A STUDY ON THE EFFECTS OF E- BANKING SERVICE FACTORS ON CUSTOMER SATISFACTION

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ABSTRACT

The primary goal of this research paper is to investigate factors that may influence customer satisfaction in E-banking services, as well as to evaluate major factors such as service quality, customer loyalty, customer perceived value, and CRM as they relate to customer satisfaction in E-banking services. Furthermore, the study seeks to comprehend the relationship between recognised criteria and consumer happiness. To quantify customer satisfaction, a structured questionnaire was employed with a sample size of 351 respondents and tested using descriptive statistics, percentages, ANOVAs, correlations, and multiple regressions. A questionnaire based on a likert scale was created to perform a consumer survey. Data was collected and analysed using the principal component method in SPSS 203.0. The findings of the correlation research revealed that there is a substantial association between CRM and Customer Value, as well as between Customer Loyalty and Customer Satisfaction, and that Customer loyalty and service quality components of E-banking Services have a greater favourable rating towards Customer Satisfaction.

KEYWORDS: *Customer satisfaction, Customer loyalty, service quality, customer perceived value, CRM,*

1. INTRODUCTION

The development of an information and communications revolution in the financial and banking sectors produced a shift in the goals and strategies of banks some decades ago. In recent years, this change has continued. The introduction of new forms of information technology (IT)-based services has prompted banks to provide "electronic banking services," often known as e-banking, in addition to traditional banking services. There are new concepts and ways for providing services to customers based on information technology, such as assessing consumer pleasure and profitability. The banking services provided via the Internet are varied, and include: a) the dissemination of information about the various services and products offered by banks to the general public and their customers in particular; b) the ability to receive customer inquiries and respond to them via e-mail, as well as the provision of simple transactions allowing customers to submit their instructions and applications for various services; c) the provision of sit-down banking services. The advent of electronic banking has had a considerable impact on customers' use of bank services. Electronic services have emerged as the major pillar for Saudi banks due to their ability to boost speed, performance, and efficiency. Online banking has been extensively used in the Kingdom of Saudi Arabia as a value-added service to improve customer

happiness while cutting operational expenses. Banks aimed to reduce operational costs by delivering electronic services while also getting access to the largest possible number of customers, both regionally and over a longer length of time. Banks have also pushed for broader integration with internet shopping platforms. Electronic services provide greater accuracy and reliability in financial service provision, resulting in increased effectiveness and efficiency in the banking organisation overall, due to the low frequency of human error connected with them. Despite the fact that the benefits of contemporary technology linked to information systems are generally recognised in many sectors, there are few scientifically confirmed studies that quantify the advantages of current technology related to information systems (administrative, financial, and industrial). As a result, the goal of this research is to see whether clients in the Saudi banking sector are content with e-banking services, to look into the reliability and privacy of banking service providers, and to look into the methods of monitoring and control over these services.

2. REVIEW OF LITERATURE

There is a wealth of material available on assessing service quality and customer satisfaction in both online and offline businesses. It goes on to say that there is a significant link between service quality,

brand perception, and perceived value, and customer satisfaction and loyalty.

2.1. Customer satisfaction and service quality:
Several studies have looked at the link between expectation, perceived service quality, and consumer happiness (Zeithaml, et al, 1988). They discovered a very substantial association between service quality and client pleasure (Parasuraman et al, 1985; 1988;). Increased bank service quality may gratify and foster attitudinal loyalty, eventually retaining valued consumers (Nadiri, et al 2009). Increased customer satisfaction stems from a better degree of perceived service quality. Customers will be unsatisfied if perceived service quality is lower than intended service quality (Jain and Gupta, 2004). According to Cronin and Taylor (1992), contentment is subordinate to quality—quality is one of the service factors considered in customer satisfaction evaluation.

2.2 Customer Satisfaction:
Client happiness is cited as one of the most essential factors in developing customer loyalty, particularly in the banking industry, as addressed in [Ribbink, Van Riel, Liljander, and Streukens (2004), Leverin and Liljander (2006), and Methlie and Nysveen (1999)]. Customer satisfaction is described as "an overall assessment based on the whole purchase and consuming experience centred on perceived product or service performance compared with pre-buy expectations throughout time" [Sharma, N. and Patterson, (2000) and Beerli, Martin, and Quintana, (2004).

2.3 CRM:
According to Girdhar (2009), banks can maintain and satisfy their external clients by pleasing their internal customers and creating strong relationships with them. According to Kumar and Rajesh (2009), every bank that aspires to expand its banking operations or increase its profitability must evaluate the problems influencing its client relationships. Banks must not only gather up-to-date information for each client, but also utilise that information to decide the ideal moment to provide the most relevant goods (Lau et al., 2003). It is also critical to recognise that if clients generate profits for the bank, it becomes critical for the bank to give outstanding services to those customers, or else they will move to other banks (Ray, 2007). In banking, service quality entails anticipating and meeting clients' requirements and expectations on a constant basis. According to Parasuraman et al. (1985), good quality service lends credibility to the field sales force and advertising, encourages positive word-of-mouth communications, improves consumers' sense of value, and raises staff and customer morale and loyalty. According to Puccinelli (1999), the financial services sector is entering a new age in which personal attention is diminishing as institutions deploy technology to replace human touch in various

application areas. Over the previous several decades, technological advancement has had a significant impact on the banking business (Sherif, 2002). In today's competitive banking business, clients must choose between multiple service providers by balancing connections and economies, trust and goods, or service and efficiency (Sachdev et al., 2004). Roger Hallowell (1996) did a study on customer happiness, loyalty, and profitability and discovered that private sector bank customers are more satisfied than public sector bank customers.

2.4 Customer perceived value:
Customers preferred online banking because it was more convenient. According to Gupta, Rao, and Upadhyaya, Shariq, online banking serves as a delivery route. Deng, Lu, Wei, and Zhang describe switching cost as the customer's effort to move from one service provider to another service provider, which may include monetary costs as well as psychological viewpoints or in the form of time or effort required to utilise the new product or services. Oliver tells a storey about perceived value in which the ratio of result to input is equal to the ratio of customer happiness and its perceived outcome to what he input during the transaction.

3. OBJECTIVES
The study's goals are to accomplish the following:
- To investigate the impact of E-Banking services on demographic characteristics.
- To investigate the elements that determines customer satisfaction with E-Banking services.
- To assess the E-banking service in terms of client satisfaction.

4. TESTING HYPOTHESIS
The following are the hypotheses developed with the aforementioned goal in mind.
- *HO1:* There is no significant association between E-Banking services and demographical characteristics.
- *HO2:* E-Banking factors have no significant influence on customer satisfaction.

5. RESEARCH DESIGN
The research is focused with consumer satisfaction with banks' E-banking services, and it is based on both primary and secondary data; the primary data were acquired directly from the sample customers in Hyderabad city using a well-designed questionnaire. Secondary data were gathered from books, journals, research papers, and periodicals in order to conduct a literature study.

6. SAMPLING METHOD
Convenience The research used the sampling approach. The number of bank clients in the sample is 31. The data was examined using the percentage

technique, ANOVAs, correlation, and multiple regression approaches. Tables were used to display data. SPSS 20.0 Version is used for data processing, categorization, tabulation, analysis, and interpretation.

7. DISCUSSIONS
The following table shows the frequency distribution of demographic factors.

Table-1: Demographical Analysis

Particulars	Classification	No of Responses	Percentage
Age	20-25	73	20.8
	26-30	99	28.2
	31-35	97	27.6
	36-40	61	17.4
	41 and above	21	6.0
Gender	Male	238	67.8
	Female	113	32.2
Education	SSC	30	8.5
	Intermediate	45	12.8
	Degree	103	29.3
	Pg degree	116	33.0
	PhD and above	57	16.2
Occupation	Student	109	31.1
	Govt Employee	129	36.8
	Private Employee	45	12.8
	Business	34	9.7
	Self Employed	34	9.7
Monthly income (in rupees)	Below 20,000	33	9.4
	20,001-30,000	53	15.1
	30.001 - 40,000	142	40.5
	40,001-50,000	86	24.5
	50,001 and above	37	10.5
Total		*n = 351*	*100*

ANOVA: The analysis of variance (ANOVA) method is used to see whether there are any statistically significant differences in the means of two or more independent (unrelated) groups. ANOVA is used to determine if there is a significant difference in respondents' opinions on E-banking services. The table explains what was considered for the research.

- **HO1:** There is no significant association between E-Banking services and demographical characteristics.

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
age in years	Between Groups	21.040	3	7.013	5.319	.001
	Within Groups	457.512	347	1.318		
	Total	478.553	350			
Gender	Between Groups	.199	3	.066	.301	.025
	Within Groups	76.422	347	.220		
	Total	76.621	350			
education	Between Groups	7.824	3	2.608	1.982	.016
	Within Groups	456.660	347	1.316		
	Total	464.484	350			
Occupation	Between Groups	19.913	3	6.638	4.233	.006
	Within Groups	544.075	347	1.568		
	Total	563.989	350			
Income level (rupees)	Between Groups	36.539	3	12.180	11.191	.000
	Within Groups	377.671	347	1.088		
	Total	414.211	350			

To determine if there is a substantial difference in respondents' attitudes on e-banking services based on demographics such as age, gender, education, occupation, and income in rupees.

The above table shows that the sum of the squares of the difference between means of different respondents' ages and bank e-banking service, and the between groups variation 21.040 is due to interaction in samples between groups; if sample means are close to each other; and the within variation 457.512 is due to difference within individual samples. The F statistic 5.319 is also shown in the table, which is determined by dividing the Between Groups Mean Square by the Within Groups Mean Square. Because the significance level of 0.000 is less than 0.05, the null hypothesis may be rejected. As a result, age has an impact on the e-banking service. And then there are demographics like Gender, Education, Occupation, and Income

Status; the differences across groups are .199, 7.824, 19.913, whereas 36.539, and the differences within groups are 76.422, 456.660, 544.075, and 377.671. F-statistic scores are .301, 1.982, 4.233, and 11.191, with significant levels of 0.025, 0.016, 0.06, and 0.000, all of which are less than 0.05. As a result, the null hypothesis may be rejected; hence, the E-banking service influences all demographic factors.

- **HO2: E-Banking factors have no significant influence on customer satisfaction.**

ANOVA is used to determine if there is a significant difference between E-banking services and Customer Satisfaction. The table explains what was considered for the research.

Table-3: ANOVA		Sum of Squares	df	Mean Square	F	Sig.
Customer loyalty	Between Groups	8.810	4	2.203	1.622	.001
	Within Groups	469.743	346	1.358		
	Total	478.553	350			
Service quality	Between Groups	.734	4	.183	1.837	.001
	Within Groups	75.887	346	.219		
	Total	76.621	350			
Customer perceived value	Between Groups	1.061	4	.265	.198	.000
	Within Groups	463.423	346	1.339		
	Total	464.484	350			
CRM	Between Groups	9.841	4	2.460	1.536	.001
	Within Groups	554.147	346	1.602		
	Total	**563.989**	**350**			

To determine if there is a substantial difference in E-banking service and Customer satisfaction, i.e. Customer loyalty, Service quality, Customer perceived value, and CRM. According to the above data, the sum of the squares of the difference between means of various respondents Customer loyalty and Customer satisfaction, and the between groups variation 8.810 are related to sample interaction between groups. If the sample means are near to one another. Within variation 469.743 is caused by differences between individual samples. The F statistic 1.622 is also shown in the table, which is produced by dividing the Between Groups Mean Square by the Within Groups Mean Square. Because the significance threshold of 0.001 is less than 0.05, the null hypothesis may be rejected. So there is a statistical difference between customer loyalty and customer satisfaction. Following that are E-banking aspects such as Service quality, Customer perceived value, and CRM, with between group variances of 3.099, 1.061, and 9.841, and within group variations of 75.887, 463.423, and 554.147. The F-statistic

values are 1.837,.198, and 1.536, respectively. The significant levels are 0.01, 0.00, and 0.01, all of which are less than 0.05. As a result, the null hypothesis may be rejected. As a result, all of the E-banking service aspects vary greatly in terms of client satisfaction.

CORRELATION: Correlation is a mathematical term that describes the linear connection between two continuous variables. Correlation is often utilised when there is no specified response variable. It assesses the quality and direction of a linear connection between two or more variables.
The Pearson correlation approach was used in the research to get a better understanding of the correlations between all of the Customer satisfaction and E-banking dimensions constructs. The correlation coefficients' numerical values represent the degree of link between each of the Customer satisfaction aspects components.

Table-4: Correlation Results

Variables	1	2	3	4	5	6
1. E-banking	1					
2. Customer loyalty	.416**	1				
3. Service quality	.375*	.432*	1			
4. Customer perceived value	.421**	.422**	.304**	1		
5. CRM	.361**	.324**	.314*	.245**	1	
6. Customer satisfaction	.465**	.423**	.491**	.343*	.423**	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Correlation results from the table below show that there is a strong correlation between Service quality (r =.491**), Customer perceived value (r =.343**), E-banking (r =.465**), and Customer loyalty (r = 0.416) at the 1 and 5% significance levels, as well as between Customer Loyalty and Customer satisfaction.
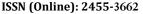
8. CONCLUSION

The research's main focus was to investigate consumer satisfaction with E-banking services in Hyderabad city banks. There are three key objectives, and data is gathered through a questionnaire. Percentages, ANOVAs, correlation, and multiple regression were used to analyse the data. The descriptive analysis of all demographical factors is provided in the above Table, which includes more than 28 percent of respondents aged 26-30 years and 27 percent of respondents aged 31-35 years. Following that, 67.8 percent of respondents were male and 32.2 percent were female, and 33 percent of respondents studied PG Graduation and with followed 29 percent of respondents studied degree, 36.8 percent of respondents worked as a govt Employees, 31 percent are students, and 40 percent

of respondents earned Rs.40, 001-50,000 for month and 24 percent of respondents earned more than Rs. 40,001-50,000 respectively. ANOVA findings show a substantial relationship between E-Banking services and demographical features (H01), and E-Banking factors have a significant impact on customer satisfaction (HO2). Association findings revealed a substantial correlation between Service quality (r =.491**), Customer perceived value (r =.343**), E-banking (r =.465**), and Customer loyalty (r = 0.416) at the 1 and 5 percent significance levels, as well as between Customer Loyalty and Customer satisfaction. It was found that increased Customer loyalty and service quality characteristics of E-Banking services would result in a higher positive appraisal of Customer satisfaction.

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