

Measurement of service quality of apollo using servqual

[Literature](#), [Mythology](#)



Dissertation Project Report On Measurement of Quality at Apollo Hospitals using Servqual Submitted by Richa Kumari A0102208164 MBA (M&S) 2010 Under the Supervision of Faculty Mentor Prof. (Dr.) P. K. Bansal Faculty Amity Business School AMITY BUSINESS SCHOOL AMITY UNIVERSITY UTTAR PRADESH SECTOR 125, NOIDA - 201303, UTTAR PRADESH, INDIA 2010

DECLARATION

I Richa Kumari, student of Master of Business Administration (Marketing & Sales), Class of 2010 from Amity Business School, Amity University, Uttar Pradesh hereby declare that the dissertation done by me on the topic “ Measurement of Quality at Apollo Hospital using Servqual” is true to my knowledge. The information collected by me is authentic & is done through data analysis & interpretation & I have a thorough knowledge of the project. The content of this report is based on the information collected from visiting Indraprastha Apollo hospitals in Delhi.

I further declare that the matter embodied in this project report has not been submitted to any other university or institute for the award of any degree or diploma. PLACE: Noida DATE : Richa Kumari Amity Business School Amity University, Uttar Pradesh CERTIFICATE FROM FACULTY GUIDE This is to certify that Richa Kumari, student of MBA (M&S), Amity Business School, Amity University; Uttar Pradesh has successfully completed the dissertation project under my guidance.

The project report and data submitted by her is authentic and genuine to my knowledge. Prof. Dr. P. K. Bansal Faculty guide Faculty, Amity Business School Amity University, Uttar Pradesh ACKNOWLEDGEMENT It takes

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immense pleasure for me to express my sincere gratitude to all the helping experience I had during my dissertation. The Project was done by me under the guidelines of my Faculty Guide Prof. Dr. P. K. Bansal was a source of enormous learning for me.

I am highly obliged to him for their continuous unconditional support & guidelines. A special word of thanks from me to all the respondents whose cooperation and interaction was a great help. As a student of AMITY BUSINESS SCHOOL, NOIDA I got the golden opportunity to work on the topic " Measurement of Quality of Apollo Hospital using Servqual". I also feel highly obliged to my program leader Mrs. Aparna Goel and some of the faculties in ABS who in several ways were my inspiration & helped me to put in the best of my efforts.

I am deeply indebted to my parents, family members & friends for their support during the course of my dissertation. Last but not the least; the report was completed successfully because of the grace of God. Richa Kumari Amity Business School EXECUTIVE SUMMARY Service firms like other organizations are realizing the significance of customer-centered philosophies and are turning to quality management approaches to help manage their businesses. This paper starts with the concept of service quality and demonstrates the model of service quality gaps.

SERVQUAL as an effective approach has been studied and its role in the analysis of the difference between customer perceptions and expectations has been highlighted with support of measurement of quality at Apollo

Hospital. Outcomes of the study outline the fact that although SERQUAL could close one of the important service quality gaps associated with external customer services, it could be extended to close other major gaps and therefore, it could be developed in order to be applied for internal customers, i. e. employees and service providers. QualityHealthCare is an achievement of optimal physical and mental health through accessible, cost-effective care that is based on best evidence, is responsive to the needs and preferences of patients and populations, and is respectful of patients' families, personal values and beliefs. The report covers the survey of Apollo Hospital Services, Delhi. It focuses on the dynamics of the the overall service provided, the trends over a period of time, and the key challenges faced by the industry.

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CHAPTER 1 INTRODUCTION Earlier in the medical literature, the quality of service i. e. the characteristics that shape the experience of care was rarely discussed beyond technical competence.

This research measures and analyzes some routine encounters in Apollo, a hospital of international standard from a service quality point of view. The study has led to the following two premises: First, if high-quality service had

a greater presence in practices and institutions, it would improve clinical outcomes and increased satisfaction of patient and doctors while reducing cost. It will also create competitive advantage for those who are expert in its application. Second, many other industries in the service sector have taken service quality to a high level, their techniques are readily transferable to health care, and caring for patients can learn from them.

Healthcare industry

The healthcare industry in India comprising of hospital and allied sectors, is projected to grow at 23 per cent per annum and to touch US\$ 77 billion by 2012 from the current estimated size of US\$ 35 billion, according to a Yes Bank and ASSOCHAM report. The sector has registered a growth of 9.3 per cent between 2000-2009, when compared with the growth rate of other emerging economies such as China, Brazil and Mexico. According to the report, the growth in the sector would be driven by healthcare facilities, private and public sector, medical diagnostic and path labs and the medical insurance sector. Today Hospital industry is an important component of the value chain in Indian Healthcare industry. It renders services and is recognized as healthcare delivery segment of the healthcare industry.

It is growing at an annual rate of 14%. The hospital industry accounts for half the healthcare sector's revenues and was estimated to be worth USD \$25 billion in 2008. The dismal performance by the Indian government in providing healthcare infrastructure has created tremendous opportunities in the private sector. The huge pent up demand for quality healthcare and increase in healthcare spending in the long-term are fundamentally strong

drivers in this market. The factors contributing to its bright future is based on increased healthcare consumption, increasing instances of lifestyle-related diseases, medical tourism, and growing health insurance.

The key challenges for the industry include significant capital requirements and a shortage of medical professionals. Ensuring high quality of healthcare service is another key issue for service providers. Healthcare spending in India accounts for over 5 per cent of the country's GDP. Of which the public spending in percentage is around 1 per cent of GDP. The presence of public health care is not only weak but also under-utilized and inefficient.

Meanwhile, private sector is quite dominant in the healthcare sector. Around 80 percent of total spending on healthcare in India comes from the private sector. Inadequate public investment in health infrastructure has given an opportunity to private hospitals to capture a larger share of the market.

In addition the demand for hospital services has been increasing due to the rise in lifestyle related diseases that accompany prosperity. Hospitals serve an important function in India's healthcare system. They provide in-patient and out-patient services and also support the training of health workers and research. Indian hospitals can be broadly classified as public hospitals, private and not-for-profit hospitals. Corporate hospital chains that provide tertiary healthcare services in large towns and cities have also been established. However, the number of hospital beds in India is around 1.1 per thousand people. This is significantly lower when compared to most developed economies. The current outlook for the hospital services is positive.

Technological innovations in service delivery, increased affordability, improved service quality and supportive government policy initiatives are some of the factors that are likely to impact growth of the sector. This is a pointer to significant opportunities that exist for service providers. Moreover, the future of healthcare is not restricted to the large domestic market alone. Emerging trend of medical tourism indicates the possibility of Indian healthcare services opening to the whole world. Health Care and Service delivery Health Service delivery refers to the way inputs such as finance, staff, treatment, equipment and drugs all deliver a range of health interventions to consumers seeking to access health care. Improving Service delivery depends on having key resources that are well organized and managed.

Health services include personal health services that are preventive, diagnostic, therapeutic or rehabilitative; whilst non-personal services cover areas such as mass health education/ promotion programs, health legislation and the provision of basic sanitation facilities. Incompetence or breakdown in the process of care-giving may be the result of problems in practice, products, procedures or systems. A key issue facing development agencies is the utilization of health services as they are often inaccessible or mistrusted by consumers. Lack of managerial capacity at all levels of the health system is increasingly cited as a binding constraint to scaling up services and achieving the Millennium Development Goals. Apollo Hospitals

With over 8065 beds across 46 hospitals in India and overseas, neighborhood diagnostic clinics, an extensive chain of Apollo Pharmacies, medical BPO as

well as health insurance services and clinical research divisions working on the cutting edge of medical science, Apollo Hospitals is a healthcare powerhouse one can trust with their life. Apollo Hospitals, India is a union of exceptional clinical success rates and superior technology with centuries-old traditions of Eastern care and warmth, with 16 million patients from 55 countries. Apollo Hospitals Group is at the Forefront of Medical Tourism to make India the Global Healthcare Destination. Its mission is to bring healthcare of international standards within the reach of every individual. They are committed to the achievement and maintenance of excellence in education, research and healthcare for the benefit of humanity. Dr. Prathap C Reddy is the Founder & Chairman, Apollo Hospitals Group.

Led by Apollo Hospitals Group, Indian Healthcare today has developed International delivery capabilities and has demonstrated International excellence in all specialties with major cost advantages for people from overseas. Apollo Hospitals has successfully treated over 60000 foreign patients from across the world in last five years and the numbers are looking up every year. By constantly measuring our deliverables, they have succeeded in creating infrastructure that meets the needs of the future that incorporates the latest technology and provides superior healthcare delivery systems. Their immediate agenda includes setting up of healthcare facilities in all major Indian cities, 23-hour hospitals, pharmacies, a pharmaceuticals business and finally, a Health Maintenance Organization that will give millions of people access to all these facilities.

The telemedicine technology that has been successfully introduced by Dr. Reddy in India will be a key enabler in transforming the healthcare delivery in India. His blueprint for the nation includes setting up of many rural hospitals. Apollo Hospitals Group is the acknowledged leader in bringing super speciality world-class healthcare to India. It is presently the largest integrated healthcare company in Asia. Apollo Hospital would mean any of the hospitals owned by Apollo Hospitals, a healthcare corporation that operates 38 hospitals in South Asia. It is the largest healthcare provider in Asia and the third largest in the world and is headquartered in Chennai, India.

Apollo Hospital Delhi is the first hospital in India to be accredited by the JCAHO and is affiliated with Johns Hopkins international, the Mayo Clinic, and many major hospitals in the United States and Europe. In addition to hospitals, Apollo operates Nursing and Hospital Management colleges, pharmacies, diagnostic clinics, medical transcription, third-party administration and telemedicine. Through its wholly owned subsidiary, Apollo Health and Life Science Limited, the Apollo Group has set up a chain of nearly 60 branded day-to-day retail clinics on a franchised basis across India and the Middle East. This is the first time healthcare delivery has been successfully franchised in India. Indraprastha Apollo Hospitals, the largest healthcare group in Asia. Indraprastha Apollo is one of the largest corporate hospitals in the world.

It is the third super specialty tertiary care hospital set by the Apollo Hospitals Group, jointly with the Government of New Delhi, India's capital. It is a 695

bedded hospital, with the provision for expansion to 1000 beds in future. The hospital is at the forefront of medical technology and expertise. It provides a complete range of latest diagnostic, medical and surgical facilities for the care of its patients. The hospital started functioning from July 1996, its mission being Medical Excellence with a Human Touch. Cost of treatment Apollo Hospitals is considered one of the most expensive treatment facilities when compared to their local counterparts.

A similar treatment and care in a regular hospital would cost significantly lesser. However, their facilities, infrastructure and quality of medical faculty are far superior to anything else in the country, seemingly justifying this increased cost.

Medical Milestones

- * Employs over 4000 specialists and super-specialists and 3000 medical officers running 53 clinical departments in patient care
- * Achieved a 99.6% success rate in cardiac bypass surgeries, over 91% of these were beating heart surgeries
- * Conducted over 55,000 cardiac surgeries

First Indian hospital group to introduce new techniques in Coronary Angioplasty, Stereotactic Radiotherapy and Radiosurgery.

Performed over 7,50,000 major surgeries and over 10,00,000 minor surgical procedures with exceptional clinical outcomes

- * Pioneered orthopaedic procedures like hip and knee replacements, the Ilizarov procedure and the Birmingham hip re-surfacing technique
- * Pioneered the concept of preventive healthcare in India
- * First hospital group to bring the 64 Slice CT-Angio scan system
- * First hospital group in South-East Asia to introduce the 16 Slice PET-CT Scan
- * First to perform liver, multi-organ and cord blood transplants in India
- * Equipped with the largest and most

sophisticated sleep laboratory in the world CHAPTER 2 LITERATURE REVIEW
Kotler (1999) points out an unchangeable principle for a successful business are to satisfy the customers' need.

Consumer service is closely related to customer satisfaction and consumer satisfaction has a critical influence on the profits and performance of institutions and organizations (Fornell, 1992; Mittal & Lassar, 1998; Wong, 2000). That is why organizations emphasize the importance of consumer service and satisfaction. Just as the dashboard of a car provides timely feedback on vital performance measures, so should an organization's dashboards inform decision makers and board members on where the organization is headed and how it is progressing toward its strategic objectives. The consumer service perspective is closely associated with the evolution of the business strategies in the Health Care industry.

To manage and improve quality, these successful organizations are coming to the conclusion that quality must be measured. This ensures accurate measurement of customer satisfaction versus that delivered by competitors. Service Quality is a service that is consistent with customer expectations and stated obligation in Customer Care, performance & Value. Quality itself has been defined as fundamentally relational: 'Quality is the ongoing process of building and sustaining relationships by assessing, anticipating, and fulfilling stated and implied needs. ' One cannot separate the process and the human factor, therefore there is a believe that Quality, when built into a product, generates emotions and feelings within those who have taken part in it's creation.

Quality is doing the right things right and is uniquely defined by each individual. Error-free, value-added care and service that meets and/or exceeds both the needs and legitimate expectations of those served as well as those within the Medical Center. Organizations that constantly measure themselves in relation to competitors are able to quickly capitalize on their emerging strengths and address weaknesses before they become problems. Service Quality Quality applies to every product either it is physical product, information product or service product. But when Service Quality is talked about it is all about satisfying the targeted customers through meeting their requirements (Zulfikar Ali).

Quality cannot be measured without a clear definition or standard. Likewise, Measuring Quality leads directly to the identification of areas for improvement or enhancement—the first step in Improving Quality. Service Quality models There are a number of models which try to capture and define Service Quality. Each has their strengths, and weaknesses. The core definition of Service Quality is “ Customers thinking they're getting better service than expected”. This is often referred to as the perception gap, i. e. the gap between what the customer expects and what they think they got. It's worth noting that both sides of the gap are in the customers mind.

You may actually deliver better Service than your competitors, but if the customer thinks that your Service is worse then that's all that matters. Because the perception gap is based on the difference between what a customer expects to receive from a Service and what they think they received both sides of the gap are " soft" - they are based on customer

impressions rather than a "hard" definable quality. This means the perception gap is difficult to measure, difficult to manage and is likely to change with time and experience. Nevertheless it's vital to business success. Elements of the model A management model should identify and relate those key elements that require systematic management attention (Brogowicz et al. , 1990).

The elements proposed to fit in the model are: * Management's perceptions of customer expectations and perceptions about the service; * Vision, mission, service strategy and directions to eliminate the gaps; * Service analysis, translation of perceptions into service quality specifications and service design; * Financial and human resources (HR) management; * Externalcommunication; * Service delivery system (production, delivery and 'part-time' marketing). Some models which are the result of some significant research are: The KANO Model states "What do customers expect as a minimum standard", and "what actually makes a difference if the service provider does it better". Professor Noriaki Kano (1984, the Japanese quality guru), introduced a two-factor quality model, commonly known as "Kano's Curve". The curve illustrates the difference between must-be attractive and linear quality elements.

The strength of the Kano model is that it identifies that some aspects of service are simply required to be there whereas others serve to genuinely provide competitive advantage and that there are diminishing returns to be gained from simply focusing on must-be qualities. However Kano does not provide diagnostic tools to identify or measure the different aspects, and

suggested the changes with time or environment. The PZB Service Quality Model The service quality model and the role of consumers' and learners' satisfaction is an essential part of service quality studies. The "GAP" model of service quality from Parasuraman et al. (Zithaml & Bitner 1996) offers an integrated view of the consumer-company relationship. It is based on substantial research amongst a number of service providers.

According to the PZB model, there are five gaps. The first gap refers to the difference between customers' expected service and management's perceptions of customers' expectations. This gap means that management may not correctly perceive customer expectations. The second gap refers to the difference between management perceptions of customers' expectations and service quality specifications. This gap means that although the people in management level may perceive the correct expectations of the customers, they may not have suitable and sufficient service quality specifications. The third gap refers to the difference between service quality specifications and the real service delivery.

This gap means that although the service providers may have suitable and sufficient service quality specifications, they may not have the satisfactory service delivery in the real situation. That may be because service providers lack well-trained employees to deliver satisfactory service. The fourth gap refers to the difference between the service delivered and external communication about the service with customers. That is, the service providers may not have suitable and sufficient communication with the customers or the service providers may have commitments that exceed

what they can do or they may not sufficiently inform the customers of what they have done.

The fifth gap is the difference between consumer expectation and their perception of service quality - measured by the difference between what customers expect and what customers perceive about the service. In addition, gap 5 is a function of gap 1, gap 2, gap 3, and gap 4; that is, $Gap\ 5 = f(gap1, gap2, gap3, gap4)$. This means that the service quality is closely related to management perception, marketing, personnel management, communications with customers, service specifications and delivery. Based on theoretical development of the PZB Service Quality Model, the SERVQUAL (SERVice QUALity) instrument was proposed. RATER A complementary analysis of the perception gap is the RATER model also produced by Zeithaml (1990).

RATER identifies the 5 key areas which together form the qualities of a service offering from a customer perspective. Where the Gap model describes how the provider can minimize the perception gap. RATER focuses on the dimensions of customers expectations. The RATER factors help provide specific dimensions which can be used to analyse and measure customer expectation. Figure 1: PZB Service Quality Model A Conceptual Model of Service Quality and its Implications for Future Research. Journal of Marketing, 49(4), 41-50. Source: Parasuraman, A. , Zeithaml, V. A. & Berry, L. L. (1985). | RATER dimensions sorted by relative importance (Zeithaml 1990)| Dimension| Description| Relative importance|

Reliability| Ability to perform the promised service dependably and accurately| 32%| Responsiveness | Willingness to help customers and provide prompt service| 22%| Assurance | Knowledge and courtesy of employees and their ability to convey trust and confidence| 19%| Empathy| Caring individualised attention the firm provides its customers| 16%| Tangibles | Appearance of physical facilities, equipment, personnel and communication materials| 11%|

THE ASSESSMENT INSTRUMENTS-The SERVQUAL and SERVPERF Based on preliminary knowledge about the service quality model and the consumer satisfaction concept, there are two major assessment instruments (SERVQUAL and SERVPERF). The SERVQUAL (SERVice QUALity) instrument was proposed by the Parasuraman et al. (1988).

They initially developed a 97-item instrument to measure the service quality attribute. After eliminating the items with low correlation, they extracted five factors (tangibles, reliability, responsiveness, assurance, and empathy) with 22 service quality items, and claimed the generic nature of the five-dimension instrument. Because the disconfirmation-based SERVQUAL instrument has advantages such as better diagnostic power (Jain & Gupta, 2004), and the parsimony of the instrument (Rohini & Mahadevappa, 2006), most researchers in the service quality area tend to prefer the disconfirmation-based SERVQUAL instrument (Abdullah, 2006; Brady, 2001).

However, some researchers have been questioning its drawbacks related to the disconfirmation-based model (Redman & Mathews, 1998), process orientation, dimensionality, measuring scale, and the gap scores (Buttle,

1996; Coulthard, 2004; Clewes, 2003; Wetzels, Ruyter, & Lemmink, 2000). To resolve problems related to the disconfirmation-based SERVQUAL instrument, Cronin and Taylor (1992) propose the performance-only SERVPERF (SERVice PERFormance) instrument to measure service quality. Comparing the validity and reliability of the SERVPERF with that of the disconfirmation-based SERVQUAL, they claim that SERVPERF is better than SERVQUAL in overall service quality measurement in empirical tests (Cronin & Taylor, 1992; Brady, Cronin, Brand, 2002; Jain & Gupta, 2004).

The debate related to adoption of SERVQUAL or SERVPERF in service quality studies is not yet resolved. SERVPERF has better explanatory power in overall service quality measurement. On the other hand, SERVQUAL has better diagnostic power because of the P-E score measurement. Thus, selection of the service quality instruments will be determined by the intention of the researchers, service providers or decision-makers (Jain & Gupta, 2004). Research Papers " Provider Competition and Health Care Quality: Challenges and Opportunities for Research", by HERBERT S. WONG, PEGGY, M NAMARA states that during the last several years, health care quality issues have emerged as important considerations in developing and implementing public policy.

This report highlighted health care delivery problems, patient safety concerns, and health disparities issues. Health care quality is difficult to define because different audiences view health care quality from. Clinicians may define quality based on medical outcomes or processes. Economists may define quality based on concepts of social welfare and may include

features that consumers happen to care about, but that clinicians do not (e.g., the appearance and size of hospital rooms). Health plans may further differ and focus on concepts of preventive care or organizational efficiencies. Researchers need to understand what their measures are capturing and should interpret their findings accordingly.

Once health care quality has been defined, investigators interested in conducting applied empirical research are confronted with the challenges of creating proxy measures that capture the essence of the health care quality of interest. An initial problem is whether data even exist to create proxy measures for quality. The physician services market was one of the two health care provider groups on which the conference focused. However, the lack of available data about the care administered by physicians has stymied research on physician competition and quality. With literally hundreds of thousands of patient care physicians, current data systems are not structured in a way that makes accessing data and using data for research purposes pragmatic.

Even if data were available, researchers must still overcome the challenges of how best to measure physician quality—an area that is currently not well understood. Patient satisfaction measures, which seek to quantify patients' experiences with healthcare services, represent another dimension of quality still in the developmental stages. The article by Patrick Romano and Ryan Mutter in this supplement documents the studies that examined hospital competition and hospital quality, identifies the variety of hospital quality measures employed, and highlights the challenges of measuring hospital

quality. As Romano and Mutter noted, the science of creating hospital quality measures has focused primarily on the clinical definition of quality, and such research is still largely in its infancy.

At the heart of the challenges confronting researchers is determining whether observed differences in hospital quality measures are “ true” differences. Confounding factors that may influence their accuracies include severity of illness, underlying patient risk, and the hospital’s overall case mix. Moreover, how well specific data elements are coded varies widely and ultimately affects the accuracy of the corresponding hospital quality measures. Many observers of medical markets believe that hospitals should compete on the basis of health care quality. However historically, hospital merger cases have focused on their effects on prices, costs, and the nature of the competitive environment, largely discounting health care quality issues. Health care markets are unique and extremely complex.

While this invitational conference focused only on hospital and physician providers, the research opportunities and challenges outlined here apply to other health care markets as well. Mark Pauly’s article provides some preliminary thoughts on the concepts and the history of the relationship between competition and quality in health care markets. Health care markets are complex. Hospitals compete with one another, physicians compete with one another, and hospitals and physicians interact in many ways. Multiple external factors may influence hospital and physician competitive behavior. Measurement Challenges As mentioned earlier, the

science of quality measurement is largely in its infancy and will continue to develop.

The main challenges confronting researchers are determining the validity of the current set of measures and improving or developing new measures. The research field involved in inpatient quality measurement appears to be moving in three broad directions. First, researchers are exploring ways to further evaluate and validate the current set of inpatient quality measures. One approach being considered compares existing inpatient quality measures based on administrative data with information from medical records. Organizations such as individual health plans and veterans' hospitals often have access to a richer source of clinical information, which could be used for this type of assessment.

Second, current inpatient quality measures could be improved if the quality of the information collected is better. For example, in their article, Patrick Romano and Ryan Provider Competition And Health Care Quality Mutter mentioned that external-cause-of-injury codes (i. e. , " E Codes") are sometimes under reported and vary substantially across the different organizations collecting such data. Many inpatient quality measures rely on accurate coding to identify the relevant observations. Existing measures could be improved if E Codes are collected more consistently. Finally, another broad approach is to supplement current administrative information with additional clinical information that could be used to refine or to create new measures.

The availability of this clinical information could be used to improve measures of quality. As the science for better quality measures advances, analysts face a number of important research questions. While some critics argue that existing measures do not capture all clinical information, proponents argue that if there are no systematic biases across hospitals, precise patient-level information may not be needed. Consequently, is the science of quality measurement “good enough” for aggregate studies of competition and quality? Are they good enough for individual hospital comparisons? How will new measures with better information compare with existing measures?

The Evolving Science of Quality Measurement for Hospitals: Implications for Studies of Competition and Consolidation PATRICK S. ROMANO The literature on hospital quality is young; most studies have focused on few conditions and outcomes. Measures of in-hospital mortality and complications are susceptible to bias from unmeasured severity and transfer/discharge practices. We describe the strengths and limitations of various approaches to quality measurement; summarize how quality has been operationalized in studies of hospital competition. three mechanisms by which competition may affect hospital quality, and propose measures appropriate for testing each mechanism.

To evaluate the effects of competition and consolidation in health care markets on quality of care, it is essential to understand the capabilities and limitations of the tools currently available for measuring quality. The number and scope of these tools have grown considerably over the past two

decades. These developments have created new opportunities to understand how competition and consolidation affect quality of care, although critics may still challenge the validity of any particular quality measure. The fundamental problem is that quality of care has multiple dimensions, and organizations that perform well on one dimension may not perform well on others.

It is all too easy to arrive at the wrong conclusion if one focuses on a single measure, or even on multiple measures of a single dimension. In this paper, a standard definition of health care quality and an associated typology of quality problems is set. It describes the three general approaches to quality measurement, focusing on their strengths and limitations for studies of the impact of hospital competition and consolidation. Next summarizes how these measures have been applied in previous studies, and how the authors of those studies have dealt with concerns about confounding and endogeneity. It describes a conceptual framework that may be helpful in identifying promising measures for future studies in this area. 1.

Definitions of Quality and Quality Problems In this paper, they have adopted a clinical perspective on quality of care. Avedis Donabedian (1980), one of the founders of the modern science of health care quality measurement, defined the quality of medical care as “ the management that is expected to achieve the best balance of health benefits and risks (taking) into account the patient’s wishes, expectations, valuations, and means the social distribution of that benefit within the population. ” The American Medical Association (1984) defined high-quality care more narrowly as care that “

consistently contributes to the improvement or maintenance of the quality and/or duration of life. Perhaps the most authoritative definition was published by the Institute of Medicine (1990), which defined quality of care as “ the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge. ” All of these definitions attempt to distinguish between quality and other non-price aspects of service, which might be classified as “ amenities. ” Amenities include aspects of appearance, comfort, and convenience, such as the number of television channels available to hospital patients, the number of menu choices, and the quality of decoration.

In making this distinction, they acknowledge that the line between amenities and quality may become blurred, especially with important patient-centered measures such as telephone response time, wait time for appointments, clinic hours, prompt complaint resolution and claims payment, and patient satisfaction. Nonetheless, this distinction is useful because it focuses attention on whether provider organizations expend resources in ways that were likely to improve patient outcomes, or in ways that are designed to give the appearance of quality. This paper, also follows the Institute of Medicine's (1999) typology of quality problems (Chassin et al. , 1998) as involving inappropriate overuse (i. e. too much care), inappropriate underuse (i. e. , too little care), and misuse. Although this conceptualization may state Pauly's (2003) definition of quality as “ everything about some good or service relevant to consumers' well-being that is not measured by quantity,”

we prefer to place all provider judgments and recommendations regarding appropriate care in the category of “ quality” rather than “ quantity. ” 2.

Approaches to Quality Measurement Donabedian (2003) has described the three broad approaches to quality measurement as structure, process, and outcomes. This useful schema has been widely adopted by the health services research and quality improvement communities.

Structural measures describe the conditions under which care is provided, and encompass material resources such as facilities and equipment, human resources such as the credentials and experience of health care providers, and organizational characteristics such as patient volume and team nursing.

Process measures describe the content of health care, and encompass health care providers’ activities in the realms of screening, diagnosis, pharmacotherapy, surgery, rehabilitation, patient education, and prevention.

Finally, outcome measures describe changes attributable to health care, and encompass mortality, morbidity, functional status and pain, as well as patients’ health-related knowledge, behaviors, and satisfaction. Although this schema remains conceptually useful, it is sometimes difficult to apply.

For example, the shared features of “ high-reliability organizations” (Reason, 2000) include both the structural conditions under which professionals work and how that work is performed. 3. Integrating Outcome and Process

Measures of Quality Given that quality of care is a complex and multidimensional concept, no single measure of either process or outcome is likely to provide an adequate summary of the effects of competition and consolidation. Hospitals that perform well on risk-adjusted outcomes for one

condition often perform poorly for unrelated conditions (Rosenthal, 1997; Chassin et al. , 1989), making it useful to consider a spectrum of conditions. Similarly, explicit process measures must be developed and implemented on a condition-specific basis (Ashton et al. , 1994).

It may be particularly useful to consider outcome and process measures together, as an integrated approach would offer a more complete assessment of quality and elucidate the pathways by which market forces affect patient outcomes. Observed agreement between process and outcome measures at the provider level would support the construct validity of each measure. Disagreement would suggest: (1) information bias attributable to misclassification on either measure; (2) confounding of outcome measures due to unmeasured severity of illness; (3) selection bias due to selective enrollment or dropout of high-risk patients; or (4) an incorrect conceptual model, based on an assumed process-outcome linkage that does not actually exist

Competition in Medical Services and the Quality of Care: Concepts and History

MARK V. PAULY

Consumers of medical services care about both the price they pay (directly, or indirectly through insurance) for that care and the quality of the care for which they pay. While both an unambiguous measurement of quality and the process by which quality is produced are in many ways unknown, it is surely possible for producers, consumers, and regulators to detect and analyze large (enough) variations in relevant qualitative characteristics. Sometimes, in some places, and with some providers, quality is higher than at other times, places, and providers. To some extent the final level of quality is (from

an analyst's perspective) going to be random; some quality variation is bound to be due to unknown forces and accidents.

However, to some extent as well the supplier decisions which affect quality are explicit and rational, and likewise the consumer choices about which provider or which supplier to use depends on perceived quality. Economically Efficient (Optimal) Quality From an economist's perspective, "quality" in its most general sense just means anything and everything about some good or service relevant to consumers' (actual and perceived) well being that is not measured by quantity. Since the definition of quantity is somewhat arbitrary—for hospitalization for example, is it the number of hospital admissions, the number of hospital days, or some amalgam of inpatient services and outpatient services? the definition of quality will depend on how we define quantity. If we define quantity by surgical admissions, then average length of stay would be one dimension of quality, prevalence of wound infections would be another, and patient satisfaction would be a third. There can also be qualities that do not have this ordering—for example, the color of the walls, the temperature of the room, or even the length of stay—but these factors are usually not very important. It is focus on "ordered" qualities. However, just because people prefer more of some characteristic to less does not necessarily mean (or even usually mean) that the market will or should "maximize quality" in that dimension.

If we think of some unequivocally-ordered characteristic, from an economic viewpoint the optimal level of quality, given some total quantity, is that level at which the marginal benefit from additional quality (measured in money)

just equals the marginal cost of adding to quality. The optimal length of stay is not infinite, the optimal amount of space in a patient's room is not enormous, the optimal number of medical errors is not zero (though it could be much lower than at present). Of course, it is possible, indeed, likely, that optimal quality will be different at different quantities (quality and quantity can be substitutes or complements). It is certain that the optimal level of quality, given quantity, will be different for different people, depending on the value they attach to quality.

The "right" quality depends on the patient as well as on the illness or procedure, and it depends on the patient's preferences (backed up by ability to pay) as well as on the patient's physiological state. A more complex question is the optimal variety of quality levels when people have different preferences but it is too costly to produce a different quality level for each person. This definition of optimal quality when applied to medical services certainly includes everything that would be embodied in a clinical definition of quality. However, there are some differences between the economic and what we might call the "health services research" perspective. One difference is that the economic definition will probably include more features (that consumers happen to care about but clinicians do not).

One can think of cases in which consumer preferences about such things as "travel time," "bedside manner," "respect," and "discomfort" do become important. The other difference is that the economic definition will probably require a more careful consideration of marginal cost relative to marginal benefit than would be embodied in the clinical view of "ideal quality." 2.

Quality Options with Inefficient Suppliers: A Diagrammatic Analysis Although the foregoing seems fairly basic, there are some aspects of the normative notion of optimal quality that may be controversial in both health policy and health services research, and some aspects of the positive aspects of market supply that are both confusing and contentious. A key issue for much of the literature is that of the existence of tradeoffs.

The previous discussion implicitly assumed that higher quality costs more—that cost (which really just represents an index of the sacrifice of all other goods consumers value) and quality trade off. Yet many observers of medical care markets in the United States have the strong opinion that cost and quality don't usually trade off—that higher quality implies lower cost or that it is at least an open question (Leatherman et al. , 2003). Improving the Service Quality of Distance Education(Rui-Ting Huang, USA / Taiwan) states that the success of a distance learning program is dependent on the quality of supporting services. This research relates to services, gaps in service, business models, continuous quality improvement, and maintaining a competitive edge.

Distance Learning has become an important learning option for education systems (Yilmaz, 2005) and training solutions in the Human Resource Development (HRD) area (Felix, 2006). The growth of the distance learning industry has been faster than expected (Huynh, Umesh & Valacich, 2003). Most importantly, in terms of organizational training, an investigation from the Fortune-500 companies indicates that over 80% of companies use distance learning or plan to do so (Hammond, 2001). Through distance

learning, organizations have a more convenient, practical and cost-effective way to train the employees (Hammond, 2001; Whitney, 2006; David, 2006). Due to the growth and competition in the distance learning market (Huynh, Umesh & Valacich, 2003), DL research includes the study of consumer aspects such as consumer services and satisfaction (Shaik, 2005; Granitz & Greene, 2003; Huynh, Umesh & Valacich, 2003). Feedback from learner give the instructor important data to determine how well the instructional program satisfies individual learner needs (Steyn & Schulze, 2003; Long, Tricker, Rangecroft, Gilroy, 1999). This in turn offers service providers in the marketplace important information to streamline the business process to improve the quality of distance learning services (Granitz & Greene, 2003; Steyn & Schulze, 2003). Quality services and support will help the service providers, institutions and organizations in DL get a competitive advantage in the marketplace (Shaik, 2005).

As the distance learning industry has become mature in the educational marketplace (Huynh, Umesh & Valacich, 2003), it is providing learners with convenient and flexible learning alternatives (Alexander, 1999; Tarr, 1998). It is also giving organizations alternative cost-effective and timely training solution to effectively and efficiently implement the human resource development plans (Hammond, 2001; Whitney, 2006; David, 2006).). The focus on consumer service may offer the service providers new insights (Moisio & Smeds, 2004) to help them streamline the business process, improve the quality of future service in distance learning (Granitz & Greene, 2003; Steyn & Schulze, 2003) and gain long-term competitive advantages

(Shaik, 2005). Mary Nugent (2002, vice president and general manager of Subscription Services for BMC Software Inc. a leading provider of enterprise management) said that an increasing number of companies are relying on service providers to manage their mission-critical applications, service providers are realizing that they need an improved method for consistently delivering reliable and highly available service at a competitive cost.

Measuring the performance and availability of Web and enterprise applications is inherently difficult. Without accurate and timely measurements it is all but impossible to measure customer satisfaction and Quality of Service (QoS). Due to the cost of developing and implementing such a solution, service providers are finding they need to partner with others in the marketplace to ensure service level agreements (SLAs) are being met and the end-user experience is optimized. A quality end-user experience is what service provider clients require service providers must deliver in order to survive.

Online shoppers are not tied by brand loyalty since they can get what they need at many different sites. Companies that want to achieve customer loyalty must deliver value through the customer experience. By outsourcing to service providers for this expertise, companies are entrusting their business and reputation on the solutions they offer. This makes it doubly important that service providers choose solutions that deliver on their SLAs.

Principles Of Quality Customer Service

1. Quality Service Standards - Publish a statement that outlines the nature and quality of service which customers can expect, and display it prominently at the point of service delivery.
- 2.

Equality/Diversity -Ensure the rights to equal treatment established by equality legislation, and accommodate diversity, so as to contribute to equality for the groups covered by the equality legislation (under the grounds of gender, marital status, family status, sexual orientation, religious belief, age, disability, race and membership of the Traveller Community). Identify and work to eliminate barriers to access to services for people experiencing poverty and social exclusion, and for those facing geographic barriers to services.

3. Physical Access -Provide clean, accessible public offices that ensure privacy, comply with occupational and safety standards and, as part of this, facilitate access for people with disabilities and others with specific needs.

4. Information -Take a proactive approach in providing information that is clear, timely and accurate, is available at all points of contact, and meets the requirements of people with specific needs.

Ensure that the potential offered by Information Technology is fully availed of and that the information available on public service websites follows the guidelines on web publication. Continue the drive for simplification of rules, regulations, forms, information leaflets and procedures.

5. Timeliness and Courtesy -Deliver quality services with courtesy, sensitivity and the minimum delay, fostering a climate of mutual respect between provider and customer. Give contact names in all communications to ensure ease of ongoing transactions.

6. Complaints -Maintain a well-publicised, accessible, transparent and simple-to-use system of dealing with complaints about the quality of service provided.

7.

Appeals -Similarly, maintain a formalised, well-publicised, accessible, transparent and simple-to-use system of appeal/review for customers who are dissatisfied with decisions in relation to services. 8. Consultation and Evaluation -Provide a structured approach to meaningful consultation with, and participation by, the customer in relation to the development, delivery and review of services. Ensure meaningful evaluation of service delivery. 9. Choice -Provide choice, where feasible, in service delivery including payment methods, location of contact points, opening hours and delivery times. Use available and emerging technologies to ensure maximum access and choice, and quality of delivery. 10.

Internal Customer -Ensure staff are recognised as internal customers and that they are properly supported and consulted with regard to service delivery issues. Performance measurement In Health care, the patients' satisfaction has been widely used as a critical dependent variable to evaluate success of the service provider. The patient is one of the important stakeholders in the health care arena (Yeung, 2001; Yang & Cornelious, 2004). And it is reasonable that the patients' perception will be considered as a crucial indicator to evaluate the quality of service(Steyn & Schulze, 2003). In the business area, consumer satisfaction often denotes whether the service provider met the consumers' need (Steyn, & Schulze, 2003).

Anderson, Fornell and Lehman (1994) propose there are at least two viewpoints in the definition of consumer satisfaction. The first viewpoint is a transaction-specific perspective, which refers to the consumers' post-purchase appraisal or judgment of the products or service based on

expectations at the specific purchasing time or location. The second viewpoint is cumulative satisfaction, which refers to consumers' overall appraisal of purchasing and consuming experience toward the products or service. Therefore, we may regard patients' satisfaction as the patients' overall post-use evaluation toward the health care service. Performance measurement is a fundamental building block of TQM and a total quality organisation.

Historically, organisations have always measured performance in some way through the financial performance, be this success by profit or failure through liquidation. However, they do not map process performance and improvements seen by the customer. In a successful total quality organisation, performance will be measured by the improvements seen by the customer as well as by the results delivered to other stakeholders, such as the shareholders. A simple performance measurement framework includes more than just measuring, but also defining and understanding metrics, collecting and analysing data, then prioritising and taking improvement actions.

It is important to know where the strengths and weaknesses of the organisation lie, and measurement plays a key role in quality and productivity improvement activities. The main reasons it is needed are: to ensure customer requirements have been met, to be able to set sensible objectives and comply with them, to provide standards for establishing comparisons, to provide visibility and a "scoreboard" for people to monitor their own performance level, to highlight quality problems and determine

areas for priority attention, to provide feedback for driving the improvement effort. Quality-related activities that will incur costs may be split into prevention costs, appraisal costs and failure costs.

Prevention costs are associated with the design, implementation and maintenance of the TQM system. They are planned and incurred before actual operation, and could include: Product or service requirements - setting specifications for incoming materials, processes, finished Products/services; Quality planning - creation of plans for quality, reliability, operational, production, inspection; Quality assurance - creation and maintenance of the quality system; Training - development, preparation and maintenance of programmes. Appraisal costs are associated with the suppliers' and customers' evaluation of purchased materials, processes, products and services to ensure they conform to specifications.

They could include: Verification - checking of incoming material, process set-up, products against agreed specifications; Quality audits - check that the quality system is functioning correctly; Vendor rating - assessment and approval of suppliers, for products and services. Failure costs can be split into those resulting from internal and external failure. Internal failure costs occur when the results of work fail to reach designed quality standards and are detected before they are transferred to the customer. They could include: Waste - doing unnecessary work or holding stocks as a result of errors, poor organisation or communication; Scrap - defective product or material that cannot be repaired, used or sold; Rework or rectification - the

correction of defective material or errors; Failure analysis – activity required to establish the causes of internal product or service failure.

External failure costs occur when the products or services fail to reach design quality standards, but are not detected until after transfer to the customer. They could include: Repairs and servicing – of returned products or those in the field; Warranty claims – failed product that are replaced or services re-performed under a guarantee; Complaints – all work and costs associated with handling and servicing customers' complaints; Returns – handling and investigation of rejected or recalled products, including transport costs Effective quality improvements should result in a future stream of benefits, such as:

- Reduced failure costs
- Lower appraisal costs
- Increased market share
- Increased customer base
- More productive workforce

Service Quality Management (SQM)

Service quality can be defined as “ the collective effect of service performances which determine the degree of satisfaction of a user of the service”. In other words, quality is the customer's perception of a delivered service. Service-quality management, refers to the monitoring and maintenance of end-to-end services for specific customers or classes of customers. As larger varieties of services are offered to customers, the impact of network performance on the quality of service will be more complex. It is vital that service engineers identify network-performance issues that impact customer service. They also must quantify revenue lost due to service degradation.

The service-mapping tool comes in next. Performance data is mapped onto service-quality data. Take a customer using Multimedia Messaging Services, or MMS. If a video download is interrupted many times during a session, the customer will lose interest. The operator's revenue will be lost with it. To avoid this situation, key quality indicators (KQIs) like availability can monitor the QoS offered to customers. From a customer's point of view, the availability KQI measures how successfully he or she can access and use the MMS service. With the service mapping tool, it's possible to combine KQIs from multiple key performance indicators (KPIs) across different service resources.

KPIs measure a specific aspect of the performance of either a service resource or a group of service resources of the same type. A KPI is restricted to a specific resource type and derived from network measurements. By following this top-down approach, the service-mapping tool provides several benefits. It helps operators manage end-to-end quality of service from a customer's perspective. It also allows them to reuse key performance indicators and key quality indicators across services and products. Lastly, it helps operators drill down to the service elements that are responsible for quality degradations. Service quality also demands a simple and easy-to-use user interface.

With this interface, Network Operations Center (NOC) staff and service managers can monitor service-quality objectives against thresholds. These thresholds may be internal targets for the network operator. Or they could be derived from Service Level Agreement (SLA) definitions. When the service

quality falls below the contracted levels, managers could then initiate corrective actions. They could focus on the service degradations that affect the greatest number of customers. A set of standard reports for different user communities should also be available. For new services, marketing and sales may be interested in reports on service usage and service uptake. National regulators may also request historical service quality against given service objectives. CHAPTER 3

METHODOLOGY Cooper and Emory (1995) defined research as a systematic inquiry aimed at providing information to solve problem. This chapter will present a detailed idea about how the research will be conducted. In this chapter research methodology, the sample selection methods, data collection methods & data extraction from the Questionnaire and data analysis will be studied and explained. At the end of this chapter validity and reliability issues will be discussed to follow the quality standards of the research. Research strategy will be a general plan of how researcher will go about answering the research questions that has been set by researcher.

It will contain clear objectives, derived from research questions specify the sources from which researcher intend to collect data and consider the constraints that researcher will inevitably have such as access to data, time, location and money, ethical issues. (Thornhill et. al. , 2003) Based on three conditions 1) form of research question 2) requires control over behavioral events and 3) focus on contemporary events Yin (1994) identified five research strategies in social science. These are - experiments, surveys, archival analysis, histories and case studies Most important condition for

selecting research strategy is to identify the type of research question being asked. “ Who”, “ What”, “ Where”, “ how” and “ Why” are the categorization scheme for the types of research questions. Two possibilities need to investigate by asking the “ what” question.

First, some types of what questions are justifiable for conducting an exploratory study and the goal is to develop pertinent hypotheses and propositions for further inquiry. Any of the five research strategies can be used in that situation- exploratory survey, exploratory experiment, or an exploratory case study. The second type of what question is actually form a “ how many” or “ how much” line of inquiry and the outcomes from a particular situation. The survey or archival analysis is more favorable than other strategies. If the researcher needs to know the “ how” question, the better strategy will be doing history or a case study. (Yin 1994) Research Purpose

Research can be classified in terms of their purpose. Accordingly, they are most often classified as exploratory, descriptive or explanatory (Saunders, Lewis & Thornhill 2003). Exploratory research is useful when the research questions are vague or when there is little theory available to guide predictions. At times, researcher may find it impossible to formulate a basic statement of the research problem. Exploratory research is used to develop a better understanding (Hair, Babin, Money & Samouel 2003). Exploratory studies are a valuable means of finding out what is happening, to seek new insight, to ask questions and to assess phenomena in a new light.

It is particularly useful if researcher wish to clarify the understanding of a problem. There are three principle ways of conducting exploratory research: a search of the literature, talking to experts in the subject, conducting focus group interviews (Saunders, Lewis & Thornhill 2003). Descriptive research describes some situation. Generally things are described by providing measures of an event or activity. Descriptive research designs are usually structured and specifically designed to measure the characteristics described in a research question. Hypotheses, derived from the theory, usually serve to guide the process and provide a list of what needs to be measured (Hair, Babin, Money & Samouel 2003).

The object of descriptive research is to portray an accurate profile of persons, events of situations. It is necessary to have a clear picture of the phenomena on which researcher wish to collect data prior to the collection of the data (Saunders, Lewis & Thornhill 2003). Explanatory Research establishes causal relationships between variables. The emphasis here is on studying a situation or a problem on order to explain the relationship between variables (Saunders, Lewis & Thornhill 2003). Explanatory studies are designed to test whether one event causes another (Hair, Babin, Money & Samouel 2003). The purpose of the research is mainly descriptive and explanatory.

It is descriptive because descriptive data has been collected through detailed interviews and it is also explanatory since we will explain the relationship between the service quality variables and customer satisfaction and how these dimensions affect customer satisfaction. It is somewhat exploratory

nature since Data Collection Method Data was collected by primary as well as by secondary data c