

The Impact and an Analytical Study of Service Quality Measurement in Leading Private Banks of India in Delhi and NCR Region

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Abstract- The subject "quality" is nowadays, in a globalized world, one of the key concerns of businessmen to face the competition on industries and service areas. Financial groups are measuring no efforts to achieve quality excellence, starting by customer services and relationship. Indian banking sector opened its doors to private and international players after the economic liberalization in the year 1991. It has been almost 2 decades of operation of the private banks in India. Much has evolved in the overall structure of banking during this time but have the private banks delivered the type of quality that the customers expect them to. This research is an effort to evaluate the service quality of the private banks in India. The study is based on primary data collected in the cities of Delhi and NCR through a structured questionnaire designed on the basis of SERVQUAL Model. The banks under study are the five top private banks from Delhi and NCR region. The study has found that none of the banks have been able to meet the customer expectations and are still dwelling on the 'zone of pain'. The research is very useful for managers, policymakers, implementers as well as academicians. The research provides implications for managers as well as policy makers to understand the customer expectations in India. It can be a guideline for bigger role for the BCSBI (Banking Codes and Standard Board of India). Implications for future research are also discussed. The novelty of the research lies in the context that no effort has been made so far to effect research on sector specific contribution of banks. There is also very little literature available to identify the need-service gap in this area. The study adds value to the knowledge in the field of banking service quality for development and also opens new areas of research

Index Terms- Customer Satisfaction, SERVQUAL Analysis, GAP Analysis, Private Sector Banks and Service Quality

I. INTRODUCTION

CUSTOMER satisfaction is one of the key factors in modern marketing and customers" behavior analysis. Generally speaking, if the customers are satisfied with the provided goods or services, the probability that they use the services again increases (East, 1997). Also, satisfied customers will most probably talk enthusiastically [1] about their buying or the use of a particular service; which will lead to positive advertising (File and Prince, 1992) and

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(Richens, 1983). On the other hand, dissatisfied customers will most probably switch over to a different brand and; this will lead to negative advertising. The importance of satisfying and keeping a customer in establishing strategies for a [2] market and customer oriented organization cannot be neglected (Kohli and Jaworski, 1990). Customer satisfaction is often considered the most important factor for thriving in today's highly competitive business world. Services have unique characteristics that distinguish them from the physical goods (Zeithmal, 1996). Services are often characterized by intangibility, inseparability, heterogeneity, and perishability (Lovelock, 1996). Because of the quality of services being intangible, understanding how the customers would [3] evaluate the quality of the organization's services is often very hard (Zeithmal, 1996). In addition, the services are real time, i.e. they are used by the customers as soon as they are offered. They cannot be stored and quality passed like physical goods. Therefore any bad service will most probably be experienced by a customer, which results in customer's dissatisfaction [4] while using the service (East, 1997).

Customer satisfaction is a popular research topic among researchers of different areas. Banking industry is not an exception to this. Banking is one [5] of the numerouno services in which the customer satisfaction has had an ever increasing importance in the corresponding research areas. This is essentially because the banking sector is becoming [6] more and more competitive (Lindenmeier and Tscheulin, 2008). Retail banks are pursuing this strategy, in part, because of the difficulty in differentiating based on the service offering. Typically, customers perceive very little difference in the services offered by retail banks and any new [7] offering is quickly matched by competitors (Devlin et al., 1995).

II. MEASURING CUSTOMER SATISFACTION IN BANKING

Customer Satisfaction, a business term, is a measure of how products and services supplied by a company meet or surpass customer expectation. It is seen as a key performance indicator within business and is part of the strategy for customer retention. The entry of private sector commercial banks can be traced to the period of privatization and the need to satisfy [8] customers all the more by the banking sector increased. However no consistent effort was taken on the part of policy makers to trace the level of satisfaction from the

Dr. Asif Perwej

services till the year 2003 when BCSBI (Banking Codes and Standards Boards of India) an autonomous body was formed to monitor the level of services provided by the Indian banks. Other economic systems are also experiencing the same changes occurring in their external environments [9]. In such systems, moving toward privatization and economic liberalization have increased the rivalry and have prepared the system for foreign rivals. The outcome of this increasing rivalry is that a lot of financial institutions are focusing on increasing the customer satisfaction and trying to keep them by any possible means (Lindenmeier and Tscheulin, 2008). Customer satisfaction in banking has not been neglected by researchers. Kearsley (1985) in his study discussed the [10] types and uses of computer-based training (CBT) in bank training to achieve better customer satisfaction. Rust and Zahorik (1993) provided a mathematical framework for assessing the value of customer satisfaction. The framework enables managers to determine which customer satisfaction elements have the [11] greatest impact, and how much money should be spent to improve particular customer satisfaction elements. They demonstrated the application of their Customer Satisfaction using Fuzzy Cognitive Map. Athanassopoulos (2000) performed a complete survey on customer satisfaction in retail banking services in Greece. The study proposed an instrument of customer satisfaction that contains [12] service quality and other attributes. The performance implications of the customer satisfaction instrument are also explored. (Manrai and Manrai, 2007) developed and tested some hypotheses regarding the relationship between customer [13] satisfaction and bank service switching behavior as it is mediated by the importance of a particular bank service to a particular customer and by the nature of competitive offerings for different types of banking services available from other banks. Gil et al.(2007), in their research exhibited that services encountered directly and significantly affect perceived service value which is the final antecedent to customer satisfaction in banking industry. Finally, Sweeney and Swait (2008) investigated the important [14] role of brand of banks in managing the churn of current customers and improving their satisfaction.

III. SERVQUAL MODELS

A quite large number of models have been derived by experts round the world to derive the level of service quality and therefore the customer satisfaction perhaps [15] the best and the most widely validated research is one by Parasurama et al. (1995) popularly known as SERVQUAL Model [16]. This is the one that will be used in this research to evaluate the level of service quality of Private Sector banks in India. Below is a discussion on the SERVQUAL Model:

GAP Model (Parasuraman et al. 1985)

The GAP model was proposed by Parasuraman *et al.* (1985) [17]. The model presupposes that service quality is the differences between expectation and performance relating to quality dimensions. These differences are referred to as gaps. The gaps model conceptualizes five gaps which are:

- *Gap 1:* Difference between consumer's expectation and management's perceptions of consumers [18] expectations (not identifying what consumers expect).
- *Gap 2:* Disparity between management's perceptions of consumer's expectations and service quality specifications (inappropriate service-quality standards).
- *Gap 3:* Variations between service quality specifications and service actually delivered (poor delivery of service quality).
- *Gap 4:* Difference between service delivery and the communications to consumers about service delivery (promises mismatch delivery).
- *Gap 5:* Difference between consumers expectation and perceived service; this gap depends on size and direction of the four gaps associated with the delivery of [19] service quality on the marketers side.

Based on the above five gaps, the SERVQUAL instrument was developed. It initially consisted of ten dimensions which were later refined into five dimensions namely, reliability, responsiveness, tangibles, assurance (communication, competence, credibility, courtesy, and security) [20] and empathy (which capture access and understanding or knowing the customers). Later in year 1991 SERVQUAL was revised by replacing "should" word by "would" and in 1994 by reducing the total number of items to 22, but five dimensional structure [21] remaining the same. In addition to this empirical research, the authors later came out with the extended service quality model. According to this extended model most factors involve communication and control process [22] implemented in organizations to manage employees.

IV. OBJECTIVES OF THE STUDY

The main objectives of the study are firstly to have a clear understanding of the level of service quality in the Private Sector banks in India. And secondly to find out the gap in the dimensions of service quality based on the SERVQUAL analysis.

V. RESEARCH METHODOLOGY

The study is exploratory in nature. It provides a description of contemporary satisfaction parameter in the Indian Banking Sector. The determination of the sample and the area of study is justified below. The research consists of 5 banks from the private sectors from Delhi and NCR region. The Top 5 banks of Private Sector Banks selected are ICICI Bank, HDFC Bank, HSBC Bank, Axis Bank and Federal Bank, The questionnaires were distributed manually to the customers of these banks in the cities of Delhi and NCR (National Capital Region). The purpose of choosing the capital of the country (Delhi) and NCR region as the study area because private banks in these areas are serving their customers more as compared to other cities. The basic reasons of opening more number of private banks are the income level of the customers are fairly high in these areas. The respondents are selected at random on visits to banks. Therefore for the purpose of our research the probability sampling [23] process has been used. The sample size was determined according to (Cooper and Schindler, 2003), the formula as follows:

(+,-) 0.05 is desired interval range within which the population proportion is expected (subjective decision).

 $1.96(\sigma p)$ is 95 percent confidence level for estimating the interval within which the population proportion is expected (subject decision).

 $\sigma p = 0.0255$ is standard error for the proportion (0.05/1.96)

pq is measure of sample dispersion (used here as an estimate of the population dispersion)

$$\mathbf{n} = \frac{\mathbf{pq}}{\sigma_{\mathbf{p}}^2}$$

For the purpose of this research, after running 30 questionnaires a sample size (N) was derived for each bank as follows.

$$N = \frac{0.24 \times 0.76}{0.0255^2} = 280$$

Therefore the total sample size for all the 5 banks is 280*5 = 1400

VI. EXPRIMENTAL RESULT ANALYSIS AND FINDINGS

Following is the detailed analysis of the 5 banks under study based on the SERVQUAL analysis below:

A. SERVQUAL Analysis for ICICI Bank

The Table 1 depicts the SERVOUAL score of the five dimensions for ICICI Bank. The highest expectation score for the tangibility dimension is for E4 and the lowest is for the E3. The perception score for this dimension is highest for the P2 and lowest for P1. For the reliability dimension the highest score for the expectation is for E5 and the lowest is for the E8. As against expectation the perception score for reliability dimension was highest for P6 and lowest for P5. In case of responsiveness dimension the highest expectation was for E12 and the lowest was for E10. The perception scores for this dimension were highest for P11 and lowest for P10. For the assurance dimension the highest expectation score was for E17 and the lowest for E14 and E15. The perception score was highest for P15 and the lowest for P17. For the empathy dimension the highest expectation score was for E21 and the lowest for E22.As against the expectation scores perception score was highest for P15 and the lowest for P17. For the empathy dimension the highest expectation score was for E21 and the lowest for E22. As against the expectation scores the perception score for this dimension are highest for P19/22 and the lowest for P18.

Table 1: Average 'SERVQ	UAL'	of various dimensions for ICICI	Bank	
	(E)		(P)	Gap Score P-E
E1: Excellent banking companies will have modern looking equipment.	4.12	Tangible P1: Your bank has modern looking equipment	3.46	-0.66
E2: The physical facilities ate excellent banks will be visually appealing	3.99	P2: Your bank's physical facilities are visually appealing	3.88	-0.11
E3: Employees at excellent banks will be neat appearing	3.96	P3: Your bank's reception desk employee are neat appearing	3.75	-0.21
E4: Materials association with the service (such as pamphlets or statements) will be visually appealing at excellent banks.	4.45	P4: Materials associated with the service (such as pamphlets or statements) are visually appealing at your bank.	3.70	-0.84
T. 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Average Tangible SERVQUAL score		-0.45
Reliability E5: When excellent banks promise to do something by a certain time, they do.	4.54	Reliability P5: When your bank promises to do something by a certain time, it does so.	3.39	-1.15
E6: When a customer has a problem, excellent banks will show a sincere interest in solving it.	4.44	P6: When you have a problem, your bank shows a sincere interest in solving it.	3.78	-0.66
E7: Excellent banks will perform the service right the first time.	4.40	P7: Your bank performs the service right the first time.	3.61	-0.79
E8: Excellent banks will provide the service at the time them promise to do so.	4.29	P8: Your bank provides its service at the time it promises to do so.	3.63	-0.66
E9: Excellent banks will insist on error free records	4.41	P9: Your bank insists on error free records.	3.70	-0.71
		Average Reliability SERVQUAL score		-0.79
Responsiveness		Responsiveness		
E10: Employees of excellent banks will tell customers exactly when services will be performed.	4.37	P10: Employees in your bank tell you exactly when services will be performed.	3.43	-0.94
E11:Employees of excellent banks will give prompt service to customers.	4.50	P11: Employees in your bank give you prompt service.	3.64	-0.86
E12:Employees of excellent banks will always be willing to help customers.	4.57	P12: Employees in your bank are always willing to help you.	3.50	-1.07
E13:Employees of excellent banks will never be too busy to respond to customers' requests.	4.44	P13: Employees in your bank are never too busy to respond to your request.	3.57	-0.87
		Average Responsiveness SERVQUAL score		-0.75
Assurance E14: The behaviour of employees in excellent banks will instill confidence in customers.	4.12	Assurance P14: The behaviour of employees in your bank instill confidence in you.	3.35	-0.77
E15: Customers of excellent banks will feel safe in transactions	4.12	P15: You feel safe in your transactions with your bank.	3.53	-0.59
E16: Employees of excellent banks will be consistently courteous with customers.	4.35	P16: Employees in your bank area consistently courteous with you.	3.35	-1.00
E17: Employees of excellent banks will have the knowledge to answer customers' questions.	4.70	P17: Employees in your bank have the knowledge to answer your questions.	3.06	-1.64
Empathy		Average Assurance SERVQUAL score Empathy		-1.00
E18: Excellent banks will give customers individual attention	4.9	P18: Your bank gives you individual attention	3.59	-1.31
E19: Excellent banks will have operating hours convenient to all their customers.	4.9	P19: Your bank has operating hours convenient to all its customers	3.94	-0.96
E20: Excellent banks will have employees who give customers personal attention.	4.9	P20: Your bank has employees who give you personal attention.	3.81	-1.09
E21: Excellent banks will have their customer's best interests at heart.	4.91	P21: Your bank has your best interest at heart.	3.74	-1.17
E22:The employees of excellent banks will understand the specific needs of their customer	4.76	P22: The employees of your bank understand your specific needs.	3.94	-0.82
		Average Empathy SERVQUAL scores		-1.07

Dr. Asif Perwej

B. SERVQUAL Analysis for HDFC Bank

The Table 2 depicts the SERVQUAL score of the five dimensions for HDFC Bank. The highest expectation score for the tangibility dimension is for E4 and the lowest is for the E2/3. The perception score for this dimension is highest for the P2 and lowest for P1. For the reliability dimension the highest score for the expectation is for E5 and the lowest is for the E8. As against expectation the perception score for reliability dimension was highest for P6 and lowest for P7. In case of responsiveness dimension the highest expectation was for E71 and the lowest was for E10/11. The perception scores for this dimension were highest for P11 and lowest for P13. For the assurance dimension the highest expectation score was for E17 and the lowest for E12 and E13. The perception score was highest for P15 and the lowest for P14/16. For the empathy dimension the highest expectation score was for E21 and the lowest for E18/19/20. As against the expectation scores the perception score for this dimension are highest for P19/22 and the lowest for P18.

	(E)		(P)	Gap P-E	Scor
Tangible		Tangible			
E1: Excellent banking companies will have modern looking equipment.	4.72	P1: Your bank has modern looking equipment	3.74	-0.98	
E2: The physical facilities ate excellent banks will be visually appealing	4.71	P2: Your bank's physical facilities are visually appealing	3.97	-0.74	
E3: Employees at excellent banks will be neat appearing	4.71	P3: Your bank's reception desk employee are neat appearing	3.82	-0.89	
E4: Materials association with the service (such as pamphlets or statements) will be visually appealing at excellent banks.	4.74	P4: Materials associated with the service (such as pamphlets or statements) are visually appealing at your bank.	3.93	-0.81	
		Average Tangible SERVQUAL score		-0.86	
Reliability		Reliability			
E5: When excellent banks promise to do something by a certain time, they do.	4.54	P5: When your bank promises to do something by a certain time, it does so.	3.69	-0.85	
E6: When a customer has a problem, excellent banks will show a sincere interest in solving it.	4.46	P6: When you have a problem, your bank shows a sincere interest in solving it.	4.01	-0.45	
E7: Excellent banks will perform the service right the first time.	4.46	P7: Your bank performs the service right the first time.	3.38	-0.54	
E8: Excellent banks will provide the service at the time them promise to do so.	4.37	P8: Your bank provides its service at the time it promises to do so.	3.82	-0.64	

C. SERVQUAL Analysis for HSBC Bank

The Table 3 depicts the SERVQUAL score of the five dimensions for HSBC Bank. The highest expectation score for the tangibility dimension is for E4 and the lowest is for the E3. The perception score for this dimension is highest for the P4 and lowest for P1. For the reliability dimension the highest score for the expectation is for E5 and the lowest is for the E8. As against expectation the perception score for reliability dimension was highest for P9 and lowest for P5. In case of responsiveness dimension the highest expectation was for E12 and the lowest was for E10. The perception scores for this dimension were highest for P11 and lowest for P10. For the assurance dimension the highest expectation score was for E17 and the lowest for E14/15. The perception score was highest for P15 and the lowest for P16. For the empathy dimension the highest expectation score was for E21 and the

lowest for E22. As against the expectation scores the perception score for this dimension are highest for P19 and the lowest for P18.

E9: Excellent banks will insist on error free records	4.46	P9: Your bank insists on error free records.	3.96	-0.52
		Average Reliability SERVQUAL score		-0.44
Responsiveness		Responsiveness		
E10: Employees of excellent banks will tell customers exactly when services will be performed.	4.12	P10: Employees in your bank tell you exactly when services will be performed.	3.36	-0.76
E11:Employees of excellent banks will give prompt service to customers.	4.12	P11: Employees in your bank give you prompt service.	3.53	-0.59
E12:Employees of excellent banks will always be willing to help customers.	4.36	P12: Employees in your bank are always willing to help you.	3.36	-1.00
E13:Employees of excellent banks will never be too busy to respond to customers' requests.	4.71	P13: Employees in your bank are never too busy to respond to your request.	3.07	-1.64
		Average Responsiveness SERVQUAL score		-1.00
Assurance		Assurance		
E14: The behaviour of employees in excellent banks will instill confidence in customers.	4.12	P14: The behaviour of employees in your bank instill confidence in you.	3.36	-0.76
E15: Customers of excellent banks will feel safe in transactions	4.12	P15: You feel safe in your transactions with your bank.	3.53	-0.59
E16: Employees of excellent banks will be consistently courteous with customers.	4.36	P16: Employees in your bank area consistently courteous with you.	3.36	-1.00
E17: Employees of excellent banks will have the knowledge to answer customers' questions.	4.71	P17: Employees in your bank have the knowledge to answer your questions.	3.07	-1.64
		Average Assurance SERVQUAL score		-1.00
Empathy		Empathy		
E18: Excellent banks will give customers individual attention	4.90	P18: Your bank gives you individual attention	3.57	-1.33
E19: Excellent banks will have operating hours convenient to all their customers.	4.90	P19: Your bank has operating hours convenient to all its customers	3.92	-0.98
E20: Excellent banks will have employees who give customers personal attention.	4.90	P20: Your bank has employees who give you personal attention.	3.79	-1.11
E21: Excellent banks will have their customer's best interests at heart.	4.91	P21: Your bank has your best interest at heart.	3.72	-1.19
E22: The employees of excellent banks will understand the specific needs of their customer	4.76	P22: The employees of your bank understand your specific needs.	3.92	-0.84
		Average Empathy SERVQUAL scores		-1.09
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Table 3 : Average 'SERV(of various dimensions for HSBC			
	(E)		(P)	Gap S P-E	Score
Tangible		Tangible			
E1: Excellent banking companies will have modern looking equipment.	4.30	P1: Your bank has modern looking equipment	3.59	-0.44	
E2: The physical facilities ate excellent banks will be visually appealing	3.94	P2: Your bank's physical facilities are visually appealing	3.78	-0.16	
E3: Employees at excellent banks will be neat appearing	3.92	P3: Your bank's reception desk employee are neat appearing	3.64	-0.28	
E4: Materials association with the service (such as pamphlets or statements) will be visually appealing at excellent banks.	4.53	P4: Materials associated with the service (such as pamphlets or statements) are visually appealing at your bank.	3.87	-0.66	
		Average Tangible SERVQUAL score		-0.38	
Reliability		Reliability			
E5: When excellent banks promise to do something by a certain time, they do.	4.53	P5: When your bank promises to do something by a certain time, it does so.	3.36	-1.17	
E6: When a customer has a problem, excellent banks will show a sincere interest in solving it.	4.44	P6: When you have a problem, your bank shows a sincere interest in solving it.	3.79	-0.65	
E7: Excellent banks will perform the service right the first time.	4.44	P7: Your bank performs the service right the first time.	3.57	-0.87	

E8: Excellent banks will	4.36	P8: Your bank provides its service at	3.66	-0.70
provide the service at the time		the time it promises to do so.		
them promise to do so.				
E9: Excellent banks will insist	4.47	P9: Your bank insists on error free	3.72	-0.75
on error free records		records.		
		Average Reliability SERVQUAL		-0.83
		score		
Responsiveness		Responsiveness		
E10: Employees of excellent	4.27	P10: Employees in your bank tell you	3.74	-0.53
banks will tell customers		exactly when services will be		
exactly when services will be		performed.		
performed.				
E11:Employees of excellent	4.41	P11: Employees in your bank give you	4.00	-0.41
banks will give prompt service		prompt service.		
to customers.				
E12:Employees of excellent	4.50	P12: Employees in your bank are	3.87	-0.63
banks will always be willing to		always willing to help you.		
help customers.				
E13:Employees of excellent	4.37	P13: Employees in your bank are	3.87	-0.50
banks will never be too busy to		never too busy to respond to your		
respond to customers' requests.		request.		
		Average Responsiveness SERVQUAL		-0.41
		score		
Assurance		Assurance		
E14: The behaviour of	4.11	P14: The behaviour of employees in	3.35	-0.76
employees in excellent banks		your bank instill confidence in you.		
will instill confidence in				
customers.				
E15: Customers of excellent	4.11	P15: You feel safe in your transactions	3.53	-0.58
banks will feel safe in		with your bank.		
transactions				
E16: Employees of excellent	4.35	P16: Employees in your bank area	3.35	-1.00
banks will be consistently		consistently courteous with you.		
courteous with customers.				
E17: Employees of excellent	4.71	P17: Employees in your bank have the	3.05	-1.66
banks will have the knowledge		knowledge to answer your questions.		
to answer customers' questions.				
		Average Assurance SERVQUAL		-1.00
		score		
Empathy		Empathy		
E18: Excellent banks will give	4.90	P18: Your bank gives you individual	3.57	-1.33
customers individual attention		attention		
E19: Excellent banks will have	4.90	P19: Your bank has operating hours	3.92	-0.98
operating hours convenient to		convenient to all its customers		
all their customers.				
E20: Excellent banks will have	4.90	P20: Your bank has employees who	3.79	-1.11
employees who give customers		give you personal attention.		
personal attention.				
E21: Excellent banks will have	4.91	P21: Your bank has your best interest	3.73	-1.18
their customer's best interests at		at heart.		
heart.				
E22:The employees of excellent	4.76	P22: The employees of your bank	3.92	-0.84
banks will understand the		understand your specific needs.		
specific needs of their customer				
1		Average Empathy SERVQUAL scores		-1.09

D. SERVQUAL Analysis for Axis Bank

The table 4 depicts the SERVQUAL score of the five dimensions for Axis Bank. The highest expectation score for the tangibility dimension is for E4 and for the rest of the parameters it is the same. The perception score for this dimension is highest for the P2 and lowest for P4. For the reliability dimension the highest score for the expectation is for E8 and the lowest is for the E5.As against expectation the perception score for reliability dimension was highest for P6 and lowest for P5. In case of responsiveness dimension the highest expectation was for E12 and the lowest was for E10. The perception scores for this dimension were highest for P11 and lowest for P10. For the assurance dimension the highest expectation score was for E17 and the lowest for E14 and E15. The perception score was highest for P14 and the lowest

for P17. For the empathy dimension the highest expectation score was for E21 and the lowest for E14/15. As against the expectation scores the perception score for this dimension are highest for P19 and the lowest for P18.

Table 4: Average 'SERVQUAL' of various dimensions for Axis Bank						
	(E)		(P)	Gap Score P-E		
Tangible		Tangible				
E1: Excellent banking companies will have modern looking equipment.	4.70	P1: Your bank has modern looking equipment	3.30	-1.40		
E2: The physical facilities ate excellent banks will be visually appealing	4.70	P2: Your bank's physical facilities are visually appealing	3.42	-1.28		
E3: Employees at excellent banks will be neat appearing	4.70	P3: Your bank's reception desk employee are neat appearing	3.27	-1.43		
E4: Materials association with the service (such as pamphlets or statements) will be visually appealing at excellent banks.	4.71	P4: Materials associated with the service (such as pamphlets or statements) are visually appealing at your bank.	3.02	-1.69		
		Average Tangible SERVQUAL score		-1.45		
Reliability		Reliability				
E5: When excellent banks promise to do something by a certain time, they do.	4.71	P5: When your bank promises to do something by a certain time, it does so.	3.57	-1.14		
E6: When a customer has a problem, excellent banks will show a sincere interest in solving it.	4.77	P6: When you have a problem, your bank shows a sincere interest in solving it.	3.94	-0.83		
E7: Excellent banks will perform the service right the first time.	4.72	P7: Your bank performs the service right the first time.	3.76	-0.96		

E. SERVQUAL Analysis for Federal Bank

Table 5 depicts the SERVQUAL score of the five dimensions for Federal Bank. The highest expectation score for the tangibility dimension is for E2 and the lowest is for the E3. The perception score for this dimension is highest for the P3 and lowest for P1. For the reliability dimension the highest score for the expectation is for E5 and the lowest is for the E8. As against expectation the perception score for reliability dimension was highest for P6 and lowest for P5. In case of responsiveness dimension the highest expectation was for E12 and the lowest was for E10. The perception scores for this dimension were highest for P10/11 and lowest for P12/13. For the assurance dimension the highest expectation score was for E16 and the lowest for E14 and E15. The perception score was highest for P15 and the lowest for P17. For the empathy dimension the highest expectation score was for E21 and the lowest for E22. As against the expectation scores the perception score for this dimension are highest for P22 and the lowest for P21.

Dr. Asif Perwej

E8: Excellent banks will	4.73	P8: Your bank provides its service at	3.81	-0.92
provide the service at the time		the time it promises to do so.		
them promise to do so.				
E9: Excellent banks will insist	4.72	P9: Your bank insists on error free	3.88	-0.84
on error free records		records.		
		Average Reliability SERVQUAL		-0.93
		score		
Responsiveness		Responsiveness		
E10: Employees of excellent	4.53	P10: Employees in your bank tell you	3.65	-0.88
banks will tell customers		exactly when services will be		
exactly when services will be		performed.		
performed.		•		
E11:Employees of excellent	4.60	P11: Employees in your bank give you	3.92	-0.68
banks will give prompt service		prompt service.		
to customers.		F		
E12:Employees of excellent	4.66	P12: Employees in your bank are	3.78	-0.88
banks will always be willing to	1.00	always willing to help you.	3.70	0.00
help customers.		and a many some		
E13:Employees of excellent	4.60	P13: Employees in your bank are	3.78	-0.82
banks will never be too busy to	1.00	never too busy to respond to your	3.76	-0.02
respond to customers' requests.		request.		
respond to customers requests.		Average Responsiveness SERVQUAL		-0.65
		score		-0.03
Assurance				
E14: The behaviour of	4.23	Assurance	4.23	-0.78
	4.23	P14: The behaviour of employees in	4.23	-0.78
employees in excellent banks		your bank instill confidence in you.		
will instill confidence in				
customers.	4.00	D15 77 6 1 6 1 6 1	2.51	0.60
E15: Customers of excellent	4.23	P15: You feel safe in your transactions	3.61	-0.62
banks will feel safe in		with your bank.		
transactions				
E16: Employees of excellent	4.50	P16: Employees in your bank area	3.41	-1.09
banks will be consistently		consistently courteous with you.		
courteous with customers.				
E17: Employees of excellent	4.73	P17: Employees in your bank have the	3.18	-1.55
banks will have the knowledge		knowledge to answer your questions.		
to answer customers' questions.				
		Average Assurance SERVQUAL		-1.01
		score		
Empathy		Empathy		
E18: Excellent banks will give	4.90	P18: Your bank gives you individual	3.57	-1.33
customers individual attention		attention		
E19: Excellent banks will have	4.90	P19: Your bank has operating hours	3.93	-0.97
operating hours convenient to		convenient to all its customers		
all their customers.				
E20: Excellent banks will have	4.90	P20: Your bank has employees who	3.80	-1.10
employees who give customers		give you personal attention.		
personal attention.				
E21: Excellent banks will have	4.91	P21: Your bank has your best interest	3.73	-1.18
their customer's best interests at		at heart.	-	
heart.				
E22: The employees of	4.76	P22: The employees of your bank	3.93	-0.83
excellent banks will understand		understand your specific needs.		
the specific needs of their				
customer				
		Average Empathy SERVQUAL scores		-1.08

Table 5: Average 'SERVQUAL' of various dimensions for Federal Bank					
	(E)		(P)	Gap Score P-E	
Tangible		Tangible			
E1: Excellent banking companies will have modern looking equipment.	4.76	P1: Your bank has modern looking equipment	3.53	-1.23	
E2: The physical facilities ate excellent banks will be visually appealing	5.00	P2: Your bank's physical facilities are visually appealing	3.99	-1.01	
E3: Employees at excellent banks will be neat appearing	4.84	P3: Your bank's reception desk employee are neat appearing	3.89	-0.95	
E4: Materials association with the service (such as pamphlets or statements) will be visually appealing at excellent banks.	4.93	P4: Materials associated with the service (such as pamphlets or statements) are visually appealing at your bank.	3.86	-1.07	
		Average Tangible SERVQUAL score			
Reliability		Reliability			
E5: When excellent banks promise to do something by a	4.59	P5: When your bank promises to do something by a certain time, it does so.	3.44	-1.15	

certain time, they do.				
E6: When a customer has a	4.46	P6: When you have a problem, your	3.88	-0.58
problem, excellent banks will		bank shows a sincere interest in		
show a sincere interest in		solving it.		
solving it.	4.00	DE X 1 1 0 4 '	2.60	0.70
E7: Excellent banks will	4.38	P7: Your bank performs the service	3.68	-0.70
perform the service right the		right the first time.		
first time.	400	D0 37 1 1 1 1 1	2.00	0.46
E8: Excellent banks will	4.26	P8: Your bank provides its service at	3.80	-0.46
provide the service at the time		the time it promises to do so.		
them promise to do so. E9: Excellent banks will insist	4.20	P9: Your bank insists on error free	2.04	-0.54
on error free records	4.38	records.	3.84	-0.34
on entit nee records		Average Reliability SERVQUAL		-0.68
		score score		-0.00
Responsiveness		Responsiveness		
E10: Employees of excellent	4.51	P10: Employees in your bank tell you	3.25	-1.26
banks will tell customers	7.31	exactly when services will be	3.23	-1.20
exactly when services will be		performed.		
performed.		P		
E11:Employees of excellent	4.62	P11: Employees in your bank give you	3.25	-1.37
banks will give prompt service	1.02	prompt service.	J.23	1.07
to customers.		F		
E12:Employees of excellent	4.67	P12: Employees in your bank are	3.13	-1.54
banks will always be willing to		always willing to help you.		
help customers.				
E13:Employees of excellent	4.56	P13: Employees in your bank are	3.13	-1.43
banks will never be too busy to		never too busy to respond to your		
respond to customers' requests.		request.		
•		Average Responsiveness SERVQUAL		-1.12
		score		
Assurance		Assurance		
E14: The behaviour of	4.12	P14: The behaviour of employees in	3.33	-0.79
employees in excellent banks		your bank instill confidence in you.		
will instill confidence in				
I .				
customers.				
E15: Customers of excellent	4.12	P15: You feel safe in your transactions	3.43	-0.69
E15: Customers of excellent banks will feel safe in	4.12	P15: You feel safe in your transactions with your bank.	3.43	-0.69
E15: Customers of excellent banks will feel safe in transactions		with your bank.		
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent	4.12	with your bank. P16: Employees in your bank area	3.43	-0.69
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent banks will be consistently		with your bank.		
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent banks will be consistently courteous with customers.	4.35	with your bank. P16: Employees in your bank area consistently courteous with you.	3.20	-1.15
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent banks will be consistently courteous with customers. E17: Employees of excellent		with your bank. P16: Employees in your bank area consistently courteous with you. P17: Employees in your bank have the		
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent banks will be consistently courteous with customers. E17: Employees of excellent banks will have the knowledge	4.35	with your bank. P16: Employees in your bank area consistently courteous with you.	3.20	-1.15
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent banks will be consistently courteous with customers. E17: Employees of excellent	4.35	with your bank. P16: Employees in your bank area consistently courteous with you. P17: Employees in your bank have the knowledge to answer your questions.	3.20	-1.15
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent banks will be consistently courteous with customers. E17: Employees of excellent banks will have the knowledge	4.35	with your bank. P16: Employees in your bank area consistently courteous with you. P17: Employees in your bank have the knowledge to answer your questions. Average Assurance SERVQUAL	3.20	-1.15
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent banks will be consistently courteous with customers. E17: Employees of excellent banks will have the knowledge to answer customers' questions.	4.35	with your bank. P16: Employees in your bank area consistently courteous with you. P17: Employees in your bank have the knowledge to answer your questions. Average Assurance SERVQUAL score	3.20	-1.15
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent banks will be consistently courteous with customers. E17: Employees of excellent banks will have the knowledge to answer customers' questions. Empathy	4.35	with your bank. P16: Employees in your bank area consistently courteous with you. P17: Employees in your bank have the knowledge to answer your questions. Average Assurance SERVQUAL score Empathy	3.20	-1.15 -1.70 -1.08
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent banks will be consistently courteous with customers. E17: Employees of excellent banks will have the knowledge to answer customers' questions. Empathy E18: Excellent banks will give	4.35	with your bank. P16: Employees in your bank area consistently courteous with you. P17: Employees in your bank have the knowledge to answer your questions. Average Assurance SERVQUAL score Empathy P18: Your bank gives you individual	3.20	-1.15
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent banks will be consistently courteous with customers. E17: Employees of excellent banks will have the knowledge to answer customers' questions. Empathy E18: Excellent banks will give customers individual attention	4.35	with your bank. P16: Employees in your bank area consistently courteous with you. P17: Employees in your bank have the knowledge to answer your questions. Average Assurance SERVQUAL score Empathy P18: Your bank gives you individual attention	3.20	-1.15 -1.70 -1.08
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent banks will be consistently courteous with customers. E17: Employees of excellent banks will have the knowledge to answer customers' questions. Empathy E18: Excellent banks will give customers individual attention E19: Excellent banks will have	4.35	with your bank. P16: Employees in your bank area consistently courteous with you. P17: Employees in your bank have the knowledge to answer your questions. Average Assurance SERVQUAL score Empathy P18: Your bank gives you individual attention P19: Your bank has operating hours	3.20	-1.15 -1.70 -1.08
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent banks will be consistently courteous with customers. E17: Employees of excellent banks will have the knowledge to answer customers' questions. Empathy E18: Excellent banks will give customers individual attention E19: Excellent banks will have operating hours convenient to	4.35	with your bank. P16: Employees in your bank area consistently courteous with you. P17: Employees in your bank have the knowledge to answer your questions. Average Assurance SERVQUAL score Empathy P18: Your bank gives you individual attention	3.20	-1.15 -1.70 -1.08
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent banks will be consistently courteous with customers. E17: Employees of excellent banks will have the knowledge to answer customers' questions. Empathy E18: Excellent banks will give customers individual attention E19: Excellent banks will have operating hours convenient to all their customers.	4.35 4.70 4.90 4.90	with your bank. P16: Employees in your bank area consistently courteous with you. P17: Employees in your bank have the knowledge to answer your questions. Average Assurance SERVQUAL score Empathy P18: Your bank gives you individual attention P19: Your bank has operating hours convenient to all its customers	3.20 3.00 3.8 4.07	-1.15 -1.70 -1.08 -1.1 -0.83
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent banks will be consistently courteous with customers. E17: Employees of excellent banks will have the knowledge to answer customers' questions. Empathy E18: Excellent banks will give customers individual attention E19: Excellent banks will have operating hours convenient to all their customers. E20: Excellent banks will have	4.35	with your bank. P16: Employees in your bank area consistently courteous with you. P17: Employees in your bank have the knowledge to answer your questions. Average Assurance SERVQUAL score Empathy P18: Your bank gives you individual attention P19: Your bank has operating hours convenient to all its customers P20: Your bank has employees who	3.20	-1.15 -1.70 -1.08
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent banks will be consistently courteous with customers. E17: Employees of excellent banks will have the knowledge to answer customers' questions. Empathy E18: Excellent banks will give customers individual attention E19: Excellent banks will have operating hours convenient to all their customers. E20: Excellent banks will have employees who give customers	4.35 4.70 4.90 4.90	with your bank. P16: Employees in your bank area consistently courteous with you. P17: Employees in your bank have the knowledge to answer your questions. Average Assurance SERVQUAL score Empathy P18: Your bank gives you individual attention P19: Your bank has operating hours convenient to all its customers	3.20 3.00 3.8 4.07	-1.15 -1.70 -1.08 -1.1 -0.83
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent banks will be consistently courteous with customers. E17: Employees of excellent banks will have the knowledge to answer customers' questions. Empathy E18: Excellent banks will give customers individual attention E19: Excellent banks will have operating hours convenient to all their customers. E20: Excellent banks will have employees who give customers	4.90 4.90	with your bank. P16: Employees in your bank area consistently courteous with you. P17: Employees in your bank have the knowledge to answer your questions. Average Assurance SERVQUAL score Empathy P18: Your bank gives you individual attention P19: Your bank has operating hours convenient to all its customers P20: Your bank has employees who give you personal attention.	3.20 3.00 3.8 4.07	-1.15 -1.70 -1.08 -1.1 -0.83
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent banks will be consistently courteous with customers. E17: Employees of excellent banks will have the knowledge to answer customers' questions. Empathy Empathy E18: Excellent banks will give customers individual attention E19: Excellent banks will have operating hours convenient to all their customers. E20: Excellent banks will have employees who give customers personal attention. E21: Excellent banks will have	4.35 4.70 4.90 4.90	with your bank. P16: Employees in your bank area consistently courteous with you. P17: Employees in your bank have the knowledge to answer your questions. Average Assurance SERVQUAL score Empathy P18: Your bank gives you individual attention P19: Your bank has operating hours convenient to all its customers P20: Your bank has employees who give you personal attention.	3.20 3.00 3.8 4.07	-1.15 -1.70 -1.08 -1.1 -0.83
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent banks will be consistently courteous with customers. E17: Employees of excellent banks will have the knowledge to answer customers' questions. Empathy E18: Excellent banks will give customers individual attention E19: Excellent banks will have operating hours convenient to all their customers. E20: Excellent banks will have employees who give customers personal attention. E21: Excellent banks will have their customer's best interests at	4.90 4.90	with your bank. P16: Employees in your bank area consistently courteous with you. P17: Employees in your bank have the knowledge to answer your questions. Average Assurance SERVQUAL score Empathy P18: Your bank gives you individual attention P19: Your bank has operating hours convenient to all its customers P20: Your bank has employees who give you personal attention.	3.20 3.00 3.8 4.07	-1.15 -1.70 -1.08 -1.1 -0.83
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent banks will be consistently courteous with customers. E17: Employees of excellent banks will have the knowledge to answer customers 'questions. Empathy E18: Excellent banks will give customers individual attention E19: Excellent banks will have operating hours convenient to all their customers. E20: Excellent banks will have employees who give customers personal attention. E21: Excellent banks will have their customer's best interests at heart.	4.35 4.70 4.90 4.90 4.92	with your bank. P16: Employees in your bank area consistently courteous with you. P17: Employees in your bank have the knowledge to answer your questions. Average Assurance SERVQUAL score Empathy P18: Your bank gives you individual attention P19: Your bank has operating hours convenient to all its customers P20: Your bank has employees who give you personal attention. P21: Your bank has your best interest at heart.	3.20 3.00 3.8 4.07	-1.15 -1.70 -1.08 -1.1 -0.83
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent banks will be consistently courteous with customers. E17: Employees of excellent banks will have the knowledge to answer customers' questions. Empathy E18: Excellent banks will give customers individual attention E19: Excellent banks will have operating hours convenient to all their customers. E20: Excellent banks will have employees who give customers personal attention. E21: Excellent banks will have their customer's best interests at	4.90 4.90	with your bank. P16: Employees in your bank area consistently courteous with you. P17: Employees in your bank have the knowledge to answer your questions. Average Assurance SERVQUAL score Empathy P18: Your bank gives you individual attention P19: Your bank has operating hours convenient to all its customers P20: Your bank has employees who give you personal attention.	3.20 3.00 3.8 4.07	-1.15 -1.70 -1.08 -1.1 -0.83
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent banks will be consistently courteous with customers. E17: Employees of excellent banks will have the knowledge to answer customers' questions. Empathy E18: Excellent banks will give customers individual attention E19: Excellent banks will have operating hours convenient to all their customers. E20: Excellent banks will have employees who give customers personal attention. E21: Excellent banks will have their customer's best interests at heart. E22:The employees of excellent	4.35 4.70 4.90 4.90 4.92	with your bank. P16: Employees in your bank area consistently courteous with you. P17: Employees in your bank have the knowledge to answer your questions. Average Assurance SERVQUAL score Empathy P18: Your bank gives you individual attention P19: Your bank has operating hours convenient to all its customers P20: Your bank has employees who give you personal attention. P21: Your bank has your best interest at heart. P22: The employees of your bank	3.20 3.00 3.8 4.07	-1.15 -1.70 -1.08 -1.1 -0.83
E15: Customers of excellent banks will feel safe in transactions E16: Employees of excellent banks will be consistently courteous with customers. E17: Employees of excellent banks will have the knowledge to answer customers' questions. Empathy E18: Excellent banks will give customers individual attention E19: Excellent banks will have operating hours convenient to all their customers. E20: Excellent banks will have employees who give customers personal attention. E21: Excellent banks will have their customer's best interests at heart. E22:The employees of excellent banks will understand the	4.35 4.70 4.90 4.90 4.92	with your bank. P16: Employees in your bank area consistently courteous with you. P17: Employees in your bank have the knowledge to answer your questions. Average Assurance SERVQUAL score Empathy P18: Your bank gives you individual attention P19: Your bank has operating hours convenient to all its customers P20: Your bank has employees who give you personal attention. P21: Your bank has your best interest at heart. P22: The employees of your bank	3.20 3.00 3.8 4.07	-1.15 -1.70 -1.08 -1.1 -0.83

37

VII. CONCLUSION

Finally, the table 6 depicts the Average Weighted SERVQUAL scores of the private sector banks under study. In case of the private sector banks also it has been observed that the banks are in the "zone of pain". HDFC Bank is the best among the private banks and Axis Bank is the worst of the five banks under study in terms of service delivery. HDFC

Bank has to work in the empathy dimension to perform better and move to the "zone of satisfaction" and then to the "zone of delight". HSBC Bank which is just near HDFC Bank in service delivery has to work in assurance and empathy dimensions. ICICI Bank has also to work in the assurance and empathy dimensions. Federal Bank has to work in the responsiveness, assurance and the empathy dimensions. Axis Bank has to work in the dimensions of tangibility, assurance and empathy to move out of the "zone of pain" to "zone of satisfaction" and "delight".

Table 6: Average Weighted 'SERVQUAL' Scores of Private Sector Banks								
Name of		Dimen	sions of Service Q	uality		Average		
bank	Tangible	Reliability	Responsiveness	Assurance	Empathy	Weighted SERVQUAI Score		
ICICI Bank	-0.45	-0.79	-0.74	-1.00	-1.07	-16.92		
HDFC	-0.86	-0.59	-0.44	-0.99	-1.09	-15.29		
HSBC	-0.38	-0.83	-0.41	-1.00	-1.09	-15.41		
Axis Bank	-1.45	-0.93	-0.65	-1.01	-1.08	-19.27		
Federal Bank	-1.06	-0.68	-1.12	-1.08	-0.97	-18.94		

The present research has been undertaken with the help of SERVQUAL analysis and is trying to find the level of service quality in the Private Banks. Further research in this field can be carried out with the help of other tools of measuring service quality like the Kano's Model of Product quality or Fuzzy based algorithmic analysis. The research provides a new approach to understanding the contribution and the condition of the Private Sector Banks. A lot more interesting approach can be a comparative study between Public and Private Sector banks in India. Along with that a comparison of foreign banks and performance on service delivery in India and the same banks service delivery in other country can be a good piece of work.

REFERENCES

- Berry, L. L., V. Shankar, Parish, J.T., S. Cadwallader, and T. Dotzel ,"Creating new markets through service innovation", Sloan Management Review, vol. 47(2), pp 56-63, 2006.
- [2] J. J.Cronin, and S. A.Taylor, "Measuring service quality: a reexamination and extension", Journal of Marketing, vol. 56, pp 55-68, 1992.
- [3] Edvardsson et al., "Services portrait in service research: a critical review". International Journal of Service Industry Management, vol. 16(1) pp 107-121, 2005.
- [4] C. A. Grönroos, "Service Management and Marketing", Lexington Books, Lexington, MA, 2000.
- [5] C. A. Grönroos, "Service model and its marketing implications", European Journal of Marketing, vol. 18(4), pp 36-44, 1984.
- [6] Kotler & Keller, "Marketing Management", Pearson Prentice Hall. Hardcover, New Jearsy, 2006.
- [7] Lovelock, "Services Marketing", 2nd Edition. Englewood Cliffs, New Jearsy, Prentice Hall, 1991.
- [8] J. L. Heskett, and et al., "Putting the service-profit chain to work", Harvard Business Review, vol. 3(4), pp 164-74, 1994.

- [9] C. Grönroos, "The Perceived Quality Concept: a mistake?" Managing Service Quality, vol. 11(3), pp 150-152, 2001.
- [10] C. Lovelock & J. Wirtz, "Services Marketing: People, Technology, Strategy", (6th ed.), Pearson Prentice Hall, New Jersey, 2007.
- [11] Nitin S. et al., "Service Quality Models: a review", International Journal of Quality & Reliability Management, vol. 22(9), pp 913-949, 2005.
- [12] Mano and Oliver's, "Assessing the dimensionality and structure of the consumption experience: evaluation, feeling, and satisfaction", Journal of Consumer Research, December, vol. 20 pp 451-66, 1993.
- [13] K. Newman, and A. Cowling, "Service quality in retail banking: the experience of two British clearing banks," International Journal of Bank Marketing, vol. 14(6), pp 3-11, 1996.
- [14] Parasuraman et al., "A Conceptual Model of Service Quality and its implications for future research", Journal of Marketing, vol. 49, pp 41-50, 1985.
- [15] Regan, "Development and Emergence of Service Marketing Thought", International Journal of Service Industry Management, vol. 5(1), pp 21-48, 1963.
- [16] P. Asubonteng, K. J. McCleary, and J. E.Swan, "SERVQUAL revisited: a critical review of service quality", Journal of Services Marketing, vol. 10(6), pp 62-81, 1996.
- [17] Parasuraman, A. et al., "SERVQUAL: a multiple item scale for measuring customer perceptions of service quality", Journal of Retailing, vol. 64, pp 12-40, 1988.
- [18] S. L. Vargo, and R. F. Lusch, "The four service marketing myths – remnants of a goods-based, manufacturing model", Journal of Service Research, vol. 6(4), pp 324-35, 2004.
- [19] Pepper et al., "Is your Company Ready for One-to-One Marketing?" Harvard Business Review, vol. 77(1), pp 151-156, 1999.
- [20] A. Wong, "The role of emotions in service encounters", Managing Service Quality, vol. 14(5), pp 365-76, 2004.
- [21] Asif Perwej, "Analytical Study for Seeking Relation Between Customer Relationship Management and Enterprise Resource Planning" for published in the International Journal of Arts Commerce & Management (IJACM), India, vol.10, No. 01, pp: 6-8, June 2011.
- [22] Zeithaml and Bitner, "Services Marketing: Integrating Customer Focus across the Firm", (3rd ed.), McGraw-Hill, New York, 2005.
- [23] Rosen, L.D. Karwan, K.R. Scribner, L.L., "Service quality measurement and the disconfirmation model: taking care in interpretation", Total Quality Management, vol. 14(1), pp 3-14, 2003.



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