



INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION AND MANAGEMENT

CONTENTS

Sr. No.	TITLE & NAME OF THE AUTHOR (S)	Page No.
1.	ROBOT MANIPULATOR CONTROL USING INTELLIGENT CONTROL SCHEME HIMANSHU CHAUDHARY, DR. RAJENDRA PRASAD & DR. N. SUKAVANUM	1
2.	SECURITIZATION AS A FACTOR OF ECONOMIC INTEGRATION DIVVIO GALLEGOS PANIAGUA & JOSE G. VARGAS-HERNANDEZ	7
3.	E-GOVERNMENT - TRENDS AND CHALLENGES FROM THE PERSPECTIVE OF DEVELOPING NATIONS WITH FOCUS ON PAKISTAN SHAKEEL IQBAL & DR. IJAZ A. QURESHI	15
4.	INFLUENCE OF INTERNATIONAL LABOR MIGRATION AND REMITTANCES ON POVERTY REDUCTION IN BANGLADESH MD. MORSHED HOSSAIN, MD. ZAHIR UDDIN ARIF & MD. NASIR UDDIN	21
5.	APPLICATION OF SYSTEMATIC INNOVATION IN TECHNOLOGY DEVELOPMENT (RCA AND TOPSIS MODELS PRESENTATION TO DETERMINE PROBLEM SOLVING STRATEGIES) DR. YOUNOS VAKIL ALROAIA, JAVAD SOFIYABADI & ELAHEH BAKHSHIZADEH	27
6.	FINANCIAL FLEXIBILITY AND RISK MANAGEMENT MOZAFFAR A CHOWDHURY	35
7.	BOARD DEPENDENCE, INTERNAL AUDITORS AND EARNINGS MANAGEMENT: AN EMERICAL RESEARCH OF IRAN MOHAMMADREZA ABDOLI, MARYAM SHAHRI & MOHSEN RAHMANI	39
8.	CHILD LABOUR CONDITION IN RESTAURANT SECTOR OF BANGLADESH JASMINE JAIM	44
9.	FISCAL DEFICITS AND OUTPUT GROWTH IN NIGERIA DR. FREDRICK ONYEBUCHI ASOGWA & MUSA SHERIFF URAMA	47
10.	MEASURING THE QUALITY OF TEHRAN'S MUNICIPALITY SERVICES FROM THE VIEW POINT OF THE CLIENT DR. AMIR HOSSEIN AMIRKHANI, SAYD MEHDI VEISEH, MARYAM GHASEMI & HAMIDEH SHEKARI	52
11.	ATTITUDES OF INDIANS TOWARDS SERVICE QUALITY FOR LIFE INSURANCE IN INDIA ANAND PRAKASH, SANJAY KUMAR JHA & S. P. KALLURKAR	57
12.	PROFITABILITY PERFORMANCE: A CASE STUDY OF PANYAM CEMENTS AND MINERAL INDUSTRIES (AP), INDIA N. VENKATA RAMANA, S. MD. AZASH & K. RAMA KRISHNAIAH	64
13.	THE AUDIT EXPECTATION GAP: AN EMPIRICAL STUDY IN JORDAN SULTAN HASSAN MOHAMMED AHMED & DR. D. RAGHUNATHA REDDY	68
14.	DIFFUSION OF MOTOR VEHICLE SALES IN DELHI DR. DEBABRATA DAS	77
15.	AN EXPLORATORY INVESTIGATION ON EFFECTIVE RISK HANDLING ATTITUDES OF TOP BUSINESS LEADERS IN RELATION TO THEIR APPROACHES TOWARDS INNOVATION DR. PUSHP LATA & ABHISHEK SYAL	84
16.	AUTOMATIC INFORMATION COLLECTION & TEXT CLASSIFICATION FOR TELUGU CORPUS USING K-NN ALGORITHM NADIMAPALLI V GANAPATHI RAJU, VIDYA RANI V, BHAVYA SUKAVASI & SAI RAMA KRISHNA CHAVA	88
17.	RE-ATTEMPT CONNECTIVITY TO INTERNET ANALYSIS OF USER BY MARKOV CHAIN MODEL DIWAKAR SHUKLA, KAPIL VERMA & SHARAD GANGELE	94
18.	FACTORIAL STUDY OF STUDENTS ATTITUDE TOWARDS TECHNOLOGY ENABLED ACADEMIC LEARNING SHARMILA.C & DR. R. RAJENDRAN	100
19.	ATTITUDE AND PERCEIVED IMPORTANCE TOWARDS WORK-LIFE BALANCE POLICIES: A COMPARATIVE EMPLOYEE ANALYSIS OF PRIVATE AND PUBLIC SECTOR BANKS S.M. SHARIQ ABBAS & VANDANA PREMI	103
20.	AUDIENCE AWARENESS AND MULTICULTURAL COMMUNICATION DR. DIVYA WALIA	109
21.	FINANCIAL ANALYSIS OF INDIAN AUTOMOBILE INDUSTRY DR. NISHI SHARMA	112
22.	ANALYTICAL STUDY OF VARIOUS APPROACHES IN SERVICE QUALITY, DESIGN AND DEVELOPMENTS DR. RAJESH N. PAHURKAR	117
23.	WORK – FAMILY ROLE CONFLICT OF WOMEN TEACHERS IN ENGINEERING COLLEGES IN TIRUCHIRAPPALLI DISTRICT DR. M. YASMIN & FAYAZ AHAMED .M.A.	121
24.	INTERROGATION OF PACKAGING AND ADVERTISING A.NITHYA	125
25.	A COMPARATIVE STUDY OF THE DOT.COM CRISIS AND THE SUB-PRIME CRISIS DR. T.GEETHA	130
	REQUEST FOR FEEDBACK	136

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories

Indexed & Listed at: [Ulrich's Periodicals Directory](#) ©, [ProQuest, U.S.A.](#), [Index Copernicus Publishers Panel, Poland](#), [Open J-Gate, India](#)

as well as in [Cabell's Directories of Publishing Opportunities, U.S.A.](#)

Circulated all over the world & Google has verified that scholars of more than Hundred & Fifteen countries/territories are visiting our journal on regular basis.

Ground Floor, Building No. 1041-C-1, Devi Bhawan Bazar, JAGADHRI – 135 003, Yamunanagar, Haryana, INDIA

www.ijrcm.org.in

CHIEF PATRON**PROF. K. K. AGGARWAL**

Chancellor, Lingaya's University, Delhi
Founder Vice-Chancellor, Guru Gobind Singh Indraprastha University, Delhi
Ex. Pro Vice-Chancellor, Guru Jambheshwar University, Hisar

PATRON**SH. RAM BHAJAN AGGARWAL**

Ex. State Minister for Home & Tourism, Government of Haryana
Vice-President, Dadri Education Society, Charkhi Dadri
President, Chinar Syntex Ltd. (Textile Mills), Bhiwani

CO-ORDINATOR**MOHITA**

Faculty, Yamuna Institute of Engineering & Technology, Village Gadholi, P. O. Gadhola, Yamunanagar

ADVISORS**PROF. M. S. SENAM RAJU**

Director A. C. D., School of Management Studies, I.G.N.O.U., New Delhi

PROF. S. L. MAHANDRU

Principal (Retd.), Maharaja Agrasen College, Jagadhri

EDITOR**PROF. R. K. SHARMA**

Dean (Academics), Tecnia Institute of Advanced Studies, Delhi

CO-EDITOR**MOHITA**

Faculty, Yamuna Institute of Engineering & Technology, Village Gadholi, P. O. Gadhola, Yamunanagar

EDITORIAL ADVISORY BOARD**DR. AMBIKA ZUTSHI**

Faculty, School of Management & Marketing, Deakin University, Australia

DR. VIVEK NATRAJAN

Faculty, Lomar University, U.S.A.

DR. RAJESH MODI

Faculty, Yanbu Industrial College, Kingdom of Saudi Arabia

PROF. PARVEEN KUMAR

Director, M.C.A., Meerut Institute of Engineering & Technology, Meerut, U. P.

PROF. H. R. SHARMA

Director, Chhatrapati Shivaji Institute of Technology, Durg, C.G.

PROF. MANOHAR LAL

Director & Chairman, School of Information & Computer Sciences, I.G.N.O.U., New Delhi

PROF. ANIL K. SAINI

Chairperson (CRC), Guru Gobind Singh I. P. University, Delhi

PROF. R. K. CHOUDHARY

Director, Asia Pacific Institute of Information Technology, Panipat

DR. ASHWANI KUSH

Head, Computer Science, University College, Kurukshetra University, Kurukshetra

DR. BHARAT BHUSHAN

Head, Department of Computer Science & Applications, Guru Nanak Khalsa College, Yamunanagar

DR. VIJAYPAL SINGH DHAKA

Head, Department of Computer Applications, Institute of Management Studies, Noida, U.P.

DR. SAMBHAVNA

Faculty, I.I.T.M., Delhi

DR. MOHINDER CHAND

Associate Professor, Kurukshetra University, Kurukshetra

DR. MOHENDER KUMAR GUPTA

Associate Professor, P. J. L. N. Government College, Faridabad

DR. SAMBHAV GARG

Faculty, M. M. Institute of Management, Maharishi Markandeshwar University, Mullana

DR. SHIVAKUMAR DEENE

Asst. Professor, Government F. G. College Chitgappa, Bidar, Karnataka

DR. BHAVET

Faculty, M. M. Institute of Management, Maharishi Markandeshwar University, Mullana

ASSOCIATE EDITORS**PROF. ABHAY BANSAL**

Head, Department of Information Technology, Amity School of Engineering & Technology, Amity University, Noida

PROF. NAWAB ALI KHAN

Department of Commerce, Aligarh Muslim University, Aligarh, U.P.

DR. ASHOK KUMAR

Head, Department of Electronics, D. A. V. College (Lahore), Ambala City

ASHISH CHOPRA

Sr. Lecturer, Doon Valley Institute of Engineering & Technology, Karnal

SAKET BHARDWAJ

Lecturer, Haryana Engineering College, Jagadhri

TECHNICAL ADVISORS**AMITA**

Faculty, Government H. S., Mohali

MOHITA

Faculty, Yamuna Institute of Engineering & Technology, Village Gadholi, P. O. Gadholi, Yamunanagar

FINANCIAL ADVISORS**DICKIN GOYAL**

Advocate & Tax Adviser, Panchkula

NEENA

Investment Consultant, Chambaghat, Solan, Himachal Pradesh

LEGAL ADVISORS**JITENDER S. CHAHAL**

Advocate, Punjab & Haryana High Court, Chandigarh U.T.

CHANDER BHUSHAN SHARMA

Advocate & Consultant, District Courts, Yamunanagar at Jagadhri

SUPERINTENDENT**SURENDER KUMAR POONIA**

CALL FOR MANUSCRIPTS

We invite unpublished novel, original, empirical and high quality research work pertaining to recent developments & practices in the area of Computer, Business, Finance, Marketing, Human Resource Management, General Management, Banking, Insurance, Corporate Governance and emerging paradigms in allied subjects like Accounting Education; Accounting Information Systems; Accounting Theory & Practice; Auditing; Behavioral Accounting; Behavioral Economics; Corporate Finance; Cost Accounting; Econometrics; Economic Development; Economic History; Financial Institutions & Markets; Financial Services; Fiscal Policy; Government & Non Profit Accounting; Industrial Organization; International Economics & Trade; International Finance; Macro Economics; Micro Economics; Monetary Policy; Portfolio & Security Analysis; Public Policy Economics; Real Estate; Regional Economics; Tax Accounting; Advertising & Promotion Management; Business Education; Business Information Systems (MIS); Business Law, Public Responsibility & Ethics; Communication; Direct Marketing; E-Commerce; Global Business; Health Care Administration; Labor Relations & Human Resource Management; Marketing Research; Marketing Theory & Applications; Non-Profit Organizations; Office Administration/Management; Operations Research/Statistics; Organizational Behavior & Theory; Organizational Development; Production/Operations; Public Administration; Purchasing/Materials Management; Retailing; Sales/Selling; Services; Small Business Entrepreneurship; Strategic Management Policy; Technology/Innovation; Tourism, Hospitality & Leisure; Transportation/Physical Distribution; Algorithms; Artificial Intelligence; Compilers & Translation; Computer Aided Design (CAD); Computer Aided Manufacturing; Computer Graphics; Computer Organization & Architecture; Database Structures & Systems; Digital Logic; Discrete Structures; Internet; Management Information Systems; Modeling & Simulation; Multimedia; Neural Systems/Neural Networks; Numerical Analysis/Scientific Computing; Object Oriented Programming; Operating Systems; Programming Languages; Robotics; Symbolic & Formal Logic and Web Design. The above mentioned tracks are only indicative, and not exhaustive.

Anybody can submit the soft copy of his/her manuscript **anytime** in M.S. Word format after preparing the same as per our submission guidelines duly available on our website under the heading guidelines for submission, at the email addresses: **1** or info@ijrcm.org.in.

GUIDELINES FOR SUBMISSION OF MANUSCRIPT

1. **COVERING LETTER FOR SUBMISSION:**

DATED: _____

THE EDITOR

IJRCM

Subject: SUBMISSION OF MANUSCRIPT IN THE AREA OF

(e.g. Computer/IT/Finance/Marketing/HRM/General Management/other, please specify).

DEAR SIR/MADAM

Please find my submission of manuscript titled '_____ ' for possible publication in your journal.

I hereby affirm that the contents of this manuscript are original. Furthermore, it has neither been published elsewhere in any language fully or partly, nor is it under review for publication anywhere.

I affirm that all author (s) have seen and agreed to the submitted version of the manuscript and their inclusion of name (s) as co-author (s).

Also, if our/my manuscript is accepted, I/We agree to comply with the formalities as given on the website of journal & you are free to publish our contribution to any of your journals.

NAME OF CORRESPONDING AUTHOR:

Designation:

Affiliation with full address & Pin Code:

Residential address with Pin Code:

Mobile Number (s):

Landline Number (s):

E-mail Address:

Alternate E-mail Address:

2. **INTRODUCTION:** Manuscript must be in British English prepared on a standard A4 size paper setting. It must be prepared on a single space and single column with 1" margin set for top, bottom, left and right. It should be typed in 8 point Calibri Font with page numbers at the bottom and centre of the every page.
3. **MANUSCRIPT TITLE:** The title of the paper should be in a 12 point Calibri Font. It should be bold typed, centered and fully capitalised.
4. **AUTHOR NAME(S) & AFFILIATIONS:** The author (s) full name, designation, affiliation (s), address, mobile/landline numbers, and email/alternate email address should be in italic & 11-point Calibri Font. It must be centered underneath the title.
5. **ABSTRACT:** Abstract should be in fully italicized text, not exceeding 250 words. The abstract must be informative and explain the background, aims, methods, results & conclusion in a single para.
6. **KEYWORDS:** Abstract must be followed by list of keywords, subject to the maximum of five. These should be arranged in alphabetic order separated by commas and full stops at the end.
7. **HEADINGS:** All the headings should be in a 10 point Calibri Font. These must be bold-faced, aligned left and fully capitalised. Leave a blank line before each heading.
8. **SUB-HEADINGS:** All the sub-headings should be in a 8 point Calibri Font. These must be bold-faced, aligned left and fully capitalised.
9. **MAIN TEXT:** The main text should be in a 8 point Calibri Font, single spaced and justified.
10. **FIGURES & TABLES:** These should be simple, centered, separately numbered & self explained, and titles must be above the tables/figures. Sources of data should be mentioned below the table/figure. It should be ensured that the tables/figures are referred to from the main text.
11. **EQUATIONS:** These should be consecutively numbered in parentheses, horizontally centered with equation number placed at the right.
12. **REFERENCES:** The list of all references should be alphabetically arranged. It must be single spaced, and at the end of the manuscript. The author (s) should mention only the actually utilised references in the preparation of manuscript and they are supposed to follow **Harvard Style of Referencing**. The author (s) are supposed to follow the references as per following:
 - All works cited in the text (including sources for tables and figures) should be listed alphabetically.
 - Use (ed.) for one editor, and (ed.s) for multiple editors.
 - When listing two or more works by one author, use --- (20xx), such as after Kohl (1997), use --- (2001), etc, in chronologically ascending order.
 - Indicate (opening and closing) page numbers for articles in journals and for chapters in books.
 - The title of books and journals should be in italics. Double quotation marks are used for titles of journal articles, book chapters, dissertations, reports, working papers, unpublished material, etc.
 - For titles in a language other than English, provide an English translation in parentheses.
 - The location of endnotes within the text should be indicated by superscript numbers.

PLEASE USE THE FOLLOWING FOR STYLE AND PUNCTUATION IN REFERENCES:

BOOKS

- Bowersox, Donald J., Closs, David J., (1996), "Logistical Management." Tata McGraw, Hill, New Delhi.
- Hunker, H.L. and A.J. Wright (1963), "Factors of Industrial Location in Ohio," Ohio State University.

CONTRIBUTIONS TO BOOKS

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

JOURNAL AND OTHER ARTICLES

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

CONFERENCE PAPERS

- Garg Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–22 June.

UNPUBLISHED DISSERTATIONS AND THESES

- Kumar S. (2011): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

ONLINE RESOURCES

- Always indicate the date that the source was accessed, as online resources are frequently updated or removed.

WEBSITE

- Garg, Bhavet (2011): Towards a New Natural Gas Policy, Economic and Political Weekly, Viewed on July 05, 2011 <http://epw.in/user/viewabstract.jsp>

ANALYTICAL STUDY OF VARIOUS APPROACHES IN SERVICE QUALITY, DESIGN AND DEVELOPMENTS

DR. RAJESH N. PAHURKAR
ASST. PROFESSOR
DEPARTMENT OF MANAGEMENT SCIENCES
UNIVERSITY OF PUNE
PUNE

ABSTRACT

There have been various research studies undertaken by management experts and academicians in the field of services management to understand the dynamic nature of services as whole and service industry. All these studies help us to understand the intricacies of various services products. There are many concepts and theories are proposed on how to make services more profitable to the organizations. The very important factor in services management is to create more value to the customer by fulfilling the customer expectations. Through this paper an attempt is made to find out the various research approaches provided to analyze the service process, the various steps involve in service creations, the service delivery system, the service quality aspects, the customer expectations, services as customer experiences, the challenges in services creations and innovation etc.

KEYWORDS

Challenges, Design, Development, Experience, Service quality, Value.

INTRODUCTION

The services sector has grown over the last 50 years to dominate economic activity in most advanced industrial economies, yet scientific understanding of modern services is rudimentary (Henry, C., Jim S., July 2006). Service companies are facing problems to create, innovate and market the services. It's necessary for service organizations to dig out the problem areas by adopting various tools and concepts and come up with innovative solutions in services design and development.

The world economy is witnessing a major contribution of service sector in its growth. Services represent approximately 80 percent of the U.S. GDP and a growing percentage of the GDPs of countries around the world. There are many giant service providers which provide different kind of service products like Restaurants, Banking, Insurance, Healthcare, Information Technology and Enable Services (ITES) etc. to their customers but they are facing various problems while marketing their services because of the service characteristics and service quality related issues.

There have been various research studies undertaken by management experts and academicians in the field of services management to understand the dynamic nature of services as whole and service industry. All these studies help us to understand the intricacies of various services products. There are many concepts and theories are proposed on how to make services more profitable to the organizations.

The very important factor in services management is to create more value to the customer by fulfilling the customer expectations. Through this paper an attempt is made to answer the various questions like what are the various research approaches provided to analyze the service process, which are the various steps involve in service creations, how to deliver the service, what are the various service quality aspects, what are the customer expectations, how to make services as customer experiences, what are the challenges in services creations and innovation etc.

The plan of the paper is like; Section 1 brief about the contribution of services in the economy and the the various questions related with service design and development. Section 2 explains about the characteristics of the services and how to tackles the challenges associated with it. Section 3 focuses light on quality dimensions and quality gap in service creations and its delivery. Section 4 speaks about service design and development through service blueprinting, red and blue oceans strategy and the innovation strategy in service development. Section 5 concludes the research paper.

SERVICE PRODUCT CONCEPT

It is very important first to understand the service product concept before its design and development. The service product concept can be defined as activity or benefit that one party can offer to another that is essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product. A service is the action of doing something for someone or something. It is largely intangible (i.e. not material). A product is tangible (i.e. material) since you can touch it and own it. A service tends to be an experience that is consumed at the point where it is purchased, and cannot be owned since it is quickly perishes.

A person could go to a hotel or restaurant one day and have excellent service, and then return the next day and have a poor experience.

It's also very important to know exactly all the characteristics of services and how the services are different from the product. In fact many organizations do have service elements to the product they sell, for example McDonald's sell physical products i.e. burgers but consumers are also concerned about the quality and speed of service, are staff cheerful and welcoming and do they serve with a smile on their face. This same concept is applicable to many other service businesses.

Hence the researchers talks about the nature of services and tries to devices various marketing strategies to satisfy their customers. To consistently deliver the service excellence, service organizations must get right the four things Service offering, Funding Mechanism, Employment Management and Customer Management (Frances X. Frei, 2008). These are the four parameters organizations need to control to deliver the best service to their customers.

The world economic data shows that the service industry contributing almost 70% into the economic development (Drejer, 2004; Gallouj, 2002b; Hauknes, 1998; Tether et al., 2001). This sector is providing various employment opportunities to all level of the people. At the same time there is great competition among the service companies in same service product line. There are many characteristics which differentiates service products from physical products (S. L. Vargo and R. F. Lusch, 2004). All these service characteristics are creating many challenges for service providers in service design and its creation. Hence it's very important to understand all those service characteristics before designing services.

1. *Lack of ownership* - You cannot own and store a service like you can a product. Services are used or hired for a period of time. For example when buying a air ticket to fly abroad the service lasts maybe specific hours each way, but consumers want and expect excellent service for that time. Because you can measure the duration of the service consumers become more demanding of it.

2. *Intangibility* - You cannot hold or touch a service unlike a product. In saying that although services are intangible the experience consumers obtain from the service has an impact on how they will perceive it. What do consumers perceive from customer service - the location, and the inner presentation of where they are purchasing the service.

3. *Inseparability* - Services cannot be separated from the service providers. A product when produced can be taken away from the producer. However a service is produced at or near the point of purchase. Take the example of visiting a restaurant, you order your meal, the waiting and delivery of the meal, the service provided by the waiter is all a part of the service production process and is inseparable, the staff in a restaurant are as a part of the process as well as the quality of food provided.

4. *Perishability* - Services last a specific time and cannot be stored like a product for later use. If travelling by train, coach or air the service will only last the duration of the journey. The service is developed and used almost simultaneously. Again because of this time constraint consumers demand more.

5. *Variability* - Since the human involvement in service means that no two services will be completely identical. For example, returning to the same garage time and time again for a service of your car might see different levels of customer satisfaction, or speediness of work.

7. *Right of ownership* - One cannot own the service, since you merely experience it. For example, an engineer may service your air-conditioning, but you do not own the service, the engineer or his equipment. You cannot sell it on once it has been consumed, and do not take ownership of it.

The service organization needs to understand the above mentioned nature/characteristics of the services. Based on it they can develop standards to assure consistency in service offerings. Systems and procedures can be put into place to make sure the service provided is consistent all the time, training in service organizations is essential for this, however in saying this there will always be subtle differences.

SERVICE QUALITY MODELS

The various researchers and experts in services management have developed service quality models. All those models tried to define the concept of "Service Quality". They each have their strengths, and weaknesses. The definition of Service quality is: Customers thinking they are getting better service than expected. This is often referred to as the perception gap. ie the gap between what the customers 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 than 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. Before considering quick wins and strategic improvements there are a number of key questions which contribute to our understanding of the perception gap. Following models are the result of significant research which helps us to understand various services dimensions:

RATER

A complementary analysis of the perception gap is the RATER model 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 research also suggests the relative importance of each of the factors.

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 individualized attention the firm provides its customers	16%
Tangibles	Appearance of physical facilities, equipment, personnel and communication materials	11%

• RATER dimensions sorted by relative importance

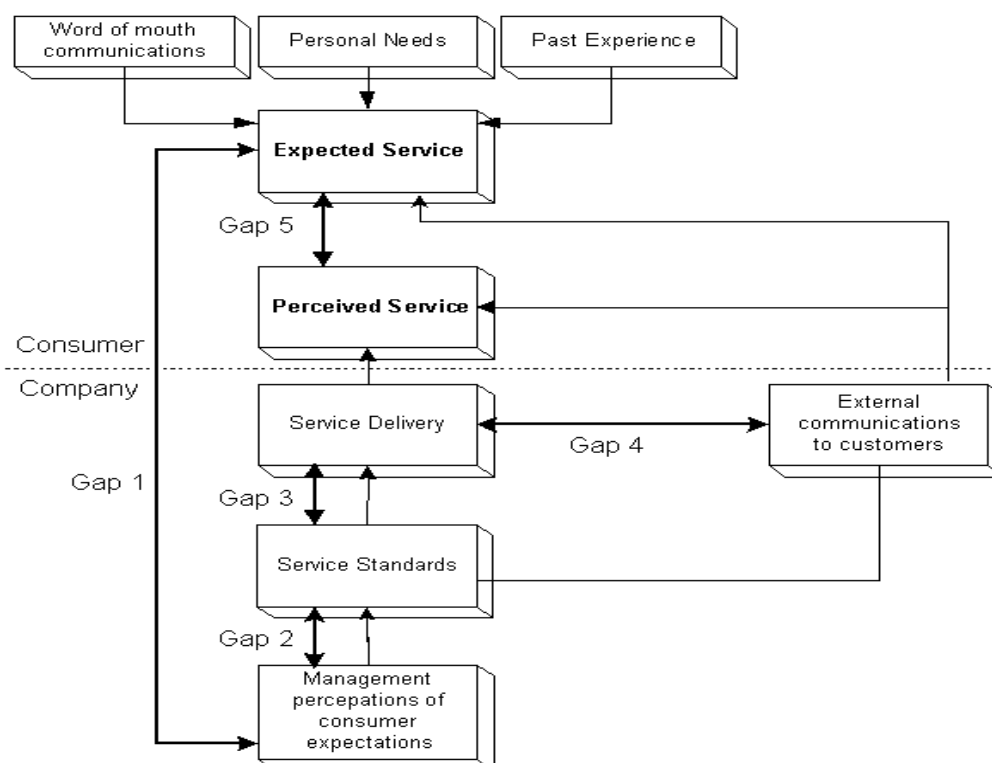
The RATER factors help provides specific dimensions which can be used to analyze and measure customer expectations.

THE GAP MODEL

The figure below shows the "GAP" model of service quality from Parasuraman et al. (Zithaml & Bitner 1996). This model offers an integrated view of the consumer-company relationship. It is based on substantial research amongst a number of service providers. In common with the Grönroos model it shows the perception gap (Gap 5) and outlines contributory factors. In this case expected service is a function of word of mouth communication, personal need and past experience, and perceived service is a product of service delivery and external communications to consumers.

However the GAP model goes further in its analysis of these key contributory factors. It not only provides a more rigorous description of the contributory Gaps, it lists key drivers for each gap and generic breakdown of each of these drivers. These are illustrated below in summary form below.

GAP model of service quality



- Parasuraman et al. GAP model (Zeithaml 1996)

Gap 1 Inadequate market research orientation Lack of upward communication Insufficient relationship focus
Gap 2 Absence of customer driven standards Inadequate service leadership Poor service design
Gap 3 Deficiencies of human resource policies Failure to match supply and demand Customers not fulfilling roles
Gap 4 Ineffective management of customer expectations Overpromising Inadequate horizontal communications

- Key factors in the GAP model (Zeithaml 1990)

This level of detail allows powerful analysis of the contributory factors to a perception gap at a practical level. The model shows the importance of marketing, business leadership quality and HR systems in the management of the expectation gap.

Above mentioned both the quality models helps to find out the quality dimensions and quality gaps respectively. Organizations must try to find out all those possible gaps in service creation and its delivery. This will assist the organizations to design and develop the various services as per customer requirements.

SERVICE DESIGN AND DEVELOPMENT

The nature and qualities of services as discussed above have imposed many challenges for service innovation and development. The organizations can establish service standards to design consistent service. The various service quality dimensions and gaps are to be considered while designing and developing the services. The compelling need for service innovation in competitive market and the current focus of many businesses on creating value through customer experiences suggest a need for innovative methods, techniques, and R&D practices for services design and development. There are many approaches and theories proposed by various researchers and experts to service innovations and development. All those concepts and theories are helpful to devices new services or innovate and develop existing services. We can study the most popular approaches in services innovation and deployment as detailed below-

SERVICE BLUEPRINTING

This is a customer-focused approach for service innovation and service improvement. The foundations of service blueprinting were introduced two decades ago in seminal articles by G. Lynn Shostack, the method has evolved significantly as a useful approach for addressing many of the challenges in services design and innovation, and it is particularly amenable to customer experience design. In comparison to other process-oriented design techniques and tools, service blueprints are first and foremost customer-focused, allowing firms to visualize the service processes, points of customer contact, and the physical evidence associated with their services from their customer's perspective. Blueprints also illuminate and connect the underlying support processes throughout the organization that drive and support customer- focused service execution.

While designing service concept organizations must be able to describe service process characteristics and depict them so that employees, customers, and managers alike can know in concrete terms what the service involves and understand their respective roles in its delivery or co-creation. Because service blueprinting results in a visual representation of the service process and an underlying organizational structure that everyone can see, it is highly useful in the concept development stage of service development. The main blueprint forms a common point of reference for all parties concerned with achieving a successful launch of the service. It also serves as a focal point for later refinements or last-minute changes.

RED AND BLUE OCEANS CONCEPT IN SERVICE DESIGN AND DEVELOPMENT

Business universe consists of two distinct kinds of space, which we think of as red and blue oceans. Red oceans represent all the industries in existence today—the known market space. In red oceans, industry boundaries are defined and accepted, and the competitive rules of the game are well understood. Here, companies try to outperform their rivals in order to grab a greater share of existing demand. As the space gets more and more crowded, prospects for profits and growth are reduced. Products turn into commodities, and increasing competition turns the water bloody. Blue oceans denote all the industries not in existence today—the unknown market space, untainted by competition. In blue oceans, demand is created rather than fought over. There is ample opportunity for growth that is both profitable and rapid. There are two ways to create blue oceans. In a few cases, companies can give rise to completely new industries, as eBay did with the online auction industry. But in most cases, a blue ocean is created from within a red ocean when a company alters the boundaries of an existing industry. There are companies that created those blue oceans and their less successful competitors, which were caught in red oceans.

In studying these data, we can observe a consistent pattern of strategic thinking behind the creation of new markets and industries, what we call blue ocean strategy. The logic behind blue ocean strategy parts with traditional models focused on competing in existing market space. Indeed, it can be argued that manager's failure to realize the differences between red and blue ocean strategy lies behind the difficulties many companies encounter as they try to break from the competition. We believe that an understanding of blue ocean strategy will help today's companies as they struggle to thrive in an accelerating and expanding business universe.

THE INNOVATION STRATEGY IN SERVICE DEVELOPMENT

Most of the companies follow traditional approach for new business development processes and the marketing of new products within the firm boundaries. The fear of competitors makes the companies not to involve external agents in business development activities.

Recently, growing attention has been devoted to the concept of "Open Innovation", both in academia as well as in practice. Chesbrough, who coined the term "Open Innovation" describes in his book *"Open Innovation: The New Imperative for Creating and Profiting from Technology"* (2003) how companies have shifted from so-called closed innovation processes towards a more open way of innovating.

However, several factors have led to the erosion of closed innovation (Chesbrough, 2003). First of all, the mobility and availability of highly educated people has increased over the years. As a result, large amounts of knowledge exist outside the research laboratories of large companies. In addition to that, when employees change jobs, they take their knowledge with them, resulting in knowledge flows between firms. Second, the availability of venture capital has increased significantly recently, which makes it possible for good and promising ideas and technologies to be further developed outside the firm, for instance in the form entrepreneurial firms. Besides, the possibilities to further develop ideas and technologies outside the firm, for instance in the form of spin-offs or through licensing agreements, are growing. Finally, other companies in the supply chain, for instance suppliers, play an increasingly important role in the innovation process.

As a result, companies have started to look for other ways to increase the efficiency and effectiveness of their innovation processes. For instance through active search for new technologies and ideas outside of the firm, but also through cooperation with suppliers and competitors, in order to create customer value. Open Innovation can thus be described as: combining internal and external ideas as well as internal and external paths to market to advance the development of new technologies.

Now day's companies have to become aware of the increasing importance of open innovation. Not all good ideas are developed within the own company, and not all ideas should necessarily be further developed within the own firm's boundaries. The table below further illustrates this:

Closed innovation principles	Open innovation principles
The smart people in the field work for us.	Not all the smart people in the field work for us. We need to work with smart people inside and outside the company
To profit from R&D, we must discover it, develop it, and ship it ourselves.	External R&D can create significant value: internal R&D is needed to claim some portion of that value.
If we discover it ourselves, we will get it to the market first	We don't have to originate the research to profit from it.
The company that gets an innovation to the market first will win.	Building a better business model is better than getting to the market first.
If we create the most and the best ideas in the industry, we will win.	If we make the best use of internal and external ideas, we will win.
We should control our IP, so that our competitors don't profit from our ideas.	We should profit from others' use of our IP, and we should buy others' IP whenever it advances our business model.

This means that within the company a shift should take place in the way people look at the company and its environment. Involving other parties when developing new products and technologies can be of great added value. Think for instance about cooperation with other firms in your sector, suppliers, universities, and of course end-users.

The business model plays a crucial role in this is. After all, how and when external knowledge is required and used is to a large extent determined by the companies' business model which describes how value can be created from innovations and which elements have to be sourced internally or externally.

CONCLUSIONS

The statistical data shows the growth in service sector over last fifty years and dominated the world economy. The understanding about services is not so matured and still at nascent stage. It is required to research and understand the services and service sector, so that the various opportunities can be exploited by designing and developing services. New services can be design and existing services can be developed further.

The characteristics of services which differentiate from physical products are major concern for service organizations. All these service characteristics are creating many challenges for service providers in service design and its creation. Hence it's very important to understand all those service characteristics before designing services. The services organizations can develop standards to standardized the services and assure consistency in service offerings.

The service organizations must find out the perceived quality dimensions as mentioned in RATER model produced by Zeithaml (1990) to design and develop the services. Also the organizations must find out all quality related gaps as proposed by *Parasuraman*; it will be helpful to design and develop services as per customer requirements.

After knowing the various service characteristics, quality dimensions, customer requirements and gaps service organizations can establish their own standards to design and develop various services. Service blueprints is one such tool which is helpful to design and develop services by considering all service characteristics, quality dimensions, customer requirements and gaps.

The market is always full of competition all players fights for maximum share in the market. This increasing competition turns the water bloody called Red oceans. Blue oceans denote all the industries not in existence today—the unknown market space, untainted by competition. Services organization can follow the Blue oceans strategies by creating completely new market by designing completely new services. Also the companies can develop new market into the exiting competitive market with service innovation. The organizations can use optimum mix of open and closed innovation to design and develop various services to create Blue oceans for themselves.

REFERENCES

- Berry, L., et al, (2006), "Creating New Markets Through Service Innovation". MIT Sloan Management Review, Vol 47, No. 2, 52-63.
- Bitner, M., Ostrom, A., Morgan, M., (2008), "Service Blueprinting: A Practical Technique for Service Innovation". California management review vol. 50, No. 3, 66-94.
- Chan, W., Mauborgne. R., (2007), "Blue Ocean Strategy". Harvard Business School Press. 1-11.
- Chesbrough, H. (2003), "Open Innovation: The New Imperative for Creating and Profiting from Technology". Harvard Business School Press.
- Frances X. Frei, (2008), "The Four Things a Service Business Must Get Right". Harvard Business School Press.
- Henry, W., (2003), "The Era of Open Innovation". MIT Sloan Management Review, Vol 44, No. 3, 35-41.
- Parasuraman, A., Valarie, A., Zeithaml, Leonard, L., Berry, (1985), "A Conceptual Model of Service Quality and Its Implications for Future Research". Journal of Marketing, Vol. 49, No. 4, 41-50.

REQUEST FOR FEEDBACK

Dear Readers

At the very outset, International Journal of Research in Computer Application and Management (IJRCM) acknowledges & appreciates your efforts in showing interest in our present issue under your kind perusal.

I would like to request you to supply your critical comments and suggestions about the material published in this issue as well as on the journal as a whole, on our E-mails i.e. **infoijrcm@gmail.com** or **info@ijrcm.org.in** for further improvements in the interest of research.

If you have any queries please feel free to contact us on our E-mail **infoijrcm@gmail.com**.

I am sure that your feedback and deliberations would make future issues better – a result of our joint effort.

Looking forward an appropriate consideration.

With sincere regards

Thanking you profoundly

Academically yours

Sd/-

Co-ordinator