursing education supplying a steady stream of personnel
- 4) Comparative lack of regulation that made health sector attractive as an investment opportunity
- 5) Access to funds for investment: foreign charities, repatriation from Gulf countries, and industrial credit

2.8 Human Resources in the Healthcare Sector

Availability of trained professionals in the healthcare sector supports the accessibility and quality of healthcare. According to National Health Profile (2011) published by the Central Bureau of Health Intelligence (CBHI), the Human Resource Indicators (HRI) provide an overview of the availability of trained and specialised medical, nursing and paramedical personnel in the country with its regional distribution and disparities. HRI provides the details of allopathic doctors, dental surgeons, AYUSH doctors, nursing personnel and various paramedical health professionals in the country. As per the HRI, the number of allopathic doctors possessing recognised medical qualifications (under MCI Act) and registered with state medical councils for the years 2010 and 2011 was 8,46,172 and 9,21,877 respectively. The number of registered nurses and pharmacists in 2011 came to 6, 57,230.

2.8.1 Human Resources in Private Healthcare Sector in Kerala

As per the survey report on Private Medical Institutions in Kerala, 2004 (Department of Economics & Statistics, Kerala), the employment pattern of private healthcare facilities in the State of Kerala showed that the total employment provided in the private healthcare systems was 63,467 numbers excluding ministerial staff. The total number of full-time doctors with the qualification of post-graduation and above accounted as 5,556 and part-time numbered as 2,921 during the survey period. At graduation level, the full-time number accounted for 7,444 and part-time 3,362. Below graduation level, the respective number of doctors came to 1,621 and 788 respectively, and the other categories numbered at 2,035.

The number of full-time physiotherapists was 472 and part-time was 202. Thus there were 15,093 full-time doctors, 7,273 part-time doctors and 2,035 other types of doctors. In the allopathic system, the total numbers of doctors were 15,281.

Employees such as nurses, pharmacists, attenders and others also are included in the category of paramedical staff. The total number of nurses employed in the private sector accounted for 20,164, Pharmacists - 3,168, Attenders - 6,562 and others 3,180. The total number of paramedical staff employed in private sector accounted as 33,074. Laboratory technicians, radiologist, X-ray Technicians and others were included amongst the technical staff. The total number of persons employed in this category was 5,992. The survey (2004) reported that the total number of persons employed as the ministerial staff was 12,107. Managerial staff, accounting staff, clerical staff, last grade staff and security staff are included in the ministerial staff. In the allopathic system, the total paramedical and technical staff strength as per the last available report was 34,433. As per the report of 2004, the total human resources strength engaged in the private medical institutions in Kerala under the allopathic system of medicine was 59,438 (Table 2.5).

Table 2.5 Human Resources in Private Medical Institutions in Kerala under Allopathic System of Medicine

Job Title	Strength
Doctors	15281
Paramedical Staff – nurse, pharmacist, attenders & others	28737
Technical Staff – lab technician, radiologist, X-ray technician, scanning technician & others	5696
Ministerial Staff - managerial staff, accounting staff, clerical staff, last grade staff and security staff	9724
Total	59438

Source: Report on Survey of Private Medical Institutions in Kerala — 2004, Department of Economics and Statistics, Thiruvananthapuram.

2.8.2 Human Resource Policy of Hospitals in Kerala

Qualified and competent hospital professionals in the healthcare system determine the quality of service in the hospitals. The *Health Policy Kerala, 2013* (dhs.kerala.gov.in/docs/draftpolicy) drafted by the Directorate of Health Services emphasised the need for improving and maintaining healthy human resources in the hospitals. It underlined the need for modifying the HR policy and job descriptions to adapt the changes in the sector and suggested that a body advise the government on this. The Government should make adequate investments to develop, manage and implement a Human Resource Management Information System (HRMIS) which facilitates to gather and update HR related data on a regular basis. This would ensure the availability of authentic information on every individual staff within the department at all levels. A performance appraisal and grievance redressal system should also be institutionalised.

2.9 Accreditation of Hospitals

Accreditation of hospitals is a voluntary process. An authorised agency or organisation assesses and recognises hospitals according to a set standard by which it will result in contributing to desirable patient outcomes. Accreditation is a process in which healthcare standards in hospitals are set and compliance of these is measured by an accreditation agency of repute or governmental agency. In developing countries like India, where health services are delivered mainly through private health providers, regulation is a vital instrument of government policy.

Unlike in the past, quality health care has become a matter of importance since people are more demanding and the competition is getting tougher in the sector. The promotional advertisements of hospitals in the length and breadth of our country reveal this change (As per the Medical Council of India Ethics Regulations, 2002, hospitals can advertise their services without the details of the doctors.). Healthcare quality assessment can take place by way of license, quality certification and any accreditation system like the National Accreditation Board for Hospitals and Health Care Providers (NABH) and Kerala Accreditation Standards for Hospitals (KASH) in Kerala. There are national and international private agencies also available for accreditation in this front. Joint Commission on Accreditation of Healthcare Organisations (JCAHO), the International Society for Quality in Healthcare (ISQua), International Organisation for Standardisation (ISO), National Accreditation Board for Laboratories (NABL), are a few notable among them. Amongst the various accreditation agencies, the JCAHO is an independent not-for-profit organisation which provides voluntary accreditation by issuing JCI (Joint Commission International) accreditation standards. ISO is the most widely accepted system of quality management throughout the world. It emphasises and defines quality management system, resource management, management responsibility, product/ service validation and internal audits. Along with formal accreditation system, Ananth's Directory of Health Services and CRISIL also rate the services of hospitals location-wise and speciality-wise and provide a comparison on the quality of health care delivered by the different institutions (<http://www.crisil.com>).

Accreditation of hospitals, as mentioned earlier, is voluntary. Accreditation improves the standards of care and also serves to verify compliance with the standards (Table 2.6). Accreditation strengthens community confidence by highlighting a hospital's commitment to providing safe and quality care. Patients and their relatives, therefore, get trustworthy and reliable information which helps in their health care related decisions.

Table 2.6 Features of Hospital Accreditation and Offers by Accredited Healthcare Providers

Features of hospital accreditation	Accredited health care providers offer
It is voluntary	High quality cares for patients
Use of standards	Organise and strengthen patient safety efforts
Principle of external review	Improves risk management
Reviews are conducted by external professional peers	Competitive advantages
Governed/by the local body	Enhance recruitment and staff selection
Aims to encourage incremental growth and development within the healthcare unit	Good business practices
The choice of applying for accreditation rests with the management committee of the hospital	

Source: <http://www.crisil.com> ; nabh.co

2.9.1 National Accreditation Board for Hospitals and Healthcare Providers (NABH)

NABH is an integral board of Quality Council of India and its purpose is to institute and activate accreditation programme for healthcare organisations. The board considers the consumers' needs and set yardsticks for the development of health industry. Accreditation by NABH stands for a public recognition of the achievement of accreditation

standards by a healthcare organisation. This is established through an independent external peer assessment of organisation's performance in relation to the set benchmarks. Accreditation benefits all stakeholders and patients are the main beneficiaries. Accreditation results in high quality of care and patient safety. The patients get services from qualified and competent medical staff and their rights are respected and protected. The accreditation provides the basis for regular evaluation of patient satisfaction (www.nabh.co).

Accreditation also makes sure that the satisfaction of the staff is addressed and it provides for continuous learning, good working environment, and leadership. It also ensures that the staff have an ownership of clinical processes. The accreditation process is meant for continuous improvement and it facilitates the organisation in exhibiting a commitment to quality care (Table 2.7) . It can enhance community confidence in the services provided by the healthcare organisation. Healthcare unit can also benchmark their services with the best in the sector. Accreditation provides a platform for reliable and certified information on various facilities, infrastructure and level of care which would be helpful for empanelment by insurance and other third parties (www.nabh.co).

Table 2.7 NABH Accreditation Requirements

Access, assessment and continuity of care	Continuous quality improvement
Care of patient	Responsibility of management
Management of medication	Facility management and safety
Patient right and education	Human resource management
Hospital infection control	Information management system

Source: www.nabh.co

2.9.2 Kerala Accreditation Standards for Hospitals (KASH)

KASH standards were developed from the NABH (National Accreditation Board for Hospitals and Healthcare Providers) and Indian Public Health Standards guidelines. This helps to maintain essential standards at each level of healthcare institutions based on their scope and limitations. The State-level accreditation process is aimed at quality improvement programmes proposed to be implemented in all government hospitals in Kerala to meet NABH standards. Patient care, patient safety, infection control, medication safety and equity in delivering health care are some of the main components of KASH.

KASH-accredited institutions have to put up proper signage regarding the doctors on duty, patients' rights charter and a mechanism to redress complaints. The lab equipment in these hospitals have to be calibrated and standardisation tests are to be conducted daily. The lab tests available and its rates are also to be properly displayed.

Infection control committees have to be set up in these hospitals. A biomedical waste policy has to be evolved and a memorandum of understanding has to be signed with IMAGE facility of the Indian Medical Association to remove biomedical waste. The water tanks have to be cleaned and the water samples sent for tests regularly. Patient satisfaction surveys will be conducted regularly. Fire extinguishers have to be placed in the hospitals and disaster preparedness drills have to be conducted regularly (www.nabh.co).

2.10 Recent Trends in Hospital Sector in Kerala

According to Lekshmi, Mohanta, Revikumar and Manna (2014), the hospital sector in Kerala is flourishing especially in the private sector due

to various service delivery issues associated with health care in the public sector. Hospitals in the private sector are preferred over the public sector by most of the patients since the public sector did not fulfil their requirements. This led to the expansion of private medical care setup in the state. This has brought about the commercialization and commoditization of healthcare. However, most of the private institutions lack employee training facilities which are paramount in ensuring continuous improvement and better quality care. Lack of training among doctors end up in unwarranted investigations and hence increased cost.

The Government of Kerala constituted the Kerala Medical Services Corporation (KMSCL) with the primary objective of making available quality medicines, surgical items and other hospital requisites to all the patients through the public healthcare networks and for that purpose procure the medicines at most economical rates. Recently the Government introduced e-Health which is a first of its kind initiative in the entire country. It is a central data server which would have all health and demographic data of the population and which would be linked to the HMIS (Health Management Information System) projects of all health institutions in the state (Lekshmi et al, 2014). The e-health initiatives were taken up during the 11th five year plan period included:

- 1) Training, education and capacity building for e-health.
- 2) Monitoring by e-enabled HMIS to ensure timely flow of data and collation to be used at various levels.

- 3) Geographical information system, resource mapping of various health facilities such as Allopathy, Ayurveda, Laboratories, Training Centers, Health Manpower and other inputs to optimise utilisation.

2.11 Medical Tourism

Health care is now offered as a tourist product in the name of medical tourism and every year millions of medical tourists cross the borders of their nations in search of quality treatments at low costs. This industry comes under sunrise industries experiencing a boom and in the Asian belt, India along with Thailand, Malaysia, Singapore, Hong Kong, Indonesia and the Philippines are the popular medical travel destinations. India's health tourism business offers diverse treatments and therapies along with a holistic health management offering consisting of yoga, massages, traditional Ayurvedic medicine and other well-being clinics on low cost (Anvekar & Ramaiah, 2012). The inducement operating slogan of medical tourism in India is "First World Treatment at Third World Price". According to the Confederation of Indian Industry (CII), India occupies a unique position as it offers holistic medicinal services with Yoga, Meditation, Ayurveda along with the Modern system of medicine (as cited by Deb, 2011).

Mixing tourism and health create health or medical tourism. It can be defined as 'a provision of 'cost effective' private medical care in collaboration with the tourism industry for patients needing surgical and other forms of specialised treatment. It is inclusive of three directions-outbound; inbound and intra- bound medical tourism. When people cross their national borders in search of world-class medical treatment on a cost

basis, they are called 'medical tourists'. The features of Indian Medical Tourism include low costs of medical treatments and surgeries, world-class facilities and expertise, advanced technology and quality etc. (Anvekar & Ramaiah, 2012). Medical insurance and privatisation of healthcare services fuelled the fast growth of the healthcare industry. Medical tourism products are often packaged with alternate traditional therapies like Ayurveda, naturopathy, allopathy, yoga, meditation etc. targeted at high-end medical tourists (Anvekar & Ramaiah, 2012). Now foreign patients come to India for holistic medicinal services along with vacationing and tourism experience (Deb, 2011).

Medical tourism is gaining momentum in India because of its expertise, world class quality, less waiting time, personalised services, rich cultural heritage, manpower, affordable cost and government policy. India is identified especially for heart surgery, hip resurfacing and other areas of advanced medicine.

Kerala, because of its natural beauty and cultural assets has emerged as a prominent destination for world leisure tourism (Cherukara & Manalel, 2008). According to Bhagianadh (2007), Kerala State Tourism has decided to promote only hospitals that are granted accreditation. Kerala receives tourists from western countries like UK, USA and other European countries, Scandinavian countries and also from neighbouring countries like the Maldives and the Middle East. The major hospitals that offer medical tourism services are in the private sector and have a special focus on the promotion of the sector. State Government plays the role of facilitator. The political and social environment in the state is also comparatively stable when compared to many other states and

countries. Government's positive attitude and regulations to improve the credibility of the sector was also encouraging the growth of medical tourism in the State. The presence of a large private sector consisting exclusively of qualified healthcare professionals providing care is another positive factor for the sector in Kerala (Bhagianadh, 2007).

2.12 Key Challenges in Hospital Sector

ICRA, 2013 (www.icra.in/Files/ticker/SH-2013) Report on Indian Healthcare reported the key challenges as:

- Lack of skilled manpower
- High real estate cost
- Extended commercial stabilisation period
- High operating leverage inherent in the business model
- Approval/clearance issues constraining the phase of development

Changing demographics, increasing of lifestyle-related diseases leading to greater demand for alternative treatments. Growing medical tourism aided by relatively lower treatment costs are fuelling the demand for better healthcare services.

As per the 12th five-year plan report (planningcommission.gov.in), apart from the public healthcare sector, private healthcare sector in India provide extensive healthcare facilities through individual doctors and their clinics, general hospitals, and super speciality hospitals. Even then according to the five-year plan document the system suffers from the following weaknesses:

- 1) Availability of health care services from both the public and private sectors taken together is quantitatively inadequate

- 2) The quality of healthcare services varies considerably in both the public and the private sector.
- 3) Affordability of health care is a serious problem for the vast majority of the population, especially in tertiary care.
- 4) The problems outlined above are likely to worsen in the future. Health care costs are expected to rise because, with rising life expectancy, a larger proportion of our population will become vulnerable to chronic non-communicable diseases (NCDs), which typically require expensive treatment.
- 5) Public expenditure on health care needs to be increased from 1.04 percent of GDP during 2011-12 to furthermore in the next decade.

To be relevant any good health system must be able to respond to the health and social needs of the people over their lifespan. Sustainable health systems need to be developed so that it can guarantee equity of access to essential health functions. These functions include making quality care available to all, preventing and controlling disease, protecting health, promoting legislation and regulations in support of health systems, use of advanced technology, creating human resources for the healthcare sector and securing adequate and sustainable financing. A socially sensitive health system will take into account the economic, socio-cultural and spiritual values and needs of individuals (Sharma & Goyal, 2010).

In short quality, healthcare is considered as a very important aspect of the social and economic front of any country. Qualitative expansion of healthcare services envisages quality of services rendered. Expansion of infrastructure facilities also supports quality service delivery. The coverage

and quality of public healthcare services in India, unfortunately, remains poor due to lower government expenditure and inadequate manpower. This has intensified the participation of the private sector. Availability of healthcare infrastructure with the use of modern technologies along with qualified and competent human resources in the private sector make people look for quality service from these medical institutions. If this trend continues, then the private sector can attract more patients/customers from within India and abroad both for quality treatment and as part of medical tourism. Various HR policies and other initiatives of the government (both Central and State) are aimed at creating and maintaining the availability of a competent workforce in this sector. Various accreditation systems are also aimed at continuously improving holistic quality in the operation and service delivery of medical institutions. Since the hospital sector is a highly labour-intensive sector, the quality of human resources and the quality of services are crucial in gaining and maintaining a competitive advantage.

The next chapter discusses the literature review based on the important variables selected for this study which is decisive in improving service quality in hospitals.

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REVIEW OF LITERATURE

C o n t e n t s	3.1 <i>Introduction</i>
	3.2 <i>Service Quality</i>
	3.3 <i>Commitment to Service Quality (CSQ)</i>
	3.4 <i>Human Resource Management (HRM) Practices</i>
	3.5 <i>Organisational Commitment (OC)</i>
	3.6 <i>Professional Commitment (PC)</i>
	3.7 <i>Employee Competence (EC)</i>
	3.8 <i>Service Climate (SC)</i>
	3.9 <i>Conclusion</i>

3.1 Introduction

Though healthcare is the “world’s largest service” (Kenagy, Berwick & Shore, 1999), the actual service having the characteristics that shape the service beyond technical competence, is infrequently discussed in the medical or management literature (Fottler, Ford, Heaton, 2002). This chapter identifies and discusses a few important variables which are considered to be relevant in understanding the role of human resources, its interaction with the organisation and customer/patients and various outcomes which ultimately decide the service quality in the hospital/healthcare service.

Quality of service is the outcome of interaction between the service employee and the customer, resulting in Human Resource Management

(HRM) practices outweighing technology. In the service sector, the customer is a co-producer and the process is the product in this sector. Hence the interaction between service employee and the customer is paramount in this sector. HRM practices in an organisation ensure the quality of employees and only quality employees can deliver quality service, and thereby guaranteeing a better experience to the customers. This chapter presents a review of literature related to the research problem. The chapter will introduce the concepts of service quality, commitment to service quality, the importance of HRM practices, employee competence, organisational and professional commitment and service climate in order to provide a clear basis for the theoretical framework and the statement of the research problem.

3.2 Service Quality

In the era of service competition, the service winner is the organisation which provides excellent service quality. Service quality has unique features in comparison with product quality like intangibility, heterogeneity, and inseparability of production and consumption (Parasuraman, Zeithaml, & Berry, 1985). Parasuraman, Zeithaml and Berry (1988) have described service quality as an overall superiority of the service that a customer values in the service encounter and they observed perceived service quality as “the degree and direction of discrepancy between consumers’ perceptions and expectations” (Parasuraman et al., 1988, p 17). Hence delivering service quality is all about conforming to customer expectation (Lewis & Booms, 1983) and customers’ judgment about an entity’s overall excellence or superiority was considered as

perceived quality (Zeithaml, 1987). Bitner, Booms and Mohr (1994) have defined service quality as the consumer's overall impression of the relative inferiority or superiority of the organisation and its services. Service quality is also seen as relativistic and cognitive discrepancy among experience-based norms and performance regarding service benefits (Roest & Pieters, 1997). The literature on service quality provides several definitions and most of these definitions comprise of expectations or judgments, perception, and satisfaction. A few of the important definitions are listed in Table 3.1.

An understanding of the impact of service quality on profit and other financial outcomes of the organisation is of the utmost importance for any organisation (Zeithaml, Berry & Parasuraman, 1996). Hartline and Farrell (1996) found that managers committed to service quality were more likely to empower their employees. This will help employees to meet varied customer needs and it will affect service quality. Service quality is considered as the result of human interaction between the service provider and the customer and the customer contact employees are well placed to effectively judge the delivery of services with quality (Sergeant and Frenkel, 2000).

Researchers have conceptualised and differentiated service quality as the perceived quality which is a form of attitude (Zeithaml, 1987) and as objective quality (Garvin, 1983). Service quality perceptions vary in different service settings and are also based on internal (employees) and external (customers) perception. This complexity necessitated the development of multidimensional models, which are divided into two basic schools of thought (as mentioned in Ekinici, 2002) namely, the North American (Parasuraman, Zeithaml, & Berry, 1985) and the Nordic

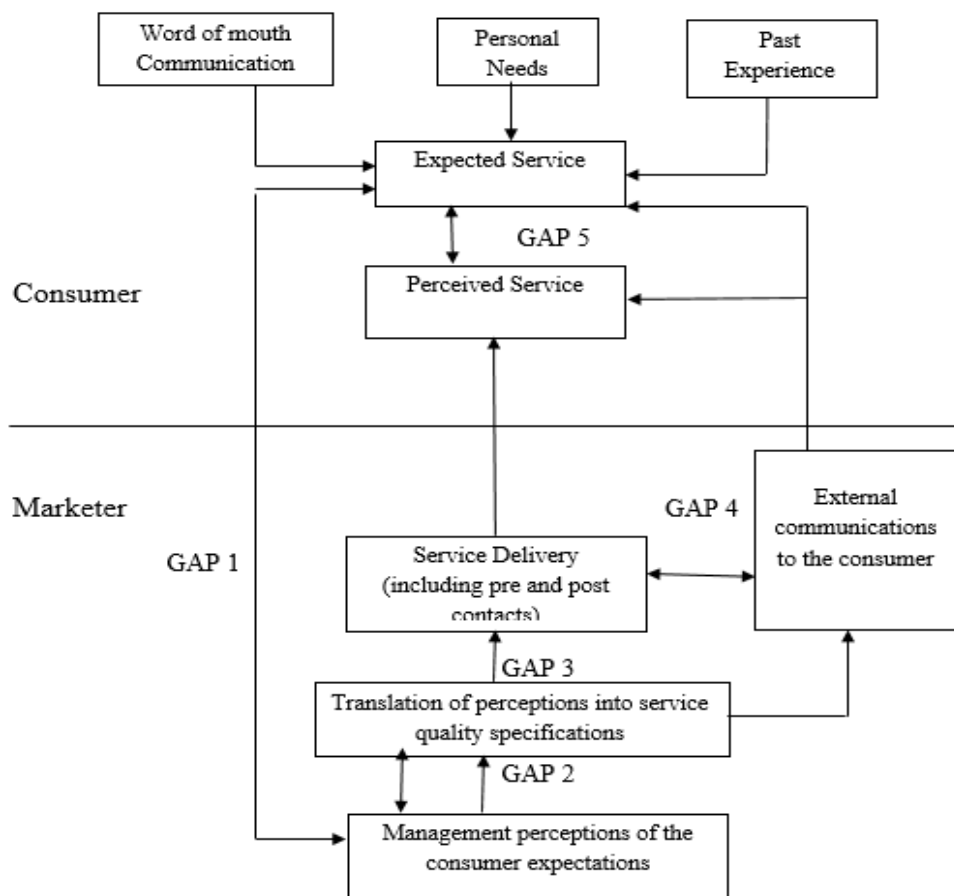
European (Gronroos, 1984; Lehtinen & Lehtinen, 1991). The Nordic view explains service quality in two dimensions, i.e. Functional and Technical quality. The American view describes service quality on five dimensions as tangibility, empathy, assurance, reliability and responsiveness.

It has also been established that employees' role clarity can enhance their perceptions of service quality which is enhanced by various HRM practices like feedback, team support, and participation. This, in turn, can affect job satisfaction and organisational commitment of employees (Mukherjee & Malhotra, 2006).

Table 3.1 A Few Important Definitions of Service Quality

Source	Definition
Lewis & Booms, 1983	As Confirming to the expectations of the customer
Parasuraman, Zeithaml & Berry, 1985	A function of the differences between expectation and performance along the quality dimensions
Lehtinen & Laitamaki, 1985	Defined SQ as Physical, interactive, and corporate quality
Zeithaml, 1987	Customers' judgment about an entity's overall excellence or superiority was considered as quality perceived.
Bitner, Booms & Mohr, 1994	Service quality is defined as the consumer's overall impression of the relative inferiority or superiority of the organisation and its services
Roest & Pieters, 1997	A relativistic and cognitive discrepancy between experience-based norms and performances concerning service benefits.
Slatten, 2008	Employee –perceived quality as an employee's personal evaluations of the service quality that he or she delivers to customers.

Service quality gap model proposed by Parasuraman et al. (1985) identifies five different gaps (Figure 3.1) based on the differences between expectation and performance along the service quality dimensions (Table 3.2). This model suggested service quality as a function of perceptions and expectations.



Source: Parasuraman, Zeithaml and Berry (1985)

Figure 3.1 GAP Model of Service Quality

The five gaps identified in the gap model of service quality are:

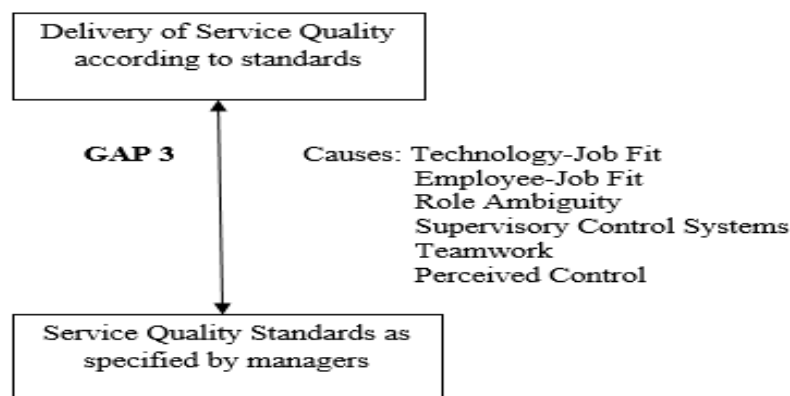
- Gap 1: The difference between consumers' expectations and management's perceptions of those expectations.
- Gap 2: The difference between management's perceptions of consumer's expectations and service quality specifications.
- Gap 3: The difference between service quality specifications and service actually delivered.
- Gap 4: The difference between service delivery and the communication to consumers about service delivery.
- Gap 5: The difference between consumers' expectation of service and the customer perceived service.

Table 3.2 Service Quality Dimensions (Parasuraman et al. 1988)

SQ Dimensions	Description
Tangibility	Physical facilities, equipment, and appearance of personnel
Reliability	Ability to perform the promised service dependably and accurately
Responsiveness	Willingness to help customers and provide prompt service
Assurance	Knowledge and courtesy of employees and their ability to inspire trust and confidence
Empathy	Caring, individualised attention the firm provides its customers

As gap 3 has to do with the ability of the organisation to deliver service according to the standards this gap is also known as 'service performance gap'. Hence it has to do with employees' perception of themselves as able to meet service delivery standards and happens when employees are unable or unwilling to perform the service at the desired level as illustrated in Figure 3. 2.

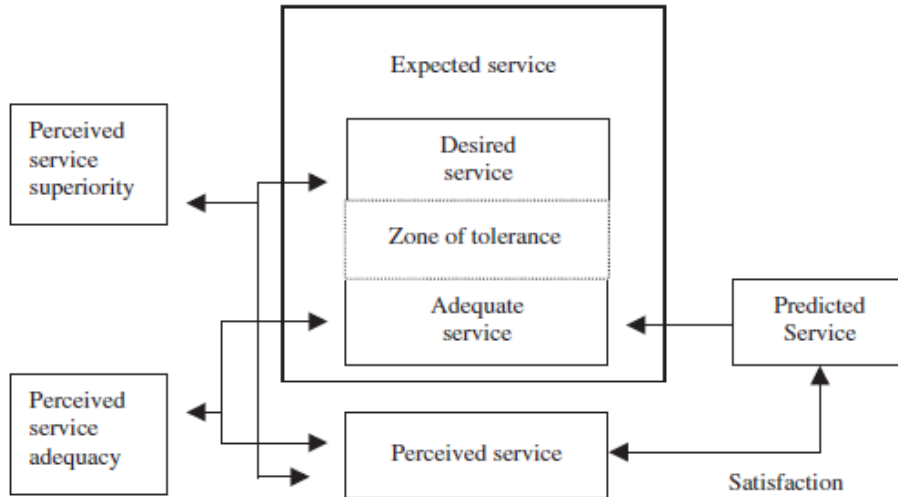
The 'service performance gap' is the difference between actual service delivery and quality specification of the firm. This has a substantial influence on 'service quality gap' since the service performance is directly correlated to the service quality (Chenet, Tynan & Money, 2000). Where service delivery happens through human interaction, the service quality is determined by the quality of interaction between customer and contact employees. This difference in interaction during the service delivery process actually differentiates the service of a firm from that of the other and as a result, the firm gains a competitive advantage (Burgers, Ruyter, Keen & Streukens, 2000).



Source: Adapted from Pitt, Foreman & Bromfield (1995)

Figure 3.2 Gap 3 in the Service Quality Model (based on Zeithaml, Parasuraman, and Berry, 1990)

In the subsequent work Zeithaml, Berry and Parasuraman, 1993 modified the gap model to an expectation model and two types of expectations and corresponding two levels of performance were proposed as desired service and adequate service (Figure 3.3).



Source: Adapted from Zeithaml, Berry, and Parasuraman (1993).

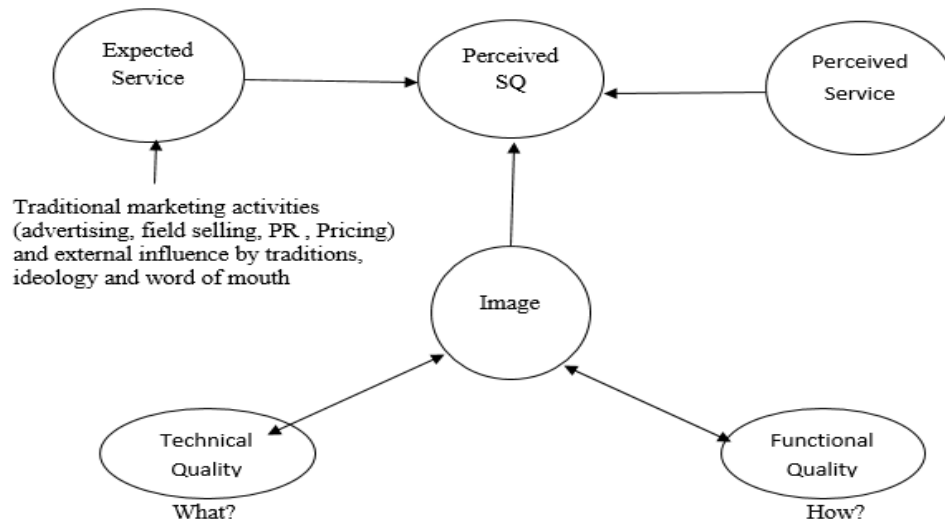
Figure 3.3 The Expectation Model

Lehtinen and Lehtinen (1991) had opined that the service quality is produced based on the interaction between customer and elements in the service organisation. They used two different approaches to study restaurant services. In one approach they used three service quality dimensions such as physical quality, interactive quality, and corporate quality. In the other approach, two dimensions of service quality were applied, viz., process quality and output quality. Physical quality includes the physical aspects of the service (e.g., equipment or building), corporate quality involves the company's image or profile, and **interactive quality** is derived from the interaction between contact personnel and customers as well as between customers themselves. The interactive elements in service production involve interactive elements, person, and interaction equipment. Process quality in the two-dimensional approach is determined by the qualitative evaluation of the customer of his participation in the service production

process. This quality according to Lehtinen and Lehtinen (1991) depends on the fit between participation style of customer and the service style of the contact person. The output quality of the service, on the other hand, is considered to be the result of customer's evaluation of a service production process and it could be controlled by controlling the process and process quality. The elements of process quality have to be controlled to ensure favourable outcomes. Moments of truth or the service encounters play an important role in determining outcome variables such as service quality. A service encounter is the period of direct interaction of customer and service provider (Lovelock, Writz & Chatterjee, 2006).

Some of the past impressions of service quality like that of Gronroos (1982; 1984) proposed service quality as a two-dimensional one, being technical quality (refers to the outcome) and the other as functional quality (refers to the process of service). While the technical quality is the quality that the consumer actually experiences as an outcome of interaction with the service firm, the functional quality refers to the process of service delivery. Gronroos had identified 'expected service' and 'perceived service' (as a perceived judgment) as the two variables of service quality. Both the technical and functional quality of service will constitute the image of the service firm which is considered to be an important attribute of a service firm and it also includes factors like tradition, ideology, word of mouth, pricing and public relations (See, Figure 3.4). Subsequently, Slatten (2008) clarified employee - perceived quality as an employee's personal evaluations of the service quality that he or she delivers to the customer.

Similar to Gronroos (1982; 1984) Lehtinen and Laitamaki (1985) proposed a three-dimensional approach in defining service quality. The first dimension is a physical quality which includes the environment, equipment, goods consumed during the service delivery process and the service outcome. The second is the interactive quality of the service between the employee and the customer and the interactions among customers. Corporate quality is the third dimension which was represented by Gronroos (1984) as an image (corporate).



Source: Gronroos (1984)

Figure 3.4 Gronroos Model of Service Quality (Nordic Model)

Schneider, White, and Paul (1998) had underlined the importance of management to maintain a climate for service in order to ensure a better service quality since the organisational practices influence the ways in which the customers perceive the quality of service they receive. Customer perceptions affect the organisational practices too. Mei, Dean and White (1999) in their study about the perception of service quality among hotel customers' crystallised it into three distinguishing factors like employees

(responsiveness, assurance, and empathy), tangibles and reliability. Among these, the employees' dimensions emerged as the best predictor of service quality.

Every time a customer interacts with an employee a service encounter happens. Zeithaml and Bitner (2000) have itemised three different types of such encounters in the service sector, namely,

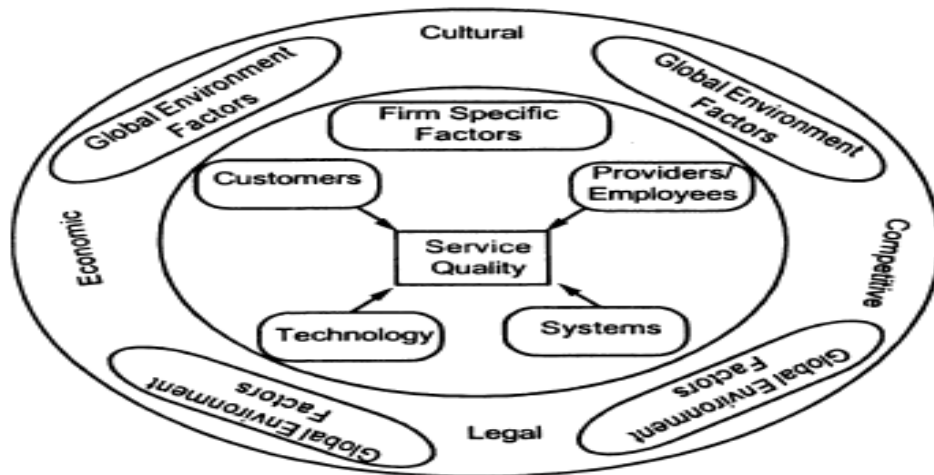
- 1) Without the direct human interaction,
- 2) Phone encounters, and
- 3) Face-to-face encounters between employee and customer in direct contact (like in a hospital).

Among these three different encounters, the first one can be standardised to deliver a pre-determined service quality. But in the case of where a personal interaction between the customer and the employee ought to happen the quality is determined by the quality of interaction. This demands the need for maintaining quality employees in the organisation.

Farrell, Souchon, and Durden (2001) have tried to hypothesise the various organisational practices such as adaptability, assurance, civility, customer orientation, empathy, recovery, reliability, responsiveness, spontaneity, tangibles and teamwork that enhance the service quality offerings of an organisation. While some studies have proved that service quality is an antecedent to satisfaction, many other studies have modelled satisfaction as precedent to service quality. Irrespective of the order, employees' adaptability, assurance, civility, customer orientation, recovery performance, spontaneity, teamwork, empathy, reliability and responsiveness and customers' perception on tangibles have been shown

to influence the customers' perception of service quality. Ueno (2008) also recognised the influence of various management practices on service quality especially in mass services like financial services, hospitality, retail, etc.

Shipchandler, Amba- Rao, and Stanbury (2001) underlined the need for an improved service delivery model (Figure 3.5) in a globally competitive environment by assessing changing the economic, competitive, legal and cultural environment. According to them, this can augment the development of strategies that include technology, coordinated systems, responsive employees and knowledgeable customers. Global service model can influence development and implementation of quality service. Besides, it is also shown that employees can deliver superior service when they are treated well through appropriate human resources management practices (Schneider & Bowen, 1993).



Source: Shipchandler, Amba- Rao, and Stanbury (2001)

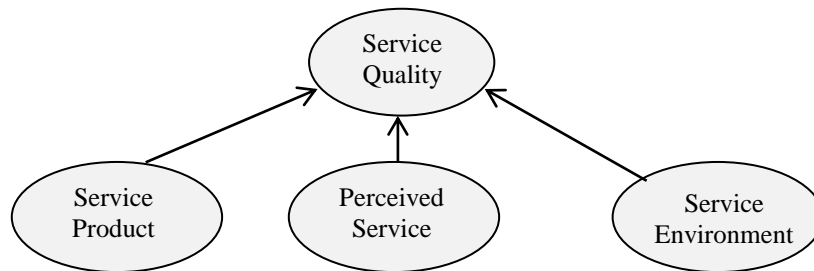
Figure 3.5 A Global Service Model

Measuring of service quality became a multifaceted task since SQ has various definitions and dimensions based on different nature of service delivery in different settings. It can be found that most of the studies on service quality were either to develop or to modify service quality (SERVQUAL) instruments to measure service quality (both internal and external) in different service settings. Better the perception on internal service quality of employees, the better would be the service delivery (Schneider & Bowen, 1985) and hence the better would be the service quality perception of customers' (external). Kang, James, and Alexandris (2002) refined the SERVQUAL tool to measure internal service quality. Their study among university employees in Seoul, Korea revealed that responsiveness and reliability dimensions are the most significant internal service quality perceptions since these are critical for providing quality service to external customers. Other dimensions (empathy, assurance, and tangibles) were found to be distinct. Organisations can, therefore, assess internal service quality and understand the influence of various dimensions and can effectively design a service delivery process.

Shainesh and Sharma (2003) went further and proved the existence of a linkage between employees' perception of service climate and customers' perception of service quality in the Indian banking industry. The study proposed the need for organisations to create an environment so that employees could deliver excellent service, especially since the frontline employees' perception of service climate influence the customers' perception of service quality. There have been several studies on the linkage between employee and customer perception of service quality (Schneider,

Parkington & Buxton, 1980). These findings were supported by Schneider and Bowen (1985).

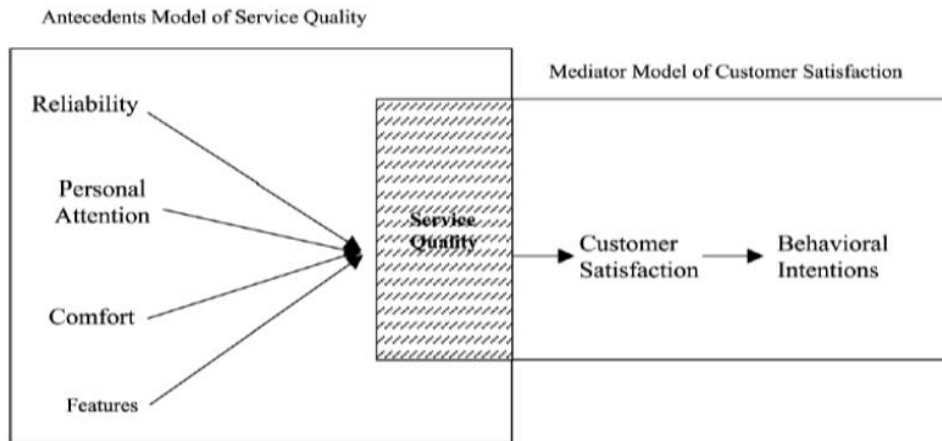
Among the different models of service quality, one of the earliest and remarkable models was the three component model developed by Rust and Oliver (1994). Their model comprised of service products which denoted technical quality and service delivery which denoted functional quality and service environment (Figure 3. 6). This model was also empirically supported by a similar study in the retail banking sector by McDougall and Levesque (1994).



Source: Rust and Oliver (1994)

Figure 3.6 Three-Component Model of Service Quality

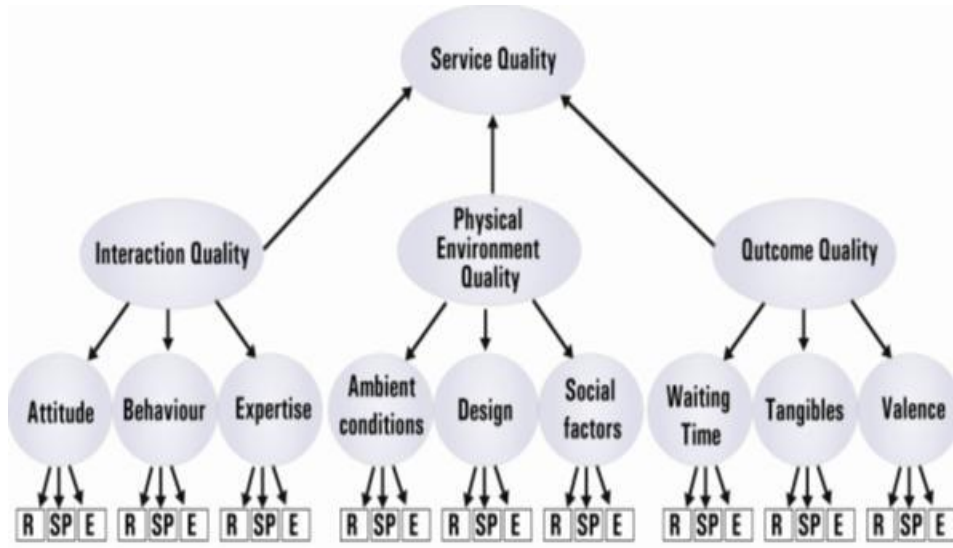
The antecedents and outcomes of service quality could be too complex since various models can be developed and service quality can be defined based on the various settings. There could be the possibility of various process or mediating variables which influence the outcomes. The antecedents and mediator model of Dabholkar, Shepherd, and Thorpe (2000) is an integrated model of service quality (Figure 3.7) which can provide a better understanding of the theoretical issues of service quality by investigation of antecedents, consequences, and mediators of service quality.



Source: Dabholkar, Shepherd and Thorpe (2000)

Figure 3.7 Antecedents and Mediator Model of Service Quality

Hierarchical service quality model (Figure 3.8) proposed by Brady and Cronin (2001) theorised service quality as a multilevel construct consisting of three different dimensions namely, interaction quality, physical environment quality, and outcome quality with various lower-level dimensions. The interaction quality dimension included attitude, behaviour, and expertise of the service provider. The physical environment quality dimension covered ambient conditions, design, and social factors. The outcome quality dimension comprised of waiting time, tangibles, and valence. Each sub-dimensions have items of reliability (R), responsive (SP) and empathy (E) items as shown in the model.



Source: Brady and Cronin (2001)

Figure 3.8 Hierarchical Service Quality Model

A number of researchers have examined various aspects of service quality as perceived by the service personnel and the customers. In particular, previous research works have been focused on identifying various gaps, service quality dimensions, antecedents and consequences of service quality along with the development of a suitable scale for measuring service quality in different settings. Table 3.3 below summarises some of the key variables and findings.

Table 3.3 Summary of Selected Service Quality Studies

Source	Theme	Settings	Other Variables	Findings
Parasuraman et al., 1988	SQ 5 Dimensions	Scale Development in service and retail organisation	Gaps	22 items scale comprises of 5 dimensions (SERVQUAL)
Lehtinen & Lehtinen, 1991	3 dimensional & 2 dimensional SQ	Restaurant services	Gaps	Identified important factors influencing SQ in restaurant service.
Schneider, White & Paul, 1998	Service climate on SQ	Bank employees and customers of 134 branches, USA	Global Service Climate (MV), Work facilitation and Inter-department service (IV), Customer perception on SQ (DV)	Service climate influences the SQ; customer perception affects the organisational practices.
Mei, Dean & White, 1999	SQ	155 Hotel Customers, Australia	Scale Development	3 dimensions emerged like employees, tangibles, and reliability
Kang, James & Alexandris, 2002	Internal SQ	140 University employees, Seoul, Korea.	To develop servqual tool to measure Internal SQ	Responsiveness and reliability found to be significant though other dimensions were found to be distinct.
Shainesh & Sharma, 2003	Service Climate and SQ	Bank employees/ customers, India	Global Service Climate- customer orientation, managerial practices & customer feedback	Proved the existence of linkage between employees' perception of service climate and customers' perception of service quality

3.2.1 Service Quality in the Hospital Sector

Quality patient service in the healthcare sector is now being increasingly studied because of its strategic importance (Reidenbach, 1990). Many studies have emphasised the importance of quality patient service as an important differentiating strategy in the marketing of various health care institutions and services. Reidenbach (1990) found that the major factors influencing service quality in hospitals comprise of service perceptions such as overall service quality, satisfaction with treatment, and intention to recommend the hospital. These determinants of service quality in hospitals are measured in terms of dimensions of patient confidence, treatment quality, physical appearance and business competence. It is also found that these dimensions correspond to the original conceptual service dimensions of reliability, competence, and tangibles identified by Parasuraman, Zeithaml, and Berry (1985) and also are in line with the outcomes of several other studies of the banking industry and other service industries by different researchers. The service quality framework in the hospitals are divided into ‘clinical quality’ which is the medical outcome and what is delivered; and ‘process quality’ which is about how the service is created and delivered (Marley, Collier, & Goldstein, 2004). Process quality also is called functional quality and is qualitative, subtle and intangible part of service (Srinivasan, 2004). Functional quality refers to the procedure, interaction and outcome dimensions (Parasuraman, Zeithaml & Berry, 1985).

In the labour-intensive healthcare sector, the role of human resources is vital in maintaining and improving service quality. Hospital employees such as doctors, nurses, clerks, lab technicians and others are

an essential part of the service production process. They are also marketers in a service business like that of hospitals (O'Connor, Powers & Bowers, 1988). In the hospital sector service quality demands excellent communication skills, empathy, shared power and responsibility with patients and ability to deliver service considering patient's values and preferences (Epstein, 2005).

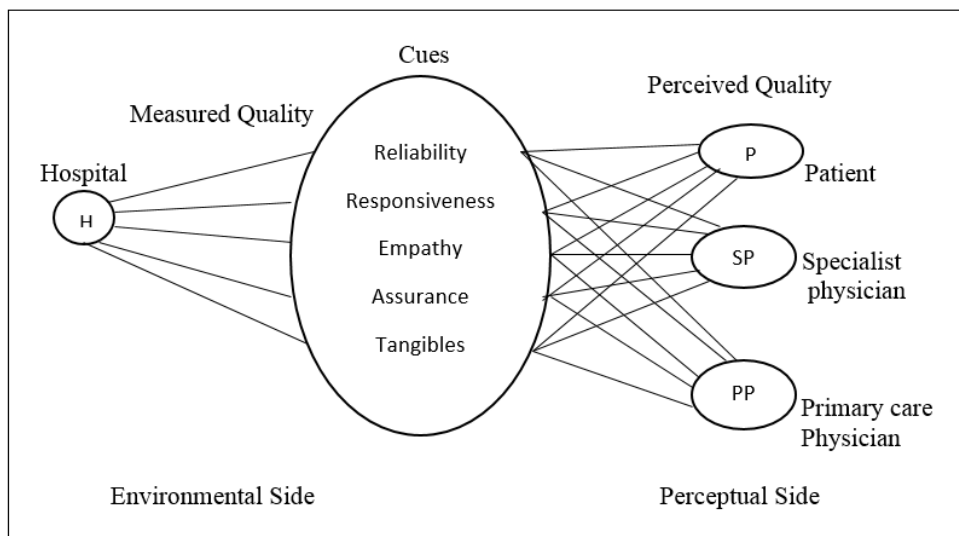
Increased competition has changed the market orientation and ethical considerations (towards marketing) of nonprofit organisations like hospitals. Marketing has become an important management function in hospitals. Service quality and its measurement gained strategic importance to differentiate the hospitals' service in the marketing front (Vandamme & Leunis, 1993). Service quality in hospitals can decide on the level of customer satisfaction and medical outcome (Murfin, Schlegelmilch & Diamantopoulos, 1995).

It was Headley and Miller (1993) who first suggested that the SERVQUAL could be used in hospital sector with adaptation based on the situations. Their study had also revealed the relationship between the patients' perceived service quality and repeat purchase, complaining behaviour, complimenting behaviour, and switching behaviour.

Lewisohn and Reynoso (1995) argued that quality service to the patients/customers in the hospitals can be ensured by maintaining quality internal service. If a patient receives the highest quality service that he/she needs with the greatest efficiency that indicates the internal quality of the organisation. This can be achieved by having proper policies in place which enhance the inter-departmental relationship, quality process (by

equipping employees), cooperation and understanding among employees and the management.

Licata, Mowen, and Chakraborty (1995) developed a Marketing Lens Model (MLM) which could be a tool capable of measuring quality assessments and perceptions of medical care by physicians and patients (Figure 3.9).



Source: Licata, Mowen and Chakraborty (1995)

Figure 3.9 The Marketing Lens Model (MLM)

The service provider must understand how patients and their doctors assess quality. Then only the provider will be able to arrive at the quality standards to be provided and to make a comparison of an appraisal made by the physicians/patients. MLM is considered as an effective tool to facilitate this assessment. MLM has two sides like the environmental side and perceptual side. On the environmental side, a measured quality of hospital service which is obtained through an expert opinion is used. Perceptions of patients' and the physicians' on service quality in the hospital

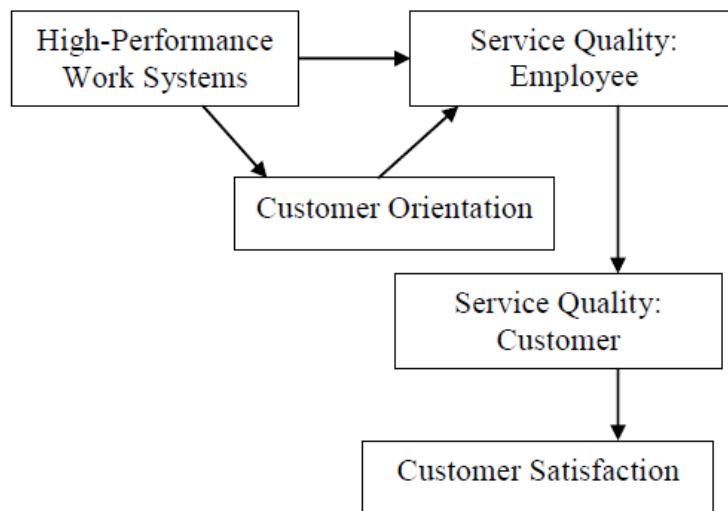
are measured by using standard rating scales on the perceptual side of the lens.

Tomes and Peng Ng. (1995) had identified seven factors and developed a measurement scale to assess the quality of service based on the patients' perception of inpatient care. The factors included five intangible factors such as empathy, the relationship of mutual respect, dignity, understanding, religious needs, and two tangible factors like food and physical environment.

Rapert and Wren (1998) conducted a longitudinal study by using quality orientation scales in the hospital sector in the USA. CEOs of General Service hospitals under the American Hospital Association were the respondents. The result showed that firms which follow a service quality strategy experienced positive returns on organisational and financial performance both on current and future time periods. This service quality based strategy made firms gain a sustainable competitive advantage since these qualities are inimitable by the other firms. To build the competitive advantage the pursuit of quality should be encouraged that can be exclusively converted into superior organisational performance (Rapert & Wren, 1998). The service quality precedes value of care in hospitals and value of care influences patient satisfaction and revisits intention (Y.Kim, Cho, Ahn, Goh &H.Kim, 2008).

Scotti, Harmon, & Behson, (2009) proposed a model (Figure 3.10) linking high-performance work systems service quality perception of employees and customers, customer orientation and customer satisfaction in the hospital sector. The study among hospital employees and patients of medical facilities in the US revealed that there is a

congruence between employee and customer perception of service quality. The managerial attention to high-performance work systems and customer-orientation was found to be significantly influencing service quality and customer satisfaction and hence enhanced operational efficiency.



Source: Adapted from Scotti, Harmon, and Behson, (2009)
Figure 3.10 Conceptual Model of Service Quality Chain

The employee and customer perceptions of service quality is the outcome of shared experience during the service encounter (Scotti et al., 2009). Nelson, Hayes, Larson and Batalden (1989) had witnessed the relationship between employee and patient perceptions of service quality in the hospital sector.

Arab, Tabatabaei, Rashidian, Forushani and Zarei (2012) found out that service quality in private hospitals in Tehran has a major role in enhancing patient loyalty. This will ensure the return of patients to the

same hospital and reuse its services or recommend them to others. At the same time Patawayati, Zain, Setiawan and Rahayu (2013) have reported the significant positive effect of service quality on patient satisfaction, trust, and commitment which influence patient's loyalty in the hospital sector. Perceived service quality and outcome quality within the health and fitness industry can influence employee retention and this can result in better service delivery (Kim & Ling, 2017).

A number of studies have examined the factors that may be relevant to service quality in hospitals. Studies have been conducted on service quality in the hospital sector ranging from scale development to antecedents and consequences including identification of various service quality dimensions relevant in the sector. Table 3.4 summarises some of the key variables and findings in developing the proposed model for this study in the hospital sector.

Table 3.4 Summary of Few Selected Service Quality Studies in the Hospital Sector

Source	Theme	Settings	Definition	Other Variables	Findings
Reidenbach, 1990	SERVQUAL	Hospital Patients Perception- on emergency, in/outpatient services- 300 patients – telephone survey	Based on overall service quality, satisfaction with treatment and willingness to recommend as dependent variables.	Independent variables – Patient confidence, aspect of treatment, quality of treatment, support services, physical appearance, waiting time and empathy.	Dimensions identified in the hospitals were similar to that of other service sectors
Headley & Miller, 1993	SERVQUAL	Hospital patients – 159 matched pair responses- pre and post-encounter responses	Based on the five-dimensional approach of servqual – tangibility, reliability, responsiveness, assurance and empathy.	Reliability, dependability and empathy as independent variables. Patient's intent to complain, compliment, repeat purchase and switch providers as dependent variables.	SERVQUAL is appropriate for the medical services field with appropriate adaptation based on the different situations.
Rapert & Wren, 1998	SQ and present and future organisational	American Hospital Association- General Hospital	SQ as strategic orientation- for gaining competitive advantage		Service quality helps in improving organisational effectiveness. Firms

	performance.	CEOs, 322 responses (initial phase), after 3 yrs 89 (responses) - Longitudinal study.	organizational/financial performance		which follow a service quality strategy experience positive returns on organisational performance-current and future time periods.
Y.Kim, Cho, Ahn, Goh &H.Kim, 2008	SQ patients perspective	Patients of Large hospital (1000 above beds) in Korea, 423 samples	Woodside et al. (1989) defined medical services quality as a gap between consumers' expectations and the actual performance	Value of care, Patient satisfaction, re-visit intention	The service quality precedes value of care in hospitals and value of care influence patient satisfaction and revisit intention
Scotti, Harmon, & Behson, (2009)	SQ perception of Employees and patients	US medical system- responses from employees and patients		High- performance work sys (HPWS), Customer Orientation (CO), Customer Satisfaction (CS)	Congruence between employee and customer perception of service quality, HPWS, CO influence SQ, CS

3.2.1.1 Service Quality Studies in the Indian Hospital Sector

The Indian hospital sector has been witnessing a push in the quality initiatives on various count like governmental intervention and necessity of getting quality accreditation especially after the globalisation and liberalisation policies were introduced. There have not been many studies on service quality in the Indian hospital context. The few that are found are dealt with in this section.

A study by Rohini & Mahadevappa (2006) in Indian Hospitals at Bangalore showed the importance of human touch in the healthcare sector in encouraging patients to seek the highest quality. The quality characteristics such as tangibles, reliability, responsiveness, assurance and empathy in the delivery of service in hospitals have been consumed by the patients. Hence a prompt, professional and competent service is the expectation of patients/customers from hospitals. Chahal (2008) based on the study conducted among patients of a civil hospital in Ahmedabad, reported that patients satisfied with quality interaction with the staff were more likely to revisit the hospital and also to recommend the hospital to their friends and relatives. The quality of service delivery professionals in the hospital such as doctors, nurses and other patient/ customer contact employees and their interaction with the patients along with operational quality would influence the service quality in the hospitals and this, in turn, result in enhanced patient loyalty. Sivakumar and Srinivasan (2010) in their study of hospital customers of Chennai (India) hospitals identified customer satisfaction, re-patronage intention, and positive word-of-mouth as behavioural outcomes of service quality. Healthcare process quality is the

outcome of the procedure, interaction, and outcome which decide the level of patient satisfaction.

Vanniarajan and Arun (2010) in their study of patients of Indian hospitals supported the result of previous studies and reinstated the impact of factors like physician behaviour, supportive staff, atmospheric and operational performance on service quality. Among these, physician behaviour and operational performance were considered to be more important. In a study of a public hospital in Goa, India by Mekoth, George, Rajanale and Nizomadinov (2012) it was found that only quality of physician and clinical support staff influenced the patient satisfaction.

3.3 Commitment to Service Quality (CSQ)

Commitment to service quality (CSQ) is the outcome of various human resource management practices and process variables (dealt in Chapter 4) and influence the employees' service quality perception. CSQ is described in the same way as affective commitment in the literature. Meyer and Allen (1991) defined affective commitment as an employee's emotional attachment to, identification with and involvement in the organisation. Peccei and Rosenthal (1997) defined Commitment to Service Quality (CSQ) as the relative inclination of a service employee to engage in continuous improvement and exercise effort on the job for benefits of customers. In other words, CSQ is conformity to a specification (O'Neil & Palmer, 2004) and results in achieving "excellence" (Peters & Waterman, 1982). Hartline and Ferrell (1996) have emphasised the importance of service employees' CSQ in influencing customers' perception of service. It has also been found that capable employees who are committed to service

quality increase the customer satisfaction (Loveman, 1998). Demirbag, Sahadev, Kaynak and Akgul (2008) described quality commitment as a dimension of individual's interaction with the overall quality orientation of the organisation. Clark (2009) defined CSQ as the dedication of employees to render service quality and willingness to go beyond what is expected of them. Job design characteristics such as empowerment and work demands influence the quality commitment of employee and this can enhance work performance (Jackson, 2004).

An employee committed to quality will try to achieve a high level of quality in all the endeavours he or she makes. This permits organisations to achieve higher standards of quality due to better cooperation and coordination among individual employees (Ahire & O'Shaughnessy, 1998). This also allows higher empowerment since superior empowerment requires the display of a high level of commitment to quality from the part of the employees (Jackson, 2004).

As per Kandampully (2002) employees' CSQ is about building relationships between customer and organisation and their commitment and willingness to serve in the best interest of the customer which is a prerequisite for achieving service quality. Therefore individual's experience of a service that comes from internal quality service of the internal customer (the employees) could be the most important source for assessment of quality. CSQ is considered to be one of the important factors influencing service quality (Babakus, 2003). It is generally argued that the 'quality culture' among employees assure quality performance (Demirbag, Tatoglu, Tekinkus & Zaim, 2006). Hence the individual's

commitment to quality becomes important to ensure delivery of better quality in service.

The attitude and behaviour of service sector employees are significant to service quality as they have an impact on customers' experience (Bitner, Booms & Tetreault, 1990). By considering the very personal nature of service design and delivery in the service organisations, employees' commitment to quality was found to be extremely significant (Schneider & Bowen, 1993). Elmadag, Ellinger and Franke (2008) proposed that the service employees' CSQ is influenced by development and reward based activities such as training, coaching and rewarding. Hashim and Mahmood (2011) reported that CSQ of the academic staff of public and private Malaysian universities was found to be influencing the service quality. The CSQ, in turn, results in enhanced job satisfaction, job performance, commitment to the firm and also organisational citizenship behaviour of employees (Sun, Hsu & Wang, 2012). Participative and empowerment leadership style in hospitals was found to influence the commitment to service quality of nurses and they delivered quality service to the customers (Pahi & Hamid, 2016).

3.4 Human Resource Management (HRM) Practices

People constitute organisations. Human Resource Management (HRM) refers to the philosophy, policies, procedures and practices concerning the management of people in the organisations (Aquinas, 2006). Appropriate management of human resources in an organization motivate them to a higher level of performance which increase their commitment to the organisation and this helps in achieving organisational

objectives (Aquinas, 2006). Ivancevich and Glucck (1986) defined HRM as “the function performed in the organisations that facilitate the most effective use of people (employees) to achieve organizational and individual goals.” According to Schuler and Jackson (1987), HRM practices can be defined as a system that attracts, develops, motivates, and retains employees to ensure the effective application and the survival of the organisation and its members.

The role of human resources especially in the service firms plays a pivotal role in delivering quality service especially in the labour-intensive sectors like hospitals. HRM practices are considered as important antecedents for service quality perception of employees and the patients/customers. Quality HRM practices foster quality employees in the organisation and quality employees can deliver quality service. Congram and Friedman (1991) had described the role and importance of employees of successful service firms and categorized these into three: employees who fulfil the organisation’s service promise to the customers, employees who are empowered to assist customers on their varying requirements and employees who believe in what the organisation stands for.

Huselid (1995) summarised various empirical research work findings and proved that effective HRM practices especially recruitment, selection, training, information sharing, attitude assessment, job design, grievance procedures, employee participation programs, promotion, incentive systems, recognition etc., enhance firm’s performance. All these practices are considered as high-performance work practices. Huselid (1995) also stated that effective HRM practices bring down labour turnover and improve productivity and financial performance of a firm. Paul and

Anantharaman (2003) found that no single HRM practice has a direct relationship with organisational financial performance but empirically showed that HRM practices collectively have an indirect influence. However, they could also prove that while assessing the performance of a firm, various operational performance parameters such as employee retention, employee productivity, product quality, the speed of delivery and operating cost should be considered along with financial performance. By implementing HRM practices after adequate human resource planning and by integrating human resource strategies with business strategies firms can increase their productivity (Singh & Vohra, 2005).

A study conducted among HR managers of major domestic Indian industries by Singh (2003a) reiterated the role of HRM practices such as appropriate selection technique, performance-based compensation, information sharing and promotion based on merit in retaining a competent, motivated and learning workforce within a firm. Without such a workforce, organisations cannot accomplish their business objectives. Executing human resource management practices like human resource planning, selection, performance evaluation, compensation, training and staffing ensures a better financial performance of the firm. Such HR practices and policies craft and retain more devoted and capable workforce. This results in sustainable competitive gains to the firm (Singh, 2003b).

A study conducted by Chand (2010) in different Indian hotels also highlighted the role of HRM practices like recruitment and selection, manpower planning, job design, training and development, quality circle

and pay system in influencing the service quality, customer satisfaction and overall performance of hotels.

HRM practices are found to vary based on the business strategies of an organisation and that can affect organisational outcomes like employee retention, employee productivity, product quality, the speed of delivery and operating cost (Paul & Anantharaman, 2002; 2003). Much earlier, Schneider and Bowen (1993) had reported that organisations' service orientation and customers' service experience highly correlate and that service quality in an organisation is determined by the various HRM practices. Those HRM practices include and are related to customers' service quality perceptions, overall service quality, employee morale, work and career facilitation, organisational status, supervision and new employee socialisation. Hence organisational characteristics and practices along with employees' attitudes determine the service quality outcomes, customer satisfaction, loyalty and the financial performance (Dean, 2004).

Ueno (2008) had tried to identify various management practices which influence service quality by reviewing three different streams of literature on service quality, precisely TQM, internal marketing and strategies to close Gap 3 of service quality gap model. The seven factors identified were recruitment and selection, training, teamwork, empowerment, performance appraisals and rewards, communication, and culture.

In a study of bank employees of Pakistan by Irfan, Moshin and Yousaf (2009) it was found that organisations with HRM and quality practices could develop a healthy culture and working environment. This, in turn, created motivation and commitment among employees and resulted in achieving service quality. They also argued that training and development

help to enhance employees' skills and learning abilities which facilitated them to perform their task more efficiently and effectively. HRM practices such as recognition, empowerment, fair rewards, competence development and information sharing have been found to influence organizational commitment of employees (Azam & Kumar, 2016).

3.4.1 HRM Practices in the Hospital Sector

Bhat and Maheshwari (2004) modelled a study based on various HRM practices in the healthcare sector such as involvement in HR practices, transparency, performance management, career management, training and development and reward management which influence both professional and organisational commitment and competencies. The model was tested based on data gathered from district level medical officers in India. The result of the study demonstrated a gloomy picture of HRM practices in the healthcare sector in the public domain. The study revealed the mismatch between reward and performance, ineffective appraisal practices, demotivating staffing and dissatisfying career path in the healthcare sector. The employees' perception of HRM practices was found to be affecting customer satisfaction with service and it also influenced indicators of organisational performance like service quality. It was also found that the climate for employee well-being acted as a foundation for the climate for service. In fact, there are many studies which have established that HRM practices influence service climate (Schneider & Bowen, 1985; 1993; Schneider, White & Paul, 1998). HRM practices can contribute to the commitment to customer service and thereby can improve the service received by the customer (Worsfold, 1999).

Rod and Ashill (2010) in a study conducted among public and private hospital employees in New Zealand, identified that HRM practices like employee reward, customer service training, empowerment and customer orientation, exhibited management's commitment to service quality and these practices induced organisational commitment and job satisfaction (as emotional responses). They also found that organisational commitment positively influences service recovery performance.

3.4.2 Selected HRM Practices

Researchers in the HRM and service quality arena have come out with various permutations and combinations of HRM practices in different settings which yield service quality in the relevant sector. Based on the literature and field survey and also by discussing with experts (academic & practitioners) in the field, the researcher identified and funnelled down ten different HRM practices in the hospital sector which derive the outcomes that are important in the hospital operation in the current environment (Discussed in Chapter 4). The practices include employee selection, training, performance appraisal, job content, compensation, reward and recognition, career planning, teamwork, communication and empowerment. These practices are expected to result in generating various HRM outcomes such as employees' competence, organisational and professional commitment along with performance outcomes such as service quality and also induce commitment to service quality.

3.4.2.1 Employee Selection

Employees with the right mindset are crucial for an organisation to deliver quality service. Recruitment and selection of best possible employees is considered as vital to delivering better service quality (Zeithaml, Parasuraman & Berry, 1990; Zeithaml & Bitner, 1996, 2000). Wrong selection is considered to be the main reason for poor service quality (Berry & Parasuraman, 1992). Right selection can augment staff retention and low staff turnover can provide superior service quality (Schneider & Bowen, 1985).

The right candidate with the potential to perform is identified by scientific selection process (Hozler, 1987). The rigorous selection system produces a sense of superiority among employees which creates high expectations of performance and that indicates a message of the importance of people to the organisation (Pfeffer, 1994). Person and job mismatch can hamper performance (Lado & Wilson, 1994) but a sophisticated selection system can ensure a better fit between the person's capabilities and organisation's requirement (Fernandez, 1992). Right selection can result in better firm performance (Terpstra & Rozell, 1993) as an organisation gets people with competence and the right mindset.

3.4.2.2 Training

Training is a planned programme designed to improve performance at the individual, group and organisational levels (Cascio, 1998). Training helps reinforce skills and competencies important to the organisation and provides the means for an employee to improve those skills and competencies (Urman, 1997). Training increases employee productivity

(Black & Lynch, 1996) and is found to have a positive impact on the relationship between management and other employees (Kalleberg & Moody, 1994). Training in the context of hospitals aim at skill development, may be clinical or soft skills like team working, leadership and interviewing. Organisations' training strategies and systems influence overall organisational performance (Morrow, Jarrett & Rupinski, 1997).

Training is the systematic process intended to develop employees' knowledge, skill, and abilities that ensure successful job performance (Swanson & Holton, 2001) and if employees do not have the necessary job and interpersonal skills, then they cannot deliver quality service in dealing with customers (Boshoff & Allen, 2000; Lytle & Timmerman, 2006). Training can make employees competent and confident (Berry & Parasuraman, 1992). Service quality can be improved by giving necessary training to employees (Perry, 1995). Appropriate training of employees can bring down service failures (Joseph, 1996). Training helps to develop and enhance the quality of the current employees. Researchers indicate that investment in training employees in problem-solving, teamwork and interpersonal relations result in improving firm-level outcomes (Bartel, 1994; Cianni & Wnick, 1997; Ettington, 1997).

3.4.2.3 Performance Appraisal (PA)

Performance appraisal is the process by which an employee's contribution during a particular period is assessed. An effective human resource management system considers appraisal system as a cornerstone (Lundy & Cowling, 1996). This is the basis for all important decisions relating to people, such as placement, promotion, remuneration and reward, training and development. A major purpose of the appraisal

system is to enhance the development and performance of the employees (Lee, 1985). Performance appraisal involves creating objective criteria for performance, discussing at regular intervals, identifying ways to improve performance, providing feedback, addressing performance problems and rewarding extraordinary performance (Curtis, 1995).

Production of service happens through the interaction between customer and employees where management does not have any direct control over employees' actions (Bowen & Schneider, 1995) or over quality (Gronroos, 1990). Therefore the motivation for delivering quality service comes strictly out of an intrinsic motivation of employees in the service encounter. Performance appraisals can give an indication to the employees (Nevling, 1992) about managerial expectation and accordingly they can perform their assigned tasks (Elmuti, et al., 1992). Performance appraisal can enhance job clarity (Jackson, Schlacter & Wolfe, 1995) and involve people in the process (Thomas & Bretz 1994). Performance appraisal should be properly designed and administered so that this technique would provide a positive effect (Redman & Mathews, 1998). This can be done by identifying employees' desired performance and by linking reward to customer satisfaction (Palmer, 2001). The process of development-oriented appraisal induces organisational commitment among employees (Bhat & Maheshwari, 2005).

Performance appraisal system helps the organisation to monitor the development of desired employee attitudes and behaviours. This could be used for revamping the selection and training practices so that desired candidates with suitable behaviours and attitudes can be selected, trained

and motivated to perform their jobs (Singh, 2004) and this, in turn, can result in enhanced quality of service.

3.4.2.4 Job Content

Job content influences employee motivation to perform the job. Job content refers to the factors controlled by the individual employee like performance, recognition, autonomy etc. Job content factors are directly related to the individual's job. If the job is well- designed it will allow employees to use a variety of skills, develop themselves and carry some responsibility for performing the task (Sharpnack & Funsten, 2000). Accordingly, job content has to be formulated in such a way that it involves the work to be divided among employees, provides clear direction as to the means to be used to accomplish the task and the way employees interact with other employees. If the work is defined too strictly then employees' freedom is restricted and it will make them less effective especially in the service sector like that of a hospital. But if sufficient flexibility is built in the job content it will allow employees to decide 'what' work is to be performed and 'how' that work has to be accomplished and then it can boost up their motivation levels (Lado & Wilson, 1994). If the work itself is a motivation for an employee to perform, then the employee will perform his part with utmost sincerity and this will augment the quality of service delivery.

3.4.2.5 Compensation

Firms can motivate employees if they have a reasonable compensation system. Compensation and reward systems help to foster employees' desired behaviour and to contribute to individual and organisational performance (Gerhart& Milkovich, 1992; Simon, 1993). Compensation systems are

visible and powerful communicators of organisational goals and its culture and values (Cable & Judge, 1994). When compensation is less than the market rate that will affect recruitment and retention. At the same time if it is more than the market rate then the labour costs increase (Risher, 1999).

Compensation strategy should be aimed at encouraging employee performance, productivity, teamwork, commitment to quality, employee involvement, quality of work life, recognition of excellent results, focus on the customer, encouragement of innovation, shared values and common goals as elements in their programmes and practices (Schuster & Zingheim, 1996). Compensation system can be a source of achieving competitive advantage and organisational performance (Gomez-Mejia & Wellbourne, 1988).

3.4.2.6 Reward and Recognition

Employees' behaviour can be manipulated by recognising and rewarding their performance (Palmer, 2001; Parasuraman, 1986). Employee reward is considered to be significant in-service performance (Parasuraman, 1987). The rewards and recognition employees receive induce them to deliver higher quality services by addressing customer needs (Yavas et al., 2003). Sectors like healthcare, which can attract staff with intrinsic motivation, money may not be the only reward but non-monetary rewards are also important like recognition (Mee, 1999). Through appropriate reward system, the management can exhibit its commitment to service quality (Rondeau, 1994). Employees service behaviour and overall service quality can be improved by giving performance incentives (like establishing reward contingencies) and recognising their superior service (Schneider & Bowen, 1993). Rewarding employees appropriately to

support and encourage makes them more committed to service quality (George & Gronroos, 1989). It has also been proved that reward systems have an impact on the commitment of employees (Klen, 1987).

3.4.2.7 Career Planning

A well-defined career planning in an organisation inspires employees to shoulder more responsibility for their own development which includes the development of the skills viewed as important to the organisation in accomplishing the business objectives (Doyle, 1997). An effective career development system with internal promotion opportunities based on merit, motivate employees which result in improved performance and hence have an impact on firm performance (Osterman, 1987). Promotion avenues and internal recruitment plans according to Bhat and Maheshwari (2005) help employees grow from within leading to a sense of commitment and belongingness among them.

Career growth within the organisation encourages training and development and binds employees to employers and vice versa (Pfeffer, 1994). This can improve organisational performance directly by an increase in knowledge, experience, and satisfaction and indirectly by a decrease in recruitment, selection and training costs (Milkovich & Boudreau, 1994). Career growth within the organisation indicates how much an organisation values its employees. This realisation strengthens the psychological contract and motivates employees to improve their performance, and helps ensure their continued commitment to the firm (Harel & Tzafir, 1999). Career growth opportunities offered by an organisation to its employees lead to organisational performance (Singh, 2000; Delery & Doty, 1996).

3.4.2.8 Teamwork

The success of an organisation comes not from having competent people in it but by making them to work as a team. A team is a group of people who depend on each other for resources such as information, time or money to accomplish tasks (Hogg, 1992). A team has shared work goals and its members share contributory relationships focused on the performance of tasks (Ilgen, Major, Hollenbeck & Seago, 1993). Teams, not the individuals, are progressively seen as the relevant unit of contribution (Kossek & Block, 2000). Organisations that have effectively used the power of teams have often experienced excellent results (Pfeffer, 1998). Teamwork is considered as one of the important organisational practices that enhances the service quality offering of the organisation (Farrell et al., 2001).

The nature of service delivery in the hospital sector demands teamwork in delivering service with quality. Teamwork is considered as a means of supporting willingness to deliver service quality (Berry & Parasuraman, 1992) and it also develops capabilities and commitment in employees (Tjosvold et al., 1999). Conversely, weak teamwork can deteriorate service quality and increase service failures (Redman & Mathews, 1998).

3.4.2.9 Communication

Communication both upward and downward plays an important role in supporting service quality and also in enhancing various HRM outcomes. Employees can deliver service as per the expectation of the customer if the downward communication is intact in the organisation (Gilmore & Carson, 1995). At the same time, the upward communication

ensures that management is informed about customers' requirements and what means are needed to realise customers' expectation through the employees at the service encounter (Gronross, 2000). Effective communication in the organisation preserves employees' motivation and that in turn enhance their commitment to the organisation and to the service quality (Zeithaml & Bitner, 1996).

3.4.2.10 Empowerment

Bowen and Lawler (1992) describe empowerment as a situation in which the manager gives employees the discretion to make day-to-day decisions about job-related activities. Empowerment denotes the employees' degree of freedom to make daily decisions about their job-related activities (Lashley, 1995). It is necessary because employees need the flexibility to satisfy the varying needs of the customer especially in the delivery of service. Empowered employees feel good about their jobs and are enthusiastic about serving customers (Bowen & Lawler, 1992).

Empowerment construct has many concepts and definitions. Geralis and Terziovski (2003) described empowerment as an HRM technique by which transfer of power and control takes place from the higher level to the lower level of employees in the entire organisation. They argued that empowerment and service quality are positively related. Van Looy, Gemmel and Dierdonck (2003) had specified that by empowering service employees, they enjoy sufficient autonomy and also can handle customer's unforeseen problems promptly.

Empowerment of employees can improve the level of service quality (Zeithaml & Bitner, 1996). Empowerment of employees in different kinds of services vary (Rafiq & Ahmed, 1998) and there could be positive and

negative outcomes to empowerment. Employees are said to be empowered when the employees are given the opportunity and motivation to develop and make the best use of their talents (Chebat & Kollias, 2000). Empowered employees gain control over the delivery of the service and can enhance the customers' perception level of service quality and satisfaction (Hartline & Ferrell, 1996). Empowerment plays a substantial role in enhancing employees' organisational commitment (Kuokkanen et al., 2003). Abbasi, Khan, and Rashid (2011) in their study of banks in Pakistan reported that employee empowerment results in higher service quality and customer satisfaction.

According to Hackman and Wageman (1995), empowerment or autonomy and work demands are two important aspects of work design and they considered empowerment to be important because of two reasons:

- 1) Granting autonomy to workers indicate trust of management in their workforce and this can enhance their commitment to the organisation's goal and
- 2) Autonomy allows workers to use their knowledge and experience (Leach, Jackson & Wall, 2001) and thereby enhance work performance (Hackman & Oldham, 1976).

From the above discussions, it can be summarised that human resources management practices such as selection, training, and compensation are among various HRM practices which provide the identity of 'type of organisation' and create the basis for an organisation with sustainable competitive advantage (Schneider & Bowen, 1993). Nowadays it has become a challenge before HRM academics and practitioners that HRM practices which affect HRM in a particular

organisation have to be identified, formulated and implemented successfully (Budhwar, 1996). According to Agarwala (2002), it is inevitable that employees' perceptions about HRM practices followed in an organisation are reviewed and revamped especially the existing practices such as reward system, promotions, training, selection process, compensation strategy etc. The focus of HRM activities should be result oriented and since HRM practices influence the HR outcomes and service quality in an organisation, careful selection and execution of various practices would improve the service quality and overall firm performance.

3.5 Organisational Commitment (OC)

Mowday, Porter, and Steers (1982) describe organisational commitment (OC) as employee's psychological attachment to and identification with his/her organisation that makes separation from the organisation difficult. The organisational commitment of employee results in various outcomes such as attendance at work, job satisfaction, citizenship behaviour and work performance (Bogler, 2005; Mayer & Allen, 1997). Organisational commitment has been identified as an important variable to enhance individual and organisational performance (Beck & Wilson, 2000; Mowday, 1999).

Organisational commitment is defined as the relative strength of an individual's identification with and involvement in his/her organisation. A number of taxonomies of organisational commitment have been proposed and researched. As per Porter, Mowday and Boulian (1974), there are three elements which describe an employee's organisational commitment:

- 1) Identification
- 2) Involvement
- and
- 3) Loyalty

Meyer and Allen (1984) distinguished affective commitment and continuance commitment (which reflects employee's limitations to move to another organisation). The attitudinal construct of commitment denotes a mix of affective, cognitive and behavioural components as signs of employee commitment to organisational values (Reichers, 1985). Affective indicators comprise of pride in affiliation to the company's goals and feelings of satisfaction derived from involvement with company's goals. Cognitive indicators include identification with the organisation's goals and values and a shared sense of importance, whereas behavioural indicators cover active participation in the goals of the organisation, and the effort an employee applies towards goal accomplishment.

The goal congruence approach of organisational commitment considers it as a uni-dimensional construct and defined it as the relative strength of an individual's identification with and involvement in an organisation (Porter, Steers, Mowday & Boulian, 1974). Allen and Mayer (1990) theorised organisational commitment as a multidimensional construct and they projected a three-component measure of organisational commitment involving:

- 1) Affective Commitment: refers to the employee's emotional attachment to, identification with and involvement in the organisation.
- 2) Normative Commitment: refers to the employee's feelings of obligation to stay with the organisation, and
- 3) Continuance Commitment refers to the commitment based on the costs that the employee associates with leaving the organisation.

Organisational commitment is defined as the extent to which an individual identifies and is involved with his organisation and/or is willing to leave it (Greenberg & Baron, 1997). It deals with the employee's attitudes towards their organisation. Committed employees work harder than those who are not committed (Zeithaml, Parasuraman & Berry, 1990). The quality of service received by the customer is directly proportional to the commitment of employees towards their organisation (Unzicker, Clow & Babakus, 2000).

More recently, Mowday et al., (2013) defined organisational commitment as “the relative strength of an individual’s identification with and involvement in a particular organisation”. The organisational commitment of an employee has a bearing on his behaviour during the service encounter (Boshoff & Mels, 1995). Commitment makes employees dedicate more of their time, energy, and talents to the organisation and this, in turn, influences the individual’s willingness to contribute towards and accept organisational goals (Reichers, 1985). Committed employees go beyond the normal call of duty and engage in their discretionary effort to deliver quality service to the customers of the organisation. This HR outcome (OC) and performance outcome (SQ) are strongly influenced by the managerial actions (Zeithaml, Parasuraman & Berry, 1990). Malhotra and Mukherjee (2003), in their study of the retail banking sector in the UK, found that affective and continuance commitment has a positive impact on employee-perceived service quality. Dhar (2015) in a study of 494 hotel employees in India identified the influence of training on service quality directly and also through the mediating influence of organisational commitment. A study of IT professionals in Pakistan by

Bashir and Ramay (2008) identified career opportunities and work-life balance as antecedents to organisational commitment. Organisational commitment and job satisfaction are found to be influencing the service quality delivered by the employees in call centres (Malhotra & Mukherjee, 2004).

Research on commitment- performance relationship has been conducted among customer- contact employees of banks, retail sectors, call centres, insurance agents etc. (Eg. Malhotra & Mukherjee, 2003; Hartline & Ferrell, 1996; Boshoff & Allen 2000). But very few studies are identified in the hospital settings.

3.6 Professional Commitment (PC)

According to Morrow and Wirth (1989), professional commitment is considered as a psychological attachment to and identification with one's profession. Blau (1985) had labelled it as 'career commitment' and defined as one's attitude towards one's profession or vocation. The manifestation of professional commitment of employees can be observable in their job involvement, improved attention, and service to the client and by their technical performance (Farris & Cordero, 2002; Somech & Bogler, 2002). Professional commitment exhibits a strong willingness to sustain membership in their profession and identify with the professional goals (Singh & Gupta, 2015). This reduces the chances of leaving the profession they are into (Harrell, Chewning & Tylor, 1986; Meixner & Bline, 1989). Hall, D. Smith and K.L. Smith (2005) confirmed the link between PC and various outcomes such as job satisfaction and turnover outcomes among accounting professionals.

According to Lee, Carswell and Allen (2000) studying of PC signifies four important reasons to the organisations and to the individuals. The first reason is that an individual's career represents a major focus in life. The second, PC affects retention and hence it has thoughtful associations for human resources management practices in the organisation. The third significance is that professional expertise develops from work experience and work performance might be linked to PC. This may be true in the case of hospital employees also, where labour intensive and highly customised service delivery happens. Finally, PC may lead to the development of employees' multi-levels of commitments inside and outside the workplace.

Peoples' work behaviours are greatly determined by their professional commitment (Fu & Deshpande, 2014). It reduces the turnover intention among nurses (Gellatly, Cowden & Cummings, 2014) and leads to higher job satisfaction (Caricai, Sala, Marletta, Pelosi, Ampollini, Fabbri & Mancini, 2014). PC enhances patient safety and patient-perceived quality of care (Lee & Yom, 2007).

As in the case of organisational commitment, professional commitment also has three distinguished dimensions namely, affective professional commitment (APC), normative professional commitment (NPC) and continuance professional commitment (CPC) (Mayer & Allen, 1991). Lee, Carswell, and Allen (2000) explained APC as identification with the profession's goals and a willingness to assist the profession in achieving those goals. According to them, positive experiences in the profession develop APC and CPC leads individuals to stay in the profession due to the high cost of leaving. At the same time, NPC keeps the individuals with the

profession due to a sense of obligation and also as an outcome of accrued benefits from the profession or compulsion from colleagues and family members. Lian, Yang and Wu (2006) had developed a four-dimensional construct in which in addition to affective, normative and continuance, the ideal commitment was included as the fourth dimension. Ideal commitment is all about one's confidence in the ability to achieve the goals to practice in a chosen field with the benefit of academic study.

A study of airline managers in Taiwan by Yeh (2009) had proved the influence of service climate on the professional commitment of employees and found that professional commitment supported job performance. Magnan (2011) has enlightened the importance of assessing the professional commitment of candidates while hiring them into the hospital sector and also underlined the importance of the policies and human resource management practices related to encouraging professional commitment since these service employees are personally accountable for the quality and outcomes of the service they provide. A qualitative study of three Danish financial investment firms by Jorgensen and Becker (2015) reported that HR practices strongly influence organisational and professional commitment of employees. The HR practices such as recruitment, selection, training and development, influence organisational commitment indirectly through their influence on professional commitment, while performance management and work design influence organisational commitment directly and it can have an impact on professional commitment also. Kong, Chen, Shen, G.Li, Gao, Zhu, Lou, and P.Li, (2016) in their study of nursing students in China reported that attribution style (like attributing their achievement to ability,

to luck and to effort) of nursing students has a strong influence on their professional commitment. More recently, a study among nurses in India by Tikare (2017) has identified that career opportunities, pay packages, foreign jobs, patient counselling, the role of trade union and socioeconomic conditions of the regions where the hospital is situated would influence the professional commitment of nursing staff.

3.7 Employee Competence (EC)

The performance of an employee mainly depends on his or her competence (Agrawal, 1999). Employee competence (EC) is defined as an underlying characteristic of an individual that is causally related to effective and /or superior performance as determined by measurable, objective criteria, in a job situation (Spencer & Spencer, 1993). In the service settings, Schlesinger and Zornitsky (1991) have defined service quality capability (competence) as the extent to which employees are satisfied with their ability to deliver service quality to customers. Li, Yang and Wu (2008) express employee competency in the service industry as service ability and have defined it as the knowledge required of service personnel in providing services and include their technical and social skills. Employee competence is the ability of an employee to utilise his or her knowledge to achieve a predetermined goal like the effective and efficient execution of the task (Peters & Zelewski, 2005). They also have pointed out that by placing people at the workplaces with appropriate competencies and preferences, they will feel motivated and carry out the work efficiently and effectively (Peters & Zelewski, 2007).

Nordhaug (1998) identified competencies at organisational and at the individual level as capabilities or distinctive strengths. At the organisational level, “core competencies” give an organisation strategic competitive advantage (Hamel & Prahalad, 1994; Murray, 2003). On the other hand individual’s competencies are denoted as skills or other qualities of the individual, which include knowledge, skill, attitudes, traits and motives (Boyatzis, 1982; Klemp, 2001; Higgs, 2003; Guo & Anderson, 2005) (as cited in Mitchell & Boak, 2009).

In the case of service employees, their performance depends on their ability to produce and deliver the service that satisfies customers’ needs and expectations (Zeithaml, Bitner & Grenier, 2006). This is possible only when service employees possess the required competence. The competence of service employee is a function of the expertise gained from training and experience. Barclay and Smith (1997) described competence as the capacity of employees to produce transactions as demanded by the customer and perform accordingly to meet their expectations. The competence in the service sector depends on acquisition and application of knowledge by the employees to accomplish their job (Alwi & Da Silva, 2007). This will result in gaining customer’s trust and enhance corporate image and then the customer would become loyal to the firm also (Sako, 1992).

Sirdeshmukh, Singh, and Sabol (2002) enlisted two components of competence as technical expertise and problem-solving skills. Technical expertise is the level of knowledge pertaining to the activity area of the firm. It can be ensured during the hiring process and subsequently through employees’ professional training process. Problem-solving skill is different in the sense that it is the ability of service employees to manage

contingencies in which the customer is involved. This skill is the outcome of individual personality traits and their perceptions of social interaction with customers (Hartline, 2003; Solomon, 1985). Both of these components of competence complement each other in a service encounter and during the service delivery process.

Competence can be reflected as an in-role component and extra-role (benevolence) component of service employees' performance (Nguyen & Laclerc, 2011). Biswas and Varma (2007) proposed that in-role performance is an employees' action to fulfill the formal requirements of his/her job and at the same time, extra-role performance is referred to as activities performed by an employee that is outside the boundaries of formal job description and are performed by employees at their own discretion.

The in-role and an extra-role component of employee competence can be equated with that of two components of service quality viz., technical and functional quality as proposed by Gronroos (1984, 1995). Technical quality refers to what is received by the customer as the content of the service itself. The functional element of service quality matches to the manner in which the service is delivered and it is related to the behaviour of service employees.

Employee service capability is about employees' satisfaction with their ability to service the customer. Employees' service capability significantly contribute to their job satisfaction and service quality leading to customer satisfaction (Schlesinger & Zornitsky, 1991). According to Little and Dean (2006), the service climate was found to be influencing employees' service quality capability/competence. The study also revealed that managerial

practices, customer feedback, and human resource management practices contributed to service climate. Nguyen and Laclerc (2011) reported that the service employees' competence has an influence on the corporate image of a firm and hence the significant role of service employees and their competence is paramount in the service production delivery process. Yang (2012) reported that service capability is essential for customer relationship management in the banking sector since this attribute of employees are used to meet customer needs by customising, which in turn will ensure quality service. Potnuru and Sahoo (2016) had identified the importance of HRD interventions like training, career development and performance management in an organisation in enhancing employee competencies and which in turn would improve organizational effectiveness.

3.8 Service Climate (SC)

Johnson (1996) described the service climate of a firm as the shared perceptions of employees which is considered as important aspects in an organisation and are obtained through their experiences on the job and their perceptions of the kinds of behaviours management expect and support. Schneider, White and Paul (1998), defined service climate as the shared perceptions of employees concerning the practices, procedures, and kinds of behaviours that get rewarded and supported with respect to customer service and service quality. The service climate is thus significantly related to customer orientation, managerial practices and customer feedback (Schneider et al., 1998). Service climate can be contextually based on the nature of the organisation and its customers, about the expected behaviours in different settings and with different customer population (Hui, Chiu, Yu,

Chenf & Tse, 2007). There is a close relationship that exists between the organisational practices (such as training, technology, and autonomy) and the service climate (Salanova, Agut, Peiro, 2005; Schneider et al., 1998).

Increased competition among service providers compelled firms to emphasise on the quality of services they provide to the customers (Liao, 2007). Satisfied customers are considered as a power in the healthcare sector also since competition in providing quality service is a reality in this sector as well (Drach-Zahavy, 2009). It demands managers to create a working environment that supports service quality by developing a positive service climate (Schneider, Macey, Lee & Young, 2009). At the same time, employees also share a common perception of providing high-quality service as a matter of concern of an organisation (Schneider, Salvaggio & Subirats, 2002).

The service climate in an organisation is to be built by considering the requirements of both customers and the employees (Burke, Schmidt, Shull & Schmitt, 1992; Schneider, White & Paul, 1992). Service climate is considered as the employees' cognitive appraisal about organisation's attitude towards employee well-being and their apprehension about customer well-being (Borucki & Burke, 1999). Borucki and Burke (1999) also identified factors like 'concern for customers' and 'concern for employees' as part of the concept of service climate. Service climate also covers practices like setting clear performance standards, appropriate training, and information, removal of any hindrances to deliver service, assistance in employee job performance and reward for good service.

Schneider et al. (1998), have pointed out that better inter-departmental cooperation can lead to a promising service climate in an organisation.

Johnson (1996) also indicated that service climate can affect customer satisfaction with service quality. Chathoth, Mak, Jauhari and Manaktola (2007) went further and identified employees' perceived trust as an antecedent of their perceived service climate and it yields employee satisfaction. According to Anat and Somech (2013), the employees' service climate strength is found to moderate their quality service behaviours.

Employee service quality is found to be low when service climate and supervisor's leadership is poor and it is also found that service climate can influence the supervisor's leadership behaviour as well (Hui, Chiu, Yu, Cheng & Tse, 2007). Appropriate HRM practices and service system in an organisation can improve the service quality (Li, et al., 2008) since these practices set in a climate for service in the organisation. In general, service climate comprises of human resource practices, managerial priorities and customer orientation (Dean & Rainnie, 2009).

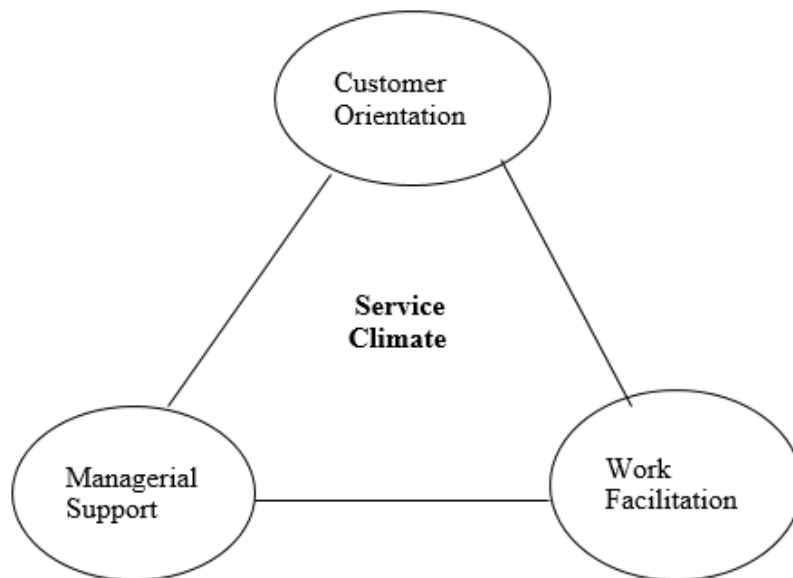
Service climate replicates the individuals' perception of organisation's core activities (James & James, 1989). The practices and procedures followed in an institution are the basis for the employee's judgment of an organisation (Pierce, Gardner, Dunham, & Cummings, 1993) and their work attitudes and behaviours are prejudiced by the psychological service climate (Rentsch, 1990).

According to Schneider and Bowen (1993), service climate is about employees' perceptions and it comprises of (a) practices and procedures which permit the delivery of excellent service, and (b) how the excellent service is supported and rewarded by the management. They had measured service climate using four different dimensions such as:

- 1) Managerial behaviour - planning, organising and managing services like setting certain quality standards of good customer service.
- 2) Systems Support – like maintaining sufficient staff strength.
- 3) Customer Attention/Retention – like importance given to customers while dealing with them.
- 4) Logistics Support – like availability of necessary tools/equipment /supplies to deliver service.

Customers' service experience was found to be affected by the employees' perception of the service climate and HRM practices in the organisation. A climate for employee well-being in the organisation sets a basis for a climate for service too. If the employees' needs are fulfilled that itself will make the employees excited about meeting the needs of the customers (Schneider & Bowen, 1993). Schneider, et al. (1998) subsequently empirically proved the link between employee-perceived service climate and the customers' perception of service quality and showed that this, in turn, resulted in improved customer satisfaction (Rogg et al., 2001). Service climate includes practices which encourage offering high-quality service and crafting various supportive conditions and other HR policies (Schneider & Bowen, 1993). Later Shainesh and Sharma (2003) added customer orientation, managerial practices and customer feedback as other dimensions of service climate. Among these three dimensions, customer feedback can be accommodated under customer orientation. Based on the various facets of service climate, a three-component model of service climate viz., customer orientation, managerial support and work

facilitation (Figure 3.11) were identified by He, Li and Lai (2011). In a previous study by Day (1994) customer orientation was already considered as a high priority as far as customer interest is concerned. The managerial support denotes the action taken by the immediate manager to support and reward delivery of quality service. Work facilitation signifies all working conditions which ensure delivery of quality services, such as HRM practices, teamwork, and supervision.



Source: Adapted from He, Li and Lai, 2011

Figure 3.11 Components of Service Climate

Employees' attitudes can be influenced by improving employees' perception of service climate (Lux, 1996). Studies show that service climate, which is influenced by managerial practices, customer feedback and HRM practices is positively related to employees' service quality capability/competence with partial mediation of employee commitment (Little & Dean, 2006)

Czekajewski (2003) had identified the adverse effect of climate for service where he studied it as a moderating variable in the relationship between the affective organisational commitment of airline employees and service quality perception of airline customers. The reason cited for this effect was the policies and procedures which might hold back employees in rendering quality service to their customers. Hui et al. (2007) had also established the interaction effect of service climate on employees' service quality perception. Sharma (2008) recognised the relationship between employees' perceptions of performance management system, service climate and customers' perception of service quality among banking employees in India.

Zhang, Liu, Wang and Shen (2011), have contended that service climate is positively influencing the service performance of bank employees in China. However, they found that job stress is negatively moderating the relationship between service climate and extra-role performance. At the same time, organisational identification was found to be positively moderating the service climate-performance relationship. In another study conducted among senior employees of the retail sector in India by Ram, Swapna, and Prabhakar (2011) it was found that work environment significantly influenced the service climate and that in turn influenced employee job satisfaction and employee engagement.

Service sector plays a significant role in today's economy. Hence effective management of service employees by ensuring a conducive service climate can ensure a better service delivery. An organisation can gain strategic advantage and have more satisfied customers if it develops and nurtures a service climate so that service employees could deliver

quality service (Mayor, Ehrhart & Schneider, 2009). HRM practices influence service climate which in turn affects customer satisfaction (Rogg, Schmidt, Shull & Schmitt, 2001). Organisational resources and employees' work engagement also influence service climate and this, in turn, predicts employee performance and hence customer loyalty (Salanova, et al., 2005). In a recent study by Findley Musgrove, A. E. Ellinger, A.D. Ellinger (2014) have identified that organisational strategic profit emphasis, service employees' job and organisational engagement are antecedents of service climate. Yeh (2012) reported that employee-perceived service climate has a moderating effect on the relationship between work engagement and service performance.

By applying service climate concept in the healthcare sector the link between internal service quality and service delivery outcomes can be better understood (Steinke, 2008). Greenslade and Jimmieson (2011) stated that service climate influences the effort nurses to exert towards technical care and extra-role behaviours (competency) which in turn enhance their performance and that results in patient satisfaction. This indicates that patient satisfaction through improved performance can be achieved by creating a climate for service in hospitals. A study among nurses by Wang (2015) has recognized that service climate in the healthcare sector increases the service quality and customer loyalty.

A number of researchers have examined the various aspects of service climate and studied this variable as a dependent, independent mediating and as a moderating variable. The highlights of few selected studies of service climate along with the findings are summarised and exhibited in Table 3.5.

Table 3.5 Summary of Few Selected Studies on Service Climate

Source	Theme	Settings	Definition	Other Variables	Findings
Little & Dean, 2006	Global Service Climate (GSC) = 3 dimensions of Service Climate	167 Call Center employees	Schneider et al. (1998) describe service climate in terms of employees' perceptions of the practices, procedures, and behaviours that are expected, supported and rewarded with respect to customer service and service quality.	Employee Commitment (EC), Service Quality Capability(SQC)	GSC → EC GSC → SQC EC → SQC GSC → EC → SQC
Salanova, Agut & Peiro, 2005	Service Climate as mediator	Hotel -342 employees and 1140 customers	<i>Service climate</i> refers to employees' shared perceptions of the practices, procedures, and behaviours that are rewarded, supported, and expected by the organisation with regard to customer service and customer service quality (Schneider et al., 1998)	Organisational resources, work engagement, employee performance, Customer loyalty	Organisational resources and work engagement predict service climate, which in turn predicts employee performance and then customer loyalty.

Chathoth, Mak, Jauhari & Manaktola, 2007	Service Climate as mediator	Hotels in Asia- 77 employees	Johnson (1996) defined the service climate of a firm as “the perceptions incumbents share about what is important in the organisation, obtained through their experiences on the job and their perceptions of the kinds of behaviours management expect and supports”	Employee Trust and Employee Satisfaction	Employees’ perceived trust as antecedent of their perceived service climate and stated that employee satisfaction as its consequence
Zhang, Liu, Wang & Shen, 2011	Service Climate	Chinese Banks- 368 frontline employees and 45 managers	Service climate reflects the individual perceptions of organisation’s core activities (James & James, 1989)	Job stress, extra-role performance, organisational identification	Service climate influence service performance
Ram, Swapna & Prabhakar, 2011	Service Climate	Retail sector - senior employees, India- 369		Work environment, Job satisfaction, employee engagement, customer satisfaction	Work environment influences service climate, which in turn influences employee job satisfaction, employee engagement, and customer satisfaction

3.9 Conclusion

The review of existing literature demonstrates various definitions and dimensions of service quality. Service quality, due to its complex nature, has got diverse antecedents and consequences in different settings. This mandated a major concern for early researchers to identify suitable measurement scale for service quality. Hence earlier studies were mainly steered to identify dimensions of service quality and to develop appropriate scales to measure service quality in the different service settings. As service is intangible in nature and highly heterogeneous, service delivery and its measurement cannot be standardised across various service sector. The quality of human resources and HRM practices play a vital role in the delivery of service and its quality. Various HRM practices result in various HR outcomes and in turn, these outcomes determine the quality of performance. There have been only a handful of studies which have examined the antecedents considering mediating and moderating effect of various process variables between HRM practices and service quality. Hence this study identified ten different HRM practices along with process variables such as employee competence, organisational and professional commitment and service climate as the moderating variables which collectively and severally influence employees' commitment to service quality and service quality perception.

The next chapter discusses the theoretical framework of the study.

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THEORETICAL FRAMEWORK

C o n t e n t s	4.1 <i>Introduction</i>
	4.2 <i>Relationship between Employees' Perception of Human Resource Management (HRM) Practices and Service Quality Perception (SQP)</i>
	4.3 <i>Antecedents and Outcomes of Commitment to Service Quality (CSQ)</i>
	4.4 <i>Antecedents and Outcomes of Employee Competence (EC)</i>
	4.5 <i>Antecedents and Outcomes of Organisational and Professional Commitment (OC & PC)</i>
	4.6 <i>Role of Service Climate (SC) in the process between HRM Practices and CSQ/SQP</i>
	4.7 <i>Models/Approaches to HRM Practices Linking Performance</i>
	4.8 <i>The role of demographic variables.</i>
	4.9 <i>An Integrated Causal Model Linking Selected HRM Practices, Selected Process Variables (EC, OC and PC) and Outcome Variables (CSQ and SQP) with the Moderating Variable (SC) - The Proposed Theoretical Framework</i>
	4.10 <i>Hypotheses of the study</i>
	4.11 <i>A Brief Summary of the Chapter</i>

4.1 Introduction

The theoretical framework is the conceptual model conceived by the researcher after going through various literature available. It gives the logical relationship between the variables identified as part of the research problem and gives a basis for the testing of formulated hypotheses. The

variables included in this framework got finalised after exploratory literature survey, and discussions with academic experts, hospital managements, and practitioners in the hospital sector. The integrated model conceived in the study by linking variables identified either as precedents or antecedents or mediators, depicts a clear research gap in the literature. The selected variables integrating dependent and independent variables are treated as process/mediating variables in the study along with a moderating variable which enhances the explanatory power of various paths in the model. Hence this chapter illustrates research outputs of relevant studies chosen based on research questions and objectives and culminates into the theoretical framework and formulation of hypotheses to be tested.

4.2 Relationship between Employees' Perception of Human Resource Management (HRM) Practices and Service Quality Perception (SQP)

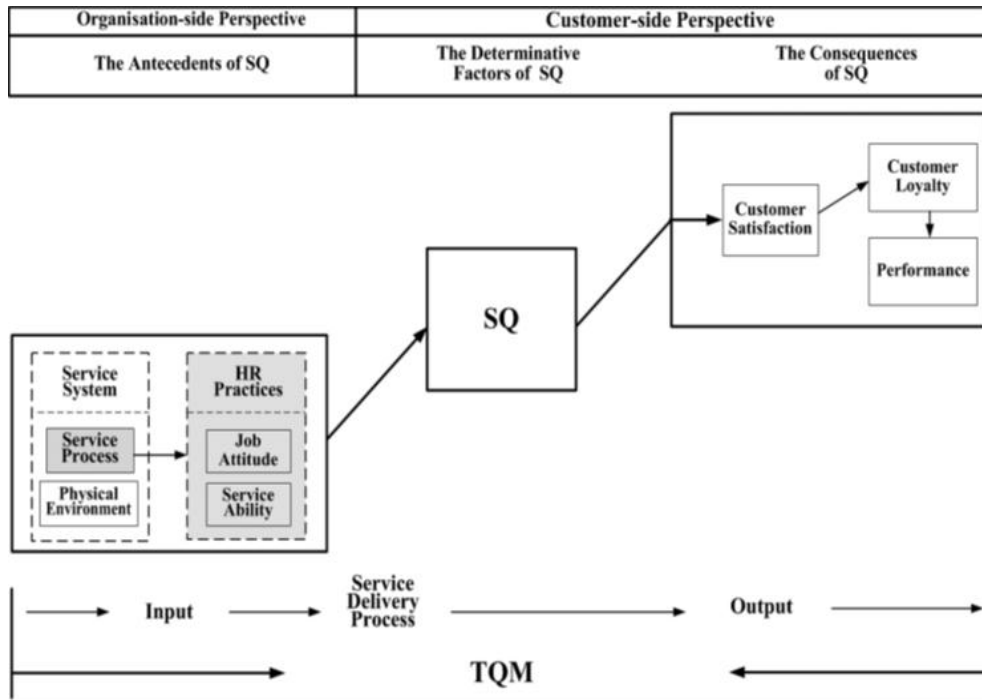
HRM practices have been considered to be effective tools for influencing SQP of employees in the service sector (Li, Yang & Wu, 2008). The most important determinant which differentiates the service of one firm from that of another is the unique human resources that an organisation possesses and which it maintains (Browning, Edgar, Gray & Garrett 2009). SQP of employees can also be improved by maintaining better service system like improving the service process and ensuring appropriate working environment. Tangible aspects of improving service quality can be replicated by any firm rendering similar kind of services. But intangible dimensions like reliability, responsiveness, assurance and empathy cannot be replicated, though it could be augmented by appropriate organisational HRM practices.

Studies in different fields give a different type of HRM practices combination. But undoubtedly all the studies support the importance of HRM practices in ensuring and differentiating service quality irrespective of the different settings from where the studies are carried out. This differentiation of service quality generally gives rise to providing a superior service quality in the way of memorable experience to the customer as well as to the provider.

Li, Yang and Wu (2008) had identified that training, maintaining employees' job attitude and service ability are among the important HRM practices which boost up SQP, improve customer satisfaction, customer loyalty and ultimately result in firm's improved performance (Figure 4.1). Service process design can increase efficiency by standardisation and specialisation of service process delivery. But only when service employees learn and develop competence this processes can be performed effectively to lead to better service quality.

According to Newman and Maylor (2002), HRM practices such as rewards for acquiring new skills and competencies, providing good accommodation, career progression, staff training and development, fair treatment and building employee competence were found to be enhancing service quality in hospitals. Bataineh and Ahmad (2011) have listed out recruitment, selection, training, and performance appraisal as the important HRM practices which have a positive influence on organisational service quality in hospitals. They reported that apt HRM practices and trust environment in hospitals enhance service capability of nurses, influence their satisfaction and morale, influence retention and improve

the quality of patient care and also improve the satisfaction of patients and nurses.



Source: Li, Yang and Wu (2008)

Figure 4.1 Relationship between SQ and TQM

In the case of the hotel industry, Tsaur, Chang and Wu (2004) found that employee empowerment has an influence on the customers’ service quality perception and it was found to be mediated by service behaviour of the employees. Browning, Edgar, Gray, and Garrett (2009) in their study of service industries have identified recruitment and selection, training, and development, communication and teamwork as the best HRM practices to help in making an organisation high performing by developing a ‘quality service culture’. An extensive literature survey by the researcher has revealed that HRM practices like selection, training, performance

appraisal, communication, compensation, rewards & recognition, job content, teamwork, career planning, empowerment etc., significantly manipulate the behaviour of service employees and thus ensure better service quality.

A number of researchers have examined the various aspects of HRM practices and service quality linkage both from employees' and customers' perception in the various service settings. Table 4.1 summarises some of the key variables and findings.

Table 4.1 Relationship between HRM Practices and Service Quality Perception (SQP) Findings from a Few Selected Research Studies

Source	Theme	Setting/Sample	Variables (antecedents & outcomes)	Findings
Newman & Maylor (2002)	Quality Patient Care	124 nurses in NHS-London Hospitals, Exploratory Qualitative study.	Antecedents: Nurse satisfaction based on various HRM practices results in retention. Outcomes: Patient and nurse satisfaction	57% of respondents were only committed to their profession. Found the need of a holistic approach to recruitment and retention. Various HRM practices and management policies can enhance SQ in Hospital sector.
Tsaur, Chang & Wu (2004)	SQP (customers' viewpoint)	Hotel Industry. 203 employees & 275 customers from Taiwan.	Independent: Employee Empowerment Mediator: Service Behaviour.	More empowerment the employees perceived, the better service quality customers perceive. Service behaviour mediates the relationship.
Li, Yang & Wu (2008)	SQP	Qualitative Study, Secondary data, Interview with 7 senior executives of Taiwan's Hair-Salon Industry. Triangulation method- case study	Antecedents of SQ-Service Process, HR Practices => Job Attitude (JA) & Service Ability (SA). Outcomes of SQ => Customer Satisfaction=> customer loyalty=> Performance.	Better service process along with HR practices which result in JA & SA brings out better SQ.
Browning, Edgar, Gray & Garrett (2009)	SQ as an outcome of HRM practices	37 service firms' managers or CEO or owners of New Zealand - through the interview.	Dependent: SQ Independent: HRM Practices (recruitment and selection, training and development, communication, compensation and team working)	HRM as a source of competitive advantage by ensuring better service quality
Bataineh & Ahmad (2011)	SQP	120 employees (including managers) in Hospital sector, Jordan.	Dependent: SQ Independent: HRMP => recruitment, selection, training & performance appraisal	Better HRM practices like recruitment, selection, training, Performance appraisal results in better service quality.

4.3 Antecedents and Outcomes of Commitment to Service Quality (CSQ)

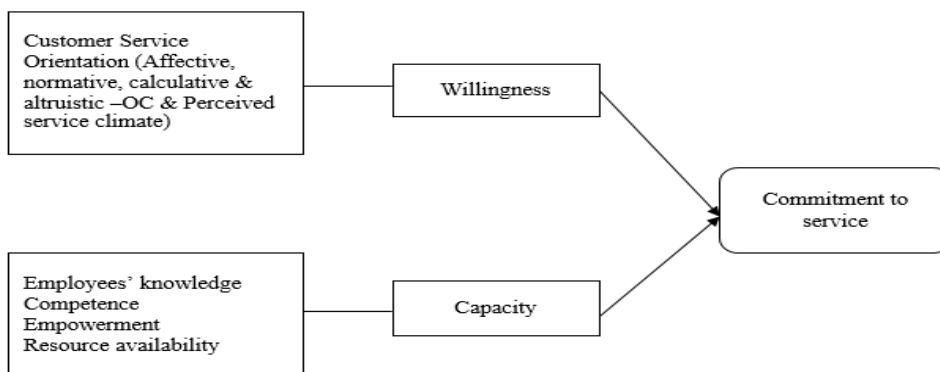
HRM practices play a pivotal role in determining the quality of service a service employee delivers. Schuler & Jackson (1987) argued that by adopting quality enhancement HRM practices like a relatively fixed job description, high level of employee participation, result oriented performance appraisal, guaranteed employment security, extensive and continuous training and development, an organisation can gain and sustain competitive advantage. Honda, the automobile giant, believes that "delivery of quality product purely depends on predictable and reliable behaviour from its employees" (Schuler & Jackson, 1987, p 214) which is an outcome of HRM practices followed in the organisation.

Commitment to service quality (CSQ) is an outcome of appropriate HRM practices which results in enhanced service quality perception of employees. Schneider & Bowen (1993) have demonstrated that CSQ can be enhanced through employee development practices and reward systems. These HR developmental interventions make employees improve their competence and facilitate to meet the customers' demands. HRM practices inducing employee empowerment and involvement help organisation to continuously improve their products and services (Waldman, 1994). Research findings in the HRM area bring out the various models of HR practices adopted to ensure high-quality products and services.

The organisation can implement various processes to control and improve commitment of service employees. The quality of service is

influenced by the quality of interaction in the service encounter between employees and the customer. Attitude and behaviour of service employee can be influential in deciding the quality of service since they represent the organisation to the customers (Hartline & Ferrell 1996). Hence CSQ of service employee is considered to be very important.

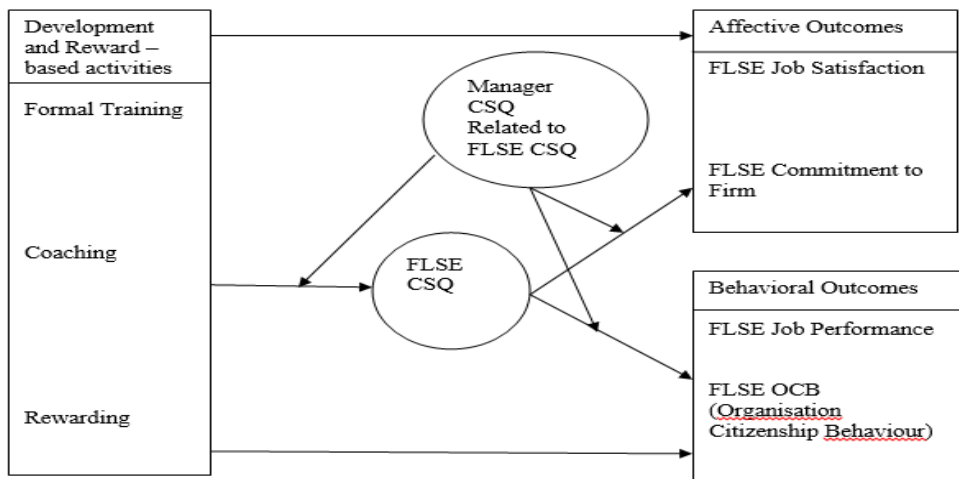
Commitment to customer service as per the behavioural approach can take various forms. Peccei and Rosenthal (1997) considered two such forms based on the extent to which individuals engage themselves in continuous improvement on their job for the benefit of the customer and the effort they put in their job to do good for the customers. In the study they had conducted among food retailing employees, it was demonstrated that commitment to customer service is a function of the individual's willingness variables (customer care orientation such as organisational commitment and perceived service climate) and their capacity variables (employee's knowledge, competence, empowerment and resource availability) as shown in (Figure 4.2).



Source: Riccardo Peccei and Patrice Rosenthal (1997)

Figure 4.2 General Model of Commitment to Customer Service

Elmadag, Ellinger, and Franke (2008) in a study of frontline service employees (FLSE) found that there is no significant influence on commitment to service quality (CSQ) of these employees by the formal training and rewarding. They itemised that reward-based incentive scheme has an influence on CSQ at best of lower level employees alone. On the higher employee group, neither formal training nor rewarding had any effect (Figure 4.3). This shows that attempt to improve CSQ of an employee who has already a higher commitment to service quality may not be really effective. Instead of formulating policies to improve the CSQ of these employees, organisations should adopt strategies to retain them. This can enhance the quality of service the employees deliver to the customer. But in a similar model tested by Sun, Hsu and Wang (2012) among FLSE of Starbucks stores in Taipei, it was indicated that formal training, coaching and rewarding positively related to CSQ.



Source: Elmadag, Ellinger, and Franke (2008)

Figure 4.3 Antecedents and Outcomes of Frontline Service Employee Commitment to Service Quality

Research findings emphasise the importance of HRM practices and policies to drive CSQ of employees. Higher CSQ of employees results in better performance and service quality (Peccei & Rosenthal, 1997; Hashim & Mahmood, 2011). Quality improves when employees are committed to quality.

There have been a few studies which have recognised the linkage of HRM practices to commitment to service quality (CSQ) along with other antecedents and outcomes. Table 4.2 below summarises some of the key variables and findings in this respect.

Table 4.2 Antecedents and Outcomes of Commitment to Service Quality and Findings from a Few Selected Research Studies

Source	Theme	Setting/Sample	Variables (antecedents & Outcomes)	Findings
Peccei & Rosenthal (1997)	Employee Commitment to Customer Service (CCS)	717 food retailing employees in the UK	Independent: Orientation to customer service (affective, normative, calculative, altruistic) OC & Perceived Customer Service climate (OC based) as employee willingness variables. Employee knowledge and competence, empowerment and resource availability as capacity variables.	Affective, normative and altruistic considerations have an impact on employees' propensity to provide quality service to the customer. Employee knowledge, skill, competence found to be significant for CCS. Empowerment has only a limited support with CCS.
Elmadag, Ellinger, & Franke (2008)	Commitment to Service Quality (CSQ)	310 frontline service employees (FLSE) from logistic service provider industry - B2B contexts in the US	Antecedents: Formal training, Coaching & Rewarding Outcomes: Job Satisfaction and Commitment to the firm as affective outcomes and Job Performance and OCB as behavioural outcomes Moderating: Managers CSQ	Coaching has a stronger influence on FLSE CSQ than training. FLSE CSQ improved the Job-related outcomes. Managers CSQ related to FLSE. CSQ moderately affected the FLSE CSQ.
Hashim & Mahmood (2011)	Commitment to Service Quality (CSQ)	387 Academic Staff in Pvt & public Malaysian Universities.	CSQ	CSQ enhances the Service Quality. Public University Staff has higher CSQ than the Pvt. Uni. Staff.
Sun, Hsu & Wang (2012)	Commitment to Service Quality (CSQ)	244 employees & 30 managers (Dyad survey—to examine common method bias) of 30 Starbucks stores in Taipei	Antecedents: Formal training, Coaching & Rewarding Outcomes: Job Satisfaction (JS) and Commitment to the firm as affective outcomes and Job Performance (JP) and OCB as behavioural outcomes Moderating: Managers CSQ	Formal training, Coaching & Rewarding positively related to CSQ. FLSE CSQ is positively related to JS, Commitment to the firm, JP, and OCB

4.4 Antecedents and Outcomes of Employee Competence (EC)

Employee competence is considered as an outcome of right selection, development and retention strategies in an organisation and as a result, the organisation can gain a competitive advantage (Ulrich & Lake, 1991). Employee competence/ capability is a blend of skills and knowledge and is an outcome of persistent HRM practices in the organisation (Yang, 2012).

Schlesinger & Zornitsky (1991) had demonstrated the positive relationship between employee perception of service quality with that of job satisfaction and self-perceived service capability amongst employees of insurance organisations. Enhanced service capability, on the other hand, results in increased job satisfaction among employees which again is influenced by the tenure of an employee in a particular organisation.

Service capabilities or competency of employees can determine the quality of the service they render to their customers by customising the service as per the needs of the customer. Studies in the banking sector by Yang (2012) proved the importance of service capability of employees in identifying customers' needs and wants in order to deliver them the appropriate services. It is also found that employee's competence helps in serving customers /patients with full confidence which results in increased quality of service. This has become a must to retain the customer in an ever-changing complex market environment of today.

An overview of a few important literature support on various linkages of employee competence with a few antecedents and outcomes along with the findings are summarised in Table 4.3.

Table 4.3 Antecedents and Outcomes of Employee Competence -Findings from a Few Selected Research Studies

Source	Theme	Setting/ Sample	Variables (antecedents & outcomes)	Findings
Ulrich & Lake (1991)	Employee Competence	Review Paper	Antecedents: Selection process, development & retention strategies	Firm enjoy Competitive Advantage
Schlesinger & Zornitsky (1991)	Self-perceived service capability (PSC). Job Satisfaction (JS)	1277 employees and 4269 customers of Insurance organisation	Antecedent: SQP of employee	SQP of employees found related to PSC and JS. SQP, PSC & JS increase as the tenure increase. PSC is the key promoter of JS. Lesser the JS & PSC the higher will be the gap between SQP of employees and actual customer satisfaction.
Yang (2012)	HR Service Capability (Employee Competence)	Bank Staff and Customers in Taiwan.	Outcomes: CRM performance.	HR Service capability decides the effectiveness of CRM performance

4.5 Antecedents and Outcomes of Organisational and Professional Commitment (OC & PC)

Organisational commitment (OC) can be improved by eliminating role ambiguity and by fostering teamwork in the organisation (Pitt, Foreman & Bromfield, 1995). HRM practices inducing OC need to be

carefully looked into for assuring quality performance. Paul and Anantharaman (2004) emphasised the importance of an HRM system addressing work environment, career development, development-oriented appraisal, training and compensation in enhancing the organisational commitment of employees in the Indian software industry. Kinnie, Hutchinson, Purcell, Rayton & Swart (2005) found that HRM practices have an influence on affective organisational commitment irrespective of the employee cadre (as professionals, line managers, and workers). Chen (2005) identified that HRM practices like staffing, performance appraisal, reward system, and training are influencing OC of employees in the banking sector in Taiwan.

Maheshwari, Bhat and Saha (2008) in a study among medical officers in India, argued that progressive HRM practices such as training, professional competency development, developing a better relationship with supervisors and subordinates, performance feedback, recognition and rewarding performance have a positive effect on OC with the mediation of motivation in the work environment. Joiner and Bakalis (2006) measured OC as an important factor since it is associated with turnover, absenteeism, work effort and is influenced by job-related characteristics such as supervisor support, coworker support, and role clarity and resource availability.

Malhotra and Mukherjee (2003) proved that among the three components of organizational commitment (affective, normative and continuance) only affective and continuance commitment were identified to have an impact on employees' service quality perception in the retail bank branches; but in the bank call centres only affective OC was found to be

influencing employees' SQP. Further, affectively committed employees were found to deliver better service quality than those who were normatively or continuancely committed. In fact various earlier studies such as Meyer and Allen (1991), Iles, Forster and Tinline (1996), and Sulaiman and Iles (2000) had all argued that affectively committed employees stay longer and perform better, especially, when compared to continuancely committed employees and observed that nature of commitment has also to be looked into to understand commitment – service quality relationship. The affective organisational commitment was found to be more significant than job satisfaction in determining service quality of service providers in the service encounter triad (Malhotra & Mukherjee, 2004). Hence it becomes mandatory for organisations to identify practices that foster affective commitment to ensure better service quality. Smeenk, Eisinga, Teelken and Doorewaard (2006) have found that the affective commitment of employees can be influenced by HRM practices aiming at increasing employee participation.

Frances and Karen (2015) in their study among sales personnel contemplated that HR practices stimulate high levels of organisational commitment and frequently it was through their influence on professional commitment. They argued that HR practices relating to flexible work design struck a balance between the employees' commitment to the organisation and to their profession. Their findings proposed that HR practices fostering high levels of professional commitment result in increased labour turnover if opportunities for pursuing professional goals by work design are restricted in the organisation.

Known and Banks (2004) stated that OC can be increased by organisational variables, effective communication, and promotion opportunity. Wang and Armstrong (2004) recognised a positive relationship between PC and OC and specified that professionals were more committed to their profession than their organisation. They also found that the level of education was related to their PC. Chang and Choi (2007) also recognised the relationship between professional and organisational commitment and highlighted that the interplay between them was determined by the years of service of an employee has put in an organisation. It has become vital for employees to strike a balance between professional and organisational commitment. Organisational socialisation processes through appropriate HR interventions at the various stages can influence both PC and OC.

A number of researchers have examined organisational commitment (OC) in different dimensions as well as a single consolidated dimension. At the same time, very few studies can be identified in the area of professional commitment (PC). Dimensions of OC were applied in PC as well (Mowday et al., 1982; Known & Banks, 2004; Chang & Choi, 2007). But this study proposes to consider the consolidated single dimension of both OC and PC. Most of the prior researchers have focused the direct influence of OC and PC on employees' perception on SQ. The present study seeks to highlight the mediating effect of OC and PC on the link between the selected antecedents and outcomes along with the direct influence. Table 4.4 summarises some of the key variables and findings of important previous studies.

Table 4.4 Antecedents and Outcomes of Organizational (OC) and Professional Commitment (PC) - Findings from a Few Selected Research Studies

Source	Theme	Setting/Sample	Variables (antecedents & outcomes)	Findings
Pitt, Foreman & Bromfield (1995)	Organisational Commitment (OC)	190 Contact level service employees of industrial org., UK	Outcome: Service Delivery. Antecedents: Teamwork, employee job fit, technology fit, perceived control, supervisory control, role conflict, role ambiguity.	OC found strongly related to Role ambiguity and teamwork as Antecedents of the service delivery gap.
Maheshwari, Bhat & Saha, (2008)	OC & PC	55 Medical Officers – Doctors from Gujarat, Hospital Sector, India.	Antecedents: HRM Practices like training & development, relationship with subordinates and supervisors, performance feedback, recognising and rewarding performance.	The PC of Doctors found higher than OC. OC is indirectly influenced by HRM practices through building up motivation in the work environment.
Paul & Anantharaman (2004)	OC	Software professionals, India.	Antecedents: HRM Practices (work environment, career development, development-oriented appraisal, training, induction, compensation, incentives, job design, selection process)	Work environment, career development, development-oriented appraisal, and training found influencing OC.
Joiner & Bakalis (2006)	OC	72 Casual Education workers, Australia.	Antecedents: Job-related Characteristics (supervisor support, coworker support, role clarity and resource availability) and job involvement characteristics (tenure, second job and post-graduate study at the employing university)	All antecedents influence OC
Malhotra & Mukherjee (2003)	OC (AOC, NOC, COC)	Service contact employees Retail Bank branches (171) & Call Centres(186), UK	Dependent: SQP of employees'	In branches both AOC & COC influenced SQP. But in Call centres, only AOC influenced the SQP

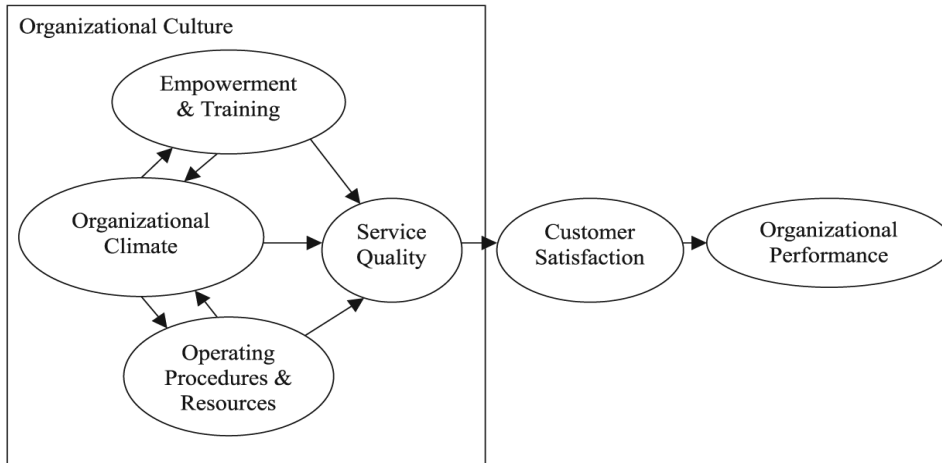
Maihorta & Mukhejee (2004)	OC	342 employees of four telephone call centres of a major UK retail bank.	Dependent: Job Satisfaction(JS) and SQP	JS and OC of employees influence SQP. The Affective OC found to be more important than JS in determining service quality.
Known & Banks (2004)	OC & PC	157 Internal Auditors	Antecedents: Job, organisational & Professional Characteristics, Demographic information	OC influenced by Job Meaningfulness and negatively influenced by org size & gender. PC influenced by Task Identity & Internal Auditor Certification.
Kinnie, Hutchinson, Purcell, Rayton & Swart (2005)	Affective OC	766 Employees in different cadre- (professionals, line managers & workers) from 18 different organisation, UK	Antecedents: Satisfaction with HRM Practices (Training, Career opportunities, Performance-related pay, Performance appraisal, Rewards and recognition, Team -working Involvement, Communication Openness & Work-life balance)	HR practices appear to be linked to the affective OC of all Employees. But the link to different cadre found different.
Smeenk et al. (2006)	OC	136 Dutch University employees	Antecedents: HRM Practices (Decentralisation, compensation, participation, training/development, employment security, social interaction, management style, communication, Performance appraisal	Different factors Influenced organisational commitment in organisations with distinct identities
Frances & Karen (2015)	HR Practices (Flexible work design and career growth)	Danish Financial Service Firms	Outcomes: OC & PC	HR practices result in OC and often through PC. No career growth for the professionally committed employees might result in increased labour turnover.

4.6 Role of Service Climate (SC) in the process between HRM Practices and CSQ/SQP

According to Peccei and Rosenthal (2000), service climate is the strongest predictor of service excellence and customer-oriented behaviour of employees in the retail service sector. Davidson (2003) had brought out the linkage between organisational climate and service quality which helped in explaining the interconnection of organisational culture, organisational service climate (OSC), service quality, customer satisfaction and organisational performance. Integrating these variables have become the prime role of present-day managers to ensure service with a difference. Quality initiative without maintaining an appropriate organisational service climate always turns out to be futile. Organisational service climate hence has become a necessary prerequisite to ensure service quality since it influences the service delivery process. Organisational service climate is influenced by the existing organisational culture, even though it can be measured separately since climate is a snapshot of time that tells managers what the employee perceptions are (Davidson, 2003). The model suggested by Davidson (2003) links empowerment, training, procedures and resources with organisational climate, service quality, customer satisfaction and organisational performance (Figure 4.4).

Little and Dean (2006) had pointed out that service climate influences employees' commitment to service quality through employees' organisational commitment. Their study also revealed that service climate is the outcome of better managerial practices. At the same time, HRM

practices were found to have an influence on employees' commitment and competence which resulted in high-quality service delivery



Source: Davidson (2003)

Figure 4.4 The Relationship between Organisational Culture and Climate, Service Quality and Customer Satisfaction, and Organisational Performance.

Introduction of a good HRM system by itself cannot guarantee a positive effect on employees' ability, motivation and opportunity to participate. For a successful organisation, it is important to have a strong climate in which employees' perceptions on HRM practices at different contexts should be matching (Bowen & Ostroff, 2004). Mischel (1973) claimed that people behave differently based on their perception in the particular context. This can lead to conflict and resentment at the workplace with respect to doing their jobs, the skills and abilities required and about the performance indicators required (Almutava, Muenjohn & Zhang, 2015). Employees' abilities, motivation, and opportunities to participate are adversely affected by this conflict (Liao, Toya, Lepak, & Hong, 2009). Most of the researchers have studied the direct effect of SC

to CSQ and SQP, whereas the moderating effect of SC on the other process variables (like EC, OC, and PC) between HRM practices and CSQ /SQP need to be explored and described. Almutava et al. (2015) modelled service climate as moderating variables influencing the relationship between HRM practices and AMO model.

Service climate has been examined by a number of researchers in various service settings treating it as an exogenous, mediating and as a moderating variable. Table 4.5 below summarises some of the key variables and findings.

Table 4.5 Role of Service Climate in the process between HRM Practices and CSQ/SQP Findings from a Few Selected Research Studies

Source	Theme	Setting/Sample	Variables (antecedents & outcomes)	Findings
Peccei & Rosenthal (2000)	Service Climate (SC)	667 Frontline service workers of Supermarket in the UK	Dependent: Service Excellence Initiative(SE), Customer Oriented Behavior (COB) Moderating/Independent: Job Competence, Job Autonomy, Hierarchical Trust, Social Desirability, Organisational Commitment, Commitment to Customer Service (CCS).	SC emerged as an important predictor for SE & COB
Davidson (2003)	Organisational Climate	Conceptual Model- based on Employee Perceptions on variables, Hotel Industry	Outcome: SQ, Customer Satisfaction & Performance Mediating: Empowerment, Training, Procedures & Resources	Model Development.
Little & Dean (2006)	Global Service Climate GSC (Employee perception).	167 Front-line Employees of telecommunication Call Centers,	Outcomes: Service Quality Capability (SQC), Mediating: Employee Commitment (EC) Antecedents: Customer Orientation (CO), Customer Feedback (CF), Managerial Practices (MP) & HRM	GSC found influencing SQC & was partially mediated by Employee Commitment. CF, MP & HRM influences GSC. HRM found to be a predictor for SQC & EC.

4.7 Models/Approaches to HRM Practices Linking Performance

Various models /approaches have been conceptualised linking HRM practices and performance by researchers by conducting empirical studies in different settings. A few such models are discussed in this section to substantiate the selection of various HRM practices for this study.

Pfeffer (1994) in a study of five performing organisation based on the highest return, identified sixteen high-performance work practices. In a subsequent work, he clubbed those work practices into seven high-performance work practices such as employment security, selective hiring, self- managed teams, decentralised decision making, high compensation, extensive training and effective communication system (Pfeffer, 1998). The best practices approach suggests that some HRM practices are considered to be better than others and all organisation can follow those practices (Delery & Doty, 1996). In the best-fit approach, (Miles& Snow, 1984; Schuler & Jackson, 1987) on the other hand, the importance of aligning HRM practices with the business strategy of the firm for improved performance was emphasised. Osterman (1994), for example, reported productivity gains in American organisations by way of implementing a number of innovative work practices like teamwork, job rotation, quality circles and total quality management.

Researchers like Beer, Eisenstat and Biggadike (1995), Doorewaard and Meihuizen (2000), Flood, Gannon and Paauwe (1995) and Guest (1997) have considered the human resource-based view in explaining the outcome of HRM Practices which results in building competencies in human resources such as organisational commitment. But this utilitarian

approach has undergone criticism from various corners (Doorewaard & Benschop, 2003) since human resources were treated as just ‘resources’. Guest (1997) argued that explanation of the association between HRM practices and organisational performance can effectively be made only when the nature of HRM practices (different sets for different outcomes), the nature of organisational performance and the link between HRM and performance are suitably researched.

Dyer and Reeves (1995) have categorised performance outcomes surveyed in Strategic Human Resource Management (SHRM) research studies into employee, organisational, financial, and market value outcomes. Absenteeism and turnover were classified under employee outcomes. Operational performance measures such as productivity, quality and customer satisfaction were categorised as organisational outcomes. Accounting measures of performance such as profits or return on assets (ROA) were treated as the financial outcome and value of the firm at equity market represented the market value outcomes. MacDuffie (1995) could come out with bundles of HRM practices that resulted in firms improved performance.

Guest (1997) categorised HRM theories under three different categories such as strategic, descriptive and normative theories of HRM. Strategic HRM theories emphasise on the fit between business strategy and HRM strategy for superior performance. Descriptive HRM theories focus on the interrelationship between HRM policies and its outcomes and the normative theories concentrate on best HRM practices for best outcomes. HRM practices by considering human resources as human beings can significantly influence the outcomes, especially in a labour-

intensive service sector. High-quality service delivery depends upon the quality, knowledge, and competency of the staff. Only when HRM outcomes such as quality, commitment and flexibility are achieved (Table 4.6) there would be behavioural change and enhanced performance (Guest, 1997).

Table 4.6 Linking HRM practices and HRM outcomes

HRM Practices	HRM Outcomes
Selection Socialisation Training and development Quality improvement programme	Skills and ability (Quality)
Single status Job security Internal promotion Individualised reward systems	Effort/motivation (commitment)
Communication Employee involvement Team working Job design Flexible job descriptions	Role structure and perception (Flexibility)

Source: Adapted from David E. Guest (1997)

Guest (1997) in his meta-analysis of various research studies linking HRM practices to performance has also categorised the HRM strategy under differentiation (innovation), focus (quality) and cost reduction based on selected HRM practices and illustrated various outcomes as mentioned in Table 4.7.

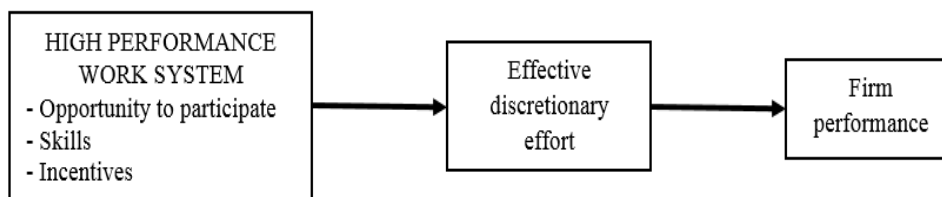
Table 4.7 Linking HRM and Performance

HRM Strategy	HRM Practices	HRM Outcomes	<u>Behaviour Outcomes</u>	Performance Outcomes	Financial Outcomes
Differentiation (innovation)	Selection	Commitment	Effort/ Motivation	High: Productivity Quality Innovation	Profits
Focus (Quality)	Training		Cooperation		
Cost (Cost-reduction)	Appraisal	Quality	Involvement	Low: Absence <u>Labour-turnover</u> Conflict Customer complaints	ROI
	Rewards	Flexibility	<u>Organisational citizenship</u>		
	Job Design				
	Involvement				
	Status and Security				

Source: Adapted from David E. Guest (1997)

The HR architecture model developed by Lepak and Snell (1999) has specified the requirements for different configurations of HR practices for different employee groups. The model argued that the investment in human capital should differ for different types of human capital. Lepak and Snell (2002) in their later study of 148 firms identified four different modes of employment such as knowledge-based employment, job-based employment, contract work, and alliance/partnership and found that the kind of human capital differs in each of these different employment modes. Further, each employment modes demanded different HRM configurations based on commitment, productivity, compliance and cooperation. For example, the commitment-based HRM configuration is considerably greater for knowledge-based employees than for workers within the other three modes.

Appelbaum, Bailey, Berg and Kalleberg (2000) proposed the Ability, Motivation and Opportunities to participate - the AMO model which links three different aspects. The first one covers high-performance work systems which comprises of (i) ability/skills (eg. training, education), (ii) motivation/incentives (eg. employment security, information sharing, promotion and fair pay) and (iii) opportunities to participate (eg. autonomy, communication and team membership). The next aspect in AMO model is the employees' effective discretionary effort and the final one is the firm performance (Figure 4.5). The AMO model argues that the practice of high-performance work systems with the effective discretionary effort would result in improved firm performance.



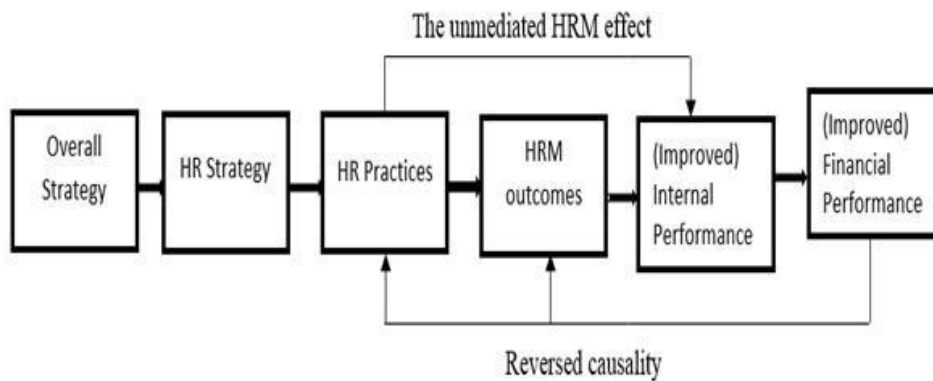
Source: Appelbaum *et al.* (2000)

Figure 4.5 Conceptual model of Appelbaum, Bailey, Berg and Kalleberg (2000)

Research studies in different settings have suggested various configuration of HRM practices. But such configuration of HRM practices for a particular organisation should address the issue of how these practices are perceived by employees in the different cadres and how they experience its execution (Kinnie, Hutchinson, Purcell, Rayton, & Swart, 2005). Different configurations or bundles of HRM practices are designed for different employee groups based on the heterogeneous nature of work and different organisation settings (Smeenk, Eisinga, Teelken, & Doorewaard, 2006).

Literature shows that employees' satisfaction with HRM practices like training, career opportunities, performance related pay, performance appraisal, rewards and recognition, team working, involvement, communication, openness and work-life balance influence affective organizational commitment differently for different groups of employees like professionals, line managers and workers (Kinnie et al.2005).

Boselie, Dietz and Boon (2005) proposed an integrated model by amalgamating HRM practices and various performance outcomes as depicted in Figure 4.7. The model shows that HRM practices directly and also through HRM outcomes influence the internal performance and ultimately result in improved financial performance. At the same time, improved financial performance could be seen as influencing the HR practices as reverse causality.



Source: Boselie, Dietz and Boon (2005)

Figure 4.6 The Standard Causal Model for Relationship between HRM and Performance

Wright and Nishii (2007) have advanced an alternative process model linking HRM and performance by illustrating intended HR

practices, actual HR practices, perceived HR practices, employee reactions, and organisational performance. Intended HR practices address the need for creating an outcome-based HR strategy assuming employees to act as desired by the firm. Among the intended HR practices, a few might be actually implemented, treated as actual HR practices. The employee perception and the interpretation of these practices might differ in different settings and groups, considered as perceived HR practices. According to these perceived HR practices, each employee might respond differently and that might be affective (attitudinal), cognitive (knowledge or skill), and /or behavioural responses (Wright and Nishii 2007).

Based on the above-mentioned dynamism and complexity of identifying HRM practices based on various business setting, employee profile, and operational strategy various models of HRM practices have been evolved. Among these, some of the important models are universal best practices (Pfeffer, 1994), strategic fit (Miles & Snow, 1984), configurational (Dyer & Reeves, 1995; MacDuffie, 1995) and Ability, Motivation and Opportunities to participate (AMO) (Appelbaum *et al.* (2000).

HRM practices as per AMO framework is considered most suitable since it manipulates attitudinal and organisational outcomes. AMO theory concentrates on high-performance work systems which augment employees' ability, motivation and provide an opportunity to participate (Paauwe & Boselie, 2005). Boselie, Dietz, and Boon (2005) have codified the outcomes of 104 articles based on empirical research works selected from journals of high repute. They carried out a content analysis of those articles and reported that more than half of the research studies after 2000 used HRM practices based on AMO framework. On condensing the

contents of research outcomes based on high performance and high involvement work systems, they came out with the following equation for the AMO theory proposed by Appelbaum, et al. (2000). $P = f(A.M.O)$. That reads as, Performance is the function of employees' Ability, Motivation, and Opportunity to participate.

Dhiman and Mohanty (2010) in their study of oil and gas company employees in India demonstrated the link between HRM practices based on AMO framework and affective organisational commitment (Figure 4.7). They have indicated that the HRM practices which focus on AMO model can induce affective organisational commitment and job satisfaction and in turn bring down the turnover intention of employees. Fair and transparent HRM practices in an organization can strengthen the organizational values and employees' expectation and that would result in their enhanced organisational commitment and performance (Jha, Varkkey, Agrawal & Singh, 2017).



Source: Adapted from Dhiman and Mohanty (2010)

Figure 4.7 Model of HRM practices and Turnover Intent

A number of researchers have made various permutations and combinations of HRM practices linking various HR and performance

outcomes and accordingly, the following different taxonomies and different models have been developed. Table 4.8 summarises some of the models/approaches developed by the researchers based on the empirical findings.

Table 4.8 HRM Models/Approaches from Selected Research Studies

Source	Model/ Approach	Focused Outcome
Miles & Snow (1984); Schuler & Jackson (1987)	Best fit or contingency approach	Performance improved when HRM practices aligned with business strategy.
Osterman (1994)	Innovative work practices	Study of 694 US manufacturing establishments - increased the productivity of firms.
Pfeffer (1994;1998)	Best practice or Universalistic approach	A set of HRM practices improves the performance of an organisation irrespective of type organisation or employees.
Beer et al. (1995); Doorewaard & Meihuizen (2000); Flood et al. (1995); Guest (1997); Pauwe (1994).	Human- Resource based approach view of the firm	HRM practices can result in competencies such as organisational commitment
Dyer & Reeves (1995); MacDuffie (1995)	HRM Bundles or Configurational approach	Different bundles for different outcomes
Appelbaum et al. (2000) as cited by Pauwe & Boselie (2005)	AMO framework (Ability, Motivation & Opportunity to participate)	HRM practices result in attitudinal and organisational outcome by improving employees' ability & skill, motivation and creating opportunities for involvement & participation.
Wright & Nishii (2007)	Linking HRM and Performance	Developed a new HRM – performance linkage model (Figure 4.4)
Dhiman & Mohanty (2010)	AMO framework (study conducted in the Oil & Gas industry in India)	The outcome as Affective OC and Job Satisfaction which results in Turnover Intent.

4.8 The role of demographic variables.

Social science researchers in different settings have identified the influence socio-demographic factors such as Age, Gender, Years of Experience (both total and in the current organisation), Income, Qualification, Job Title/Position and Marital Status on various variables studied. The effects have not been the same in different settings and in different sample sets. Hence the effect of socio-demographic variables is not considered generalisable. Variables of these nature have to be treated as unique to the sample and settings.

Considering employees as human beings, their skills, competency, commitment and their perceptions of service quality are intervened with socio-demographic variables. HRM outcomes by considering these differences make this study more complex.

To cite few examples, HRM practices are quite unique and are highly vulnerable depending upon various factors like the nature of the job, attitude of management, type of service, education of employees, gender, etc. Peccei and Rosenthal (1997) and Elmadag et al. (2008) hypothesised the influence of demographic/control variables (such as Job position, Age, Tenure, Gender, Qualification and Work Status) to influence the antecedent of employees' commitment to customer service and quality. Schlesinger and Zornitsky (1991) recognised the relationship between tenure with job satisfaction and self-perceived service capability or competency. As described by Kwon and Banks (2004) organisational commitment among male employees were found to be lesser than their female counterparts. Bataineh and Ahmad (2011) on the other hand did not find any difference in organisational performance appraisal according

to gender, education, job cadre, experience and salary. The study did not consider the differences in the perceptions among various socio-demographic profile of respondents due to the reasons cited above and have used them only for sample profiling.

4.9 An Integrated Causal Model Linking Selected HRM Practices, Selected Process Variables (EC, OC and PC) and Outcome Variables (CSQ and SQP) with the Moderating Variable (SC) - The Proposed Theoretical Framework

Paul and Anantharaman (2003) have specified the indirect link between HRM and organisational operational and financial performance. Their study in the Indian IT industry proved the direct influence of training, job design, compensation and incentives on operational parameters via employee retention, employee productivity, product quality, the speed of delivery and operating cost. The study also revealed the importance of maintaining a competent workforce who can provide quality products and render quality service to the customer than having committed employees who might be more productive. This helps in creating a better image of the organisation and ultimately results in long-term financial performance by gaining more customers. It is always ideal to have committed and competent workforce to ensure both productivity and quality by which an organisation can be both efficient and effective. HRM practices aim to induce desired process variables to ensure improved operating performance and thus ensuring better financial performance in the long run.

Service recovery performance of frontline hospital employees has been affected by training, empowerment, servant-leadership (Who set

service standards by their own behaviour and management styles.) and service technology through the mediating role of affective organisational commitment (Ashill, Carruthers & Krisjanous, 2006). Improvement in service quality does not always necessitate a better financial performance in the short period due to various reasons thereof. But increased customer satisfaction, loyalty, revisit or repurchase and a good word-of-mouth can increase the volume of business and image of the organisation. This can improve the financial performance in the long run. A sustainable business model cannot be strategized unless these factors are considered especially in an environment where customers are quality conscious and highly demanding. Tough competition in the service sector even made it mandatory for firms to look beyond the shorter horizon to make the business break even.

According to Chahal (2008), delivering service quality consistently in hospitals creates and fosters the feeling of being cared and lead to patient satisfaction and loyalty. Employees should act accordingly and go even beyond the organisation to add value to the customer in whatever way they can. This envisages four levels of relationships of the employee namely to oneself, to one's workgroup, to the organisation in general and to the customer (Paul & Anantharaman, 2001). The organisation's role, therefore, is to ensure a healthy relationship of all kinds so that the customers get their due. HRM practices inducing desirable process variables can foster such an organisational climate.

Based on the review of literature, the theoretical model for this study was developed as shown in Figure 4.8.

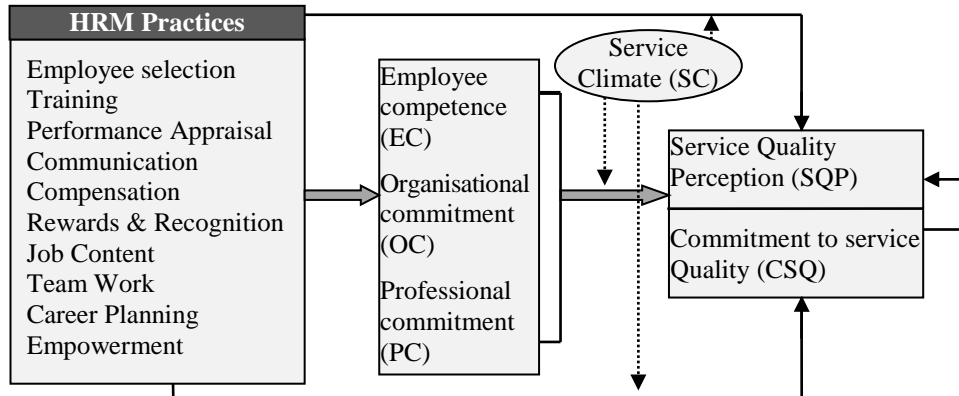


Figure 4.8 Theoretical Model of the Study

The dependent variables for the study are commitment to service quality (CSQ) and service quality perception (SQP). CSQ also leads to SQP. The important precedents to CSQ and to SQP are employee competence (EC), organisational and professional commitment (OC & PC) considered as mediating variables in the model. HRM Practices (Employee selection, training, performance appraisal, communication, compensation, rewards and recognition, job content, teamwork, career planning and empowerment) in an organisation can have a direct influence on CSQ and SQP and also an indirect effect through mediating/process variables, treated in the model as independent variables. Perception of service climate (SC) is considered as a moderating variable, interacting in the link between HRM practices and SQP/CSQ, EC to SQP/CSQ, OC to SQP/CSQ and PC to SQP/CSQ. Table 4.9 gives an illustration of nature of the variables as considered in the proposed theoretical model.

Table 4.9 Variables Identified for the Present Study.

<i>Sl No.</i>	<i>Description</i>	<i>Variables Identified for the Model of the Study</i>
1	Dependent	Commitment to Service Quality (CSQ) Service Quality Perception (SQP)
2	Mediating	Employee Competence (EC) Organisational Commitment (OC) Professional Commitment (PC)
3	Moderating	Perception of Service Climate (SC)
4	Independent	Perception of HRM Practices (HRM) (Identified as Employee Selection, Training, Performance Appraisal, Communication, Compensation, Rewards & Recognition, Job Content, Team Work, Career Planning & Empowerment.)
5	Back Ground	Socio-demographic (Age, Gender, Qualification, Job Title, Monthly Income, Marital Status, & Experience/Tenure-total and in the current hospital)

The unit of analysis: hospital employees.

4.10 Hypotheses of the study

Hypotheses for the study generated out of the theoretical model give an answer to the research questions and also aim to ratify the objectives framed thereof. The researcher has formulated the following hypotheses based on a predictable positive relationship that exists among variables identified for the study.

4.10.1 The Link between Employees' Perception of HRM Practices and Employees' Competence

Competence is the degree to which an employee can perform his/her job efficiently (Thomas & Velthouse, 1990). Various research outcomes have identified that employee competence is influenced by the various HRM

practices followed in the organisation (Little & Dean, 2006; Yang, 2012; Potnuru & Sahoo, 2016). People constitute organisations and organisations' capability is based on people's competence. The process of acquiring, developing and retaining competent people in the organisation helps in enhancing employee competency (Ulrich & Lake, 1991). Hence the following hypothesis was formulated.

Hypothesis 1: Employees' perception of HRM Practices have a significant influence on Employee Competence.

4.10.2 The Link between Employees' Perception of HRM Practices and Employees' Organisational Commitment.

Research findings linking HRM practices to performance have identified Organisational Commitment as one of the important HRM outcomes (Guest, 1997; Paul & Anantharaman, 2004; Known & Banks, 2004; Chen, 2005; Kinnie et al., 2005; Maheshwari et al., 2008; Frances & Karen, 2015). Different models/approaches /theories of HRM-performance linkage mentioned earlier in this chapter supports this relationship and also support the fact that the impact of HRM practices varies depending on the HRM outcomes (Dyer & Reeves, 1995; Macduffie, 1995). Accordingly, the following hypothesis was formulated.

Hypothesis 2: Employees' perception of HRM Practices have a significant influence on their Organisational Commitment.

4.10.3 The Link between Employees' Perception of HRM Practices and Employees' Professional Commitment

Maheshwari et al. (2008) have identified the influencing capacity of HRM practices on employees' professional commitment in the hospital sector. It

was shown that appropriate HRM practices can influence employees' professional commitment (Jorgensen & Becker, 2015; Tikare, 2017). The following hypothesis was therefore formulated to test the impact of HRM practices on employees' professional commitment.

Hypothesis 3: Employees' perception of HRM Practices have a significant influence on their Professional Commitment.

4.10.4 The Link between Employees' Competence and Employees' Commitment to Service Quality/ Service Quality Perception.

Employees can deliver quality service if they have the competence (Schlesinger & Zornitsky, 1991; Barclay & Smith, 1997; Zeithaml et al., 2006; Yang, 2012) in what they do. Employee competency was found to be positively associated with the service quality dimensions of reliability, responsiveness, assurance and empathy, while employee professional competencies were found to be positively associated with reliability and assurance of service quality (Yu-Chi, Chin-Shih, Hsiao-Wen & Kuan-Ying, 2015). Capability to perform the job assigned makes an individual committed to the outcome too (Peccei & Rosenthal, 1997). Here, in this case, it is the service quality. In a highly customised and labour-intensive service sector like in the case of hospital sector, the employees must be sufficiently empowered to think and behave according to the situation. Employee competence here becomes an important prerequisite for a desirable action. Assuming this requirement the following hypotheses were formulated.

Hypothesis 4a: There is a positive relationship between Employee Competence and Commitment to Service Quality.

Hypothesis 4b: Employee Competence has a significant influence on employees' Service Quality Perception.

4.10.5 The Link between Employees' Organisational Commitment and Employees' Commitment to Service Quality/ Service Quality Perception

Research findings support the association between employees' Organisational Commitment and their Commitment to Service Quality and Service Quality Perception (Pitt et al., 1995; Sun et al., 2012). Employees committed to the organisation try to deliver quality service to the customer (Meyer & Allen, 1991; Iles et al., 1996; Sulaiman & Iles, 2000; Malhotra & Mukherjee, 2003). Researches based on the meta-analysis of various research output envisages that Organisational Commitment of an employee makes him Committed to Service Quality too. On these premises, the following hypotheses were formulated.

Hypothesis 5a: There is a positive relationship between Employees' Organisational Commitment and their Commitment to Service Quality.

Hypothesis 5b: Employees' Organisational Commitment has a significant influence on their Service Quality Perception.

4.10.6 The Link between Employees' Professional Commitment and Employees' Commitment to Service Quality/ Service Quality Perception.

Service sector employees doing highly heterogeneous tasks especially in the hospital sector need to respond to varied customer requirements. This demands a high degree of professionalism in employees.

Their job includes professional work elements like uncertain work situations, changing priorities, contextual application of knowledge and expertise (Kinnie et al., 2005). Professional commitment of employees influences their mindset while delivering service (Blau, 1985; Lee et al., 2000; Somech & Bogler, 2002; Francis & Cordero, 2002). Professional commitment also makes an employee efficient and effective which results in better service quality (Lee&Yom, 2007; Magnan, 2011). Based on these assumptions the following hypotheses were verbalised.

Hypothesis 6a: Employees' Professional Commitment has a significant influence on their Commitment to Service Quality.

Hypothesis 6b: Employees' Professional Commitment has a significant influence on their Service Quality Perception.

4.10.7 The Association between Employees' Perception of HRM Practices and Employees' Commitment to Service Quality/ Service Quality Perception.

When employees perceive a strong service orientation, customers report superior service. Service orientation of employees is influenced by various HRM practices followed in the organisation. A set of HRM practices collectively and differently influences its HRM and performance outcomes. Different HRM practices in different setting influence the Commitment to Service Quality of employees (Schneider & Bowen, 1993; Hartline & Ferrell, 1996; Worsfold, 1999; Jackson, 2004; Elmadag et al., 2008; Sun et al., 2012). Influence of HRM practices on Service Quality Perception of employees was also proved through different empirical research studies (Eg. Newman & Maylor, 2002; Tsaur et al.,

2004; Li et al., 2008; Browning et al., 2009; Batnaineh & Ahmad, 2011). Hence the following hypotheses were formulated.

Hypothesis 7a: Higher the Employees' perception of HRM Practices higher will be their Commitment to Service Quality.

Hypothesis 7b: Higher the Employees' perception of HRM Practices higher will be their Service Quality Perception.

4.10.8 Effect of CSQ on SQP.

Employees' Commitment to Service quality enhances job performance of an employee which in turn influence the service quality too (Elmadag et al., 2008; Hasim & Mahmood, 2011). Various other empirical study results were also proved the positive influence of CSQ on SQP (Peccei & Rosenthal, 1997; Babakus, 2003; Clark, 2009; Pahi & Hamid, 2016). Based on this understanding the following hypothesis has been framed.

Hypothesis 8: Higher the level of Commitment to Service Quality higher will be the Employees' Service Quality Perception.

4.10.9 Integration of perceived HRM practices, Process (EC, OC & PC) and the Outcome Variables (CSQ & SQP).

The proposed model predicts that the selected outcomes of employees' perception of HRM practices as input variables influence both HRM outcomes as process/mediating variables such as EC, OC and PC (Newman & Maylor, 2002; Bhat & Maheshwari, 2004; Batnaineh & Ahmad, 2011) and performance-related outcomes such as CSQ and SQP (Schlesinger & Zornitsky, 1991; Peccei & Rosenthal, 1997; Malhotra & Mukherjee, 2004; Yang, 2012). The following hypotheses were formulated keeping the integrated causal relationship among important variables

identified based on literature review, discussions with practitioners and academicians (Figure 4.9).

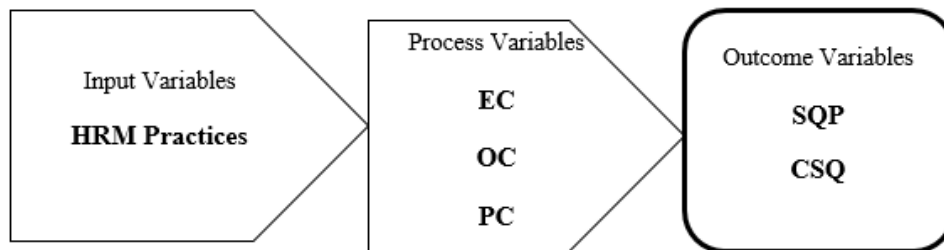


Figure 4.9 Integration of HRM Practices, Process Variables, and the Outcomes

Hypothesis 9a: Employee Competence mediates the relationship between employees' perception of HRM practices and Commitment to Service Quality.

Hypothesis 9b: Employee Competence mediates the relationship between employees' perception of HRM practices and their Service Quality Perception.

Hypothesis 9c: Employees' Organisational Commitment mediates the relationship between their perception of HRM practices and Commitment to Service Quality.

Hypothesis 9d: Employees' Organisational Commitment mediates the relationship between their perception of HRM practices and Service Quality Perception.

Hypothesis 9e: Employees' Professional Commitment mediates the relationship between their perception of HRM practices and Commitment to Service Quality.

Hypothesis 9f: Employees' Professional Commitment mediates the relationship between their perception of HRM practices and Service Quality Perception.

4.10.10 Influence of Employees' Perceived Service Climate on the Linkage between HRM practices, EC, OC and PC to CSQ/SQP

Researchers have identified and reported that employees perceived Service Climate as an important variable, either by mediating or moderating the effect of various inputs/ independent variables like HRM practices, Employee Competence, Organisational and Professional Commitment on the outcome / dependent variables such as Service Quality (Schenider & Bowen, 1993; Johnson,1996; Peccei & Rosenthal, 2000; Davidson, 2003;Little & Dean, 2006; Hui et al., 2007; Li et al., 2008; Mayor et al., 2009; Drach-Zahavy, 2009;Yeh, 2012). The following hypotheses were formulated considering the moderating effect that might be crucial in interpreting the strength of integrated causal relationship of variables identified and modelled in this study.

Hypothesis 10a: Employees' Perceived Service Climate moderates the link between Employee Competence and Commitment to Service Quality.

Hypothesis 10b: Employees' Perceived Service Climate moderates the link between Employee Competence and Service Quality Perception.

Hypothesis 10c: Employees' Perceived Service Climate moderates the link between Organisational Commitment and Commitment to Service Quality.

Hypothesis 10d: Employees' Perceived Service Climate moderates the link between Organisational Commitment and Service Quality Perception.

Hypothesis 10e: Employees' Perceived Service Climate moderates the link between Professional Commitment and Commitment to Service Quality.

Hypothesis 10f: Employees' Perceived Service Climate moderates the link between Professional Commitment and Service Quality Perception.

Hypothesis 10g: Employees' Perceived Service Climate moderates the link between their perception of HRM practices and Commitment to Service Quality.

Hypothesis 10h: Employees' Perceived Service Climate moderates the link between their perception of HRM practices and Service Quality Perception.

4.10.11 Role of Socio-demographic Variables

Perceptions on various concepts measured as latent variables in the study cannot do away the difference in perception based on the various socio-demographic variables. This study does not intend to study the difference in the perception of different socio-demographic characteristics in the integrated model and the causal relationship hypothesised. Hence *apriori* assumptions on the possible difference in the perceptions were not being made.

4.11 A Brief Summary of the Chapter

The chapter discusses the theoretical framework of the study. Meta-analysis of the available literature revealed a model linking HRM practices to Commitment to Service Quality (CSQ) and employees

Service Quality Perception (SQP) in the labour-intensive service sector like that of the hospital sector. Variables such as increased customer satisfaction, customer loyalty, revisit /repurchase intention and word of mouth advertisement are among important outcomes of increased service quality. Meta-analysis has also identified and revealed the important process/mediating variables such as Employee Competence (EC), Organizational (OC) and Professional Commitment (PC). These process variables have been considered as important since they were found to be effectively transforming the input variables i.e. HRM practices in the proposed model to selected performance-related outcomes such as CSQ and SQP. Though HRM practices, EC, OC and PC influence the outcome variables CSQ and SQP, the moderating role of employees' perceived Service Climate (SC) cannot be undermined in trying to understand the real scenario in which employees are functioning. CSQ of employees' influence their SQP also. To examine and verify the model proposed, based on the literature review and theoretical framework methodically, twenty-six hypotheses have been formulated.

The next chapter discusses the research methodology employed in the study.

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Chapter 5

RESEARCH METHODOLOGY

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	5.4 <i>Hypotheses of the Study</i>
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5.1 Introduction

This chapter on research methodology deals with the objectives of research in detail, consolidated research hypotheses (as formulated in Chapter 4), research design, the type of survey conducted, the instruments used for the survey, the sources of scales used as well as the reliability, and validity of the instruments used. Data collection methods, population,

sample, nature of the variables and the definitions used for the study along with operational definitions are outlined in this chapter. This chapter also explains the methodology and statistical methods that were adopted to test the hypotheses and answer the research questions.

5.2 Research Process

This study was carried out in three different phases. The first phase of the study was concerned with the identification and defining of the research problem based on the felt need of quality issues personally experienced by the researcher in various service encounters in hospitals. The frustration of employees due to various perceptions on human resource management practices was assumed to have resulted in poor delivery of service. Constructs considered for the study got fine-tuned after surveying literature available, discussions with practitioners in the hospital sector, patients/customers, and academicians. The next attempt was to formulate research questions and objectives based on which a model/theoretical framework linking the constructs identified was created. The theoretical framework articulated the constructs as independent/antecedent, mediating / process, moderating and dependent/outcome variables. Hypotheses for the study were formulated based on the proposed theoretical framework and objectives set which were to be tested to approve or disprove the various assumptions made.

The three different phases of the study along with corresponding chapters of the thesis depicted in Figure 5.1.

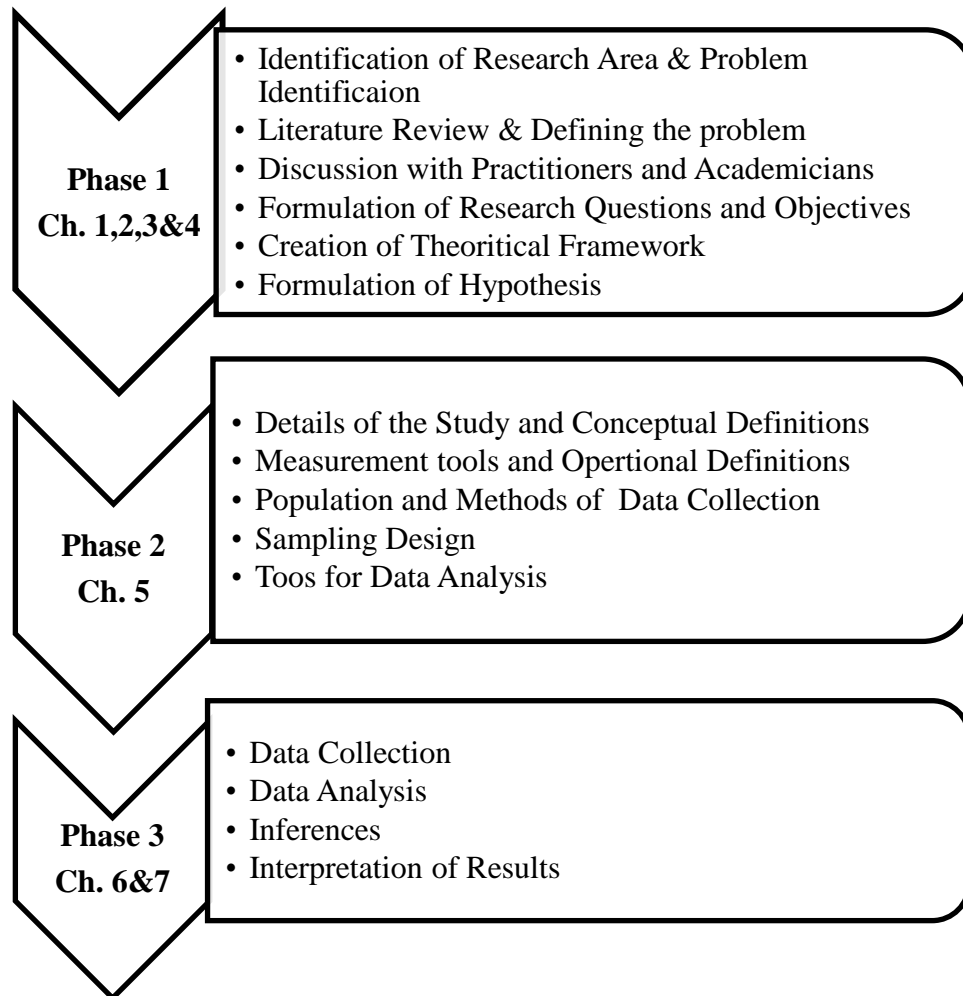


Figure 5.1 Phases of the Research

5.3 Objectives of the Research

Objectives of research provide the basis for the conception of the theoretical framework. The theoretical framework, its validation, and the analysis of various linkages would provide valuable insights into the cognitive process which integrate employee perception of HRM practices, process variables (HRM outcomes such as Employee Competence -EC, Organisational-OC & Professional Commitment -PC), moderating

variable (Service Climate - SC) and the performance-related outcomes (Commitment to Service Quality- CSQ and Employees' Service Quality Perception-SQP).

5.3.1 Major Objectives of the Study

The following were the major objectives of the study:

- 1) To establish and explain the integrated link between selected HRM practices, HRM outcomes (as process/mediating variables) such as Employee Competence (EC), Organisational Commitment (OC) and Professional Commitment (PC) and performance-related outcomes such as Commitment to Service Quality (CSQ) and Service Quality Perception (SQP) of hospital employees.
- 2) To validate and test inter-relationship between variables in the integrated causal model linking perception of HRM practices as a second-order construct, process variables (EC, OC & PC) and performance-related outcomes (CSQ &SQP).
- 3) To validate the integrated causal models linking perception of HRM practices severally as first-order constructs, process variables (EC, OC & PC) and performance-related outcomes (CSQ &SQP)
- 4) To study the mediating effect of HRM outcomes between HRM practices and performance-related outcomes.
- 5) To ascertain the moderating role of service climate in the different paths linking HRM practices/HRM outcomes (EC, OC &PC) to performance related outcomes (CSQ & SQP).

5.3.2 Specific Objectives

Based on the above general objectives, the following specific objectives were derived:

- 1) To ascertain the impact of employees' perception of HRM Practices on Employee Competence.
- 2) To study the influence of employees' perception of HRM Practices on their Organisational Commitment.
- 3) To study the effect of employees' perception of HRM practices on their Professional Commitment.
- 4) To study the impact of Employee Competence on their Commitment to Service Quality and Service Quality Perception.
- 5) To ascertain the role of employees' Organisational Commitment on their Commitment to Service Quality and Service Quality Perception.
- 6) To determine the impact of employees' Professional Commitment on their Commitment to Service Quality and Service Quality Perception.
- 7) To study the impact of employees' perception of HRM practices on their Commitment to Service Quality and Service Quality Perception.
- 8) To demonstrate the impact of employees' Commitment to Service Quality on their Service Quality Perception.
- 9) To ascertain the mediating role of
 - a) Employee Competence between the perception of HRM Practices and Commitment to Service Quality/Service Quality Perception.

- b) Organisational Commitment between the perception of HRM practices and Commitment to Service Quality/Service Quality Perception.
 - c) Professional Commitment between the perception of HRM practices and Commitment to Service Quality/Service Quality Perception.
- 10) To ascertain the moderating (interaction) effect of Service Climate (SC) on the various link connecting
- a) Employee Competence and their Commitment to Service Quality/ Service Quality Perception.
 - b) Organisational Commitment of employees' and their Commitment to Service Quality/ Service Quality Perception.
 - c) Professional Commitment of employees' and their Commitment to Service Quality/ Service Quality Perception.
 - d) Employees' perception of HRM practices and their Commitment to Service Quality/ Service Quality Perception.

5.4 Hypotheses of the Study

Considering the integrated model conceived and the objectives set for the study 26 hypotheses were formulated (Discussed in Chapter4) to enable statistical testing and verification using structural equation modelling (SEM).

5.5 Research Design

The research design adopted is cross-sectional and the primary data were collected at a one-time point or over a short period from different

respondents. This study has followed both inductive and deductive approaches. The first part is an inductive approach wherein a qualitative exploratory study was conducted to identify research variables by a review of the available literature and discussions with the practitioners and academic experts pertaining to the problems identified. Inductive approach mainly moves from specific observations to broader generalisations and theories. It begins with specific observations and measures and proceeds to detect patterns and regularities, formulate some tentative hypotheses that can be explored, and finally end up in developing some general conclusions or theories. The deductive approach, on the other hand, begins with thinking up a theory about a topic of interest and narrows that down into more specific hypotheses that can be tested after collecting observations, which are more quantitative in nature.

The present study is a hypothesis based and descriptive cum explanatory study. It is descriptive because the findings of this study would explain the interrelationship between the different variables considered for the study. It is also an explanatory study since the findings would explain the effect of one variable on the other and provide an explanation.

The study, using a survey method investigated the opinions of employees to understand their perception about HRM practices followed in the hospitals and the outcomes thereof, and how these outcomes influence their commitment to service quality and their perceived service quality in the organisation. The role of employees' perceived service climate in the hospitals was also investigated. Hence, based on the purpose of the study, the study was initially exploratory, then descriptive

and subsequently explanatory. The study at first explored the variables based on the research problem, then tried to describe the relationships and finally explain why it had happened.

5.6 Sources of Data Collection

Elicitation technique of data collection was followed for gathering primary data in which responses were sought directly from the respondents through interviews and the survey.

Descriptive and explanatory research parts of the study were facilitated by primary data collected and analysed through quantitative survey method. The survey was conducted by distributing specially designed questionnaires to the respondents who could give apt responses to answer the research questions. The questionnaire comprised of scales adapted from the prior studies and customised to suit the special need of hospital settings and the profile of respondents.

5.7 Qualitative Study

As part of the qualitative study, discussions with practitioners in the hospital sector and academicians were made to facilitate the design for the quantitative research work of the study. The purpose of this qualitative survey was to ascertain the relevance, substantiate and to attract suggestions to modify the proposed design of the study developed on the basis of the literature survey. This part of the study was exploratory in nature and designed in such a way as to understand important HRM practices followed and quality issues perceived by the employees in service delivery process in the hospital sector. The

significant HRM practices along with the HRM and performance-related outcomes were identified at this stage of the study.

In this way, the theoretical framework conceived and the questionnaire developed had undergone scrutiny with experts. The content and face validity of the questionnaire developed for the study was also substantiated and certified.

5.7.1 Interview with Practitioners

Directors, Chief Executive Officers (CEO), Chief Operations Managers, HR Managers, Administrative Officers, PROs, Doctors, Nurses and staff from the pharmacy, lab, insurance department, and front offices were interviewed and their opinions were included while formulating the research questions. Various HRM practices identified, based on literature review and field survey, which were found to influence the service delivery in hospitals were discussed with different people connected with hospitals and their management. Inputs received were recorded and based on the inferences the HRM practices were finalized.

5.7.2 HRM Practices Short-Listed

The HRM practices identified were again discussed with hospital employees (4 doctors, 3 nurses and 3 other staff from the lab, pharmacy and from the front office) who were the unit of observation and analysis for the study. Based on their feedback finally, ten practices were shortlisted which have an influence on the mediating/process variables i.e. Employee Competence, Organisational and Professional Commitment and also influence the outcome variables i.e. Commitment to Service Quality and

Service Quality Perceived by the employees. The finalised HRM practices were: employee selection, training, performance appraisal, job content (under ability/skill practices), compensation, reward and recognition, career planning (under motivation practices) and teamwork, communication and empowerment (under opportunities to participate practices).

5.7.3 Defining the Role of Employee Perceived Service Climate

The tangible dimension of service quality was not considered in this study since the antecedents of service quality is considered as the role played by service providers in the service encounter triad (i.e., only Gap 3 in the service quality gap model is included in the scope of the study). Based on the literature support and subsequent discussions with academicians, employee-perceived service climate was considered as a moderating variable in this study.

5.7.4 Discussion with Academicians

Senior research guides, academicians in the area of HRM and Services Marketing were consulted to verify and finalise the important mediating/process variables. Employee Competence, Organisational, and Professional Commitment were finalised as process/mediating variables. The final theoretical framework was formulated based on the objectives construed from the identified research problem and research questions thereof (as shown in Chapter4, Figure 4.8).

5.8 Survey Instruments for Data Collection

A standard questionnaire was used for the survey. The measurements consisted of scales adapted from prior studies and discussed in section

5.9. The measurement scales were identified based on the theoretical definitions adopted and operational definitions conceived as per the requirements of the study. The measurement scale items for the constructs were customised to suit the requirements of the study. Remarks from the practitioners in the field were also used to verify the suitability of items in the hospital sector. Reliability and validity of measurement scales were assessed and found to be within limits (Discussed in Chapter 6).

The questionnaire was formatted as per Dillman's (2000) principles of questionnaire design. Closed-ended questions were used in the questionnaire. All the questions were designed to be short, simple and understandable. Confusing, vague, leading, double-barreled and disrespectful questions were avoided. Negatively worded questions were avoided to prevent confusion among respondents in answering the questions. Confidentiality was assured. To encourage sincere and active participation in the survey, the researcher had assured them of providing a report on various shortcomings experienced by the employees to the authorities concerned, so that a favourable action would be solicited. Hospital managements who have permitted the survey were supportive and inspired their employees to provide meaningful information since the hospital authorities wanted to document the outcome of the study for NABH review or otherwise as a document to use for NABH accreditation. Informal discussions with the respondents were also facilitated to gather useful responses.

During the data collection process, the researcher had also documented important points of concern shared by the employees of

different cadre, through informal interaction. A few of such comments are reported in Chapter 7 in the discussion section.

5.9 Theoretical and Operational Definitions of the Constructs and their Measurements

The nature and settings of the research study demand identification of appropriate theoretical and operational definitions. The researcher adopted the theoretical definitions which could demonstrate the objectives of the study. Corresponding operational definitions and measurement scales were identified and customised to ensure that the items are consistent with hospital settings and to suit the respondents' profiles.

5.9.1 Definitions and Measurements of Dependent Variables

Commitment to service quality (CSQ) and service quality perception (SQP) of employees were considered in this study as dependent/outcome variables.

5.9.1.1 Commitment to Service Quality (CSQ)

a) *Theoretical Definition:*

CSQ is defined as “the relative propensity of a service employee to engage in continuous improvement and exert effort on the job for the benefit of customers” (Peccei & Rosenthal, 1997, p.69).

b) *Operational Definition:*

CSQ is operationally defined in this study as employees' strong desire in improving the quality of service and their deeds to help their organisation in delivering quality service to their customers/ patients (Hartline & Ferrell, 1996).

c) *Measurement Scale:*

CSQ was measured by using single dimension, five items, seven points Likert scale (Strongly Disagree to Strongly Agree) developed by Hartline and Ferrell (1996). The reliability Cronbach's alpha score of the original scale was 0.85.

5.9.1.2 Service Quality Perception (SQP)

a) *Theoretical Definition*

Gap model advocated by Parasuraman, Zeithaml, and Berry (1988) defines service quality as the difference between customers' expectation and their perception of service delivered (Gap 5 in the Gap model).

b) *Operational Definition*

Gap 5 among the five different service quality gaps is the collective outcome of four other internal gaps. The other gaps are: Gap 1- between consumers' expectation and management's perception; Gap 2- between managements' perceptions and service quality specifications; Gap 3 is the difference between service quality specifications and service actually delivered and Gap 4 is the difference between service delivery and the communication to consumers about service delivery. Among these gaps, Gap 3 is highly influential since service performance is directly associated with service quality (Chenet, Tynan, & Money, 2000). Service delivery happens through the interaction between service employees and the customers in the service encounter triad where the service organisation is the third element. In this encounter, employees' discretionary capacity decides the level of service quality delivered (Zeithaml, Parasuraman, &

Berry, 1990). It is not the services itself but the employees providing the service that makes the difference and creates the competitive advantage (Burgers, Ruyter, Keen, & Streukens, 2000). Service quality perception of employees is thus operationalized in this study as per the 'Gap 3' in the service quality gap model.

Service quality perception is operationally defined in this study as the awareness of employee about their competence to provide prompt and accurate service to the customer/patients by ensuring individual attention.

c) *Measurement Scale*

Service quality is the outcome of the human interaction between the service provider and the customer in the service encounter triad. The service provider is capable of verifying the quality of service they deliver (Sergeant & Frenkel, 2000). Schneider and Bowen (1985) have already proved the existence of a correlation between the customers' and service employees' perception of service quality. Moreover, employees are conscious of the challenges faced during customer interaction and how they should respond to customers' specific needs while delivering service to ensure quality (Boshoff & Mels, 1995). Behrman and Perreault (1992) emphasised four ways of measuring job performance of an employee viz., self-appraisal, peer appraisal, supervisory evaluation and customer evaluation. The correlation between self-rating and other measures of performance has been confirmed by various researchers like Boshoff and Mels (1995), Churchill, Ford, Hartley, and Walker (1985) and Pym and Auld (1965). Due to this reason, in many studies employees' perception of service delivery has been effectively used to measure organisational

performance with respect to service quality (Schneider, Parkington, & Buxton, 1980; Ulrich, Richard, Dave, Mark, S. & Thorpe, 1991; Jaworski & Kohli, 1991; Boshoff & Mels, 1995; Iverson, McLeod, & Erwin, 1996; Boshoff & Tait, 1996; Sergeant & Frenkel, 2000; Boshoff & Allen, 2000 - as cited by Malhotra & Mukherjee, 2003, p 952).

SERVQUAL is the best-known measurement for measuring service quality (Ekinci & Riley, 1999), and it has been used to measure service quality in different service settings (Palmer, 2001). According to Tsang and Qu (2000), out of the five dimensions of service quality, the “tangibles” dimension is not essential to be measured to assess employees’ perception of service quality performance. But only employees’ perception of the design, development and delivery of service need to be measured. He had also stated that employees/managers tend to perceive their service quality more actual than customers perceive it.

The purpose of the present study was to measure the service quality perception of employees who interact with customers/patients in hospitals. Only employee-related aspects of service quality perception items (Cronin & Taylor, 1992; 1994) were selected since employees evaluated their own performance in terms of service quality. Malhotra and Mukherjee (2003 & 2004) in their study of service quality perception among employees in the banking sector had also used the same approach. The eleven items scale which was a shortened version of twenty-two items SERVQUAL scale devised by Parasuraman et al. (1988) used in similar studies conducted for measuring employees’ service quality perception (Malhotra & Mukherjee, 2003, 2004; Boshoff & Mels, 1995; Boshoff & Tait, 1996; Hartline & Ferrell, 1996) was adapted for this study with five-point

Likert-type scale ranging from “strongly disagree” to “strongly agree”. Service quality perception was treated in this study as a first-order construct having reflective indicators without considering different dimensions. The Cronbach’s alpha inter-item reliability score of the original scale with shortened eleven items was 0.896.

5.9.2 Definitions and Measurements of Independent Variables

Only human resource management practices (HRM) which have relevance and applicability in the hospital sector were selected for this study. It was also ensured that these selected practices have an influence on the performance-related outcomes (dependent variables) and are capable of manipulating significantly on mediating/process variables (HRM outcomes) such as employee competence, organisational and professional commitment.

On this basis, ten HRM practices based on AMO (abilities, motivation, and opportunities to participate) model were selected for the study. These HRM practices were shortlisted on the basis of an extensive literature survey and discussions with practitioners and academic experts in the field. Employee Selection, Training, Performance Appraisal and Job Content were the HRM practices identified which pertained to ability, skill and knowledge development of employees. Compensation, Reward and Recognition and Career Planning were the HRM practices considered which enhance employee motivation. Teamwork, Communication and Empowerment were the HRM practices included in this study which underline the opportunities to participate.

5.9.2.1 Definition of HRM Practices

Organisations attain their goals and objectives through appropriate HRM practices. Different HRM practices have different effects on HRM outcomes and organisational performance which depend on the nature of the organisation. HRM involves all management decisions and practices that directly affect or influence the people, or human resources, who work for the organisation (Fisher, Schoenfeldt & Shaw, 2007).

a) *Theoretical Definition*

As per Delery and Doty (1996), HRM practices can be theorised as a set of internally consistent policies and practices designed and executed to ensure that a firm's human resources contribute to the accomplishment of its business objectives. These HRM practices that are theoretically or empirically related to overall organisation performance. These practices are known as best practices or universalistic approach and include internal career opportunities, formal training, result-oriented appraisals, employment security, participation, job descriptions and profit sharing.

b) *Operational Definition*

HRM Practices are operationally defined (as AMO model) in the study as practices that result in attitudinal and organisational outcome by improving employees' ability and skill, motivation and creating opportunities for involvement and participation (Appelbaum et al.2000).

5.9.2.2 Various Ability/Skill Practices Included in the Study

Employee selection, training, performance appraisal and job content were the HRM practices shortlisted under this head.

a) Employee Selection

Employee selection is operationally defined in this study as the perception of employees on effectiveness and reliability of selection process followed in the hospital which results in hiring right employees with necessary skill sets, attitude, and right values.

Measurement Scale:

Five items, five-point Likert-scale (strongly disagree to strongly agree) was used to measure the employee perception on selection being conducted in the hospital which was adapted from Dhiman and Mohanty (2010). The items for the scale was adapted from earlier studies by Truss, 2001; Patterson, West, Lawthom, & Nickel, 1997; and Singh, 2004. A high score specifies a better selection process. The reliability Cronbach's alpha score of the original scale was 0.86.

a) Training

Training is a planned programme designed to improve performance at the individual, group and organisational levels (Cascio, 1998).

Regularity, sufficiency and need-based development identified through performance appraisals which would be useful in delivering quality service to patients/customers are considered as the operational definition of training, as perceived by employees.

Measurement Scale

Four items, five-point Likert-scale (from strongly disagree to strongly agree) was used to measure employees' perception on training. A higher score reflected better training opportunities. The scale used by

Dhiman and Mohanty (2010) which was adapted from Singh (2004) was used for the study. Cronbach's alpha score of the original scale was 0.83.

c) *Performance Appraisal:*

Performance appraisal is the process by which an employee's contribution to the organisation during a specified time period is assessed and used for taking decisions relating to placement, promotion, remuneration and reward, training and development (Lundy & Cowling, 1996).

Performance appraisal is operationally defined in this study as employees' perception on the effectiveness of performance appraisal system which helps them to improve their performance by way of accurate measurement, feedback, counselling and also by using appraisal data for job-related decision making (like job rotation, promotion, training and compensation).

Measurement Scale

A five items, five-point Likert-scale (from strongly disagree to strongly agree), was used to measure employees' perception on performance appraisal in the hospital. A higher score reflected better performance appraisal. The scale used by Dhiman and Mohanty (2010) which was adapted from Singh (2004) was used for the study. Cronbach's alpha score of the original scale was 0.89.

d) *Job Content*

Job content is operationalized in this study as well-articulated duties of the employment that entail the use of multiple skills and abilities of an employee which is challenging and provide a sense of usefulness to them as perceived by the employees in the hospital.

Measurement Scale

The five items, five-point Likert-scale (from strongly disagree to strongly agree) used by Dhiman and Mohanty (2010) which was designed on the basis of extensive literature review (Gelade and Ivery, 2003; Ramlall, 2004; & Sun, Aryee, & Law, 2007) was adopted in this study to capture employee perception on job content. A higher score reflected better job content. The Cronbach's alpha score of the original scale was 0.86.

5.9.2.3 Employee Motivation Practices

The employee motivation practices included compensation, rewards and recognition and career planning.

a) *Compensation*

Compensation and reward systems are effective means to foster desired employee behaviour and contribute to individual and organisational performance (Gerhart & Milkovich, 1992).

Compensation, as perceived by employees, is operationally defined as an adequate system which is fair and guarantees a performance-based pay raise by ensuring internal and external equity.

Measurement Scale

The four items, five-point Likert-scale (from strongly disagree to strongly agree) as used by Dhiman and Mohanty (2010) was adopted to measure employees perception on compensation practices followed in the hospital. Items were based on previous studies (Truss, 2001; Guest, 2002; Gelade & Ivery, 2003; Matzler, Fuchs, & Schubert, 2004; and Ramlall, 2004). A higher score mirrored better compensation. The original internal consistency measure Cronbach's alpha was 0.72.

b). *Rewards and Recognition*

Reward and recognition were conceived in the study as fair, performance-based appreciation and recognition bestowed to sincere and hardworking employees as perceived by the employees.

Measurement Scale

This measure was of four items and adopted from Dhiman and Mohanty (2010). Employees responses were obtained on five-point Likert-scale (from strongly disagree to strongly agree) and a higher score reflected greater rewards and recognition. The original internal consistency measure Cronbach's alpha was 0.83.

c) *Career Planning:*

Career planning was operationally defined as having a clear career path linking individual and organisational growth needs and development plans within the hospital which addresses performance-based promotion to the qualified employees, as perceived by the employees in the hospital.

Measurement Scale

This measure was of five items and adopted from Dhiman and Mohanty (2010), items of which was also used in other studies (Delery & Doty, 1996; Patterson et al., 1997; Matzler et al., 2004; Ramlall, 2004; Singh, 2004; and Sun et al, 2007). Employees responses were obtained on five-point Likert-scale (from strongly disagree to strongly agree) and a higher score reflected better career planning. The original internal consistency measure Cronbach's alpha was 0.89.

5.9.2.4 Opportunities to Participate Practices

HRM practices relating to opportunities to participate include: teamwork, communication and empowerment.

a) Teamwork

Employee perception of teamwork in the hospital was operationally defined in this study as a function of cooperation, information sharing, friendliness and involvement in various workplace decision-making mechanisms.

Measurement Scale

Questionnaire items for teamwork were taken from Dhiman and Mohanty (2010). Earlier studies conducted by Bartel (2004) and Guest (2002) were also used for this measure. There were four items in this measure which were rated on a five-point Likert scale (from strongly disagree to strongly agree). A higher score reflected greater teamwork. The Cronbach's alpha score of the original scale was 0.75.

b) Communication

Employees' perception of two-way communication principles followed in the organisation comprises of their involvement in formal participation processes (like in quality improvement and problem-solving groups) in which employees' opinions and suggestions were appreciated while taking decisions.

Measurement Scale

A three items, five-point Likert-scale (from strongly disagree to strongly agree) adopted from Dhiman and Mohanty (2010) was used to

measure employee perception on communication in the hospital. The scale was developed based on an extensive literature survey (Sharma & Joshi, 2001; Guest, 2002; and Wright, Gardner, & Moynihan, 2005). A higher score mirrored better communication. The Cronbach's alpha score of the original scale was 0.80.

c) *Empowerment*

Empowerment, as perceived by employees, is operationally defined in the study as a function of operational freedom, judicious delegation and encouragement to be creative, innovative and to do new things.

Measurement Scale

Three items were used to measure empowerment which was adopted from Dhiman and Mohanty (2010). The items were initially taken from previous studies (Sharma and Joshi, 2001; Matzler, 2004; and Tsai, 2006). The response was obtained on five-point Likert-scale (from strongly disagree to strongly agree). Higher the score, greater would be the empowerment. The original Cronbach's alpha, in this case, was 0.73.

5.9.3 Definitions and Measurements of Mediating/ Process Variables

HRM outcomes, such as employee competence (EC), organisational and professional commitment (OC & PC) which were identified as the immediate effect of various HRM practices (independent variables) followed in the hospitals are considered as mediating or process variables in the study. Baron and Kenny (1986) described the mediation function of a third variable, which represented the generative mechanism through which the focal independent variable was able to influence the dependent variable of interest. Hence, HRM mediating/process variables identified

in the study can significantly influence the outcome (dependent) variables in the study.

5.9.3.1 Employee Competence

a) *Theoretical Definition*

Competence can be defined as an underlying characteristic of an individual that is causally related to effective and /or superior performance as determined by measurable, objective criteria, in a job situation (Spencer & Spencer, 1993).

b) *Operational Definition*

Employee competence is operationally defined in the study as employee's perception of their ability to understand and solve problems encountered in the work, mastery from work behaviour that results in intrinsic psychological rewards and faith in oneself.

c) *Measurement Scales*

Employee competence was measured using competence questionnaire adapted from Paul (2003) which was initially designed by Sekaran and Wagner (1980). The internal consistency scores Cronbach's alpha of the original scale was 0.72.

5.9.3.2. Organisational Commitment

a) *Theoretical Definition*

Organisational commitment is defined as the psychological attachment to and identification with an organisation that makes separation from the organisation difficult for the employee (Mowday, Porter, & Steers, 1982).

b) *Operational Definition*

Organisational commitment is operationally defined in this study as employees' perception on the present hospital as their employer of choice, emotional attachment, pride in talking about the hospital, sense of belonging and their interest to continue in the same hospital for the rest of their career.

c) *Measurement Scale*

A single dimension commitment questionnaire adopted from Chang and Choi (2007) which was initially developed by Mowday et al. (1982) was used to measure employees' organisational commitment in the study. This measure was validated in subsequent studies (Brierley, 1996). The scale was originally of five items on seven-point Likert-scale (from strongly disagree to strongly agree). In this study, the scale has been converted to five point Likert-scale for uniformity with other scales. A higher score reflects greater organisational commitment. The Internal consistency scores Cronbach's alpha of the original scale was 0.88.

5.9.3.3 Professional Commitment

a) *Theoretical Definition*

The definition of professional commitment considered in this study is that it is the psychological attachment to and identification with one's profession/occupation (Morrow & Wirth, 1989).

b) *Operational Definition*

Professional commitment is operationally defined in this study as employees' perception of present profession/occupation as their choice, emotional attachment, pride in talking about the profession, sense of belonging and their interest to continue to be in the same profession for the rest of their career.

c) *Measurement Scale*

A single dimension commitment questionnaire adapted from Chang and Choi (2007) which was initially developed by Mowday et al.'s (1982) was used to measure employees' professional commitment in the study. This measure was validated in subsequent studies (Brierley, 1996). The scale was originally of five items on seven-point Likert-scale (from strongly disagree to strongly agree). In this study, the scale has been converted to five-point Likert-scale for uniformity with other scales. A higher score reflects greater professional commitment. The Internal consistency score Cronbach's alpha of the original scale was 0.69.

5.9.4 Definition and Measurement of Moderating Variable

Service climate is identified as a moderator in the study since employee-perceived service climate in the hospitals acts on the relationship between independent and dependent variables. Baron and Kenny (1986) have described the moderation function of the third variable, which partitions a focal independent variable into subgroups that establish its domains of maximal effectiveness in regard to a given dependent variable.

5.9.4.1 Service Climate

a) *Theoretical Definition.*

Service climate definition adopted in the study refers to employees' shared perceptions of the practices, procedures, and behaviours that are rewarded, supported, and expected by the organisation with regard to customer service and customer service quality. Service climate focuses service employees' effort and competency on delivering quality service, which in turn yields positive experiences for customers as well as positive customer perceptions of service quality (Schneider, White, & Paul, 1998).

b) *Operational Definition*

Employee perceived service climate is operationally defined in the study as the employees' credence on the competency of employees in the hospital to deliver quality service and also on necessary support extended and recognition and reward provided by the organisation.

c) *Measurement Scale*

A reduced version of service climate scale with four items, Likert - scale adopted from the study of Salanova and Agut (2005) was used in the study to mark responses of employees on the perception of service climate. The scale was originally with seven-point Likert-scale (from completely disagree to completely agree) and of seven items global service climate scale of Schneider et al. (1998). In this study, the scale has been converted to five-point Likert-scale for uniformity with other scales (strongly disagree to strongly agree). The internal consistency scores Cronbach's alpha of the original scale was 0.84.

Table 5.1 provides a summary of the scales used in the study along with the source and the original score of Cronbach's alpha.

Table 5.1 Measurement Scales, Sources with Original Cronbach's Alpha

Variables	Source of Scale (Likert – Strongly disagree to Strongly Agree)	Original 'α'
Employee Selection (ES)	5 items, Lawthom, & Nickel, 1997; Dhiman & Mohanty, 2010	0.86
Training (T)	5 items, Singh, 2004; Dhiman & Mohanty, 2010	0.83
Performance Appraisal (PA)	5 items, Singh, 2004; Dhiman & Mohanty, 2010	0.89
Job Content (JC)	5 items, Singh, 2004; Dhiman & Mohanty, 2010; Sun, Aryee, & Law, 2007	0.86
Compensation (COP)	5 items, Truss, 2001; Dhiman & Mohanty, 2010; Ramlall, 2004	0.72
Reward and Recognition (RR)	4 items, Dhiman & Mohanty, 2010, Truss, 2001; Ramlall, 2004	0.83
Career Planning (CP)	5 items, Dhiman & Mohanty, 2010, Truss, 2001; Ramlall, 2004	0.89
Team Work (TW)	4 items, Bartel, 2004; Dhiman & Mohanty, 2010; Guest, 2002	0.75
Communication (COM)	3 items, Dhiman & Mohanty, 2010; Wright, Gardner, & Moynihan, 2005	0.80
Empowerment (EMP)	3 items, Sharma & Joshi, 2001; Tsai, 2006; Dhiman & Mohanty, 2010	0.73
Service Quality Perception (SQP)	11 items, Hartline and Ferrell, 1996; Malhotra & Mukherjee, 2003	0.896
Commitment to Service Quality (CSQ)	5 items, Hartline and Ferrell, 1996.	0.85
Employee Competence (EC)	5 items, Paul, 2003; Sekaran & Wagner, 1980.	0.72
Organisational Commitment (OC)	5 items, Chang & Choi, 2007; Mowday et al., 1982	0.88
Professional Commitment (PC)	5 items, Chang & Choi, 2007; Mowday et al., 1982	0.70
Service Climate (SC)	4 items, Salanova & Agut, 2005	0.88

5.10 Measurement of Constructs

In the study, ten different HRM practices were identified as first-order constructs having reflective indicators. Subsequently, all these ten practices were collectively conceptualised as HRM practices as a second-order construct. The HRM outcomes and organisational performance related outcomes selected in the study can be better understood by treating HRM practices as a second-order construct. Each practice collectively measures respondents' (employees') holistic perception on HRM practices. All other constructs in the study were first-order constructs having reflective indicators.

5.11 Pilot Study

To verify the feasibility and also to identify probable practical issues of data collection using the questionnaire developed, a pilot study was conducted. A total of one hundred questionnaires were administered to a sample of 50 employees each (10 Doctors, 30 Nurses & 10 Other Staff consisting of front office, insurance, lab & pharmacy) in two different hospitals. Employees who have completed at least one year of service in the current hospital alone were considered as respondents since they would be conversant with various practices in the hospital. The respondents were encouraged to comment on any questions that they found were not clear or cite questions which were not relevant.

The pilot study exposed a few matters of practical feasibility with respect to the following,

- 1) The questionnaire was found to be too lengthy (77+ 9 questions) and respondents expressed their lack of time to fill in since they were too busy with routine work.

- 2) The socio-demographic questions which appeared in the first part of the questionnaire created a mental block due to the confidentiality of the responses since HRM is a very delicate area of concern. The hospital sector was also experiencing a turbulence at that time due to industrial strife on pay and working conditions of nursing staff.
- 3) Since an identical questionnaire was administered to the different category of employees like doctors, nurses and other staff, there was a confusion with respect to a few questions.
- 4) Response rate in the pilot study was an indication of how to go about distributing the questionnaires to the different categories of employees and also for the *modus operandi* to be followed for final data collection. Response rates were: doctors 30 percent, nurses 90percent and other staff 60 percent.

Modifications were made to the wording and layout of the questionnaire based on the feedback received from the respondents. Questions were arranged in different boxes as per the variables so that it avoided boredom while filling the questionnaire by providing a feeling of accomplishment of a smaller task. Socio-demographic questions were arranged to the last section to get rid of unwanted anxiety on confidentiality and also to increase the quality and efficiency. The researcher followed a procedure for data collection based on the experience from the pilot study at the final stage of the data collection (discussed in Section 5.14.5).

5.12 Questionnaire Format

The final questionnaire developed for the survey consisted of three parts. The initial part briefed about the purpose of the study, the topic and request made thereof to get a sincere response from the respondents. The questionnaire was arranged logically so that responses would be made accurately. Ten different HRM practices questions were put in the beginning followed by the employee competence questionnaire which is an HRM outcome variable selected in the study. The questionnaire to measure one of the dependent variables viz., employees' service quality perception (SQP) was arranged immediately below the HRM practices so that the respondents can readily reckon the performance-related outcome based on the input/ antecedent variables. Employee perceived service climate (SC) was kept below SQP since it substitutes tangible dimension of service quality which is treated as a moderating variable in the study. Measuring of various commitment related variables such as organisational commitment, professional commitment and commitment to service quality were arranged together to make an easy distinction between those three different constructs. The questions were logically organised to ease the cognitive burden of respondents (Dillman, 2000) and the various statements were grouped by content to allow the respondents to organise their thoughts better. Towards the end, socio-demographic variables were arranged. This was intentionally done to increase the response rate. In the case of questions other than socio-demographic, the respondents were asked to mark their level of disagreement or agreement with a given statement, using a five-point Likert scale. The scale being 'strongly disagree', 'disagree', 'undecided', 'agree' and 'strongly agree'. The

‘undecided’ column was kept at the end to negotiate central tendency bias of respondents while giving the response. With respect to the number of scale points, researchers acknowledge that a Likert scale with seven plus or minus two points offers a reasonable range of alternatives for the respondents to mark their responses and an increase from five points to seven points does not improve the reliability of scale (Aaker, Kumar & George, 2000; Malhotra, 2004; Sekaran, 2003). The five-point scale was considered sufficient to allow for differentiation of perception of the respondents and avoid confusion too. The final version of the questionnaire used in the study (modified after pilot study) is attached in Appendix 1.

5.13 Scope of the Study

- a) *Unit of observation and analysis*: Employees of hospitals with 200 and above beds and who interact with patients/customers. This included doctors, nurses and other staff (front office, lab, pharmacy, insurance, social work department and PROs).
- b) *Place of study*: Thrissur and Ernakulam Districts of Kerala State, India.
- c) *Time*: Feb 2015 to Dec 2015.

5.14 Sampling Design

Sampling design describes the target population, the sampling frame, determining the sample size and method of selecting the sample.

5.14.1 Population of the Study

Population for the study was identified through the following progression:

- 1) Based on the literature and field survey and also discussions with experts in the field, allopathic private hospitals in the State of Kerala with a bed strength over 200 and minimum of five years standing only were considered as these hospitals would have employee strength to have formal HRM functions and a department of HRM and it takes approximately five years of time to evolve HRM practices.
- 2) Among the allopathic private hospitals, general hospitals (mostly bigger ones) with at least five years of standing were considered for the study since it takes approximately five years of time to settle down their operation especially on human resource management practices.
- 3) Employees of private hospitals in Thrissur and Ernakulam districts were considered as the population for the study since these two districts had the highest concentration of government-approved allopathic private hospitals with a bed size over 200 (Type IV & Type V as per Kerala Private Hospitals Association - KPHA) in these districts. As per the published report on Survey of Private Medical Institutions in Kerala - 2004, Department of Economics and Statistics, Government of Kerala, Ernakulam district stood first with thirteen hospitals with 200 and above bed strength, followed by Thrissur District

with nine and Trivandrum with seven out of a total of 64 hospitals with above 200 beds).

- 4) Latest published data on hospitals in the private sector in the State of Kerala providing an approximate population districtwise (of the different category of employees & hospitals) was available only for the year 2004, which could not be relied upon since much advancement had been taken place in the private hospital sector afterwards.
- 5) A total of fourteen private allopathic hospitals from Thrissur District and twenty from Ernakulum District having a bed strength above 200 were identified based on 'registration renewal list' available at the District Medical Officer's Office (DMO). The total bed strength of these hospitals was calculated to be 14000 approximately (Thrissur 6000 & Ernakulam 8000). Approximate strength of staff under the different categories was obtained from the respective HRM Departments. The strength of doctors came to be 3500 (50 per 200 beds), 17500 Nurses (250 per 200 beds) and Other Staff 7000 (100 per 200 beds). The total population came to be 28000 (approximately).

5.14.2 Sampling Frame

Eight out of thirteen private allopathic hospitals (as per the published official report-2004) from Ernakulam district and seven out of nine (as per the published official report-2004) from Thrissur district with a bed capacity of 200 and above gave permission to put up an application for data collection from employees of the hospitals. But only eight

hospitals granted permission (4 from Ernakulam & 4 from Thrissur) since they considered HRM in hospitals as a vulnerable area and they were experiencing a turbulence with respect to nursing staff. The sampling frame thus consisted of employees of eight hospitals (36% of 22 hospitals) which permitted data collection.

Inclusion criteria

Private hospitals should have a minimum of five years standing and employees with a minimum of one year of service in the present hospital and also must be an employee who interacts with patients/customer. Employees included doctors, paramedical staff (nurses and pharmacists), front office and technical staff.

5.14.3 Sampling Method

Sampling method refers to the rules and procedures by which some elements of the population are included in the sample. Since all employees were not willing to participate in the survey and also there is a shift system followed in the hospitals, the researcher did not go for probability sampling. Among the hospitals which permitted data collection, the quota sampling (non-probability sampling) method was adopted. This ensured a proportionate representation of employees from different hospitals and from different categories like doctors, nurses, and other staff. The judgment was made before distributing the questionnaires, on the condition that the employee should have completed at least one year of service in the current hospital and must be interacting with patients/customers.

5.14.4 Sample Size

Sample Size Calculator developed by Creative Research Systems (www.surveysystem.com) was used to determine the sample size initially.

At a confidence level of 95 percent and confidence interval of five, which is generally accepted for Social Sciences (Cohen, 1988), the sample size was calculated as 384 (of an unknown population). Only an approximate strength of employees in the hospitals from where data were collected was known and it is highly fluctuating since organisation switching is a common phenomenon among employees in hospitals (as described by HR Managers/Admin Officers).

A sample size of 1300 was selected so as to be able to have a final sample size of at least 400 in each category after the screening of incomplete and invalid questionnaires. This sample size was decided so as to enable additional analysis to be carried out if needed, with respect to the different category of employees.

Subsequently, the sample adequacy was again ensured by doing CFA using AMOS on a complete measurement model and Hoelter's Index as part of model fit measures of the structural equation model by integrating the independent, mediating, moderating and dependent variables in the study. The Hoelter's Index CN (Critical Number) values at 0.05 and 0.01 significance level showed 441 and 449 respectively (Table 5.2). As per Hoelter (1983) if a CFA gives CN value 200 or above it shows the adequacy of sample size for testing the model.

Table 5.2 Hoelter's Index of Full Measurement Model

Model	HOELTER .05	HOELTER .01
Default model	441	449
Independence model	81	83

With a sample size of 1236

A total of 1962 questionnaires were circulated for the survey, out of which 1734 questionnaires were collected back. After initial screening 398 unusable questionnaires were identified and rejected. Finally, only 1336 questionnaires were retained and data entered into excel worksheet. Missing data in a few of the socio-demographic variables were ignored to retain questionnaires with other data found to be adequate. And also to have an adequate sample size in the different category of employees. The details of sample collected are shown in Table 5.3.

Table 5.3 Details of Samples Collected

Job Title	Total	Distributed	%	Usable forms Received	%	% of sample frame
Doctors	1040	490	47	193	39	19
Nurses	3545	930	26	804	87	23
Other Staff*	1475	542	37	339	63	23
G Total	6060	1962	32	1336	68	22

- Notes: 1. Total Number of hospitals: 8
 2. *Other staff: includes staff of lab, pharmacy, front office, social work and insurance
 3. Period of data collection: between February 2015 to December 2015

5.14.5 Mode of Data Collection

After acquiring permission from the hospitals in writing, nursing superintendents, and other heads of departments were personally consulted to explain the purpose of the survey. Subsequently, respondents were addressed directly either during training sessions or during any meeting or individually as per their convenience. For staff needing help in understanding certain questions, the researcher personally explained the requirements in detail. The questionnaires were left to them in the morning hours and collected back in the evening from the department heads. In the case of doctors,

questionnaires were distributed and collected back individually by the researcher.

Based on the pilot study, doctors' response rate was found to be very less (20%) and hence almost 50 percent of the doctors who were willing to participate were given the questionnaires. As far as possible consultants were avoided since their response rate was very low. Nurses' response rate was found to be the highest (90%), hence only 30 percent of the strength was administered with questionnaires in the hospitals. As far as other staff, they were not interested to fill-in and hence needed to be motivated by making repeated visits and reminders. Their response rate during the pilot study was about 70 percent and accordingly, nearly 40 percent of the strength was distributed questionnaires.

5.15 Validity and Reliability of Measurement Scales

The result of any research can be considered trustworthy only when the measures truly capture the concepts in the theoretical framework. This demands the need of establishing the psychometric soundness of the measures by ensuring that the measures satisfy statistical criteria (Nunnally, 1978). Therefore it becomes necessary to establish the goodness of measures through validity and reliability.

5.15.1 Validity Measures

Validity is the extent to which a scale or set of measures accurately represents the concept of interest (Hair, Black, Babin, & Anderson, 2009) and ensures the ability of a scale to measure the intended concept. Validity is defined as the extent to which any measuring instrument measures what it is intended to measure (Carmines and Zeller, 1991).

In this study, the researcher has advocated basically three types of validity of scale such as face validity, content validity and construct validity.

a) *Content Validity*

Content Validity is based on the extent to which a measurement reflects the specific intended domain of content (Carmines & Zeller, 1991) and it is considered as, the degree to which an instrument provides an adequate representation of the conceptual domain that it is designed to cover (Hair et al., 1998). The content validity addresses the subjective and logical evidence rather than being statistical. The instrument has been developed on the basis of a detailed review of the literature, and discussions with academicians and experts in the field to ensure content validity.

b) *Face Validity*

Face validity is concerned with how a measure or procedure appears. Does it seem like a reasonable way to gain the information the researchers are attempting to obtain? Does it seem well designed? Does it seem as though it will work reliably? (Fink, 1995). A measure is considered to have 'face validity' if the items are reasonably related to the perceived purpose of the measure (Kaplan and Scauzzo, 1993). The face validity can be established through review of the instrument by experts in the field (Hair, Anderson, Tatham, & Black, 1998).

The draft questionnaire prepared was taken to practitioners in the field as the qualitative part of the research study. Hospital directors, CEOs, HR managers, Administrative Officers, PROs, Operation Managers, Doctors, Nurses and other staff members were consulted to attract

meaningful inputs. Based on the feedback and suggestions the questionnaire was modified. Thus face validity could be ensured.

c) Construct Validity.

Construct validity ascertains the agreement between a theoretical concept and a specific measuring device or procedure. Construct validity can be divided into

- Convergent validity and
- Discriminant validity.

Convergent Validity

Convergent validity addresses the requirements of theoretical relatedness of various items in a scale. Convergent validity thus refers to the extent to which the scale correlates positively with other measures of the same construct (Malhotra & Dash, 2009).

To ascertain the convergent validity of a measurement model, p values associated with the estimate/loadings should be lower than 0.05 and loadings for indicators of all respective latent variables must be 0.5 or above for the convergent validity of a measure to be acceptable (Hair et al., 2009). This can be ensured by doing a confirmatory factor analysis of measurement model using SEM.

Discriminant Validity

Discriminant validity is the extent to which a measure does not correlate with other constructs from which it is supposed to differ (Malhotra & Dash, 2009).

Convergent and discriminant validity and composite reliability can be assessed by doing a Confirmatory Factor Analysis (CFA). It is a

prerequisite for proceeding with further analysis that is testing a causal model. The common measures that are useful for establishing validity and reliability are the following: Composite Reliability (CR), Average Variance Extracted (AVE), Maximum Shared Variance (MSV), and Average Shared Variance (ASV). The thresholds for these values are as follows (Hair, Black, Babin & Anderson, 2010):

Composite Reliability: $CR > 0.7$; **Convergent Validity:** $AVE > 0.5$ or $(CR - AVE)$ to be a positive value; **Discriminant Validity:** $MSV < AVE$; $ASV < AVE$; Square root of AVE should be greater than inter-construct correlations.

AVE is a strict measure of convergent validity. According to Malhotra and Dash (2011), AVE is a more conservative measure than CR and hence on the basis of CR alone, a researcher may conclude that the convergent validity of the construct is adequate, even though more than 50 percent of the variance occurred is due to an error. If AVE is less than 0.5, but composite reliability is higher than 0.6, the convergent validity of the construct is still adequate (Fornell & Larker, 1981). Convergent validity can be assessed when items load highly (loading > 0.50) on their associated factors. The reflective measures individually are considered to be reliable if they correlate more than 0.7 with the construct they intend to measure. Loading of 0.5 or 0.6 is acceptable in a more relaxed approach in the early stages of scale development (Chin, 1998).

5.15.2 Reliability of Measures

A measuring instrument can be said to reliable only when it yields a true score of the variable under study. To the degrees that items are

correlated with each other, they all would be measuring the same construct. Reliability is defined as the extent to which any measuring instrument yields the same result on repeated trials (Carmines & Zeller, 1991).

In this study, reliability is operationalized as 'internal consistency', which is the degree of inter-correlation among the items that create a scale (Nunnally, 1978). The popular test of inter-item consistency reliability are: Cronbach's coefficient alpha (Cronbach's alpha ' α ') (Cronbach, 1951) and the composite reliability, which is a measure of the overall reliability of varied but similar items in the scale. An alpha threshold value of 0.70 or above is considered to be acceptable reliability coefficient (Nunnally, 1978), but lower thresholds are sometimes used in literature depending on the number of items in the measurement scales. In the case of exploratory research, an alpha value of 0.6 or above is considered significant (Hair et al., 1998).

5.16 Data Analysis Design

The data collected were checked for quality and consistency and only questionnaires with sufficient adequacy of responses were included in the data analysis. Exploratory and Confirmatory factor analysis was carried out to define the fundamental structure among variables and structural equation modelling was done to study the causality between the various variables. Various steps involved and statistical tools deployed to analyse the data are discussed below.

5.16.1 Data Screening

Data screening is the process of ensuring that data is clean and ready to go for conducting further statistical analyses. Data must be

screened in order to ensure the data are usable, reliable, and valid for testing the causal theory. Screening of data in this study basically focussed on missing values, outliers, normality and linearity assumptions, homoscedasticity and multicollinearity issues.

Normality refers to the distribution of the data for a particular variable. The usual assumption is that the data is normally distributed, even though it usually may not be.

Linearity refers to the consistent slope of change that represents the relationship between an independent (IV) and the dependent variable (DV). It is again a prerequisite for doing SEM analysis. There are many ways to test for linearity. It can visually be ensured by observing a regression line on a scatter plot of regression standardised residual which is used in this study.

Homoscedasticity means that the variable's residual (error) exhibits consistent variance across different levels of the variable. To determine if a relationship is homoscedastic is to do a scatter plot with the variable on the y-axis and the variable's residual on the x-axis. If the plot comes up with a consistent pattern then there is homoscedasticity. Researchers nowadays suggest that heteroscedasticity is not an issue and it may be desirable in the case of moderated models.

Multicollinearity in the data set is not desirable since the variance in the independent variable which explains the dependent variable are overlapping with each other and thus it results in an erroneous explanation of variance in the dependent variable. The way to check this is to calculate a Variance Inflation Factor (VIF) for each independent

variable after running a multivariate regression. The rules of thumb for the VIF are as follows:

VIF < 3: not a problem VIF > 3: potential problem;

VIF > 5: very likely problem VIF > 10: definitely problem

The tolerance value in SPSS is directly related to the VIF ($VIF = 1/\text{Tolerance}$) and values less than 0.10 are strong indications of multicollinearity issues.

Common Method Bias (CMB)

Common method bias refers to a bias in the dataset due to something external to the measures, which is basically due to collecting data using a single or common method such as by using questionnaires (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). In cross-sectional research design, survey studies gather responses from the same respondent to the items in a single questionnaire at the same point in time. This self-reported data may bring in systematic response bias that will either inflate or deflate responses. If there are significant common method bias present, then a majority of the variance can be explained by a single factor. To test for common method bias there are different tests available such as Harman's Single factor Test, Common Latent Factor, Marker Variable and Zero-constraint.

Unidimensionality

Unidimensionality refers to the existence of a single construct underlying a set of measures (Hair et al., 1998). Items within a measure are useful only to the extent they share a common nucleus, that is, the characteristics to be measured (Nullally, 1978). The problems associated with unidimensionality can be addressed by removing those items from

the scales that reduce the extent of unidimensionality. Exploratory factor analysis was used to ascertain the unidimensionality (Hair et al., 1998) of the instruments used in the study. Unidimensionality assessment should be made first prior to assessing Validity and Reliability.

5.16.2 Exploratory Factor Analysis(EFA)

Exploratory Factor Analysis (EFA) is generally carried out for determining the correlation among the variables in a dataset. This type of analysis provides a factor structure by the grouping of variables based on strong correlations. EFA prepares the variables to be used for cleaner structural equation modelling. An EFA should always be conducted for new datasets. EFA does not presuppose a theory like in the case of a Confirmatory Factor Analysis (CFA). EFA will be able to spot problematic variables much more easily than the CFA. A critical assumption of the EFA is that it is only appropriate for sets of non-nominal items which theoretically belong to reflective latent factors. EFA is normally carried out for only reflective variables. Principal Component Analysis (PCA) includes correlated variables with the purpose of reducing the number of variables and explaining the same amount of variance with fewer variables (principal components).

According to Hair et al. (2009) the linearity, normality, and homoscedasticity (i.e. the assumption that dependent variable exhibits equal levels of variance across the range of predictor variables) are considered to be a prerequisite for factor analysis. However, they contended that these statistical assumptions do not have to be met if the data matrix has sufficient correlation to produce representative factors and

justify the application of factor analysis. To determine the sufficiency of correlations, the approaches include visual examination of the correlation matrix, inspection of the anti-image correlation matrix, Barlett's Test of Sphericity and Keyser Meyer Olkin Measure of Sampling Adequacy.

Principal Components Analysis (PCA) was used in the study since it is apt while focusing on data reduction with minimum factors accounting for the maximum portion of the total variance. Latent root criterion technique is used for deciding on the number of factors to be extracted. As per this technique, if any individual factor accounts for variance in at least one variable, then that factor is to be retained for interpretation (Hair et al., 2009). Using eigenvalue as a cutoff is reliable when the number of variables is between 20 and 50. For doing EFA with a large number of variables, the factor extraction can be done by extracting combinations of variables that explain the greatest amount of variance (Hair et al., 2009). The selection of the method of factor rotation (between common factor analysis and components analysis) is based on two criteria, viz., (1) the objectives of the factor analysis and (2) the amount of prior knowledge about the variance in the variables (Hair et al., 2009).

With principal component analysis, only the factors having latent roots or eigenvalues greater than 1 are considered significant. The scree plot was also used to identify the number of factors that can be extracted before the amount of unique or specific variance begins to dominate the common variance structure. The varimax procedure in orthogonal approach maximises the sum of variances of required loadings of the factor matrix and gives a clearer separation of the factors (Hair et al., 2009). The varimax rotation was used in this study to extract factors. In

the interpretation of factors, factor loadings greater than 0.5 were considered, as factor loadings 0.5 or greater are considered practically significant (Hair et al., 2009).

5.16.3 Structural Equation Modelling

Confirmatory Factor Analysis (CFA) and path analysis were done by Structural Equation Modeling (SEM). SEM includes statistical practices to estimate the causal relationships of the defined theoretical model which integrate two or more latent variables measured through a number of observable indicators. The model hypothesised to be tested for the best fit of the data was done with the help of SEM using AMOS 21, IBM SPSS. SEM refers to both the structural and measurement model. In SEM, the inner model or the structural model which is part of the model that denotes the relationships between the latent variables considered in the model. The outer model or the measurement model, on the other hand, is part of the model that describes the relationships between the latent variables and their indicators. Hence the path coefficients are inner model parameter estimates. The weights and loadings are measurement model parameter estimates depending on whether the measurement model is formative or reflective.

CFA was done in this study on final data to confirm the theoretical framework developed for the study. A general pattern suggested by Anderson and Gerbing (1988) was followed in the study to test the model linking HRM practices, HRM outcomes and employees' performance-related outcomes. There are specific measures that can be calculated to

determine the goodness of fit. The goodness of fit is inversely related to the sample size and the number of variables in the model.

Various fit indices which assess the fit between model and data set which also proves its validity are detailed as under:

The Goodness-of-Fit Index (GFI): One of the important measures generally reported is GFI. It is a non-statistical measure that ranges from 0 (a poor fit) to 1 (perfect fit). The higher the GFI better the model fit. Though there is no definite value for the 'good' model fit (Chin & Todd, 1995), values above 0.90 are usually considered to be indicating a good fit between the proposed model and observed data.

Adjusted Goodness-of-Fit index (AGFI): It is similar to the GFI, but adjusted by the ratio of the degrees of freedom for the proposed model to the degrees of the freedom for the null. Though there is no set value for this, values above 0.80 are often considered as an indication for good fit model (Taylor & Todd, 1995). In a more relaxed approach values as low as 0.70 is also considered acceptable.

The Comparative Fit Index (CFI): This index uses a Chi-square distribution. CFI assumes values between 0 to 1, '1' indicates a perfect fit and '0' a poor fit. Values close to 1 preferably over 0.90 are considered to indicate a good fit. This measure is used to assess the unidimensionality of the scale which ensures construct validity. CFI value of 0.90 or above is evidence of unidimensionality (Byrne, 1998).

Bentler-Bonett Fit Index (NFI or TLI): NFI or TLI is a good indicator of the convergent validity of the questionnaire. The scale with TLI or NFI values of 0.90 or above is an indication of strong convergent validity (Bentler & Bonett, 1980). Convergent validity is the degree to which

multiple methods of measuring a variable provides the same results (O’Leary-Kelly & Vokurka, 1998).

Root Mean Square Residual (RMSR/RMR): The RMR value as close to ‘0’ indicates a better fit. The RMSR is the coefficient that results from taking the square root of the mean of the squared residuals. This is the extent to which the sample variances and covariance differ from the corresponding estimated variances and covariance.

The Root Mean Square Error of Approximation (RMSEA) is a measure of “discrepancy per degree of freedom” in a model (Browne & Cudeck, 1992). If there is a good fit the RMSEA will be less than or equal to 0.05.

The standardised root-mean-square residual (SRMR) is an absolute measure of fit. It is defined as the standardised difference between the observed correlation and the predicted correlation. This measure tends to be smaller as the sample size increases and as the number of parameters in the model increases. Values < 0.05 indicate good model fit and values < 0.08 indicate reasonable model fit (Joreskog & Sorborn, 1981).

Hoelter’s Index: Hoelter’s (1983) Critical Number (CN) labelled as Hoelter’s .05 and .01 indices. This index provides a fit index that is independent of sample size. The purpose of this index is to approximate a sample size that would be enough to develop an adequate model fit for a test (Hu & Bentler, 1995). Hoelter proposed that a value in excess of 200 under both Hoelter’s .05 and .01 indices is indicative of a model that adequately represents the sample data. If the CN exceeds 200 then the sample size of the study is considered to be sufficient (Byrne, 1998).

Some of the important measures and thresholds of CFA as per Hu and Bentler (1999) are shown in Table 5.4.

Table 5.4 Measures and Thresholds of CFA (Hu & Bentler, 1999)

Measure	Threshold
Chi-square/df (CMIN/df) (Chi-square Minimum = CMIN)	<3 good; <5 sometimes permissible (preferably between 1 to 3)
P-value for the model	>0.05 (Often shows 0.00)
CFI	>0.95 great; >0.90 traditional; >0.80 sometimes permissible (for construct validity)
GFI	>0.95 (0 to 1- higher the best)
AGFI	>0.80 (as low as 0.70 acceptable)
RMSEA	<0.05 good; 0.05 to 0.10 moderate; >0.10 bad
RMR	Close to '0'
PCFI	>0.80
PCLOSE	>0.05
SRMR	<0.09
TLI/NFI	>0.09 (measure for convergent validity)

Among the various measures of CFA, the following measures are reported very often by various researchers in their articles (Table 5.5)

Table 5.5 The Three Categories of Model Fit, their Level of Acceptance and Literature Support

Name of Category	Name of Index	Level of Acceptance	Literature
Absolute Fit	**Chi-Square (Discrepancy Chi Square)	P- value>0.05	Wheaton et al (1977)
	*RMSEA (Root Mean Square of Error Approximation)	RMSEA<0.08	Browne & Cudeck (1993)
	*GFI (Goodness of Fit Index)	GFI>0.90	Joreskog & Sorbom (1984)
Incremental Fit	AGFI (Adjusted GFI)	AGFI>0.90	Tanaka & Huba (1985)
	*CFI (Comparative Fit Index)	CFI>0.90	Bentler (1990)
	TLI(Tucker-Lewis Index)	TLI>0.90	Bentler & Bonett (1980)
	NFI(Normed Fit Index)	NFI>0.90	Bollen (1989b)
Parsimonious Fit	*Chisq/df (Chi Square/Degrees of freedom)	Chisq/df<3.0	Marsh & Hocevar (1985)

Source: Adapted from Awang, Z. (2012). A Handbook on SEM.- *Structural Equation Modelling*.

Note:

1. *Indices in bold are recommended since they are frequently reported in the literature.
2. ** One could ignore the absolute fit index of minimum discrepancy chi-square if the sample size obtained for the study is greater than 200 (Hair et al.,1996; Joreskog & Sorbom, 1996)

5.16.4 Moderation and Mediation Test by Hayes (2013) Process Macro

Moderation refers to an interaction. A moderator variable is a variable that interacts with another variable, often with an independent or

predictor variable, whereas in mediation the effect of one variable is transmitted to another variable through the mediator variable.

The mediation analysis is used to quantify and examine the influence of the antecedent variable on the outcome variable directly and indirectly through the mediating variable. Moderation analysis, on the other hand, is used to examine how the effect of an antecedent variable on an outcome variable interacted by a third variable. The primary predictor variable (IV) can be continuous or binary (should not be categorical) whereas the mediator/moderator must be continuous.

PROCESS macro plugin for SPSS and SAS (Statistical Analysis System) introduced by Hayes (2013) can compute models with moderator and mediator. This study uses PROCESS macro for testing mediation and moderation effect of variables. The conditional effect of the independent variable (X) on the dependent variable (Y) at values of the moderator is carried out. PROCESS macro uses ordinary least squares or logistic - regression based path analytic framework for estimating direct and indirect effect in single and multiple mediator models. Moderator models examine the significance of two and three-way interactions along with simple slopes and regions. Bootstrap and Monte Carlo confidence intervals are implemented for interpretation about indirect effects, including various measures of effect size. It can estimate 'moderated mediation' models with multiple mediators, multiple moderators of individual paths, interactive effects of moderators on individual paths, and models with dichotomous outcomes (Hayes, 2013). Since the study did not hypothesise the 'mediated moderation', 'moderated mediation' and

‘conditional indirect effect’, the conditional process modelling or conditional process analysis have not been performed.

Various statistical assumptions, hypotheses testing and the model validation specified in this methodology chapter were executed by using SPSS, PROCESS macro plugin and Structural Equation Modelling (SEM) using AMOS.

5.17 Limitations of the Methodology

Any research methodology will have various constraints depending upon the differing context and settings of the study. An exploration of statistical solutions would provide suitable exceptions to support research findings and better interpretation thereof. Drawing inferences from the data analysed with the statistical underpinning might be a common bottleneck faced by many researchers in the similar or in different kinds of researches undertaken. Hence research methodology could be a continuous exploration for exceptions which answers various limitations statistically (in the language of science). The limitations confronted and reported by the researchers can fuel further investigation and identification of yet another exception or development of a theory or a new research tool.

The following are the important limitations of the methodology adapted in this study:

- 1) A cross-sectional design using latent constructs can only capture perception of employees at a particular point in time which may not sufficiently qualify to understand causal inference. Though researchers advocate a longitudinal design

for the study this may not be practically feasible for this kind of theoretical framework conceived.

- 2) Self-reported performance by an employee can generally end up in getting inflated figures. This was addressed by incorporating Harman's single factor test for Common Method Bias. Future studies can incorporate responses from customers/patients on dependent variables (Service Quality Perception of Customer) to cross verify the result (Triangulation).
- 3) Employees of private general hospitals with 200 and above beds were only considered for the study. The ownership of hospitals also might be an influencing factor in the employees' perception of various HR policies in the hospitals, which was not considered in the study. Permission to collect data was not granted by most of the hospitals run by different trusts created by private individuals.
- 4) Different employee categories perceive various HRM practices and outcomes differently though questionnaire was prepared by ensuring cadre neutrality.
- 5) Neutrality of participants in the survey and fear of confidentiality can distort the data. This was addressed by ensuring confidentiality and by motivating employees to participate in the survey since a copy of the report would be provided to the hospital authorities which could be used for their better prospects.
- 6) Getting the doctors to fill in the questionnaires was a difficult constraint faced by the researcher. In a hospital, neither the HOD nor the HR Manager/the Hospital Management/the

Medical Superintendent does enjoy control over doctors. Most of the consulting doctors did not want to ‘waste’ their valuable time. Hence with great struggle, only 193 usable questionnaires were got filled in by Doctors.

5.18 Conclusion

The chapter presented various aspects of the research methodology used in the study to test and validate the research model explained in Chapter 4. The research process and design considerations along with data sources, sampling method, the measurement scales and statistical tools used are described in this chapter. Qualitative and quantitative dimensions of the study with regards to developing the theoretical framework, the reliability and validity aspects of the measurement scales used are also explained. Drafting of the questionnaire, pilot study, identification of population and finalisation of sampling design adopted, along with the limitations of research methodology employed in the study are also described in this chapter.

The next chapter discusses the analysis of the data in detail.

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DATA ANALYSIS AND INTERPRETATION

C o n t e n t s	6.1	<i>Introduction</i>
	6.2	<i>Preliminary Data Analysis</i>
	6.3	<i>Sample Profiling</i>
	6.4	<i>Descriptive Statistics</i>
	6.5	<i>Tests of Assumptions</i>
	6.6	<i>Common Method Bias</i>
	6.7	<i>Dimension Reduction</i>
	6.8	<i>Assessment of Measurement Model</i>
	6.9	<i>Confirmatory Factor Analysis of Measurement Model using SEM</i>
	6.10	<i>Confirmatory Factor Analysis of Research Models</i>
	6.11	<i>Analysis of Paths: Testing of Hypotheses</i>
	6.12	<i>Conclusion</i>

6.1 Introduction

This chapter explains the preliminary data analysis, sample profile, descriptive statistics of the collected data and its analysis in line with the objectives and hypotheses established for the study. Testing of various assumptions like normality, multicollinearity and correlation, test of common method bias, dimension reduction, validity and reliability of measures used for the study are also reported in this chapter.

6.2 Preliminary Data Analysis

Data screening was done to ensure its usefulness. After rejecting 398 incomplete response sets from the total data sets of 1734 collected,

1336 data set were entered and rechecked for **missing data**. No data was found missing except in the case of some demographic variables and such response sets with missing values above ten percent were rejected in order to avoid bias during data analysis exclusively by using demographic variables. Further examination of the data showed only minimal evidence of serious multivariate outliers. After removing extreme **univariate outliers** with the help of **boxplot** using SPSS from the data set, finally, 1236 datasets were retained for further analysis generating a 70.7 percent of usable response rate. Out of 1236 usable data sets, 680 were collected from Thrissur district and 556 were collected from Ernakulam district.

6.3 Sample Profiling

A response rate of approximately 20 percent from each hospital and from each category of employees was ensured during the data collection. Hospital-wise split up of the final data sets used for the analysis is tabulated and shown in Table 6.1.

Table 6.1 Hospital-wise Data Sets Collected

	Frequency	Percent	Cumulative Percent
Hospital 1	220	17.8	17.8
Hospital 2	210	17	34.8
Hospital 3	87	7.04	41.84
Hospital 4	76	6.15	47.99
Hospital 5	242	19.58	67.57
Hospital 6	183	14.8	82.37
Hospital 7	72	5.83	88.2
Hospital 8	146	11.8	100
Total	1236	100	

6.3.1 Demographic Profile of Respondents

The demographic profile of the respondents is given below in Table 6.2

Table 6.2 Demographic Profile of Respondents

Gender	Frequency	Percentage
Male	172	13.9
Female	1064	86.1
Total	1236	100
Job Title	Frequency	Percentage
Doctor	169	13.7
Nurse	748	60.5
Other Staff	319	25.8
Total	1236	100
Age	Frequency	Percentage
Below 30	809	65.5
31 to 40 years	265	21.4
41 to 50 years	90	7.3
51 to 60 years	41	3.3
Above 60 years	31	2.5
Total	1236	100
Total Experience	Frequency	Percentage
1 to 5 years	788	63.8
6 to 10 years	247	20.0
11 to 15 years	86	7.0
16 to 20 years	47	3.8
Above 20 years	68	5.5
Total	1236	100
Experience in the Current Hospital	Frequency	Percentage
1 to 5 years	970	78.5
6 to 10 years	143	11.6
11 to 15 years	59	4.8
16 to 20 years	30	2.4
Above 20 years	34	2.8
Total	1236	100
Monthly Income (in ₹)	Frequency	Percentage
Below 8000	127	10.3
8001 to 15000	840	68.0
15001 to 25000	131	10.6
25001 to 50000	34	2.8
50001 to 75000	25	2.0
75001 to 1 lakh	28	2.3
Above 1 lakh	51	4.1
Total	1236	100

- Out of the 1236 usable data sets, there were 172 male and 1064 female respondents which constituted 14 and 86 percent respectively. This is a very common feature of hospitals sector where female nurses constitute the major portion of the employee strength.
- 78 percent had income below ₹15,000 and only 8.4 percent had a monthly income above ₹50,000. This is because except doctors (13.7 %) the other staff were in the less salaried group, viz., nurses and other staff.

6.3.2 Job Title and Gender

As seen in Table 6.3 and in Figure 6.1 out of 172 males who formed the sample 58.7 percent were doctors, 24.4 percent were nurses and 16.9 percent formed 'other staff'. At the same time out of 1064 female respondents, 6.4 percent were doctors, 66.4 percent were nurses and 27.2 percent were among the other staff.

Table 6.3 Job Title * Gender Cross-tabulation

		Gender				Total	%
		Male	%	Female	%		
Job Title	Doctor	101	58.7	68	6.4	169	13.7
	Nurse	42	24.4	706	66.4	748	60.5
	Other Staff	29	16.9	290	27.2	319	25.8
Total		172	100	1064	100	1236	100

Hospitals have more nursing employees and most of the hospitals recruit female employees for the nursing jobs. Male nurses are generally recruited especially for the orthopaedic department and casualties wing. Due to recent labour issues based on salary and various working conditions, nowadays HR managers are reluctant to recruit male nurses.

Except in the case of doctors, the hospital sector is a female dominated service sector.

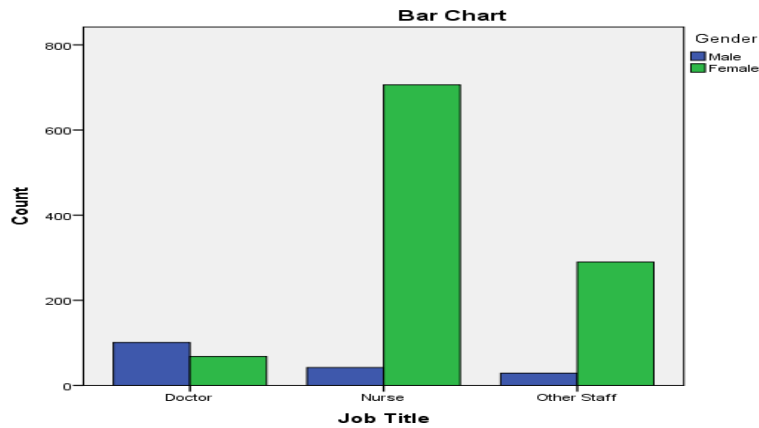


Figure 6.1 Comparison of Job Title and Gender

6.3.3 Job Title and Age

Table 6.4 and Figure 6.2 give the comparison between age and job title and it reveals that 65 percent of employees were in the age group of below 30 years. In the case of doctors, the age group of 31 to 40 years was the largest group.

Table 6.4 Job Title * Age Cross-tabulation

		Age					Total
		below 30	31 to 40 yrs	41 to 50 yrs	51 to 60 yrs	above 60 yrs	
Job Title	Doctor	47	57	36	13	16	169
	Nurse	581	125	20	13	9	748
	Other Staff	181	83	34	15	6	319
Total		809	265	90	41	31	1236

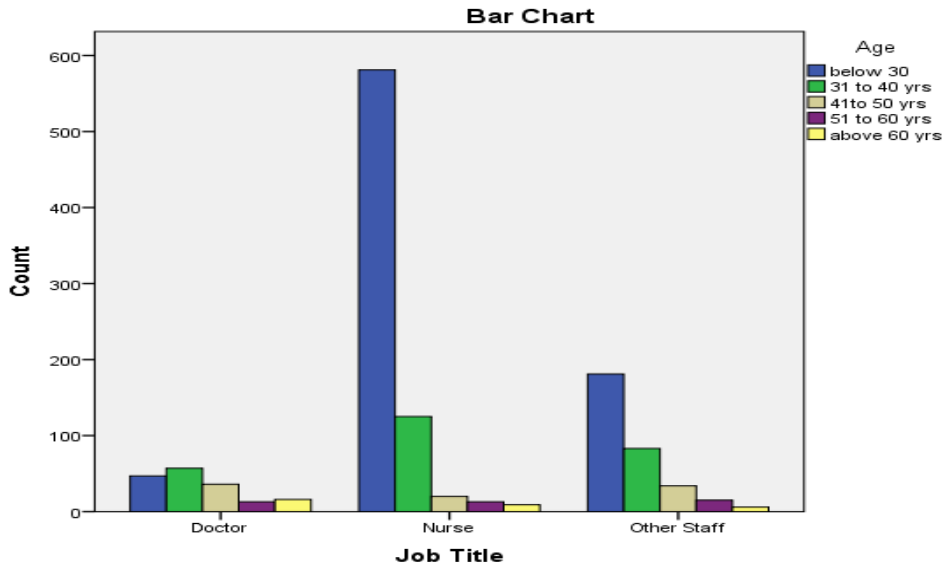


Figure 6.2 Comparison of Job Title and Age

6.3.4 Job Title and Total Experience

The following Table 6.5 and Figure 6.3 provide details about the experience of employees with respect to different job categories.

Table 6.5 Job Title * Total Experience Cross-tabulation

		TotaExp_five					Total
		1 to 5	6 to 10	11 to 15	16 to 20	above 20	
Job Title	Doctor	69	35	25	11	29	169
	Nurse	524	148	37	22	17	748
	Other Staff	195	64	24	14	22	319
Total		788 (63.7%)	247 (20%)	86 (7%)	47 (3.8%)	68 (5.5%)	1236

As it can be seen in Table 6.5 and in Figure 6.3 that most of the employees across all job categories had experience of fewer than five years with 41 percent of doctors belonging to the experience group of 1 to

5 years, 70 percent of nurses and 61 percent of other staff too in the same experience group. It is a clear indication of high labour turnover and poor skill dilution index, which shows a lack of sufficient experienced staff in the hospital sector.

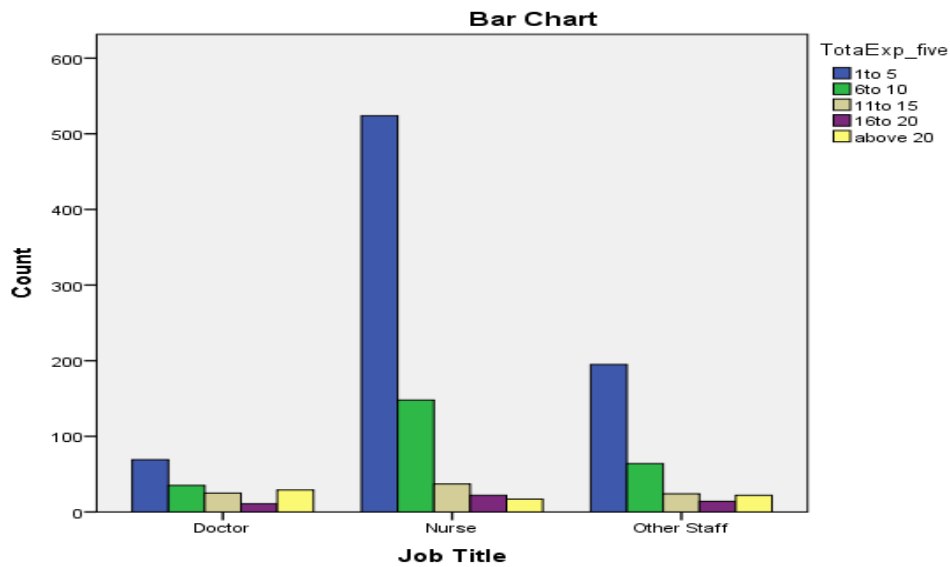


Figure 6.3 Job Title * Total Experience Cross-tabulation

6.3.5 Job Title and Monthly Income

As seen in Table 6.6 and in Figure 6.4, about 45 percent of doctors were in the monthly income group of Rs. 75,001 and above. At the same time, about 89 percent of nurses and 90 percent of other staff were in the monthly income group of Rs. 15,000 and below. Most of the nurses and other staff were in a monthly income range between Rs. 8,001 to 15,000.

Table 6.6 Job Title * Monthly Income Cross-tabulation

		Income							Total
		below 8000	8001 to 15000	15001 to 25000	25001 to 50000	50001 to 75000	75001 to 1 lakh	above 1 lakh	
Job Title	Doctor	3	7	30	28	25	27	49	169
	Nurse	76	593	72	5	0	0	2	748
	Other Staff	48	240	29	1	0	1	0	319
Total		127	840	131	34	25	28	51	1236

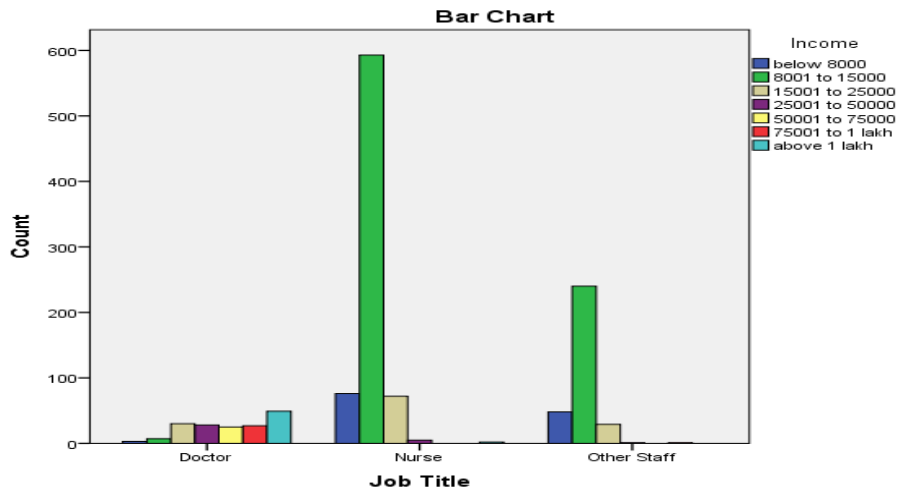


Figure 6.4 Job Title * Monthly Income Cross-tabulation

6.4 Descriptive Statistics

The mean and standard deviation of responses given by 1236 respondents on variables investigated in the study is provided in Table 6.7. Higher mean and lower level of standard deviation indicate the quality of data.

Table 6.7 The Descriptive Statistics of Variables

Descriptive Statistics				
	N	Range	Mean	Std. Deviation
Employee Selection (ES)	1236	3.20	3.8309	.61804
Communication (COM)	1236	3.67	3.7006	.79172
Compensation (COP)	1236	4.00	3.1208	.92520
Reward & Recognition (RR)	1236	4.00	3.4638	.86002
Teamwork (TW)	1236	3.00	4.2002	.60685
Career Planning (CP)	1236	4.00	3.5324	.76998
Empowerment (EMP)	1236	3.67	3.6472	.76400
Training & PA (TPA)	1236	3.89	3.7232	.67383
Job Content (JC)	1236	2.50	4.1762	.48911
Employee Competence (EC)	1236	2.20	4.1057	.43155
Service Climate (SC)	1236	3.75	3.7658	.69836
Organisational Commitment (OC)	1236	3.80	3.9759	.74183
Professional Commitment (PC)	1236	3.20	4.2657	.55062
Commitment to SQ (CSQ)	1236	2.20	4.2108	.44154
SQ Perception (SQP)	1236	2.09	4.2440	.42400
Valid N (listwise)	1236			

6.5 Tests of Assumptions

Normality refers to the distribution of the data for a particular variable. With a large number of sample size (above 200) statistical tests of normality often reject the hypothesis that sample data is normally distributed (Hair et al., 1996). At the same time, the degree of non-normality is only small and has no impact on the reliability of the statistical analysis. In such case, graphic methods like normal Q-Q plot are found to be useful. It is not the normality of the raw data what matters,

but normality of the residuals after the model has been defined that is considered important. Furthermore, with large samples usually, the normality of residuals is no longer an issue. Since this study deploys a large sample size, normality assumption of all the latent variables was assessed based on visual examination of normal Q-Q plot. Normality, therefore, was confirmed through this step and it was found that responses collected on all variables used in the study are normally distributed. Apart from visual examination of Q-Q plots, *kurtosis* and *skewness* value of all variables were found to be within + 2.2 to -2.2 (Sposito et al., 1983) and these are attached in Appendices 2a and 2b.

Confirmatory factor analysis (CFA) output of the measurement model with absolute values of *skewness* 1.0 or lower indicates that the data is normally distributed. SEM using the Maximum Likelihood Estimator (MLE) like AMOS is fairly tough to *skewness* greater than 1.0 in absolute value if the sample size is large and the Critical Region (CR) for the *skewness* does not go above 8.0. That means in the case of large sample size, the analysis could proceed further performing SEM since the estimator used is MLE. A sample size greater than 200 is considered large enough in MLE even though the data distribution is slightly non-normal (Hair et al., 1996; Joreskog & Sorbom, 1996). Thus, for a sample size greater than 200, the researcher could proceed with further analysis with the absolute skewness up to 1.5. Another method for normality assessment is by looking at the multivariate kurtosis statistic. SEM using Maximum Likelihood Estimator (MLE) is also robust to kurtosis violations of multivariate normality as long the sample size is large and the Critical Region (CR) for the kurtosis does not go beyond 3.0

(Awang,2012). In this study the sample size is large (1236) and the skewness values from the CFA output of measurement model (assessment of normality) were found to be below 1.5 which is permissible maximum (See Appendix 2c). Hence SEM is feasible and permissible.

Multicollinearity was checked by the values of Variable Inflation Factor (VIF) for each independent variable after running a multivariate regression and all values were found to be below three which is within the acceptable limit and the tolerance values were found above 0.4 for which the threshold is 0.10 (Gaskin, 2016). These values, therefore indicate no multicollinearity issues with the data (Table 6.8).

Table 6.8 Multicollinearity - Tolerance and VIF of Independent Variables

Coefficients		
	Collinearity Statistics	
	Tolerance	VIF
ES	.556	1.798
COM	.574	1.742
COP	.535	1.871
RR	.465	2.153
TW	.769	1.301
CP	.471	2.122
EMP	.643	1.556
JC	.700	1.429
TPA	.452	2.210
EC	.643	1.556
OC	.605	1.653
PC	.648	1.543
CSQ	.656	1.524
a. Dependent Variable: SQP		

Bivariate **correlations** among all variables used in the study were carried out and it was found that all the variables were positively correlated

at 0.01 significant level (See Appendix 3). The maximum value of correlation was 0.6 and no values were found to be above 0.85 indicating that there were no multicollinearity issues with the measures used.

Bivariate correlations among all HRM practices have been found to be positive and significant at 0.01 level. There is a high correlation found between employee selection and training and performance appraisal (0.63). A high correlation is observed between communication and career planning (0.52), communication and training and performance appraisal (0.54). Compensation has a high correlation with reward and recognition (0.64) and also with career planning (0.53). Reward and recognition are highly correlated with career path (0.58) and also with training and performance appraisal (0.50). Career planning is also found to be highly correlated with training and performance appraisal (0.58). These findings denote the fact that HRM practices invoke an integrated approach and a holistic philosophy. Hence HRM practices have to be executed in a comprehensible manner than individually. HRM practices in a system environment as pointed out by Huselid (1995) will be highly correlated. This correlation result also supports the same. Delery and Doty (1996) have also reported the fact that the HRM practices are not completely independent.

6.6 Common Method Bias

Harman's single factor test was used in this study to test common method bias (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). For doing a factor analysis constraining the number of factors to a single factor, principal component analysis with the un-rotated solution was performed using SPSS. The result showed that maximum variance explained by a

single factor was only 22.83 percent. This is much below the maximum permissible limit, that is, 50 percent. Hence the probable common method bias was ruled out. In total, 16 factors having an *Eigen value* higher than 1 finally emerged and this supported the selection of 16 different measures as unique scale in measuring the 16 variables in the study.

6.7 Dimension Reduction

To reduce dimension and to confirm unidimensionality of data set two different exploratory factor analysis (EFA) were performed. The first one was with 42 statements of different HRM practices and the second was with 35 statements of other variables used in the study. This analysis provides a factor structure by grouping variables based on strong correlations. EFA provides a basis for cleaner structural equation modelling (SEM) by identifying correlation and construct issues. Hence it is beneficial to conduct an EFA for new datasets even if standardised measures are used in the study (Gaskin, 2016). Though this study has used only standardised measures there is always a possibility of inconsistent responses from respondents from different settings on certain items. This might influence the validity and reliability of measurement scale. Hence EFA was performed in this study as well.

6.7.1 Exploratory Factor Analysis-1

To reduce dimension and to ascertain unidimensionality by identifying redundancy among variables principal component analysis (PCA) was performed on all 42 items pertaining to the ten different HRM practices with varimax rotation (Huseid, 1995).

The prerequisite for factor analysis is the assumption that the variables are sufficiently interconnected. To test the adequacy of the sample, the Kaiser-Meyer-Olkin (KMO) and Bartlett's test is used. KMO measure of adequacy was 0.935 a level which is highly acceptable (Kaiser, 1974) since the threshold value is > 0.6 . Communalities values were found to be above 0.48 (should be above 0.3) and Bartlett's Test of Sphericity was found to be significant, $p < 0.001$ with a test value 22575.511 (see Table 6.9). This implies that there was sufficient correlation in the data so that an EFA can be performed and interpreted.

Table 6.9 HRM Practices - KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.935
Bartlett's Test of Sphericity	Approx. Chi-Square	22575.511
	df	861
	Sig.	.000

To retain the items with a loading higher than 0.5 the PCA was performed by giving the option to suppress values below 0.5. Hence values of low loading items were automatically eliminated from the output (Table 6.10). The loadings of all indicators should be 0.5 or above on their hypothesised component to be practically significant (Hair et al., 2009). All the items were loaded to its hypothesised components except in the case of training and performance appraisal, which were merged as a single factor.

Table 6.10 HRM Practices -Factors with Factor Loadings

HRM Practices - Rotated Component Matrix									
	Component								
	1	2	3	4	5	6	7	8	9
ES 1					.638				
ES 2					.711				
ES 3					.663				
ES 4					.657				
ES 5					.528				
T 1	.610								
T 2	.628								
T 3	.696								
T 4	.676								
PA 1	.603								
PA 2	.596								
PA 3	.607								
PA 4	.601								
PA 5	.569								
COM 1								.692	
COM 2								.614	
COM 3								.618	
COP 1		.778							
COP 2		.757							
COP 3		.612							
COP 4		.667							
RR 1						.659			
RR 2						.626			
RR 3						.702			
RR 4						.665			
JC 1							.648		
JC 2							.676		
JC 3							.771		
JC 4							.740		
JC 5									
Not loaded -removed from the analysis									
TW 1			.794						
TW 2			.838						
TW 3			.832						
TW 4			.746						
CP 1				.684					
CP 2				.680					
CP 3				.694					
CP 4				.574					
CP 5				.592					
EMP 1									.820
EMP 2									.675
EMP 3									.548
Extraction Method: Principal Component Analysis.									
Rotation Method: Varimax with Kaiser Normalization.									
a. Rotation converged in 9 iterations.									

The 42 statements forming HRM practices constituted of ten practices such as employee selection, training, performance appraisal, job content, compensation, reward and recognition, career planning, teamwork, communication, and empowerment. The total variance explained based on latent root criterion revealed that only nine components with *Eigen value* greater than 1 (1.049), which explained 60.25 percent of the variance emerged.

Item number 'JC 5' (The duties of every job are clearly defined in my hospital) was not loaded under any practices since the loading below 0.5 was suppressed. The factor loading of this item was 0.4. Hence this item was not considered for further analysis and the job content scale was left only with four statements.

Training and performance appraisal was found to be merged under a single factor. The performance appraisal questionnaire was basically a development-oriented appraisal system having items like, 'appraisal system in our hospital is development and growth-oriented' and 'the appraisal data is used for making decisions about job rotation, promotion, training and compensation'. As far as items in the training were concerned, the items included 'training needs are identified through a formal performance appraisal mechanism' and 'training needs identified are realistic, useful and based on the current/ future requirements of the hospital'. Both of these practices are aimed at improving abilities/skill of employees. Hence it is justified that training and performance appraisal are treated as a single variable under HRM practices. For further analysis of HRM

variables training and performance appraisal was treated as a single variable as TPA.

The exploratory factor analysis resulted in reducing the number of factors to 41 and HRM practices to 9 from 10 (Table 6.10) and these dimensions exhibited strong **unidimensionality** (by deleting low factor loading items). The final measurement scales after the PCA are given in Table 6.11.

Table 6.11 HRM Practices and Number of Items in Each Measurement Scales after PCA

Sl. No.	HRM practices	No. of items
1	Employee Selection (EC)	5
2	Training & Performance Appraisal (TPA)	9
3	Communication (COM)	3
4	Compensation (COP)	4
5	Reward & Recognition (RR)	4
6	Job Content (JC)	4
7	Teamwork (TW)	4
8	Career Planning (CP)	5
9	Empowerment (EMP)	3
Total		41

6.7.2 Exploratory Factor Analysis -2

The principal component analysis (PCA) of mediating, moderating and dependent variables was also performed in order to ensure a cleaner SEM. The 35 statements of six variables comprising of employees' service quality perception (11 items), commitment to service quality (5 items), organisational commitment (5 items), professional commitment (5 items), employee competence (5 items) and service climate (4 items) were used for PCA.

Table 6.12 EC, OC, PC, SC, CSQ and SQP Factors with Factor Loadings

Rotated Component Matrix						
	Component					
	1	2	3	4	5	6
EC 1					.642	
EC 2					.647	
EC 3					.516	
EC 4					.658	
EC 5					.663	
SQP 1	.618					
SQP 2	.646					
SQP 3	.575					
SQP 4	.706					
SQP 5	.676					
SQP 6	.630					
SQP 7	.675					
SQP 8	.603					
SQP 9	.610					
SQP 10	.524					
SQP 11	.620					
OC 1		.750				
OC 2		.776				
OC 3		.767				
OC 4		.789				
OC 5		.733				
PC 1			.723			
PC 2			.737			
PC 3			.739			
PC 4			.760			
PC 5			.745			
CSQ 1				.678		
CSQ 2				.698		
CSQ 3				.692		
CSQ 4				.690		
CSQ 5				.672		
SC 1						.549
SC 2						.664
SC 3						.775
SC 4						.776
Extraction Method: Principal Component Analysis.						
Rotation Method: Varimax with Kaiser Normalization.						
a. Rotation converged in 6 iterations.						

All measures used were standardised scales adapted from previous studies and customised. The PCA using Varimax rotation with suppressed small coefficient below 0.5 was carried out to retain items with a factor loading 0.5 and above. All the items were loaded to its hypothesised components and the items retained in the study did not cross-load with any other item in the scale which proved the **unidimensionality** of the scales used (see Table 6.12).

KMO, in this case, was 0.933, and the threshold value is > 0.6 . Communalities values were found to be above 0.38 (should be above 0.3) and Bartlett's Test of Sphericity was found to be significant, $p < 0.001$ and test value was 18436.689 (see Table 6.13). This implies that there was sufficient correlation in the data so that an EFA can be performed and interpreted.

Table 6.13 SQP, CSQ, OC, PC, EC and SC - KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.933
Bartlett's Test of Sphericity	Approx. Chi-Square	18436.689
	df	595
	Sig.	.000

The total variance explained based on latent root criterion confirmed six components with *Eigen values* greater than 1 (1.188), which together explained 56.11 percent of the variance.

6.8 Assessment of Measurement Model

Measures used in the study have to be assessed for validity and reliability. Validity is concerned with the study's success at measuring

what the researcher intended to measure, while reliability is concerned with the accuracy of the actual measuring instrument or procedure.

6.8.1 Validity of Measures

Only standardised questionnaires were used for the study. But to reinstate the validity of the measurement scales content, face and construct validity have been ensured. The instrument has been identified and customised on the basis of a detailed review of literature and discussions with academicians and experts in the field to ensure content validity. Discussions with practitioners in the field and their feedback on instruments and inputs from the pilot study were considered to ensure face validity.

Principal components analysis (PCA) outputs shown in Table 6.10 and 6.12 exhibit factor loadings of all statements above 0.5 which indicated the **convergent validity** of the measures used and the output also showed that no items were cross-loaded on to other items and this denoted **discriminant validity**. The standardised regression estimates of confirmatory factor analysis (CFA) were also found to be higher than 0.5 with corresponding 'p' value less than 0.05 and this has also supported the convergent validity of the measures (Hair et al., 2009). In the study, factor loadings associated with the latent variables were found to be between 0.514 and 0.825 and all associated p values were significant at 0.001 level ($p < 0.001$). This CFA results re-established the convergent validity of the measures used in the study. The CFA result of measurement model also showed the inter-correlation between variables as positive and the maximum correlation measure was 0.764 which is below 0.85. This value

is important since it indicates the discriminant validity between the constructs, and thus establishing that the reflective constructs are not redundant (Awang, 2012).

As per Gaski (1984), to ascertain discriminant validity, the highest correlations among composite constructs must be below the lowest score of composite reliability. On comparison of composite reliability scores of measures with construct correlations, it was found that no correlation values exceeded the lowest composite reliability score. The highest correlation in the study was 0.64 and the lowest composite reliability was 0.7. Since the composite reliability was found to be higher than 0.6 in all the measures, the convergent validity of the construct is also considered as adequate (Fornell & Lacker, 1981).

6.8.2 Reliability or Internal Consistency of Measures

Reliability refers to the degree to which an instrument yields a true score of the variable under study and it is a pre-requisite for data analysis and interpretation. It establishes the correlation between the responses to questions related to corresponding latent variables among themselves (Rosenthal & Rosenow, 1991). To test the reliability of measures, Cronbach's coefficient alpha (α) as the inter-item consistency reliability (Cronbach, 1951) and the composite reliability as a measure of the overall reliability were used in this study. An alpha threshold value of 0.70 or above is considered to be an acceptable reliability coefficient (Nunnally, 1978). To have a good reliability, both the composite reliability and Cronbach's alpha coefficients should be equal to or greater than 0.7 (Fornell & Larcker, 1981). Composite reliability coefficients of reflective

latent indicators used in this study ranged from 0.70 to 0.89 and the Cronbach's alpha coefficient between 0.70 and 0.88 and average variance extracted (AVE) was found to be 0.5 and above shows convergent validity of scale (Table 6.14). All the AVE values were found to be more than the corresponding maximum shared variance (MSV), which shows the discriminant validity of the scale. Both the coefficients have figured above or equalled the 0.7 thresholds. Hence it was concluded that the measurement scales have an acceptable reliability.

Table 6.14 Reliability, Discriminant and Convergent Validity of Measures

Variables	Cronbach's Alpha	Composite Reliability	AVE	MSV	No. of Items
ES	0.78	0.79	0.51	0.42	5
TPA	0.87	0.87	0.51	0.39	9
COM	0.75	0.75	0.52	0.45	3
COP	0.85	0.84	0.58	0.56	4
RR	0.84	0.84	0.57	0.55	4
JC	0.72	0.72	0.50	0.37	4
TW	0.85	0.85	0.60	0.24	4
CP	0.82	0.82	0.54	0.52	5
EMP	0.70	0.70	0.51	0.43	3
SQP	0.88	0.88	0.51	0.41	11
CSQ	0.81	0.82	0.53	0.39	5
OC	0.88	0.89	0.62	0.46	5
PC	0.86	0.86	0.56	0.36	5
EC	0.72	0.72	0.50	0.40	5
SC	0.77	0.77	0.53	0.50	4
Total					76

6.9 Confirmatory Factor Analysis of Measurement Model using SEM

Confirmatory Factor Analysis (CFA) provides the validity of the measurement models adapted for the research and also the factor structure extracted by doing an EFA gets confirmed by running a CFA (Gaskin, 2016).

SEM is a confirmatory method providing a comprehensive means for validating the measurement model of latent constructs and the validating procedure is called Confirmatory Factor Analysis (CFA). The CFA assesses the unidimensionality, validity and reliability of a latent construct. Hence it is a prerequisite for SEM to perform CFA for all latent constructs involved in the study. However, the unidimensionality assessment should be made first prior to assessing validity and reliability. Hence it was ensured in EFA (doing a principal components analysis-PFA).

CFA can be performed separately for each measurement model or for a pooled - CFA for all the constructs together. Pooled-CFA stands for assessing the measurement model for all the constructs used in the study together at once. It is better to perform a pooled - CFA rather than doing CFA separately for each measurement model. A combined construct would increase the degrees of freedom for the model (Awang, 2012).

In this study as a prerequisite for running SEM on proposed research models, a CFA (covariance approach) for the complete measurement model was performed. CFA of measurement model was performed with the measures of nine HRM practices (as first-order constructs), employee competence (EC), organisational commitment (OC), professional commitment (PC), commitment to service quality (CSQ), service quality perception (SQP) and service climate (SC) to report the validity and reliability of scales used. CFA of all the 15 first-order constructs was performed and reported along with validity and reliability of measures (discussed in 6.8). The composite reliability (CR) coefficients of all reflective variables were calculated using 'Stats Tool Package' (Gaskin, 2016) and found all of them above the 0.6 threshold (see Table 6.15).

fitness index from each category of model fit. The category includes absolute fit, incremental fit, and parsimonious fit (Awang, 2012). An absolute measure of fit presumes that the best fitting model has a fit of zero. The measure of fit then determines how far the model is a perfect fit. An incremental (also called *relative*) fit index is similar to R^2 and so a value of zero specifies having the worst possible model and a value of one indicates having the best possible. Parsimonious fit measures present indices that make it possible to examine the fit of opposing models on a common basis.

Table 6.15 The Fit Indices for Measurement Model

Name of Category	Name of Index	Index Full Name	Index Value	Ideal Limit/ Comments
Absolute Fit	RMSEA	Root Mean Square of Error Approximation	0.040	(RMSEA < 0.08) Great model fit
	GFI	Goodness of Fit Index	0.850	(GFI > 0.90) Good model Fit
Incremental Fit	AGFI	Adjusted Goodness of Fit Index	0.835	(AGFI > 0.90) Good model fit
	CFI	Comparative Fit Index	0.879	(CFI > 0.90) Good. Evidence of unidimensionality
	TLI	Tucker-Lewis Index	0.871	(TLI > 0.90) Good. Indication of convergent validity
	NFI	Normed Fit Index	0.828	(NFI > 0.90) Good Indication of convergent validity
Parsimonious Fit	CMIN/DF	Chi-Square/Degrees of Freedom	2.933	Chi-Square/ df < 3.0 (<5 is permissible) Great

Chi-square = 7828.911; Degrees of freedom = 2669; Probability level=.000 (the model is significant at the .05 level.)

RMSEA index value (0.040) indicates that the measurement model is a great fit. GFI ranges from 0 to 1 and the highest is considered to be the best. Here GFI values close to 0.9 and considered as a good fit. AGFI

value is also close to 0.9 indicating a good fit, even a value above 0.7 considered as an acceptable value for AGFI. The value of CFI is close to the threshold 0.9 and it proves the evidence of unidimensionality of the measures used in the study. TLI and NLI values are also acceptable as it is near to 0.9. This is an indication of the convergent validity of the measures used. CMIN/DF also known as normal/relative chi-square is the minimum discrepancy divided by the degrees of freedom, and is found to be well within the limit. Similar fit measures have been found acceptable in previous researches (Hair et al., 1998; Henry & Stone, 1994).

6.10 Confirmatory Factor Analysis of Research Models

The development of the integrated causal model has fulfilled one of the major research objectives of the study. Research model validation to establish the integrated causal effect and to test the inter-relationship between variables (major objectives 2 &3) was accomplished by this CFAs of research models one and two. The first major objective of the study got materialised as an outcome of the exploratory part of the study by way of a rigorous literature survey, discussions with academicians and practitioners in the field. Major objectives 1, 4 and 5 culminated into the creation of the second major objective i.e. validation of the integrated causal model with HRM practices as a second-order construct (Model 1). The validation of research models was performed by linking variables as per the models conceived, with the help of Structural Equation Modelling (SEM) using AMOS to accomplish the fourth major research objective.

6.10.1 Research Model 1 Fit indices: HRM Practices as Second Order Construct for Testing Inter-relationship between Variables

During CFA of the measurement model, the unidimensionality, validity, and reliability of all constructs involved in the study were established. The next step was to confirm the objectives and the corresponding hypotheses wherever formulated. The structural model comprising of HRM practices as a second-order construct along with other variables in the study as first-order constructs such as employee competence (EC), organizational commitment (OC), professional commitment (PC), commitment to service quality (CSQ) and service quality perception (SQP) of employees was modelled (see Figure 6.6) for analysis using SEM. The test output model of the SEM diagram is shown in Figure 6.7. The SEM used maximum likelihood methods in estimating multiple regression weights using AMOS software. The level of significance was set at five percent and the model was tested with 1236 samples and the model fit indices are assessed in Table 6.16.

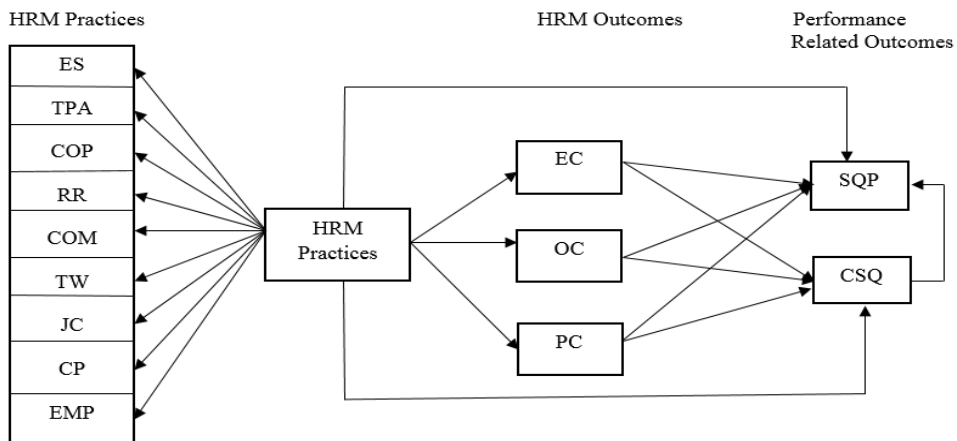


Figure 6.6 HRM as Second Order Construct to Test Direct Relationship between Variables

RMSEA index value (0.044) indicates that the structural model is a great fit. GFI and AGFI are as close to 0.9 and therefore are considered as a good fit. The value of CFI is close to the threshold 0.9 and the values of TLI and NLI also showed the validity of the structural model. CMIN/DF obtained as 3.424 is found to be well within the permissible tolerance limit. Hoelter's (1983) value reflects the appropriateness of sample size with respect to the model parameters selected for the study. Hoelter index CN (Critical Number) values above 200 levels indicate sufficiency of sample size for the given model.

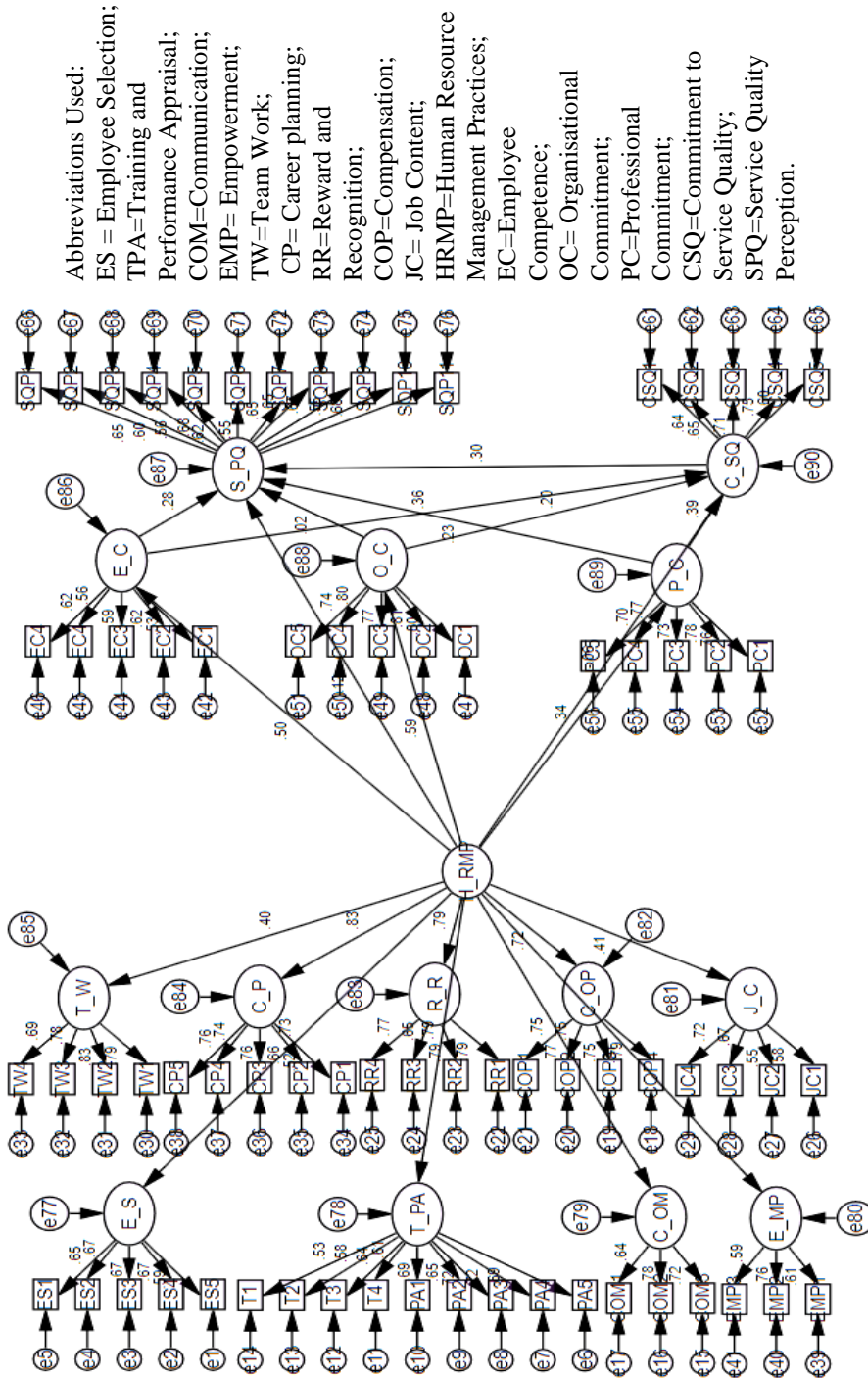


Figure 6.7 Research Model 1- SEM Output for Testing Study Hypotheses and Model Fit

Table 6.16 The Fit Indices for Research Model 1

Name of Category	Name of Index	Index Value	Ideal Limit/ Comments
Absolute Fit	RMSEA	0.044	Great model fit
	GFI	0.825	Good Model Fit
Incremental Fit	AGFI	0.814	Good model fit
	CFI	0.851	Good.
	TLI	0.845	Good.
	NFI	0.802	Good
Parsimonious Fit	CMIN/DF	3.424	Acceptable

Chi-square = 8432.406; Degrees of freedom = 2463; Probability level = .000
(Significant at .05 level)

The SEM output results obtained Hoelter values at five percent level significance as 378 and at one percent level as 386 which establishes the sample adequateness for the model (Table 6.17) and it indicates that the model is capable of interpretation.

Table 6.17 HOELTER Index- Research Model 1

Model	HOELTER .05	HOELTER .01
Default model	378	386
Independence model	78	80

All the values of model fit indexes fall within the acceptable range. Hence it is can be interpreted that the integrated model linking HRM practices (second-order construct), HRM outcomes i.e. employee competence (EC), organizational commitment (OC), professional commitment (PC) and performance-related outcome i.e. commitment to service quality (CSQ) and service quality perception (SQP) of employees in the hospital sector is valid.

Table 6.18 shows the standardised regression path coefficient estimates obtained in the structural equation model (SEM) with maximum likelihood estimates (MLE) and their P values (***) indicate the level significance at $p < .001$).

Table 6.18 The Standardized Regression (beta estimate) Path Coefficients and its Significance (based on p-value < 0.05)

Endogenous (Y)		Exogenous (X)	Estimate	P
EC	<---	HRMP	0.5	***
PC	<---	HRMP	0.341	***
OC	<---	HRMP	0.593	***
CSQ	<---	HRMP	-0.062	0.178
CSQ	<---	EC	0.362	***
CSQ	<---	PC	0.393	***
CSQ	<---	OC	0.2	***
SQP	<---	HRMP	0.125	0.002
SQP	<---	EC	0.281	***
SQP	<---	PC	0.23	***
SQP	<---	OC	0.02	0.55
SQP	<---	CSQ	0.301	***

Note: When exogenous (X) goes up by 1 unit the endogenous (Y) goes up by corresponding estimate value on all significant paths.

The SEM output results show that all the hypothesised relationships in the integrated causal model between the constructs used in the study are valid at five percent level of significance except for the relationship predicting (a) HRM practices to commitment to service quality (CSQ) and (b) organisational commitment (OC) to employees' service quality perception (SQP). All the significant paths have positive estimates, indicating

the positive influence of exogenous constructs on corresponding endogenous constructs.

Regression weights of all the constructs and its indicators are found to be significant. The regression weights of the exogenous variable i.e.HRM practices as a second-order construct are also found to be significant and the Critical Ratio (C.R) values obtained for the sub-dimensions are above 10 (Table 6.19). This indicates the strong representation of the various practices included in the study to assess HRM practices.

Table 6.19 Standardised Regression Weights between HRM Practices and Reflective Dimensions

Relationship of Exogenous variable with sub-dimensions	Standardised Regression Estimate (beta)	S.E	C.R	P
JC ← HRMP	0.412	.013	10.628	***
RR ← HRMP	0.787	.027	24.113	***
ES ← HRMP	0.73	.021	18.602	***
CPN ← HRMP	0.715	.031	21.045	***
TPA ← HRMP	0.793	.022	17.240	***
CMN ← HRMP	0.769	.024	18.761	***
EPW ← HRMP	0.707	.025	16.315	***
TW ← HRMP	0.4	.018	12.266	***
CP ← HRMP	0.826	.021	17.008	***

*** Significance level at $P < .001$

The values of the coefficient of determination R^2 is given in the Table 6.20. These values indicate the contribution of exogenous constructs in estimating the endogenous constructs.

Table 6.20 Squared Multiple Correlations Estimate – Research Model 1

Exogenous constructs (X)	Endogenous Constructs (Y)	R ²
HRM P	PC	0.116
HRM P	OC	0.352
HRM P	EC	0.25
HRM P, PC, OC & EC	CSQ	0.399
HRM P, PC, OC, EC & CSQ	SQP	0.499
HRM P	EPW	0.5
HRM P	CP	0.682
HRM P	JC	0.17
HRM P	RR	0.62
HRM P	CPN	0.512
HRM P	TW	0.16
HRM P	CMN	0.591
HRM P	TPA	0.628
HRM P	ES	0.533

Note: It is estimated that the predictors (Xs) of the endogenous variable (y) explain the R² percentage of its variance.

The contribution of HRM practices in estimating the HRM outcomes such as professional commitment (PC) of employees is 12 percent, organisational commitment 35 percent and employee competence 25 percent. 40 percent of employees' commitment to service quality (CSQ) can be estimated by the contribution of HRM practices, PC, OC, and EC. HRM practices, PC, OC, EC, and CSQ collectively contribute to estimating employees' service quality perception at 50 percent level. It is evident that appropriate HRM practices which enhance HRM outcomes can influence performance-related outcomes of employees like service quality.

The contribution of job content (JC) and teamwork (TW) in estimating the HRM practices are found to be minimal in comparison with other practices. All other practices are contributing above 50 percent in estimating HRM practices.

6.10.2 Research Model 2 - HRM Practices as First Order Construct (Reflective)

All HRM practices may not contribute equally to HRM and performance-related outcomes. The Model 2 (Figure 6.8.) was conceived on the assumption that the influence of HRM practices severally, on HR outcomes and performance-related outcomes can be ascertained along with all the different paths.

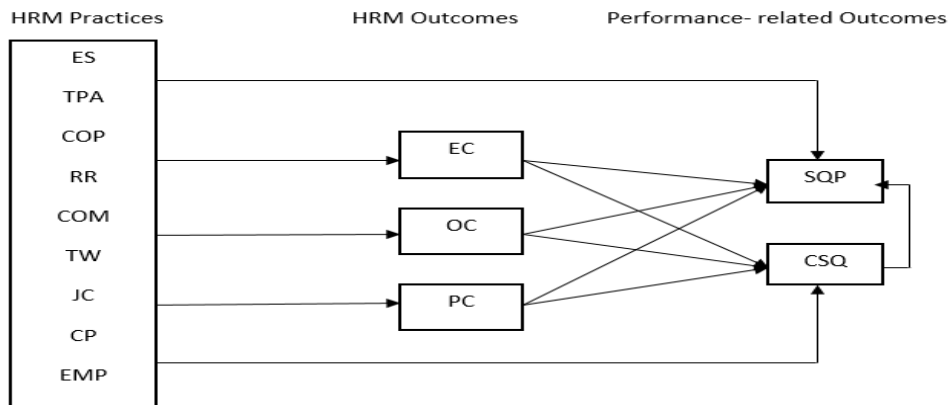


Figure 6.8 HRM as First Order (Reflective) Constructs- Research Model 2 to Validate Different Paths

As shown in Table 6.21, RMSEA index value (0.040) indicates that the structural model is a great fit. GFI and AGFI are as close to 0.9 and hence is considered as a good fit. The value of CFI is close to the threshold 0.9 and the values of TLI and NLI also showed the validity of

the structural model. CMIN/DF index found to be well within the limit (2.995). Hoelter index CN (Critical Number) values under 0.05 and 0.01 significance is found well above the limit 200 and the CN values were 433 and 441 respectively and it indicates that the model is capable of interpretation since it represents the sample data adequately.

Table 6.21 The Fit Indices for Research Model 2

Name of Category	Name of Index	Index Value	Ideal Limit/ Comments
Absolute Fit	RMSEA	0.040	Great model fit
	GFI	0.854	Good Model Fit
Incremental Fit	AGFI	0.840	Good model fit
	CFI	0.880	Good.
	TLI	0.872	Good.
	NFI	0.831	Good
Parsimonious Fit	CMIN/DF	2.995	Great

Chi-square = 7176.690; Degrees of freedom = 2396; Probability level = .000(Significant at .05 level)

All the measures of correlation between latent exogenous constructs used in this model 2 were found to be positive and the maximum estimated value was 0.766 (Table 6. 22). All the 9 HRM practices used in the study were treated as exogenous constructs in this model 2 viz., Employee Selection – ES, Training& Performance Appraisal- TPA, Teamwork – TW, Reward & Recognition- RR, Job Content- JC, Career Planning-CP, Empowerment- EMP, Communication- COM and Compensation- COP. The measures of correlation indicate the strength of the relationship between two paring latent exogenous constructs. All the measures of correlation were found to be less than 0.85 and that indicated the discriminant validity of scales used in the study (Awang, 2012).

Table 6.22 The Measures of Correlation Estimate for each Pair of Exogenous Constructs

			Estimate
E_S	<-->	T_PA	.761
E_S	<-->	T_W	.293
E_S	<-->	R_R	.513
E_S	<-->	J_C	.275
E_S	<-->	C_P	.582
E_S	<-->	E_PW	.430
E_S	<-->	C_OM	.599
E_S	<-->	C_OP	.441
T_PA	<-->	T_W	.284
T_PA	<-->	R_R	.595
T_PA	<-->	J_C	.277
T_PA	<-->	C_P	.678
T_PA	<-->	E_PW	.455
T_PA	<-->	C_OM	.678
T_PA	<-->	C_OP	.497
T_W	<-->	R_R	.219
T_W	<-->	J_C	.427
T_W	<-->	C_P	.222
T_W	<-->	E_PW	.351
C_MN	<-->	T_W	.354
T_W	<-->	C_OP	.181
R_R	<-->	J_C	.274
R_R	<-->	C_P	.705
R_R	<-->	E_PW	.569
C_MN	<-->	R_R	.607
C_PN	<-->	R_R	.766
J_C	<-->	C_P	.231
J_C	<-->	E_PW	.370
C_MN	<-->	J_C	.255
C_PN	<-->	J_C	.212
C_P	<-->	E_PW	.652
C_MN	<-->	C_P	.650
C_PN	<-->	C_P	.645
C_MN	<-->	E_PW	.597
C_PN	<-->	E_PW	.518
C_MN	<-->	C_PN	.539

The values of the coefficient of determination R^2 is given in the Table 6.23. These values indicate the contribution of exogenous constructs in

estimating the endogenous constructs. As per this second model, 37 percent variance in the professional commitment (PC), 44 percent variance in the organisational commitment (OC) and 55 percent variance in the employee competence (EC) can be explained by various HRM practices severally as a first-order construct. It is estimated that predictors of commitment to service quality (CSQ) i.e.HRM practices, PC, OC and EC can explain 47 percent of its variance. In the case of service quality perception (SQP) the predictors (HRM Practices, PC, OC, EC & CSQ) can explain 59 percent of its variance.

Table 6.23 Squared Multiple Correlations Estimate – Research Model 2

Exogenous Constructs (X)	Endogenous Constructs (Y)	R ²
HRM P (ES, TPA, COM, COP, JC, TW,RR, CP, EMP)	PC	0.37
HRM P (ES, TPA, COM, COP, JC, TW,RR, CP, EMP)	OC	0.443
HRM P (ES, TPA, COM, COP, JC, TW,RR, CP, EMP)	EC	0.552
HRM P, PC, OC, EC	CSQ	0.472
HRM P, PC, OC, EC, CSQ	SQP	0.593

Note: It is estimated that the predictors (Xs) of the endogenous variable (y) explain the R² percentage of its variance.

By validating the two integrated models linking selected HRM practices, HRM outcomes (as process/mediating variables) such as Employee Competence (EC), Organisational Commitment (OC) and Professional Commitment (PC) and performance-related outcomes such as Commitment to Service Quality (CSQ) and Service Quality Perception (SQP) of hospital employees, the major research objectives (Objectives 2

&3) have been studied. A comparison of these two models has been made in Chapter 7.

6.11 Analysis of Paths: Testing of Hypotheses

Three different groups of hypotheses have been tested and reported in this section. The first category of hypotheses was of the direct relationships of variables by considering HRM practices as a second-order construct. Since HRM practices are highly correlated among themselves, the direct relationship between employees' perceptions of HRM practices and other variables can be better studied by treating HRM practices as a second-order construct. The second group of hypotheses tested the mediation role of HRM outcomes between HRM practices and performance-related outcomes. The last group of hypotheses tested was on the moderating (interaction) effects of service climate on different paths presumed to be influenced.

6.11.1 Testing of Direct Relationship between Variables- HRM Practices as Second Order Construct.

The structural model with HRM practices as a second-order construct was examined to test the direct relationship between variables in the model as hypothesised. Theoretical framework conceived as an integrated causal model in Chapter 4 after reviewing the literature in Chapter 3, exhibited the model linking HRM practices (as a second-order construct), the process variables (HRM Outcomes- EC, OC &PC) and the performance outcomes (CSQ &SQP). HRM practices as a second-order construct was used to find the relationship between HRM practices as a system (Singh, 2003a) and various outcome variables. The model depicted in Figure 6.8 provides a pictorial representation of the relationship.

Table 6.24 The Hypotheses Statements for Every Path and its Conclusion – HRM Practices as Second Order Construct

No	Statement of Hypothesis	Path Coefficient β	Sig p-value	Result
H1	Employees' perception of HRM Practices has a significant influence on Employee Competence.	0.5	p<0.01	Accepted
H2	Employees' perception of HRM Practices have a significant influence on their Organisational Commitment.	0.59	p<0.01	Accepted
H3	Employees' perception of HRM Practices has a significant influence on their Professional Commitment.	0.34	p<0.01	Accepted
H4 a	There is a positive relationship between Employee Competence and Commitment to Service Quality.	0.36	p<0.01	Accepted
H4 b	Employee Competence has a significant influence on employees' Service Quality Perception.	0.28	p<0.01	Accepted
H5 a	There is a positive relationship between Employees' Organisational Commitment and their Commitment to Service Quality.	0.2	p<0.01	Accepted
H5 b	Employees' Organisational Commitment has a significant influence on their Service Quality Perception.	0.02	p=0.55	Rejected
H6 a	Employees' Professional Commitment has a significant influence on their Commitment to Service Quality.	0.39	p<0.01	Accepted
H6 b	Employees' Professional Commitment has a significant influence on their Service Quality Perception.	0.23	p<0.01	Accepted
H7 a	Higher the Employees' perception of HRM Practices higher will be their Commitment to Service Quality.	-0.06	p=0.18	Rejected
H7 b	Higher the Employees' perception of HRM Practices higher will be their Service Quality Perception.	0.13	p<0.01	Accepted
H 8	Higher the level of Commitment to Service Quality higher will be the Employees' Service Quality Perception.	0.30	p<0.01	Accepted

As per the SEM output of research model 1, the path coefficients and corresponding significance were examined (Figure 6.7 and Table 6.18) to validate the direct hypotheses in the integrated causal model of the study. Table 6.24 provides a summary of hypotheses test results obtained for the direct relationship between variables in the model (Refer Appendix 4). All the hypotheses were tested at five percent level of significance.

6.11.2 Test of Mediation

The fourth major objective was accomplished by testing the mediating effect of various relationship hypothesised under this section. Hypotheses grouped under this section were intended to test the mediation effect of the process variables identified viz., as employee competence (EC), organizational (OC) and professional commitment (OC) between the independent variable (HRM practices as a system) and two dependent variables (Commitment to Service Quality- CSQ and Service Quality Perception-SQP). The mediation effect was tested by comparing the direct and indirect effect of the independent variable on the selected dependent variables.

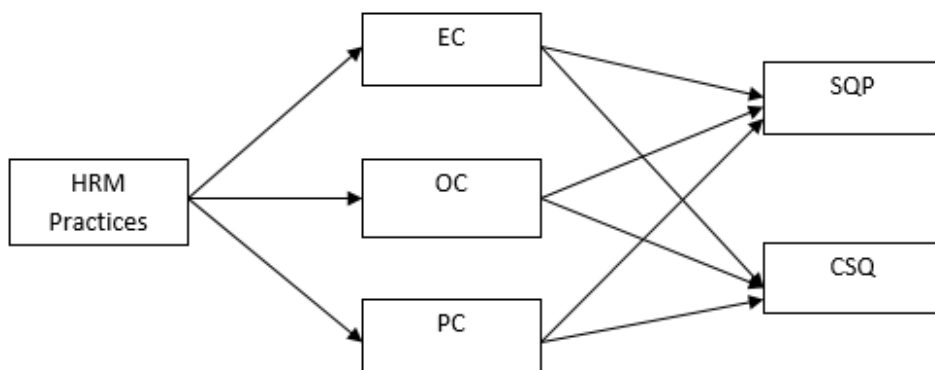


Figure 6.9 HRM Practices, Process Variables and Outcomes- Relationships to Test Mediating Effect.

Figure 6.9 provides a pictorial representation of the hypotheses and accordingly the mediation effects were tested by incorporating PROCESS macro plugin for SPSS (Hayes, 2013).

The hypotheses for testing the mediating effect of various process variables and the test results are illustrated in the following lines:

H 9a: Employee Competence (EC) mediates the relationship between employees' perception of HRM practices and Commitment to Service Quality (CSQ).

H9a

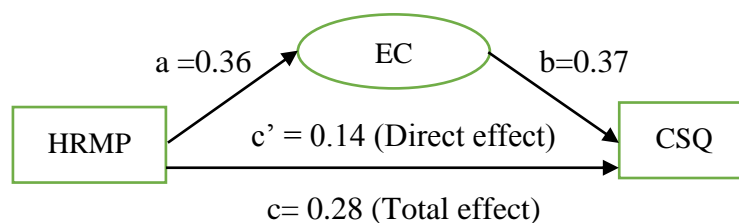


Figure 6.10 Mediation effect of EC between HRM Practices and CSQ

As per the result of mediation test using PROCESS macro as illustrated in Figure 6.10, the paths a, b, c and c' were found to be significant at $P < .001$ level. The direct effect path c', is lesser than the total effect. The **indirect effect c-c'** is 0.14 and the mediating effect was found to be significant based on the positive value obtained from the difference between bootstrap upper and lower level of confidence intervals (Boot ULCI 0.1610 – Boot LLCI 0.1057 = 0.0553). This indicates that there is a significant positive partial mediation of employee competence (EC) which influence the effect of employees' perception of HRM practices on their commitment to service quality (CSQ). The partial mediation was assessed as significant as the Sobel test value was found significant at

0.05 level. The Preacher and Kelly (2011) kappa-squared value (κ^2) showed that 14 percent of the variance in the CSQ can be explained by the partial mediation of EC.

H9b: Employee Competence (EC) mediates the relationship between employees' perception of HRM practices and their Service Quality Perception (SQP).

H9b

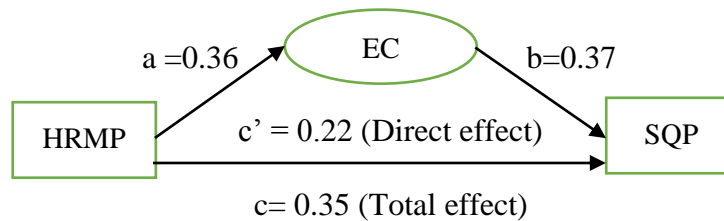


Figure 6.11 Mediation effect of EC between HRM Practices and SQP

The paths a, b, c, and c' were found to be significant at $P < .001$ level (Figure 6.11). The direct effect path c', is lesser than the total effect. The **indirect effect, $c - c' = 0.13$** and the mediation effect was found to be significant based on the positive value obtained from the difference between bootstrap upper and lower level of confidence intervals (Boot ULCI 0.1623 – Boot LLCI 0.1096 = 0.0527). This indicates that there is a significant positive partial mediation of employee competence (EC) which influence the effect of employees' perception of HRM practices on their service quality perception (SQP). The significance of partial mediation was assessed by the Sobel test values at five percent level of significance and as per the kappa-squared value (κ^2), 16 percent of the variance in the SQP can be explained by the partial mediation of EC. The

Table 6.25 provides a summary of the test result of mediation of EC between HRM practices and CSQ/SQP.

Table 6.25 Summary of Results -hypotheses H9 a & H9 b

No	Mediation Model	Path-a	Path -b	Path- c Total effect	C' Direct effect	C-C' (indirect effect a*b)	Sobel Test= z- score test Z	κ^2
H9a	HRMP....EC.....>CSQ	.36 (p<.001)	.37 (p<.001)	.28 (p<.001)	.14 (p<.001)	.14 (difference in ULCI and LLCI is above zero)	10.01 (p<.001)	.14
H9b	HRMP...EC.....>SQP	.36	.37	.35	.22	.13	9.91 (p<.001)	.16

Note:

1. Mediation of EC between HRMP and CSQ/SQP is found to be significant. There is a partial mediation of EC since c' is significant but value got reduced.
2. Sobel test (normal theory test) = z-score test was found to be significant in both the cases, p=<.001. Partial mediation EC between HRMP and CSQ/SQP thus confirmed.
3. κ^2 indicates the percentage of variance on the dependent variables due to the mediation effect of EC in the path.

H 9c: Employees' Organisational Commitment (OC) mediates the relationship between their perception of HRM practices and Commitment to Service Quality (CSQ).

The paths a, b, c, and c' were found to be significant at P<.001 level (Figure 6.12). The direct effect path c', is lesser than the total effect. The **indirect effect, c-c' = 0.14** and the mediating effect was found to be significant based on the positive value obtained from the difference between bootstrap upper and lower level of confidence intervals (Boot

ULCI 0.1758 – Boot LLCI 0.1080 = 0.0678). This indicates that there is a significant positive partial mediation of organisational commitment (OC) which influence the effect of employees' of HRM practices on their commitment to service quality (CSQ). The significance of partial mediation was assessed by the significant Sobel test values $p < .001$ and as per the kappa-squared value (κ^2), 14 percent of the variance in the CSQ can be explained by the partial mediation of OC.

H9c

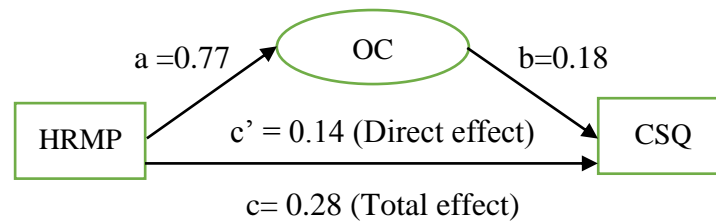


Figure 6.12 Mediation effect of OC between HRM Practices and CSQ

H 9d: Employees' Organisational Commitment (OC) mediates the relationship between their perception of HRM practices and Service Quality Perception (SQP).

The paths a, b, c, and c' were found to be significant at $P < .001$ level (Figure 6.13). The direct effect path c' , is lesser than the total effect. The **indirect effect, $c - c' = 0.10$** and the mediating effect was found to be significant based on the positive value obtained from the difference between bootstrap upper and lower level of confidence intervals (Boot ULCI 0.1305 – Boot LLCI 0.0694 = 0.0611). In this case, also the significant positive partial mediation of organisational commitment (OC) between HRM practices and employees' perception of service quality (SQP) was proved and the Sobel test values approved the existence of

partial mediation. According to the Kappa-squared value (κ^2), 11percent of the variance in the SQP can be explained by the partial mediation of OC in the HRM practices, OC and SQP link.

H9d

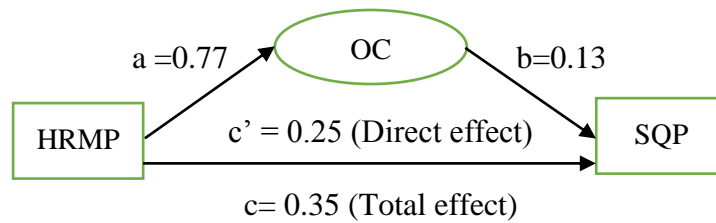


Figure 6.13 Mediation effect of OC between HRM Practices and SQP

The Table 6.26 provides a summary of the test result of mediation of OC between HRM practices and CSQ/SQP.

Table 6.26 Summary of Results - hypotheses H9 c & H9 d

No	Mediation Model	Path-a	Path -b	Path- c Total effect	C' Direct effect	C-C' (indirect effect a*b)	Sobel Test=z score test Z	κ^2
H 9c	HRMP....OC.....>CSQ	.77 (p<.001)	.18 (p<.001)	.28 (p<.001)	.14 (p<.001)	.14 (difference in ULCI and LLCI is above zero)	9.13 (p<.001)	.14
H9 d	HRMP...OC.....>SQP	.77	.13	.35	.25	.10	7.25 (p<.001)	.11

H 9e: Employees’ Professional Commitment (PC) mediates the relationship between their perception of HRM practices and Commitment to Service Quality (CSQ).

H9e

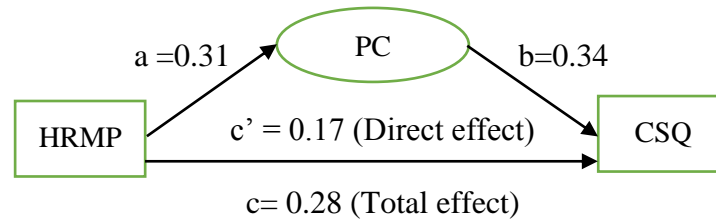


Figure 6.14 Mediation effect of PC between HRM Practices and CSQ

According to Figure 6.14, the paths a , b , c , and c' are found to be significant at $P < .001$ level. The direct effect path c' , is lesser than the total effect. The **indirect effect**, $c - c' = 0.11$ and the mediating effect was found to be significant based on the positive value obtained from the difference between bootstrap upper and lower level of confidence intervals (Boot ULCI 0.1288 – Boot LLCI 0.0809 = 0.0479). This indicates that there is a significant positive partial mediation of professional commitment (PC) which influence the effect of employees' of HRM practices on their commitment to service quality (CSQ). The significance of partial mediation was assessed by the significant Sobel test values at $p < .001$ level and as per the kappa-squared value (κ^2), 12 percent of the variance in the CSQ can be explained by the partial mediation of PC.

H 9f: Employees' Professional Commitment (PC) mediates the relationship between their perception of HRM practices and Service Quality Perception (SQP).

Figure 6.15 shows that the paths a , b , c , and c' are found to be significant at $P < .001$ level. The direct effect path c' , is lesser than the total effect. The **indirect effect**, $c - c' = 0.09$ and the mediating effect was found to be significant based on the positive value obtained from the

difference between bootstrap upper and lower level of confidence intervals (Boot ULCI 0.1172 – Boot LLCI 0.0736 =0.0436). This indicates that there is a significant positive partial mediation of professional commitment (PC) which influence the effect of employees’ of HRM practices on their perception of service quality (SQP). The significance of partial mediation was assessed by the significant Sobel test values $p < .001$ and as per the kappa-squared value (κ^2), 12 percent of the variance in the SQP can be explained by the partial mediation of PC.

H9f

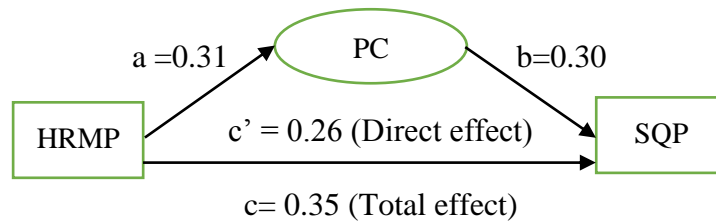


Figure 6.15 Mediation effect of PC between HRM Practices and SQP

The Table 6.27 provides a summary of the test result of mediation of PC between HRM practices and CSQ/SQP.

Table 6.27 Summary of Results of hypotheses H9 e & H9 f

No	Mediation Model	Path-a	Path -b	Path- c Total effect	C' Direct effect	C-C' (indirect effect a*b)	Sobel Test=z score test Z	κ^2
H 9 e	HRMP....PC.....>CSQ	.31 (p<.001)	.34 (p<.001)	.28 (p<.001)	.17 (p<.001)	.11 (difference in ULCI and LLCI is above zero)	8.72 (p<.001)	.12
H 9 f	HRMP...PC.....>SQP	.31	.30	.35	.26	.09	8.62 (p<.001)	.12

Table 6.28 provides the summary of hypotheses test results obtained for the mediated relationship of process variables between independent variable and outcome variables.

Table 6.28 Summary of Hypotheses Test Results of Mediated Relationships

No	Statement of Hypothesis	Mediation Type
H 9a	Employee Competence (EC) mediates the relationship between employees' perception of HRM practices and Commitment to Service Quality (CSQ).	Partial Mediation
H 9b	Employee Competence (EC) mediates the relationship between employees' perception of HRM practices and their Service Quality Perception (SQP).	Partial Mediation
H 9c	Employees' Organisational Commitment (OC) mediates the relationship between their perception of HRM practices and Commitment to Service Quality (CSQ).	Partial Mediation
H 9d	Employees' Organisational Commitment (OC) mediates the relationship between their perception of HRM practices and Service Quality Perception (SQP).	Partial Mediation
H 9e	Employees' Professional Commitment (PC) mediates the relationship between their perception of HRM practices and Commitment to Service Quality (CSQ).	Partial Mediation
H 9f:	Employees' Professional Commitment (PC) mediates the relationship between their perception of HRM practices and Service Quality Perception (SQP).	Partial Mediation

6.11.3 Test of Moderating Effect of Service Climate (SC)

The fifth major objective of the study was accomplished by testing the moderating effect of service climate on the various linkages. This research hypothesised the role of service climate (SC) as a moderator in the various links grouped as illustrated in Figure 6.16 and accordingly the following hypotheses were tested using PROCESS macro plugin for SPSS (Hayes, 2013).

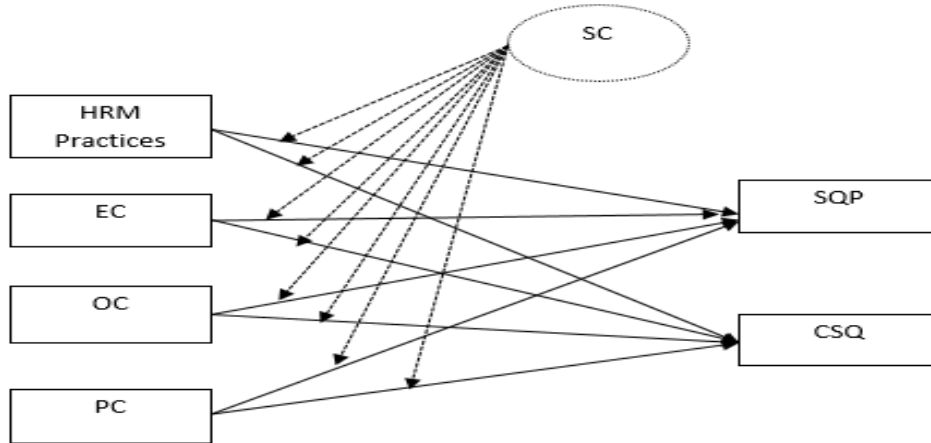


Figure 6.16 Moderating Effect of SC as Hypothesised in the Study

The moderating effect of SC on the link between various hypothesized relationships was tested by following the statistical model as shown in Figure 6.17. The relationships of IV to DV; MV to DV and IV *MV to DV (the interaction effect) were tested to ascertain the moderating effect of the variable on the hypothesized link.

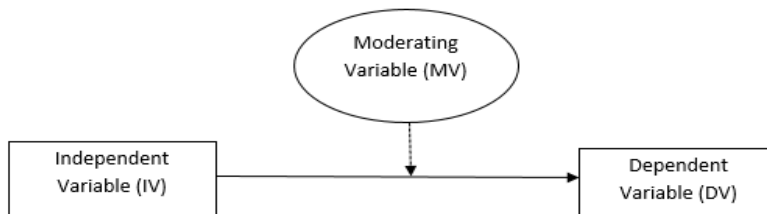


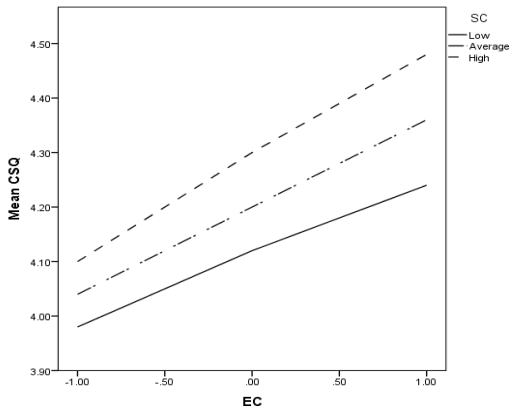
Figure 6.17 Statistical Model to Test Moderating Effect.

The hypotheses formulated based on the moderating effect of SC on the various linkages and the test results are illustrated below:

H 10a: Employees’ Perceived Service Climate (SC) moderates the link between Employee Competence (EC) and Commitment to Service Quality (CSQ).

The test for moderation effect was carried out using PROCESS macro and it was found that the overall model (with R^2 value .23) as well as direct and the interaction effects of SC on the link between EC and CSQ was significant at 0.05 level ($EC \rightarrow CSQ$; $SC \rightarrow CSQ$ and $EC*SC \rightarrow CSQ$). The result showed that SC strengthens the positive relationship between EC and CSQ. The influence of SC between EC and CSQ were found significant at low, average (mean) and high levels of SC (see Table 6.29).

Table 6.29 Result of Moderation of SC between EC and CSQ



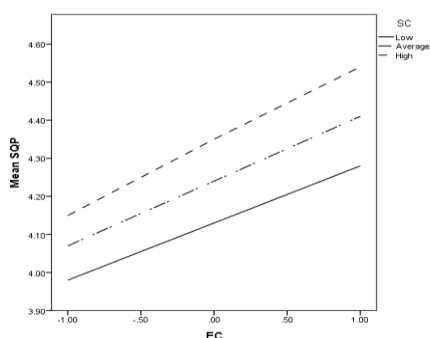
Relation	β	Sig	Remarks
SC \rightarrow CSQ	.13	.001	Significant
EC \rightarrow CSQ	.37	.001	Significant
EC*SC \rightarrow CSQ	.10	.05	Significant
Low SC	.30	.001	Significant
Average SC	.37	.001	Significant
High SC	.44	.001	Significant

H 10b: Employees' Perceived Service Climate (SC) moderates the link between Employee Competence (EC) and Service Quality Perception (SQP).

The result of moderation analysis showed that the overall model (with R^2 value .30), as well as the direct and the interaction effects of SC on the link between EC and SQP, are significant at 0.05 level ($EC \rightarrow SQP$; $SC \rightarrow SQP$ and $EC*SC \rightarrow SQP$). The result exhibited that SC strengthens the positive relationship between EC and SQP. The influence of SC

between EC and SQP was found significant at low, average (mean) and high levels of SC (see Table 6.30).

Table 6.30 Result of Moderation of SC between EC and SQP

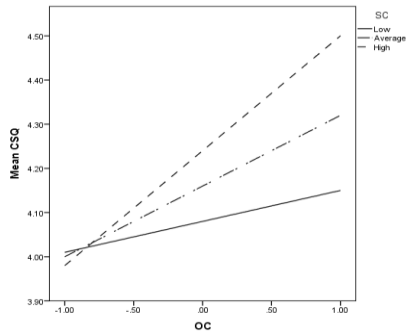


Relation	β	Sig	Remarks
SC→SQP	.16	.001	Significant
EC→ SQP	.40	.001	Significant
EC*SC→SQP	.08	.05	Significant
Low SC	.34	.001	Significant
Average SC	.40	.001	Significant
High SC	.45	.001	Significant

H 10c: Employees’ Perceived Service Climate (SC) moderates the link between Organisational Commitment (OC) and Commitment to Service Quality (CSQ).

The moderation test result revealed the significance of overall model (with R^2 value .23), along with direct and the interaction effects of SC on the link between OC and CSQ at five percent level of significance (OC→ CSQ; SC→ CSQ and OC*SC→ CSQ). The result presented that SC strengthens the positive relationship between OC and CSQ. The influence of SC between OC and CSQ was found significant at low, average (mean) and high levels of SC (see Table 6.31).

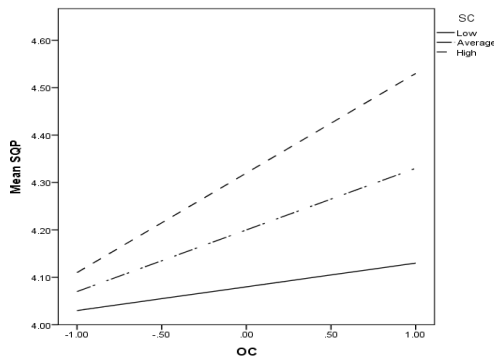
Table 6.31 Result of Moderation of SC between OC and CSQ



Relation	β	Sig	Remarks
SC→CSQ	.12	.001	Significant
OC→CSQ	.22	.001	Significant
OC*SC→CSQ	.18	.001	Significant
Low SC	.10	.001	Significant
Average SC	.22	.001	Significant
High SC	.35	.001	Significant

H 10d: Employees’ Perceived Service Climate (SC) moderates the link between Organisational Commitment (OC) and Service Quality Perception (SQP).

Table 6.32 Result of Moderation of SC between OC and SQP



Relation	β	Sig	Remarks
SC→SQP	.17	.001	Significant
OC→SQP	.17	.001	Significant
OC*SC→SQP	.15	.05	Significant
Low SC	.07	.01	Significant
Average SC	.17	.001	Significant
High SC	.28	.001	Significant

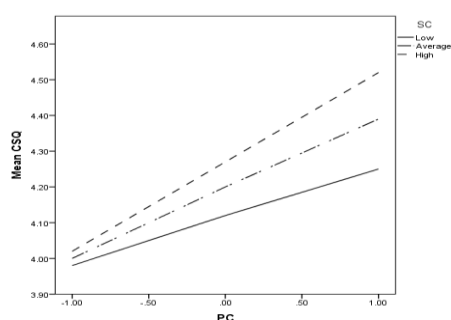
The moderation test result revealed the significance of overall model (with R^2 value .24), along with direct and the interaction effects of SC on the link between OC and SQP at 0.05 level of significance (OC→SQP; SC→SQP and OC*SC→SQP). The result showed that SC strengthens the positive relationship between OC and SQP. The influence

of SC between OC and SQP was found significant at low, average (mean) and high levels of SC (see Table 6.32).

H 10e: Employees’ Perceived Service Climate (SC) moderates the link between Professional Commitment (PC) and Commitment to Service Quality (CSQ).

The moderation test result revealed the significance of overall model (with R^2 value .28), along with direct and the interaction effects of SC on the link between PC and CSQ at 0.05 level of significance (PC → CSQ; SC → CSQ and PC*SC → CSQ). The result showed that SC strengthens the positive relationship between PS and CSQ. The influence of SC between PC and CSQ was found significant at low, average (mean) and high levels of SC (see Table 6.33).

Table 6.33 Result of Moderation of SC between PC and CSQ



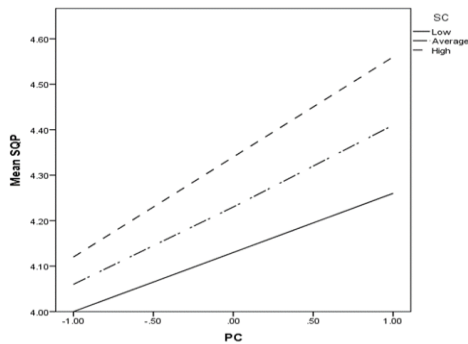
Relation	β	Sig	Remarks
SC → CSQ	.11	.001	Significant
PC → CSQ	.35	.001	Significant
PC*SC → CSQ	.15	.001	Significant
Low SC	.24	.001	Significant
Average SC	.35	.001	Significant
High SC	.45	.001	Significant

H 10f: Employees’ Perceived Service Climate (SC) moderates the link between Professional Commitment (PC) and Service Quality Perception (SQP).

The moderation test result showed the significance of overall model (with R^2 value .31), along with direct and the interaction effects of SC on

the link between PC and CSQ at 0.05 level of significance (PC → SQP; SC → SQP and PC*SC → SQP). The result clearly indicated that SC strengthens the positive relationship between PC and SQP. The influence of SC between PC and SQP was found significant at low, average (mean) and high levels of SC (see Table 6.34).

Table 6.34 Result of Moderation of SC between PC and SQP

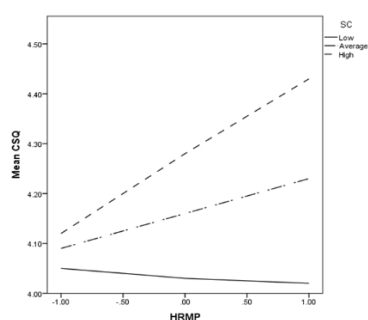


Relation	β	Sig	Remarks
SC → SQP	.15	.001	Significant
PC → SQP	.32	.001	Significant
PC*SC → SQP	.11	.001	Significant
Low SC	.24	.001	Significant
Average SC	.32	.001	Significant
High SC	.40	.001	Significant

H 10g: Employees’ Perceived Service Climate (SC) moderates the link between their perception of HRM practices and Commitment to Service Quality (CSQ).

The moderation test result showed the significance of overall model (with R^2 value .17), along with direct and the interaction effects of SC on the link between HRM practices and CSQ at 0.05 level of significance (HRMP → CSQ; SC → CSQ and HRMP*SC → CSQ). The influence of SC between HRM Practices and CSQ was found not significant at low levels of SC. But on average (mean) and high levels of SC the influence of SC was found significant between HRM Practices and CSQ (see Table 6.35).

Table 6.35 Result of Moderation of SC between HRM Practices and CSQ

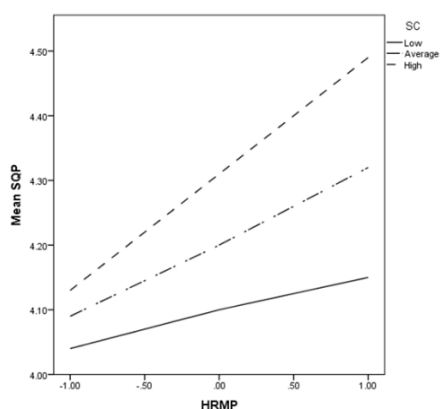


Relation	β	Sig	Remarks
SC→CSQ	.17	.001	Significant
HRMP→CSQ	.14	.001	Significant
HRMP*SC→CSQ	.24	.001	Significant
Low SC	-.03	.49	Not significant
Average SC	.14	.001	Significant
High SC	.31	.001	Significant

H 10h: Employees' Perceived Service Climate (SC) moderates the link between their perception of HRM practices and Service Quality Perception (SQP).

The moderation test result revealed the significance of overall model (with R^2 value .23), along with direct and the interaction effects of SC on the link between HRM practices and SQP at 0.05 level of significance (HRMP→SQP; SC→SQP and HRMP*SC→SQP).

Table 6.36 Result of Moderation of SC between HRM Practices and SQP



Relation	β	Sig	Remarks
SC→SQP	.15	.001	Significant
HRMP→SQP	.23	.001	Significant
HRMP*SC→SQP	.18	.001	Significant
Low SC	.10	.002	significant
Average SC	.23	.001	Significant
High SC	.36	.001	Significant

The result revealed that SC strengthens the positive relationship between HRP and SQP. The influence of SC between HRP and SQP was found significant at low, average (mean) and high levels of SC (see Table 6.36).

The result of moderation tests revealed the service climate's influence on employees' commitment to service quality and their service quality perception. Only in the case of HRM practices to CSQ at low SC, the effect was found not insignificant. The summary of hypotheses tested on the moderating or interaction effect of service climate on the link between different relationships is summarised in Table 6.37.

Table 6.37 Summary of Hypotheses Test Results of Moderating Effect of Service Climate

No	Hypotheses	Moderating Effect of SC
H 10a	Employees' Perceived Service Climate (SC) moderates the link between Employee Competence (EC) and Commitment to Service Quality (CSQ).	Significant at low, average and high level of SC
H 10b	Employees' Perceived Service Climate (SC) moderates the link between Employee Competence (EC) and Service Quality Perception (SQP).	Significant at low, average and high level of SC
H 10c	Employees' Perceived Service Climate (SC) moderates the link between Organisational Commitment (OC) and Commitment to Service Quality (CSQ).	Significant at low, average and high level of SC
H 10d	Employees' Perceived Service Climate (SC) moderates the link between Organisational Commitment (OC) and Service Quality Perception (SQP).	Significant at low, average and high level of SC

Continued...

H 10e	Employees' Perceived Service Climate (SC) moderates the link between Professional Commitment (PC) and Commitment to Service Quality (CSQ).	Significant at low, average and high level of SC
H 10f	Employees' Perceived Service Climate (SC) moderates the link between Professional Commitment (PC) and Service Quality Perception (SQP).	Significant at low, average and high level of SC
H 10g	Employees' Perceived Service Climate (SC) moderates the link between their perception of HRM practices and Commitment to Service Quality (CSQ).	Significant only at average and high level of SC
H 10h	Employees' Perceived Service Climate (SC) moderates the link between their perception of HRM practices and Service Quality Perception (SQP).	Significant at low, average and high level of SC

6.12 Conclusion

The chapter dealt with the analysis of data and results of data analysis. The data were screened to authenticate that a clean data set was used for the detailed analysis based on the objectives of the study. The preliminary data analysis and sample profiling were reported and the data set was tested for fulfilling various assumption like normality, multicollinearity, correlation and unidimensionality. Harman's single factor test was used to verify the presence of common method bias in the responses and found that the data set was free of any bias. Validity and reliability of scales used were also reinstated. The relationship and impact of hypothesised relationships were tested and the results were interpreted. The mediating and moderating effects of variables were ascertained using Hayes' PROCESS macro. The measurement and research models were

analysed and validated doing SEM using AMOS. The path coefficients and p values of the relationships among variables were obtained and reported.

The next chapter deals with a discussion of the results of the study, the major findings and the inferences drawn from the discussions and findings.

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FINDINGS, DISCUSSIONS AND CONCLUSIONS

- 7.1 *Introduction*
 - 7.2 *Summary of the Findings*
 - 7.3 *Discussion*
 - 7.4 *Managerial Implications and Recommendations*
 - 7.5 *Academic Contributions*
 - 7.6 *Limitations of the Study*
 - 7.7 *Scope for Future Research*
 - 7.8 *Conclusion*
-

7.1 Introduction

This chapter aims at reviewing and discussing the major findings of the study with respect to the research questions and expected outcomes discussed in Chapter 1. Towards the end of the chapter, the managerial implications, recommendations and the academic significance of the research work is denoted. The scope for future research based on various insights gathered and limitations experienced by the researcher during the course of conducting the study have been mentioned as well.

The model tested in the study linking various HRM practices and various outcomes in the hospital sector and its findings can be extended to other service sectors as well. From the theoretical perspective, the study will help in understanding the relevance of various HRM practices and HRM outcomes in deriving desired performance-related outcomes. In the

practical perspective, it supports the fact that the performance-related outcomes can be manipulated by managing the employees' perception of HRM practices and the HRM outcomes. This would ensure delivery of quality service to the customers/patients.

7.2 Summary of the Findings

The study has considered HRM practices such as employee selection, training and performance appraisal, job content (ability/skill practices), compensation, reward and recognition, career planning (motivation practices), teamwork, communication and empowerment (opportunities to participate practices). The HRM outcomes variables recognised for the study were employee competence, organisational and professional commitment. The performance-related outcomes identified for the study were commitment to service quality (CSQ) and the employees' service quality perception (SQP). Service climate (SC) has been considered as a moderating variable for the study.

The findings based on the research objectives and the hypotheses testing are summarised under four different categories as follows:

7.2.1 Findings from the Integrated Models

The study considered two different models for validation. Model No.1 considered HRM practices as a second-order construct and the Model No.2 treated HRM practices severally as first order reflective constructs. The direct hypotheses of the study were examined based on the integrated causal Model No.1.

CFA of the two research models without including the moderating variable (service climate) and HRM practices as both second order and as first order reflective constructs was performed to validate the models and

to analyse various paths based on the significance. CFA fit indices of research models showed that all the fit indices are well within the acceptable limits and found that the sample size was adequate for testing and validating the integrated models proposed.

7.2.2 Findings as per the Hypotheses Testing of Direct Relationships

All the hypothesised direct relationships between variables tested in the integrated model (HRM practices as second-order construct) were found significant and have a positive influence on the corresponding dependent variables except the relationship between HRM practices and commitment to service quality (CSQ) and organisational commitment (OC) and employees' service quality perception (SQP).

Findings from the CFA of integrated research model considering HRM Practices as a second-order construct is described in Table 7.1. Two paths, HRM practices to CSQ and OC to SQP were found not significant in the integrated model, while all other paths were significant.

Table 7.1 Integrated Model Path Analysis - HRM Practices as Second-Order Construct

Exogenous 'X'	Path	Endogenous 'Y'	Estimate	P
HRMP	→	EC	0.5	Significant
HRMP	→	PC	0.341	Significant
HRMP	→	OC	0.593	Significant
HRMP	→	CSQ	-0.062	Not Significant
EC	→	CSQ	0.362	Significant
PC	→	CSQ	0.393	Significant
OC	→	CSQ	0.2	Significant
HRMP	→	SQP	0.125	Significant
EC	→	SQP	0.281	Significant
PC	→	SQP	0.23	Significant
OC	→	SQP	0.02	Not Significant
CSQ	→	SQP	0.301	Significant

- Employees' perception of HRM practices was found to have significant positive influence on employee competence.
- Employees' perception of HRM practices was found to have significant positive influence on their organisational commitment.
- Employees' perception of HRM practices was found to have significant positive influence on their professional commitment.
- Employees' perception of HRM practices was found to be insignificant ($p=0.18$) in influencing their commitment to service quality.
- Employees' perception of HRM practices was found to have significant positive influence on their service quality perception.
- Employee competence was found to exert a positive influence on commitment to service quality and it was also found to have a positive influence on employees' service quality perception.
- Organisational commitment (OC) was found to be significant in positively influencing employees' commitment to service quality. At the same time, OC was found to be insignificant ($p=0.55$) in influencing employees' service quality perception.
- It was found that depending upon the level of employees' professional commitment, the commitment to service quality and their service quality perceptions vary.
- Hospital employees with a higher level of commitment to service quality showed a higher level of service quality perception.

7.2.3 Findings with respect to Mediating Effects

Employee Competence (EC), organisational (OC) and professional commitment (PC) were considered in the study as mediating variables linking HRM practices to both commitment to service quality (CSQ) and employees' service quality perception (SQP). For analysis, each linkage was treated as independent.

- HRM practices were found to be directly influencing commitment to service quality (CSQ). Mediation of employee competence (EC) enhances the effect of HRMP on CSQ. 14 percent variance of CSQ can be explained by the partial mediation effect of EC in the path between HRM practices and CSQ.
- HRM practices were found to be directly influencing employees' service quality perception (SQP). The partial mediation of EC on the HRMP–SQP link has been proved which enhanced SQP. 16 percent variance of SQP can be explained by the partial mediation effect of EC.
- HRM practices were found to be directly influencing commitment to service quality (CSQ). Partial mediation effect of organisational commitment (OC) in the path between HRM practices and CSQ enhances the CSQ. 14 percent variance of CSQ can be explained by this mediation effect of OC.
- HRM practices were found to be directly influencing employees' service quality perception (SQP). Whereas partial mediation of OC proved between HRM practices and SQP, 11

percent variance of SQP can be explained by the partial mediation effect of OC.

- HRM practices were found to be directly influencing commitment to service quality (CSQ). At the same time, in the model with professional commitment (PC) as a mediating variable, 12 percent variance in CSQ can be explained by the partial mediation of PC.
- HRM practices were found to be directly influencing employees' service quality perception (SQP). There is a partial mediating effect of PC in the path linking HRMP to SQP and 12 percent variance in SQP can be explained by this partial mediation effect.

7.2.4 Findings with respect to Moderating Effects

The study considered employees' perception of service climate (SC) as a moderating variable influencing various paths. The test results showed that all the models depicting the moderating effect of SC on the hypothesised paths were significant at $p < 0.05$ level.

- The moderation (interaction) effect of SC was found to be significant (at 0.05 level) in the path between employee competence (EC) and commitment to service quality perception (CSQ). For every low SC, EC enhances the CSQ by 30 percent and for every high SC, EC enhances CSQ by 44 percent.
- The moderation (interaction) effect of SC was found to be significant (at 0.05 level) in the path between employee

competence (EC) and employees service quality perception (SQP). For every low SC, EC enhances the SQP by 34 percent and for every high SC, EC enhances SQP by 44 percent.

- The moderation (interaction) effect of SC was found to be significant (at 0.01 level) in the path between organisational commitment (OC) and commitment to service quality perception (CSQ). For every low SC, OC enhances the CSQ by 10% and for every high SC, OC enhances CSQ by 35 percent.
- The moderation (interaction) effect of SC was found to be significant (at 0.01 level) in the path between organisational commitment (OC) and employees service quality perception (SQP). For every low SC, OC enhances the SQP by seven percent and for every high SC, OC enhances SQP by 35 percent.
- The moderation (interaction) effect of SC was found to be significant (at 0.01 level) in the path between professional commitment (PC) and commitment to service quality perception (CSQ). For every low SC, PC enhance the CSQ by 24percent and for every high SC, PC enhance CSQ by 45 percent.
- The moderation (interaction) effect of SC was found to be significant (at 0.01 level) in the path between professional commitment (PC) and employees service quality perception (SQP). For every low SC, PC enhance the SQP by 24 percent and for every high SC, PC enhance SQP by 40 percent.
- The moderation (interaction) effect of SC was found to be significant (at 0.01 level) in the path between HRM practices and

commitment to service quality perception (CSQ). For every low SC, HRM practices were found not influencing CSQ but for every high SC, HRM practices enhance CSQ by 31 percent.

- The moderation (interaction) effect of SC was found to be significant (at 0.01 level) in the path between HRM practices and employees service quality perception (SQP). For every low SC, HRM practices enhance the SQP by 10 percent and for every high SC, HRM practices enhance SQP by 36 percent.

7.3 Discussion

The test results of specific relationships hypothesised in the integrated model treating HRM practices as a second-order construct, except for the HRMP to CSQ and OC to SQP relationships are supported. At the same time, direct relationships without the influence of other variables in the model supported these hypotheses. Both the standardised regression path coefficients were found to be significant at $p < 0.001$ level. A higher mean score of commitment to service quality (4.21) compared to a low mean score of HRM practices (3.71) is the reason for the path's insignificance in the integrated model. But at the same time, the direct relationship was found significant. Similarly, the mean score of employees' service quality perception (4.24) is higher than the mean score of organisational commitment (3.98). Here also the direct relationship was found significant. This shows the importance of testing an integrated causal model to understand the dynamism of operation in an organisation. An antecedent might be influencing an outcome variable directly but it may not necessarily be influencing the same outcome variable if

examined as part of a model. This is so because a model represents part of a system which is created for achieving a specific output.

HRM practices were not found to be influencing employees' commitment to service quality (CSQ). But the earlier findings of Elmadag et al. (2008) and Sun et al. (2012) had indicated the positive influence of HRM practices on CSQ. Similarly, organisational commitment (OC) was not found to be influencing employees' service quality perception. This finding is contradictory to the findings of Boshoff and Mels (1995) as they indicated that OC applies a strong positive impact on internal service quality and in turn on external service quality (Boshoff & Tait, 1996). Malhotra and Mukherjee (2003& 2004) had also identified the role of employees' organisational commitment in influencing their service quality perception. The special nature of customers (patients) of the hospital sector influences the delivery of service by the employees in this sector. Irrespective of HRM practices or not having any commitment to the organization, employees may perceive to have a higher commitment to service quality and service quality perception by themselves and that might result in a better delivery of quality service. At the same time OC was found to influence the employees' commitment to service quality - CSQ ($p < 0.01$, $\beta = 0.20$). The result has proved the importance of employees' organisational commitment to augment their commitment to service quality. This result is in congruence with the earlier findings of Pitt et al. (1995) and Sun et al. (2012).

The element of relatedness (empathy) and emotional labour involved in the case of service in the hospitals cannot be overlooked. Emotional labour refers to the process by which workers are expected to

manage their feelings in accordance with organizationally defined rules and guidelines (Hochschild, 1983). It is neither the commitment to service quality and to organisation nor due to empathy or emotional labour but to gain experience that they serve patients sincerely, was a comment of a male nurse interviewed. Additionally, the expertise and experience certificate gained help them to get a job abroad with a better salary.

It is important to recognise that employees may demonstrate a commitment in providing quality service without being committed to the organisation. For example, in an exploratory study of employee turnover by Hartman and Yrle (1996), it was argued that turnover among employees was due to lack of opportunities for progression and training, rather than job satisfaction. Such employees can be committed to providing quality service to their customers but may have a low organisational commitment (Philip, 1999). Cesario and Chambel (2017) have underlined the importance of developing adequate and challenging work conditions, human resource management practices and an environment which support employees to increase their passion for the work they are doing. Their study had clearly revealed the fact that some employees in the company were engaged with their work but were not committed to the organisation. More recently, Katou (2017) found that HRM practices mainly influence job satisfaction and motivation rather than organizational commitment.

The study established the influence of HRM practices on Employee Competence (EC). This result is in congruence with the findings of Yang (2012) and Ulrich and Lake (1991) where HRM practices were found to be

instrumental in augmenting the EC and therefore firm could enjoy a competitive advantage.

In the case of Model 2 where HRM practices were considered as first-order constructs, it was possible to explain 55 percent of the variation in employee competence. Job content, compensation, empowerment and teamwork only were found to be significant in influencing employee competence. Among these practices, only job content is coming under the practices which enhance the abilities/skill of employees. Compensation motivates employees, whereas teamwork and empowerment provide opportunities for employees to participate. Training and performance appraisal, career path and employee selection were found not significant in influencing employee competence. This is a reflection of the practice of poor or unscientific selection process and poor training and performance appraisal system being followed in the hospitals. It results in dilution of the skill/ability level of employees in the hospital. One of the team members from the quality department of a hospital remarked that training for the nursing and other staff were conducted only to complete the formalities of certification agencies like that of NABH. Most of the times these training sessions were held immediately after their shift duties or before the shift duty begins and conducted as rituals. For doctors, no such training sessions were held except departmental meetings in some hospitals. Due to high attrition rate in the hospitals, one day in a week is reserved for recruitment and selection of nurses and other staff. One of the HR managers remarked that they cannot follow a strict procedure for selection due to the urgent requirement and also due to the fact that in many of the cases the candidates might be referral cases especially in the case of

mission hospitals. Lack of career planning in the hospitals also demotivate employees and this may retard the competence of the employee.

HRM practices as a second-order construct explained 35 percent of the variation in organisational commitment (OC). The path coefficient of HRM practices was 0.59 ($\beta=0.59$). This means that for every one unit increase in the HRM practices, OC increases by 0.59 units. This implies that a 100 percent increase in HRM practices would cause a 59 percent increase in employees' OC. The finding is in congruence with the earlier findings of Pitt, Foreman and Bromfield (1995); Maheshwari, Bhat and Saha (2008); and Paul and Anantharaman (2004).

By considering HRM practices as first-order constructs the coefficient of determination for organisational commitment, R^2 is 0.44. This value implies that about 44 percent of the variation in OC is explained by HRM practices. Whereas only compensation, empowerment, teamwork, training and performance appraisal were found to contribute in enhancing OC in the hospitals, while job content, career planning, reward and recognition were found to be insignificant in enhancing OC in the hospitals. A few remarks made by the employees in the hospital are worth mentioning at this point as a qualitative input. A senior employee (other staff) with 30 years of service in the same hospital remarked that there was no effective training happening, nor does a proper career planning exist in the hospitals. A high labour turnover is a phenomenon in this sector; people join, get experience and leave. Selection is also highly biased especially in mission run hospitals where friends and relatives of priests and nuns were appointed without any scientific selection process. This also hampers quality. He also remarked, that for the last 30 years, except for a broken chair replacement no other changes

have happened in the career path of managerial staff. Such remarks indicate poor HRM practices being followed in the hospital sector which results in poor OC and higher labour turnover among employees.

Only 12 percent of the variation in the professional commitment (PC) is explained by the HRM practices as a second-order construct with a path coefficient of 0.34 ($\beta=0.34$). This means that for every one unit increase in the HRM practices, PC increases only by 0.34 units and implies that 100 percent change in HRM practices will change the PC by 34 percent. Earlier findings by Maheshwari et al. (2008) have also proved the influence of HRM practices on PC. But among the three HRM outcomes considered in the study viz., EC, OC and PC the influence of HRM practices on PC was found to be less. In the case of HRM practices as first-order constructs, it explains 37 percent of the variation of PC. Among the selected HRM practices only teamwork, empowerment, compensation, job content, training and performance appraisal were found to be influencing PC. Employee selection was not found significant in influencing PC. Since the influence of HRM practices on PC was found to be very meagre in hospitals, need of strict adherence of scientific selection process to select professionally committed employees cannot be ignored.

Employee competence - EC was found to have significant and positive influence on commitment to service quality - CSQ ($\beta= 0.36$, $p<0.01$). This means that a one unit change in EC changes CSQ by 0.36 units and implies that a 100 percent change in EC will change CSQ by 36 percent. It has proved that when an employee perceives to have a higher competence he can have a higher commitment to service quality as well. This finding is also substantiated by some of the earlier findings of Peccei

and Rosenthal (1997). At the same time EC was found to exert a positive influence on employees' service quality perception-SQP ($\beta=0.28$, $p<0.01$). The result conveys that an employee with competence can deliver service with quality. The findings of Schlesinger and Zornitsky (1991) and Yu-Chi, et al. (2015) have also demonstrated the influence of EC on SQP. In this study, the influence of EC was found to be more on CSQ than SQP. It may be attributed to the fact that both the EC and the CSQ are felt within an individual. EC results in intrinsic psychological rewards and faith in oneself. At the same time, CSQ of employees is all about the strong desire in improving the quality of service and their actions to help their organisation in delivering quality service to their customers/patients (Hartline & Ferrel, 1996).

Professional commitment is an attitude caused through beliefs, job identification, active commitment and makes one remain in the profession which in turn enhance his job performance (Yeh, 2009). In this study professional commitment was found to influence employees' commitment to service quality and service quality perception. Hence employees with a higher level of professional commitment will be more useful to the organisations for delivering quality service to their customers. Professional commitment can enhance employee competence as well.

In the case of organisational and professional commitment, there is an issue of differentiated commitment to the profession or to the organisation (Tam, Korczynski, & Frenkel, 2002). Gouldner (1957) had observed that these two value systems tend to vary or were even in conflict with each other. This results in the *commitment dilemma* or *organisational-professional conflict*. Consequently, in the case of bureaucratic organisations,

the professionally relevant behaviour may not be supported. Hence professional workers are more likely to be committed to their professions than to their employers (Gunz & Gunz, 1994). However, some scholars argue that they are positively related (Wang & Armstrong, 2004). Depending upon the nature of the profession and tenure in the organisation the organisational and professional commitment of employees may vary and there can be possibilities of reverse causality among these variables as well (Chang & Choi, 2007).

Employees' perception of HRM practices collectively, was found to influence their service quality perception- SQP ($\beta=0.13$, $p<0.01$). This means that a one unit change in HRM practices changes SQP by 0.13 units and implies that a 100 percent change in HRM practices will change SQP only by 13percent. This finding is in congruence with the earlier research findings by Newman and Maylor (2002); Li, Yang and Wu (2008) and Bataineh and Ahmad (2011). In this study, the result reveals that very negligible impact of employee perception of HRM practices on their service quality perception.

HRM practices (second order), EC, OC and PC collectively explain 40 percent of the variation in commitment to service quality (CSQ) and in the case of HRM practices as first-order constructs, it explains 47 percent of the variation. Among HRM practices only job content was found to be significant in influencing CSQ. At the same time employee competence, organisational and professional commitment were found to have an influence on CSQ. It indicates that HRM practices per se do not induce CSQ but only when it is capable of inducing HRM outcomes such as EC, OC and PC they can influence CSQ.

Commitment to service quality was found significantly influencing employees' service quality perception (SQP). On the other hand, HRM practices were found insignificant in influencing CSQ. People with an apt mindset for the sector can have a better commitment to service quality. Many studies have reported a high degree of association that exists between customers' and contact employees' perceptions of service quality (Schneider & Bowen, 1985). Hence service quality issues in the hospital sector can be addressed by selecting the right employees with commitment to service quality.

HRM practices (second order), EC, OC, PC and CSQ can explain 50 percent of the variation in employees' service quality perception (SQP) and treating HRM practices severally it explains 59 percent of the variation. Among HRM practices teamwork and job content influence the SQP. Training and performance appraisal (TPA), Employee Selection (ES), reward and recognition (RR), communication (COM) and career planning (CP) were found insignificant in influencing SQP. At the same time EC, OC, PC and CSQ were found to have an influence on SQP. Though the influence of HRM practices directly on SQP is found to be very negligible, if it induces EC, OC, PC and CSQ through appropriate HRM practices that result in augmenting SQP in the hospitals. This reinstates the importance of the research model conceived as an integrated causal model and various interactions in the model studied.

Comparison of the R^2 values of both the research models (Model 1&2) shows that higher R^2 values exist for model 2 with HRM practices treated as first-order constructs (Table 7.2). It is possible in the cases where more number of independent variables influence a single

dependent variable (Hayes, 2013). Bivariate correlation among the HRM practices has been found to be significant at a level of 0.01. All the correlations were found to be positive as well. These findings highlight the fact that HRM practices invoke an integrated approach and holistic philosophy. Hence it is ideal to treat HRM practices in a coherent manner rather than severally. HRM practices in a system environment will be highly correlated (Huselid, 1995) and it is not completely independent (Delery & Doty, 1996). In this study too, HRM practices were treated coherently (as a second-order construct) to test all the hypothesised relationships. In the model 2, HRM practices were considered severally as first-order constructs. This was to identify and explain specific practices which enhance various outcomes hypothesised in the study.

**Table 7.2 Comparison of Squared Multiple Correlations Estimate–
Research Model 1 and 2**

Exogenous Constructs (X)	Endogenous Constructs (Y)	Model 1 R²	Model 2 R²
HRMP	PC	0.116	0.37
HRMP	OC	0.352	0.443
HRMP	EC	0.25	0.552
HRMP, PC, OC, EC	CSQ	0.399	0.472
HRMP, PC, OC, EC, CSQ	SQP	0.499	0.593

SEM output of research model 2 exhibited the poor influence of employee selection, reward and recognition, career planning and communication practices in the hospital sector. The key influencing HRM practices and corresponding outcome variables are mentioned in Table 7.3. Selecting and retaining the right employees are among the important human resource management functions. Right selection permits entry of

able/skillful workforce into the hospitals, while reward and recognition and career planning can enhance their motivation level and focus on right communication principles provide opportunities for them to participate in the day to day affairs. This, in turn, can induce an ownership feeling among employees and thus delivery of quality service is possible. If employees are satisfied and committed it will result in customer satisfaction (Sergeant& Frenkel, 2000). The study revealed the fact that, the communication principles such as involving employee participation, considering employees' opinion before taking any decision and two-way communication are lacking in this sector.

Table 7. 3 Key influencing HRM practices and Outcome Variables

Outcome Variable	HRM								
	ES	TPA	JC	COP	RR	CP	TW	COM	EMP
EC			√	√			√		√
OC		√		√			√		√
PC		√	√	√			√		√
CSQ			√						
SQP			√				√		

Employee competence can be enhanced if a proper selection is made based on the job content and the training imparted by identifying training needs based on the performance appraisal. Competence will improve employees' commitment to service quality and influence their service quality perception. In comparison with employee competence, the organisational commitment's role in influencing commitment to service quality is relatively weak and found to have an insignificant effect on employees' service quality perception (Model 1). This result contradicts

the study conducted by Malhotra and Mukherjee (2003) in the banking retail sector in the UK where they reported that the organisational commitment of employees significantly influenced their service quality perception. Lack of organisational commitment results in higher employee- turnover. Turnover among customer- contact employees and lack of experienced employees in the hospitals adversely affect the quality of service. Employee-turnover can be mitigated by improving organisational commitment of employees (Chen, 2000; Somers, 1995).

HRM practices influence performance-related outcomes. The study had initially identified HRM practices, to induce HRM outcomes such as employee competence, organisational and professional commitment. But the study was able to establish the partial mediation effect of these HRM outcomes on commitment to service quality and employees' service quality perception. The result thus substantiates the fact that mere HRM practices without aiming to induce desired HRM outcomes will be a futile effort as far as the importance of HRM practices in the labour intensive hospital sector is concerned.

Many previous research studies have proved the moderating or mediating influence of service climate on various performance outcomes. In this study service climate (SC) is treated as a moderating variable interacting on various paths linking HRM practices and HRM outcomes (EC, OC,&PC) to performance related outcomes (dependent variables) such as commitment to service quality (CSQ) and employees' service quality perception (SQP). The support and recognition by the hospitals along with the employees' understanding of the quality philosophy of hospitals were found to influence the service climate. Employee

perceptions of organisational service climate influence the way they deliver services and also how customers assess the service quality of the firm (Yeh, 2009). Hence better service climate in the organisation not only influences the performance of the employee but can also stimulate customer perception of service levels of the firm. This can enhance customer loyalty towards the organisation. In other words service climate contributes to employee job performance and it directs employee behaviours in achieving high-quality service (Yeh, 2009).

Since the study conceived an integrated causal approach, Structural Equation Modelling (SEM) was used to test and validate the research models framed based on the literature support along with the hypotheses testing of direct relationship. SEM is more of a confirmatory technique for testing theoretically grounded model. SEM facilitate testing of latent variables and assessing the overall measurement and fit of the hypothesised model. The simultaneous estimation of hypothesised paths allows the researcher to examine the interrelationship within the framework without the requirement of estimating separate models.

In this study, SEM output of the research model 2 with HRM practices treated as first-order constructs showed that some of the HRM practices do not significantly contribute to various HRM outcomes and performance-related outcomes (Table 7.3). But all the model-fit indices were found to be well within the limit and provided better fit indices than the model 1 with HRM practices as a second-order construct. The comparison of various fit indices of model 1 and 2 are depicted in Table 7.4. This result reestablishes the fact that all HRM practices do not influence the desired outcomes

similarly. Accordingly, hospital management can decide on the HRM practices which help to induce the outcome expected.

Table 7.4 Comparison of Fit Measures of the Two Research Models

Fit Measures	HRM as Second Order Construct Model 1	HRM as First Order Constructs Model 2
RMSEA	0.044	0.040
GFI	0.825	0.854
AGFI	0.814	0.840
CFI	0.851	0.880
TLI	0.845	0.872
NFI	0.802	0.831
CMIN/DF	3.424	2.995

7.4 Managerial Implications and Recommendations

The study attempted to develop and validate an integrated causal model interlinking various HRM practices, HRM outcomes and performance-related outcomes. The role of service climate in the hospitals in determining the performance-related outcomes were also studied. The conclusion from the empirical research envisages the following managerial implications and recommendations for improving the present state of affairs in the hospital sector.

7.4.1 Managerial Implications

- 1) Managers in the hospital sector can improve employees' competence, professional and organisational commitment by focusing on HRM practices such as compensation, teamwork, job content, empowerment, training and performance appraisal. This would further enhance commitment to service quality and service quality perception of employees in the hospital sector. Care must

be taken to maintain a conducive service climate as it augments the quality of service delivery in hospitals.

- 2) The demographics of the sample provides vital information that may be of use to customise the HRM policies and practices followed in the hospital sector. Reflection of such lack of customised HRM practices is evident from the poor employee retention and low skill dilution index seen in this sector (63.8 percent of the sample belonged to total experience group of 1 to 5 years). Out of the sample, 78 percent of employees had an income below ₹.15,000. This stresses the need for reviewing compensation policies in the hospital sector. The very recent turmoil among private hospital nurses in the state of Kerala and subsequent government intervention has to be appreciated by the managers in creating various policies for the staff in the hospitals, so as to make the compensation package more attractive.

7.4.2 Recommendations

Following suggestions are made in line with the research findings:

- 1) By redefining job content, that is clear and challenging which demands the use of employees' multiple skills and abilities ensuing teamwork with sufficient empowerment and suitable compensation the hospital management can enhance employee competence (Refer Table 7.3).
- 2) To improve organisational commitment of employees in the hospitals, the management should focus on imparting need-based training, identified from suitable performance appraisals, by fostering

teamwork, suitable compensation and by befittingly empowering employees. This can also bring down the attrition rate among employees (Refer Table 7.3).

- 3) Professional commitment can be enhanced by empowering employees, fostering teamwork, fitting compensation, improving job content, having suitable performance appraisal system and imparting need based training (Refer Table 7.3).
- 4) Hospitals can ensure superior quality service by maintaining knowledgeable and skilful employees, providing necessary tools and technology and recognising and rewarding superior performance (Refer Table 7.3).
- 5) The study has shown that clearly defined and challenging job content along with necessary competence, professional and organisational commitment of employee results in an enhanced commitment to service quality. Hence hospital managements must focus more on those HRM practices (such as compensation, teamwork, job content, empowerment, training and performance appraisal) which induce these qualities in an employee (See Table 7.3).
- 6) In order to improve service quality perception of employees, hospital management should see that the hospitals have challenging job content which fosters teamwork along with professionally committed and competent employees who possess commitment to service quality. Better service quality perception of employees will

lead to better quality of service delivery and better service quality perception of customers (See Table 7.3).

7.5 Academic Contributions

- 1) Based on the review of literature, it was seen that no empirical research studies have been recognised that describes the process variables through which HRM practices influence the commitment to service quality and the service quality perception. This study has brought out models by which the link between HRM practices, HRM outcomes and performance-related outcomes in the service sector can be better understood.
- 2) The research models formulated and validated in the study can link the service economy with the experience economy since the people-the service provider, differentiates the quality of the service delivered.
- 3) The moderating effect of service climate (SC) in enhancing the performance-related outcomes under different levels of SC (i.e. low, average and high) in the different paths linking HRM Practices/HRM outcomes to performance related outcomes have been ascertained.
- 4) The study reinstated the fact that different HRM practices and combinations induce different outcomes in an organisation. This combination of HRM practices may vary based on the nature and process of service delivery in service organisations especially in labour-intensive service organisations such as hospitals. The result of this study can be generalised across labour-intensive service

sector like, banking, insurance, retail etc. since HRM practices and its intended HRM outcomes like EC, OC and PC are determinant in deciding the performance-related outcome like service quality.

7.6 Limitations of the Study

The following are the important limitations confronted with the methodology adopted in this study (Discussed in Chapter 5, Section 5.17):

- 1) This study followed a cross-sectional design using latent constructs to capture the perception of employees at a particular point in time, which may not adequately qualify to understand causal inference.
- 2) Employees' perceptions on various HRM practices and its influence on various HRM and performance-related outcomes were measured by using self-reported scales.

7.7 Scope for Future Research

- 1) The model developed and tested in the study among hospital employees can be replicated in similar service sector like banking, insurance, retail etc.
- 2) Employees of private general hospitals with 200 and above beds only were considered for the study. The ownership of hospitals also might be an influencing factor in the employees' perception of various HR policies and outcomes. Hence a similar study can be carried out to compare the hospital under different ownership and different sizes.

- 3) Self-reported performance by an employee can generally end up in getting inflated figures. Future studies can incorporate responses from customers/patients on dependent variables (Service Quality Perception of Customer) to cross verify the result.
- 4) Future studies can consider only those HRM practices which were significant in contributing individually to different HRM and performance outcomes (See Table 7.3).
- 5) By considering the nature of service process in the hospitals, a further study can be conducted with the same model and emotional labour or relatedness (empathy) as a moderating variable, which can give a valuable answer as to why employees are committed to service quality or have high service quality perception even with a low organisational commitment score.
- 6) Employees' professional and organisational commitment (PC& OC) might show a reverse causality or form a U-shaped curve depending on the tenure in the organisation and also depend on the job profile they are into. Future studies can possibly hypothesise these relationships since employees' perception on various HRM practices at the different phases in their career can influence both their PC and OC.
- 7) Future studies in the hospital sector could be of qualitative /case study approach which might be more suitable to address performance issues in the hospitals.
- 8) Multiple mediations between independent and dependent variables are possible like HRM Practices → OC → CSQ → SQP. Such

mediation combinations can be hypothesised and tested using PROCESS by Hayes (2013) and that would be a theoretical contribution.

- 9) Possibilities of moderated mediation or mediated moderation of service climate (SC) in the different links can also be hypothesised and tested using PROCESS by Hayes (2013). This would help to understand the changing role of SC in the various organisational process.
- 10) Different employee categories perceive various HRM practices and outcomes differently though the questionnaire was prepared by ensuring cadre neutrality. Future study can include different sets of questionnaires for different category of employees and possibly a comparison can be made to evaluate the various HRM practices followed.
- 11) Since longitudinal study gives a better causal relationship, it is always sensible to go for a longitudinal study by suitably modifying the methodology.

7.8 Conclusion

"Service quality suffers when employees are unwilling or unable to perform a service at the level required" (Zeithaml, Parasuraman & Berry, 1990, p.89). In a labour - intensive service sector such as hospitals, the mindset of employees in a service encounter plays an important role in ensuring service quality. The quality of service delivered cannot be separated from the quality of the service provider (Lewis, 1989). Direct

supervising or controlling of customer-contact employees and their responses to the customer during the service delivery process is not possible for the management. Zeithaml et al. (1990) stated that the willingness and discretionary effort of the customer- contact employee during service encounters (moments of truth) define the level of service quality delivered and the satisfaction of the customer. Boshoff and Allen (2000) proposed that long-term customer relationships could be created only with long-term committed workforce and loyal employees, attract loyal customers (Reichheld, 1996). As far as service in hospitals is considered this had become a myth since patients often go to hospitals where the doctors switch to. Customers do not look for an employee with organisational commitment but an employee with professional commitment and competence. And higher labour turnover is a reality in this sector. Employee selection plays an important role in deciding entry of quality employees to the organisation. Subsequent practices shall be aimed at enhancing their competency and professional commitment so that these employees can deliver quality service. Motivation practices such as compensation, reward and recognition and career planning are not found to be highly significant in addressing service quality issues. Carefully designed job content, fostering teamwork, appropriate training, based on effective performance appraisal and sufficiently empowered employees can address service quality issues in the hospital sector. This will lead to an enhanced commitment to service quality and service quality perception of employees and in this way quality service delivery and higher customer satisfaction can be ensured. This, in a nutshell, is what the present study has served to underline.

In the labour-intensive service sector like in the hospitals, human interaction derives the quality of service delivery. The present trends in this sector are the advertisements hospitals make to attract their customers/patients by emphasising quality in everything they do. Now hospitals want to differentiate themselves by being unique in various parameters. Differentiation in labour intensive and highly customised service sector is possible only by differentiating delivery of service with quality which provides experience to customers /patients. This is possible only when hospitals have unique employees with appropriate competence. Undoubtedly, HRM practices play a vital role in addressing these challenges faced by the hospital sector today.

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Appendices

Appendix 1

Questionnaire

In order to get an understanding on Human Resource Management (HRM) practices and its outcomes in a hospital setting, I invite you to participate in this survey. This study is conducted as part of my Ph.D. research work. Kindly make sincere responses to all questions as your responses are valuable for the study. I assure you that the information provided by you will be treated with confidentiality and will be used only for academic purposes.

Warm regards,

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*(Please read each statement and indicate the extent to which you disagree or agree to each item and indicate degree of your agreement by putting a \surd ranging from **1 to 5** in the box provided based on your perception as to **strongly disagree** to **strongly agree**.)*

HRM Practices

		1. Strongly Disagree	2. Disagree	4. Agree	5. Strongly Agree	3. Undecided
Employee Selection						
1	The selection systems followed in our hospital are highly scientific (based on merits) and rigorous.	1	2	4	5	3
2	Our hospital tries to ensure proper alignment between person's values and hospital's values at the time of selection.	1	2	4	5	3
3	The hiring practices at our hospital help us to have high-performing employees.	1	2	4	5	3

4	Our hospital selects those having the desired knowledge, skills and attitude (service mindset).	1	2	4	5	3
5	Supervisor's/HOD's opinion about person's suitability for the job is sought at the time of selection.	1	2	4	5	3
Training						
1	Staff in this hospital receive continued training to provide good and quality service.	1	2	4	5	3
2	Staff in this hospital receive extensive patient service training before they come into contact with patients.	1	2	4	5	3
3	Training needs are identified through a formal performance appraisal mechanism.	1	2	4	5	3
4	Training needs identified are realistic, useful and based on the current/ future requirements of the hospital.	1	2	4	5	3
Performance Appraisal						
1	Performance of the employees is measured on the basis of objective quantifiable results.	1	2	4	5	3
2	Appraisal system in our hospital is development and growth- oriented.	1	2	4	5	3
3	Employees are provided performance-based feedback and counselling.	1	2	4	5	3
4	Employees have faith in the performance appraisal system.	1	2	4	5	3
5	The appraisal data is used for making decisions like job rotation, promotion, training and compensation.	1	2	4	5	3
Communication						
1	My hospital has a proper two way communication system that enables me to interact with my HOD/Supervisor and get regular information regarding day to day functioning.	1	2	4	5	3

2	Sufficient effort is made to get the opinion and thinking of hospital staff before taking any decision.	1	2	4	5	3
3	Employees in my hospital are involved in formal participation process (eg. as in quality improvement group/ problem solving group / suggestion systems etc).	1	2	4	5	3
Compensation						
1	I am happy with my pay compared with the pay of other people who work here doing similar job.	1	2	4	5	3
2	My pay is fair compared with others doing a similar job in other hospitals.	1	2	4	5	3
3	Pay raises for employees in this hospital are based on the job performance.	1	2	4	5	3
4	My hospital provides me adequate benefits and facilities for good living.	1	2	4	5	3
Rewards & Recognition						
1	The rewards I receive are fair in comparison to my contribution.	1	2	4	5	3
2	The rewards in our hospital are directly related to performance at work.	1	2	4	5	3
3	My services are acknowledged in the hospital.	1	2	4	5	3
4	Our hospital recognises and appreciates the contribution of sincere and hardworking employees.	1	2	4	5	3
Job Content						
1	My job is useful and makes sense to me.	1	2	4	5	3
2	My job is quite challenging as per my capabilities.	1	2	4	5	3
3	My job requires variety of different activities and involves the use of multiple skills and abilities.	1	2	4	5	3
4	My job makes good use of my skills and abilities.	1	2	4	5	3
5	The duties of every job are clearly defined in my hospital.	1	2	4	5	3

Team Work						
1	Employees in my section/group/shift are cooperative.	1	2	4	5	3
2	Employees in my section/ group/ shift share information.	1	2	4	5	3
3	Employees in my section/group/ shift are likable.	1	2	4	5	3
4	If we have a decision to make in our section/group/ shift, everyone is involved in making it.	1	2	4	5	3
Career Planning						
1	Individuals in this hospital have clear career paths.	1	2	4	5	3
2	Individual and hospital growth needs are matched in this hospital.	1	2	4	5	3
3	Our hospital plans for career development of employees.	1	2	4	5	3
4	Qualified employees have the opportunity to be promoted to positions of greater pay and responsibility within the hospital.	1	2	4	5	3
5	Promotion policy of the hospital is based strictly on performance and abilities of the employee.	1	2	4	5	3
Empowerment						
1	I am given adequate freedom and flexibility in deciding how to do my job.	1	2	4	5	3
2	My hospital encourages employees to be creative, innovative and do new things.	1	2	4	5	3
3	Employees holding supervisory positions are allowed to take independent decisions on matters relating to their subordinates. (Such as allocation and supervision of work, promotion, grant of leave and disciplinary action.)	1	2	4	5	3

Competence						
1	This job offers me a chance to test myself and my abilities.	1	2	4	5	3
2	As I get experienced, I feel thoroughly familiar with my tasks.	1	2	4	5	3
3	I honestly believe I have all the skills necessary to perform my task well.	1	2	4	5	3
4	Doing this job well is a reward in itself.	1	2	4	5	3
5	Mastering this job means a lot to me.	1	2	4	5	3
Service Quality Perception						
1	I can understand the specific needs of my patients/bystander/customer.	1	2	4	5	3
2	When I promise a patient/bystander/customer that I will do something by certain time, I do so.	1	2	4	5	3
3	I perform service correctly the first time.	1	2	4	5	3
4	When a patient/bystander/customer has a problem, I provide him/her with all my attention in an effort to solve them quick.	1	2	4	5	3
5	I always give personal attention to my patients/bystanders/customers.	1	2	4	5	3
6	I am never too busy to respond to the request of my patients/bystander/customers.	1	2	4	5	3
7	I give prompt service to my patients/bystanders/customers.	1	2	4	5	3
8	I treat all patients/bystanders/customers courteously.	1	2	4	5	3
9	I have the knowledge and competence to answer the patients'/bystanders'/ customers' questions.	1	2	4	5	3
10	I always explain to my patients/bystanders/customers each and everything I do.	1	2	4	5	3

11	My behavior instills confidence in my patients/bystander/ customer.	1	2	4	5	3
Service climate						
1	Employees in our hospital have knowledge of the job and the skills to deliver superior quality work and service.	1	2	4	5	3
2	Employees receive recognition and rewards for the delivery of superior work and service.	1	2	4	5	3
3	The overall quality of service provided by our hospital to customers/patients is excellent.	1	2	4	5	3
4	Employees are provided with tools, technology, and other resources to support the delivery of quality work and service.	1	2	4	5	3
Organisational Commitment						
1	I proudly talk to others about this hospital.	1	2	4	5	3
2	I feel a sense of belonging to my hospital.	1	2	4	5	3
3	I often think that it was a right decision on my part to choose this hospital over others I had considered.	1	2	4	5	3
4	I feel emotionally attached to this hospital.	1	2	4	5	3
5	I would be very happy to spend the rest of my career with this hospital.	1	2	4	5	3
Professional Commitment						
1	I proudly talk to others about my profession.	1	2	4	5	3
2	I feel a sense of belonging to my profession.	1	2	4	5	3
3	I often think that it was a right decision on my part to choose this profession over others I had considered.	1	2	4	5	3
4	I feel emotionally attached to this profession.	1	2	4	5	3
5	I would be very happy to spend the rest of my career in this profession.	1	2	4	5	3

Commitment to Service Quality						
1	I feel strongly about improving the service my hospital provides to its patients/bystanders/customers.	1	2	4	5	3
2	I gain a sense of personal accomplishment in providing quality services to patients/ bystanders/customers.	1	2	4	5	3
3	I am willing to put in a great deal of effort to help my hospital deliver high-quality service to our patients/bystanders/customers.	1	2	4	5	3
4	I really care about the quality of my hospital's services.	1	2	4	5	3
5	I enjoy discussing quality- related issues with people in my hospital.	1	2	4	5	3

General Information (Please put a \surd / **write** as applicable)

1. **Name of Hospital:**.....
2. **Age:** Below 30 yrs 31 to 40 yrs 41 to 50 yrs
 51 to 60 yrs; Above 60 yrs
3. **Gender:** Male Female
4. **Marital Status:** Married Unmarried Separated
 Widow Widower Divorced
5. **Whether spouse is employed or not:** Yes No
6. **Highest Educational Qualification :** SSLC Diploma
 UG (Degree) PG;
Professional Courses: UG / PG / MD / DM / PhD
 Others (Please specify).....
7. **Department / Designation:**..... /.....
 Doctor Nurse Other Staff

8. **Years of total service** ; **Years of service in current hospital**.....
9. **Monthly Income :** Below ₹ 8000 ₹ 8001 to 15000
 ₹ 15001 to 25000 ₹ 25001 to 50000
 ₹ 50001 to 75000 ₹ 75001 to 1 Lakh Above ₹ 1 Lakh

Thank you very much for your valuable time and opinion.

Appendix 2

Tables of Kurtosis and Skewness to Verify Normality Assumption

Appendix 2a: HRM Practices

HRM Practices									
	ES	COMN	COMP	RR	TW	EMP	TPA	JC	CP
Skewness	-.962	-.789	-.280	-.636	-.643	-.765	-.785	-.123	-.700
Kurtosis	1.178	.247	-.819	-.017	1.033	.246	.804	.113	.081

Appendix 2b: SC, OC, PC, CSQ, EC and SQP

SC, OC, PC, CSQ, EC, SQP						
	SC	OC	PC	CSQ	EC	SQP
Skewness	-.794	-.882	-.320	.241	.086	.097
Kurtosis	.894	.986	.224	-.041	.637	-.311

Appendix 2c: SEM Output of CFA Full Measurement Model - Assessment of normality

Variable	min	max	skew	c.r.	kurtosis	c.r.
SC4Support	1.000	5.000	-1.194	-17.139	1.104	7.923
SC3Excellent	1.000	5.000	-1.107	-15.885	.808	5.799
SC2recog	1.000	5.000	-.684	-9.823	-.618	-4.434
SC1Knowled	1.000	5.000	-1.462	-20.981	3.256	23.365
PC1Proud	1.000	5.000	-.923	-13.246	2.696	19.349
PC2Belongig	1.000	5.000	-.711	-10.212	2.509	18.004
PC3RightDec	1.000	5.000	-1.306	-18.745	2.884	20.697
PC4Emotion	1.000	5.000	-1.170	-16.795	2.259	16.211
PC5Spend	1.000	5.000	-1.278	-18.340	2.388	17.136
OC5Spend	1.000	5.000	-.819	-11.752	-.120	-.863
OC4Emotion	1.000	5.000	-.948	-13.610	.218	1.566
OC3RightDec	1.000	5.000	-1.272	-18.254	2.066	14.828
OC2Belongig	1.000	5.000	-1.267	-18.179	2.579	18.509
OC1proud	1.000	5.000	-1.238	-17.773	1.971	14.141
Cpce5Masterig	2.000	5.000	-.881	-12.640	2.531	18.163

Variable	min	max	skew	c.r.	kurtosis	c.r.
Cpce4Reward	1.000	5.000	-1.203	-17.265	3.812	27.359
Cpce3Belief	1.000	5.000	-1.140	-16.357	3.712	26.636
Cpce2Expe	2.000	5.000	-.796	-11.426	3.720	26.699
Cpce1Chance	1.000	5.000	-1.459	-22.381	4.780	34.302
CSQ5Discuss	1.000	5.000	-1.199	-17.213	4.093	29.376
CSQ4Care	2.000	5.000	-.503	-7.220	2.042	14.654
CSQ3Effort	2.000	5.000	-.479	-6.870	2.104	15.096
CSQ2Accompl	1.000	5.000	-.756	-10.854	3.431	24.626
CSQ1Improve	2.000	5.000	-.668	-9.592	3.392	24.342
SQP13Confid	1.000	5.000	-.648	-9.297	2.502	17.954
SQP12Explain	1.000	5.000	-1.145	-16.440	2.251	16.153
SQP11Compet	2.000	5.000	-.706	-10.129	2.613	18.754
SQP10Courtus	1.000	5.000	-.710	-10.191	3.247	23.302
SQP9Prompt	1.000	5.000	-.745	-10.686	2.922	20.966
SQP7notbusy	1.000	5.000	-1.296	-18.602	2.295	16.467
SQP6PlAttn	1.000	5.000	-1.184	-16.991	2.575	18.478
SQP5Solve	2.000	5.000	-.762	-10.939	2.176	15.616
SQP4perfirst	1.000	5.000	-1.083	-15.550	3.415	24.506
SQP3Promise	1.000	5.000	-.845	-12.127	2.870	20.595
SQP2Undsd	2.000	5.000	-.359	-5.148	1.223	8.778
E3IndDeci	1.000	5.000	-.958	-13.749	.085	.612
E2Encourag	1.000	5.000	-.904	-12.979	-.058	-.413
E1Freedom	1.000	5.000	-1.003	-14.400	.254	1.825
CP5Policy	1.000	5.000	-.733	-10.515	-.544	-3.907
CP4Opportny	1.000	5.000	-.587	-8.424	-.841	-6.034
CP3Plans	1.000	5.000	-.749	-10.753	-.495	-3.553
CP2Mached	1.000	5.000	-.955	-13.709	.055	.394
CP1ClrPath	1.000	5.000	-1.290	-18.509	1.292	9.273
JC4Useful	2.000	5.000	-.983	-14.106	2.475	17.759
JC3Skill	2.000	5.000	-1.068	-15.331	2.241	16.081
JC2Challnge	1.000	5.000	-1.262	-18.109	2.685	19.271
JC1Sense	1.000	5.000	-.763	-10.952	3.555	25.509

Variable	min	max	skew	c.r.	kurtosis	c.r.
RR4Recognitn	1.000	5.000	-.638	-9.159	-.655	-4.700
RR3Acknow	1.000	5.000	-1.142	-16.389	.827	5.938
RR2Perf	1.000	5.000	-.424	-6.092	-.992	-7.120
RR1Fair	1.000	5.000	-.680	-9.765	-.683	-4.899
Cop4Adequacy	1.000	5.000	-.367	-5.267	-1.137	-8.157
Cop3Payraise	1.000	5.000	.025	.360	-1.308	-9.387
Cop2Fair	1.000	5.000	-.253	-3.634	-1.251	-8.978
Cop1Compare	1.000	5.000	-.492	-7.061	-1.102	-7.907
TW4Involve	1.000	5.000	-1.269	-18.210	2.038	14.624
TW3Likable	1.000	5.000	-1.235	-17.732	2.739	19.654
TW2Share	1.000	5.000	-1.197	-17.184	3.330	23.898
TW1Cooperat	1.000	5.000	-1.241	-17.808	2.973	21.336
Con3Invol	1.000	5.000	-.988	-14.175	.346	2.483
Con2Opinion	1.000	5.000	-.807	-11.584	-.343	-2.464
Con1Tway	1.000	5.000	-1.203	-17.266	1.143	8.199
PA5Use	1.000	5.000	-.664	-9.531	-.538	-3.857
PA4Faith	1.000	5.000	-.782	-11.225	-.289	-2.073
PA3Feedback	1.000	5.000	-.621	-8.910	-.669	-4.801
PA2Devpt	1.000	5.000	-1.146	-16.453	1.024	7.347
PA1Objective	1.000	5.000	-1.091	-15.654	.642	4.608
T4Realistic	1.000	5.000	-1.181	-16.950	1.477	10.601
T3NeedIdn	1.000	5.000	-.930	-13.349	.262	1.882
T2PtSrTrg	1.000	5.000	-.914	-13.122	.143	1.024
T1ContTrg	1.000	5.000	-1.281	-18.389	1.642	11.785
ES5Opinion	1.000	5.000	-1.141	-16.370	1.147	8.231
ES4Mindset	1.000	5.000	-1.254	-18.001	1.979	14.205
ES3Practice	1.000	5.000	-1.159	-16.641	1.196	8.582
ES2Values	1.000	5.000	-1.202	-17.252	1.160	8.327
ES1Scientific	1.000	5.000	-1.448	-20.788	1.872	13.432
Multivariate					2218.812	358.204

Appendix 3

Correlation among all variables in the Study

HRM Practices, mediating, moderating and Dependent Variables - Inter-correlations															
	ES	COM	COP	RR	TW	CP	EMP	TPA	JC	EC	SC	OC	PC	CSQ	SQP
ES	1	.464**	.362**	.420**	.244**	.482**	.319**	.633**	.211**	.266**	.436**	.322**	.206**	.207**	.312**
COM	.464**	1	.415**	.477**	.305**	.516**	.412**	.544**	.201**	.221**	.447**	.299**	.162**	.158**	.257**
COP	.362**	.415**	1	.638**	.165**	.530**	.387**	.412**	.181**	.272**	.394**	.361**	.132**	.142**	.164**
RR	.420**	.477**	.638**	1	.191**	.584**	.414**	.502**	.235**	.222**	.482**	.388**	.130**	.171**	.224**
TW	.244**	.305**	.165**	.191**	1	.200**	.279**	.252**	.328**	.340**	.330**	.287**	.281**	.297**	.423**
CP	.482**	.516**	.530**	.584**	.200**	1	.472**	.577**	.193**	.270**	.596**	.402**	.130**	.164**	.247**
EMP	.319**	.412**	.387**	.414**	.279**	.472**	1	.337**	.271**	.338**	.483**	.421**	.207**	.262**	.255**
TPA	.633**	.544**	.412**	.502**	.252**	.577**	.337**	1	.226**	.253**	.510**	.377**	.214**	.234**	.351**
JC	.211**	.201**	.181**	.235**	.328**	.193**	.271**	.226**	1	.428**	.258**	.228**	.384**	.381**	.461**
EC	.266**	.221**	.272**	.222**	.340**	.270**	.338**	.253**	.428**	1	.294**	.373**	.399**	.427**	.487**
SC	.436**	.447**	.394**	.482**	.330**	.596**	.483**	.510**	.258**	.294**	1	.562**	.270**	.318**	.383**
OC	.322**	.299**	.361**	.388**	.287**	.402**	.421**	.377**	.228**	.373**	.562**	1	.415**	.386**	.381**
PC	.206**	.162**	.132**	.130**	.281**	.130**	.207**	.214**	.384**	.399**	.270**	.415**	1	.474**	.475**
CSQ	.207**	.158**	.142**	.171**	.297**	.164**	.262**	.234**	.381**	.427**	.318**	.386**	.474**	1	.522**
SQP	.312**	.257**	.164**	.224**	.423**	.247**	.255**	.351**	.461**	.487**	.383**	.381**	.475**	.522**	1

** . Correlation is significant at the 0.01 level (2-tailed).

Note: The correlation matrix given in Appendix 3 and multicollinearity in Table 6.8 (Chapter 6) reported in the study have been used the final measures which emerged after the exploratory factor analysis/principal component analysis. In the case of HRM practices after the principal component analysis, the training and performance appraisal variables merged into a single variable (TPA). Need based training and development oriented performance appraisal can be attributed as the basis for this merger. In the case of 'job content' item No., 4 was not loading with any variables. Hence it was removed.

Appendix 4: Standardised Total, Direct and Indirect Effect of the SEM Result -Model 1

	Effect	OC	EC	PC	CSQ	SQP
HRMP	Total	.593	.500	.341	.372	.468
	Direct	.593	.500	.341	-.062	.125
	Indirect				.434	.343
OC	Total				.200	.081
	Direct				.200	.020
	Indirect				.000	.060
EC	Total				.362	.390
	Direct				.362	.281
	Indirect				.000	.109
PC	Total				.393	.349
	Direct				.393	.230
	Indirect				.000	.118
CSQ	Total					.301
	Direct					.301
	Indirect					.000

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||| List of Publications and Presentations |||

Publications:

[1] Co-authored journal article titled “The dynamic relation between organizational and professional commitment of professionals in healthcare sector and its influence on service quality” in the journal titled “ International Journal of Consumer & Business Analytics” Vol.1, Issue 2, 2013, page: 44-67; published by Kotler Srinivasan Center for Research in Marketing.

[2] Co-authored journal article titled “ Bank on by banging service quality: A study of private and public sector banks in Cochin” in the journal titled “ Rajagiri Management Journal” Vol. 7, No.2, 2013, page 76-89; published by Rajagiri Centre for Business Studies.

Conference Paper Presentations:

[1] “ Influence of Human Resource Management Practices on Service Quality in the Hospital Sector: Validation of an Integrated Model” presented at 9th Conference on Excellence in Research and Education (CERE 2018), held at Indian Institute of Management, Indore between May 03-06,2018.

[2] “The Dynamic Relation between Organisational and Professional Commitment of Professionals in Healthcare Sector and its Influence on Service Quality” presented at 3rd International Conference on Business Analytics, held at Great Lakes Institute of Management, Chennai on December 24, 2013.

[3] “Acquiring Competency in Providing Experience: HRM - Service Quality Paradigm: A Review” presented at International Conference on Operations Management: Innovative Practices for Revitalization of Paradigm Concepts, held at Rajagiri Centre for Business Studies, Kochi on September 02, 2013.

[4]“Bank on by Banging Service Quality: A Study of Private and Public Sector Banks in Cochin” presented at National Conference on Inclusive Innovation and Sustainable Growth: the Millennium Challenges, Sponsored by UGC, held at Rajagiri College of Social Sciences, Kochi on August 30-31, 2013.

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