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# Customer Satisfaction on Services of Lakshmi Vilas Bank and Nationalized Banks in Tiruchengode: A Comparative Study

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## ABSTRACT

*The main aim of the study was to examine the level of satisfaction of customers on various banking services offered by Lakshmi Vilas Bank and other nationalized banks in Tiruchengode taluk and make comparison between the banks. Data was gathered among 300 respondents in Tiruchengode taluk through a well-structured questionnaire and the authors attempted to develop a model for measuring the contributory level of various factors to customer satisfaction and tested for validity through Structural equation modeling. The study revealed that the primary factors leading to customer satisfaction are Personal attention, Safety, Technical, Staff service through Comfort factor. It is concluded through this study that the overall satisfaction level on various banking services of LVB is better than other nationalized banks in Tiruchengode taluk.*

*Key words:* Banking Services, Customer Satisfaction, Structural equation modeling

## 1. Introduction

Customer satisfaction is the key to long term success of any organization. Keeping the importance of customer satisfaction in mind, banks need to maintain stable and close relationships with their customers. Customer satisfaction levels need to be judged. The application of the knowledge of customer satisfaction is imperative to establishing and maintaining a long-term relationship with customers and long-term competitiveness. Banking is a high involvement industry. Banks

recognize the fact that delivery of quality service to customers is essential for success and survival in today's global and competitive banking environment. Researchers have found that customer satisfaction has a measurable impact on purchase intentions and on a firm's financial performance.

Customers' wants, needs, and expectations change quickly. Therefore, what would have delighted and surprised them a short while back might not satisfy

them at present. Banks may not be able to provide superior services to the customers unless customer expectations are known. Customer expectations can be known through the knowledge of satisfaction levels of customers. This necessitates the measurement of customer satisfaction level. Customer satisfaction cannot be measured unless the factors affecting customer satisfaction are determined. This necessitates an in-depth study about the factors affecting customer satisfaction.

### **Banks selected for Comparative Study**

This study is mainly focuses on customer satisfaction in Lakshmi Vilas Bank (LVB) and Other Nationalized Banks (ONB) like Indian Bank, Indian Overseas Bank, State Bank of India, etc.

## **2. Literature Review**

Ganguli and Roy (2011) studied the factors affecting customer satisfaction in the Indian retail banking sector. Online structured questionnaire developed to determine the factors for customer satisfaction was distributed among the respondents. The dimensions were identified using an exploratory factor analysis (EFA). Next the reliability and validity of the factors for customer satisfaction were established through confirmatory factor analysis (CFA). The paper identifies four generic dimensions in the technology based banking services, customer service, technology security and information quality, technology

convenience, and technology usage easiness and reliability. It was found that customer service and technology usage easiness and reliability have positive and significant impact on customer satisfaction.

Al-Eisa and Alhemoud (2009) attempted to identify the most salient attributes that influence customer satisfaction with retail banks in Kuwait and to determine the level of the overall satisfaction of the customers of these banks. A multiple attribute approach proposed by Shin and Elliott (2001) was employed. This approach was applied in the analysis of data collected from a convenient sample of retail banks in Kuwait. The most crucial collected from a convenient sample of customer satisfaction with retail banks in Kuwait were fast service, courtesy and helpfulness of employees and availability of self-banking services.

The predictors of customer satisfaction in the German retail banking sector were studied by Kanning and Bergmann (2009). Field study method was applied to find the factors affecting customer satisfaction. The major factors identified were performance of banks and fulfillment of customer expectations.

The factors affecting customer satisfaction in the Malaysian retail banking sector was conducted by Ndubisi and Wah (2005). A field survey of bank customers in Malaysia was conducted using a structured questionnaire. The data were factor analyzed to determine the key

dimensions of customer satisfaction. The results showed that five key dimensions, namely competence, communication, conflict handling, trust, and relationship quality, were the major determinants of customer satisfaction.

### 3.1 Research Design, Sample Size and Data Collection

The research design used for this study is descriptive research. The main purpose of descriptive research is description of the state of affairs as it exists at present. The aim of this approach is to portray the customer's satisfaction towards various banking services. Sampling is the act of selecting a representative part of a population for the purpose of determining the characteristics of the whole population. Simple size refers to the number of items to be selected from the universe to constitute a sample. Sample size for this study is 300 customers, comprising of 129 from LVB and 171 from ONB.

Primary data collected through conducting Personal interview by framing questionnaires. A well structured questionnaire was prepared and distributed to the respondents and information was gathered during April, 2014. The questionnaire consists of a number of questions printed in a defined order on a form or a set of forms.

### 3.2 Tools for the Study

Percentage Analysis, Mann-Whitney U Test, Factor Analysis

Structural Equation Modelling

## 4. Data Analysis and Interpretation

4.1 The data gathered from 300 respondents in Tiruchengode taluk through a structured questionnaire was entered into SPSS software and further analyzed to arrive at meaningful conclusions. The results of the data analysis and their interpretations are described in this session.

**Table 4.1.** Demographic details of customers

Demographic factor	Level	LVB (No.)	ONB (No.)	LVB (%)	ONB (%)
Gender	Male	91	89	71	69
	Female	38	82	29	64
Age (years)	Upto 35	82	108	64	63
	Above 35	47	63	36	37
Education	Upto H.Sc.	27	41	21	24
	UG	54	98	42	57
	PG	41	25	32	15
	Professional	7	7	5	4
Occupation	Private	41	40	32	23
	Corporative	28	41	22	24
	Business	48	51	37	30
	Professional	5	8	4	5
	Student	7	31	5	18

It can be seen from the above table that a considerable difference in the proportion of female customers and rural customers – more in ONB than in LVB.

#### 4.2 Level of Satisfaction – A Comparative Analysis

The respondents were asked to rate their level of satisfaction on various attributes leading to satisfaction on a 7-point liker scale, 1 being the lowest level and 7 being the highest level of satisfaction. The mean level of satisfaction of customers on various parameters of study through 26 variables along with test results of Mann-Whitney U Test for difference in two banks is tabulated in Table 4.2.1. It can be also visually seen from the above table that the mean level of satisfaction of all the variables for the bank LVB are higher than Other

banks. Hence it can be easily inferred that the services of LVB is better than other banks in Tiruchengode taluk. The non-parametric test Mann-Whitney U Test was used to test the differences in mean level of satisfaction of two banks in different variables are statistically significant and the result are shown in Table 4.2 (only variables with significant difference is shown).

The null hypothesis is taken as there is no significant difference in the mean level of satisfaction of respondents on various variables with respect to LVB and other nationalized banks against the alternative there is a significant difference in the mean level of satisfaction of respondents on various variables with respect to LVB and other nationalized banks.

**Table 4.2:** Mann Whitney U Test Results : Level of Satisfaction vs. Bank

VARIABLES	Name of Banks		Mann-Whitney U	Z	Asymp. Sig. (2-tailed)
	LVB	ONB			
	Mean	Mean			
Banks fulfils its promises at the time indicated	5.47	4.20	5294.5	-7.943	0.000
Bank staffs have the knowledge to answer all my questions.	6.00	4.66	6297.5	-6.538	0.000
Distance to the office (premises) of the bank.	5.39	3.96	5894	-7.005	0.000
Materials like pamphlets, statements are virtually appealing at the bank.	5.48	4.91	8113	-4.090	0.000
Bank performs the services exactly at the first time.	5.67	4.86	7096	-5.485	0.000
Banks has my interest at heart.	5.68	5.22	8858.5	-3.058	0.002
Bank gives me individual attention.	5.70	4.86	6993	-5.62	0.000
Bank has modern equipment & tools.	5.36	4.6	8475.5	-3.499	0.000
Bank staffs give me prompt service.	5.76	5.08	7951	-4.339	0.000
Bank operating hours convenient to me.	5.87	5.12	7721	-4.631	0.000
Bank show a keen interest in solving your problems.	5.82	5.24	8069.5	-4.126	0.000

Bank staff behavior instills confidence in me.	5.95	5.3	7567.5	-4.888	0.000
Bank physical facilities virtually nice.	6.59	5.88	6700	-6.331	0.000
I feel safe in my transactions with the bank.	6.16	5.43	7432.5	-5.055	0.000
Bank staffs are courteous with me.	5.78	5.26	7924.5	-4.355	0.000
Banker staff tells you exactly the time the service will be performed.	5.91	5.12	7445	-4.997	0.000
Bank employees are neatly appealing.	5.82	5.46	8866	-3.045	0.002
Bank staff always willing to assist you.	5.84	5.35	8416.5	-3.68	0.000
Bank insists on error free records.	6.09	5.61	7935	-4.373	0.000
Bank staff understands my specific needs.	5.95	5.41	8314	-3.807	0.000
Bank staffs are not too busy to respond to my request.	5.67	4.85	8145.5	-4.008	0.000
Bank offers online trading facility.	6.23	5.75	1957.5	-3.181	0.001
Overall satisfaction with your bank	6.35	5.92	8484.5	-3.669	0.000

### 4.3 Factor Analysis

Factor analysis was used to reduce the number of variables contributing to customer satisfaction; the study included as many as 26 variables and in order to reduce the number of variables and to find the main underlying constructs of

customer satisfaction, factor analysis was carried out and the results of factor analysis are presented in Tables 4.3. The following table represents the rotated component matrix using 0.3 as a cut-off point for factor loading for naming the factors. In this way we get five factors.

**Table 4.3 : Rotated Component Matrix<sup>a</sup>**

Factor	Variables	Component (Factor Loadings)				
		1	2	3	4	5
<b>Personal</b>	Bank gives me individual attention.	.766				
	Bank show a keen interest in solving your problems.	.714	.384			
	Banks has my interest at heart.	.707				
	Bank insists on error free records.	.684				
	Bank staffs are courteous with me.	.658				
<b>Technical</b>	Bank staff have the knowledge to answer all my questions.		.883			
	Distance to the office (premises) of the bank.		.765			
	Banks fulfils its promises at the time indicated		.744			
	Materials like pamphlets, statements are virtually appealing at the bank.		.701			
<b>Comfort</b>	Bank staff always willing to assist you.			.714		
	Bank operating hours convenient to me.			.677		

<b>Safety</b>	Bank has modern equipment & tools.				.689	
	Bank offers safe and secured e-banking services.				.684	
	Bank offers safe bill payments.				.642	.434
<b>Staff service</b>	Bank staffs are not too busy to respond to my request.					.837
	Banker staff tells you exactly the time the service will be performed.			.504		.598

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 9 iterations.

Factor 1 will comprise of variables Bank gives me individual attention, Bank show a keen interest in solving your problems, Banks has my interest at heart, Bank insists on error free records, and Bank staffs are courteous with me. This factor is named as **‘Personal’**. Factor 2 comprises the variables Bank staff have the knowledge to answer all my questions, Distance to the office (premises) of the bank, Banks fulfils its promises at the time indicated, Materials like pamphlets, statements are virtually appealing at the bank. This factor is named as **‘Technical’**. Factor 3 comprises of the variables Bank staff always willing to assist you, Bank operating hours convenient to me. This factor is named as **‘Comfort’**. Factor 4 comprises of the variables Bank has modern equipment & tools, Bank offers safe and secured e-banking services, and Bank offers safe bill payments. This factor is named as **‘Safety’**. Factor 5 comprises of the variables Bank staffs are not too busy to respond to my request, and Banker staff tells you exactly the time the service will be performed. This factor is named as **‘Staff service’**.

#### 4.4 Structural Equation Modelling

The characteristics of customer satisfaction of the banks have been studied using the five factors, viz. Personal factors, Technical factors, Comfort factors, Safety factors, and Staff service factors, as depicted in the model depicted below.

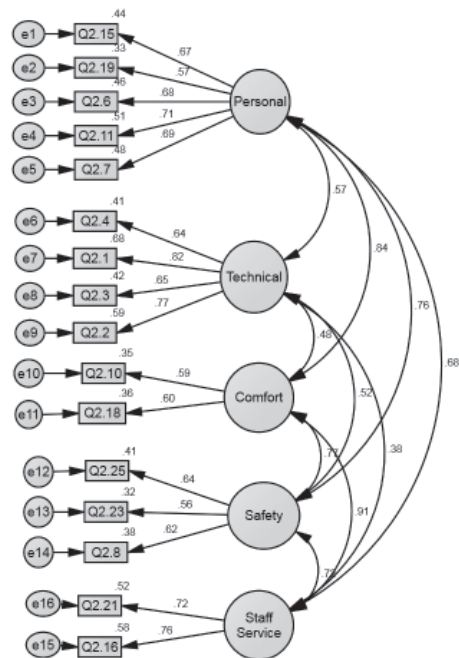


Figure 4.1 : First Order Measurement Model

### 4.4.1 MEASUREMENT MODEL OF CUSTOMER SATISFACTION (CS)

The above six factors are validated and accepted in Independent Measurement Model by performing First Order Measurement Model Confirmatory Factor Analysis. It helps to study the model very closely. In the above table all the factor loadings are above the recommended value it shows the factors having individual reliability.

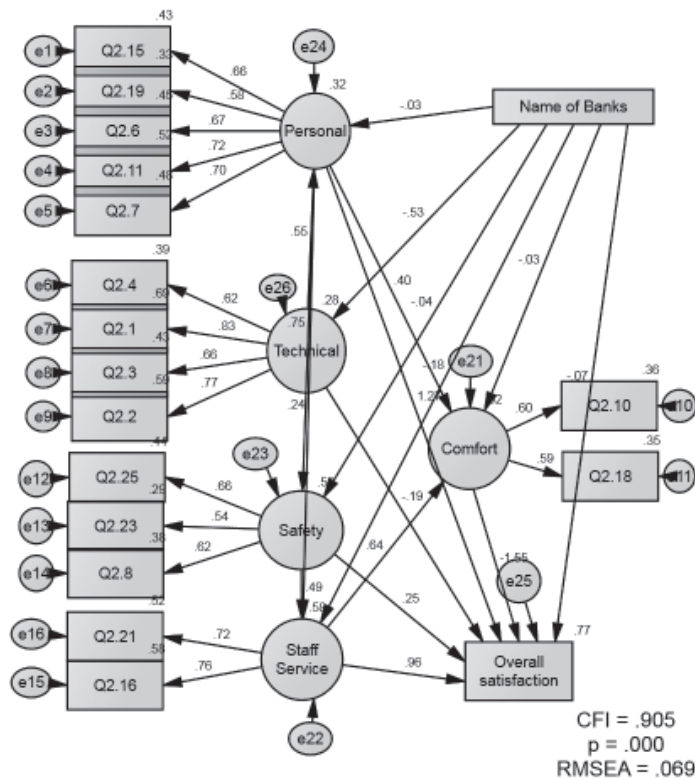
**Table 4.4 : Results of the confirmatory factor analysis – Model fit**

Chi-square	df	p	CMIN/df	CFI	RMSEA
242.25	94	.000	2.577	.903	.073

These results reveal that all the prerequisites for the acceptance of the First Order Measurement model are nearly met. After establishing the individual item reliability of the model, the validity of the model is tested and found to be satisfying the conditions (results not produced due to lengthy tables).

### 4.4.3 STRUCTURAL MODEL

A structural model was developed and tested for its validity explaining customer satisfaction through the measured factors tested in the previous section. The structural model is depicted in the following figure.4.2



**Figure 4.2 : Structural Model**

The results of the validity confirmatory factor analysis is tabulated below.

**Table 4.4.3.1** : Results of the confirmatory factor analysis – Model fit

Chi-square	df	p	CMIN/df	CFI	RMSEA
293.150	120	.000	2.443	.905	.069

These results reveal that all the pre-requisites for the acceptance of the model are nearly met. The following table gives the unstandardized and standardized estimates of various regression models and their significance involved in the structural model.

**Table 4.5** Estimates of independent factors in the model

Relationships	Estimate	S.E.	Standardized estimate	C.R.	P	R <sup>2</sup>	Significance
<b>Technical</b> <--- Bank	-0.785	0.102	-0.528	-7.729	***	0.279	Significant
<b>Personal</b> <--- Bank	-0.054	0.118	-0.032	-0.461	0.645	0.324	NS
<--- Technical	0.624	0.105	0.551	5.915	***		Significant
<b>Safety</b> <--- Personal	0.693	0.111	0.755	6.268	***	0.589	Significant
<--- Bank	-0.059	0.114	-0.038	-0.513	0.608		NS
<b>Staff Service</b> <--- Personal	0.309	0.213	0.238	1.448	0.148	0.578	NS
<--- Safety	0.689	0.27	0.487	2.552	0.011		Significant
<--- Bank	-0.386	0.141	-0.177	-2.744	0.006		Significant
<b>Comfort</b> <--- Personal	0.385	0.117	0.396	3.286	0.001	0.92	Significant
<--- Staff Service	0.476	0.104	0.636	4.575	***		Significant
<--- Bank	-0.046	0.116	-0.028	-0.396	0.692		NS
<b>Satisfaction</b> <--- Comfort	-2.039	3.161	-1.553	-0.645	0.519	0.766	NS
<--- Staff Service	0.947	1.559	0.964	0.608	0.544		NS
<--- Safety	0.343	0.221	0.246	1.552	0.121		NS
<--- Technical	-0.281	0.107	-0.195	-2.636	0.008		Significant
<--- Personal	1.619	1.242	1.269	1.304	0.192		NS
<--- Bank	-0.16	0.284	-0.075	-0.564	0.573		NS

S.E. : Standard error; C.R : Critical Ratio; P : Probability value; R<sup>2</sup> : R-squared; NS: Not significant  
Significant relationships are identified at 5% level of significance.

It can be seen from the above table that some of the relationships are significant. *i.e.*, relationships between Name of Bank and Technical / Staff Service factors have negative coefficients; relationships between Technical and personal factors, Safety and Staff Service have positive coefficients; relationship between Technical factor and Satisfaction has a negative coefficient. The negative coefficients imply that the concerned factors are inversely related to one another. It can also be observed from the

above table that the factor ‘Comfort’ has been well explained by the factors Personal and Staff service, as 92% of variation in comfort is explained by these two factors. Hence the structural model was developed with ‘comfort’ as mediating factor and overall satisfaction as the end variable. The end variable customer satisfaction measured through a straight question ‘overall satisfaction’ shows that around 77% of its variation is explained by the model, with only one significant contributory factor ‘Technical’ with



negative coefficient. However, the direct and indirect effects of different factors involved in explaining customer satisfaction

were further analyzed to arrive at an in depth conclusion.

**Table 4.6 :** Standardized effects of contributing factors

Standardized Total Effects (Group number 1 - Default model)						
	Bank	Technical	Personal	Safety	Staff Service	Comfort
Technical	-0.528	0	0	0	0	0
Personal	-0.323	0.551	0	0	0	0
Safety	-0.282	0.416	0.755	0	0	0
Staff Service	-0.391	0.334	0.605	0.487	0	0
Comfort	-0.405	0.431	0.781	0.31	0.636	0
<b>Satisfaction</b>	-0.200	0.261	0.826	0.235	-0.024	-1.553
Standardized Direct Effects (Group number 1 - Default model)						
	Bank	Technical	Personal	Safety	Staff Service	Comfort
Technical	-0.528	0	0	0	0	0
Personal	-0.032	0.551	0	0	0	0
Safety	-0.038	0	0.755	0	0	0
Staff Service	-0.177	0	0.238	0.487	0	0
Comfort	-0.028	0	0.396	0	0.636	0
<b>Satisfaction</b>	-0.075	-0.195	1.269	0.246	0.964	-1.553
Standardized Indirect Effects (Group number 1 - Default model)						
	Bank	Technical	Personal	Safety	Staff Service	Comfort
Technical	0	0	0	0	0	0
Personal	-0.291	0	0	0	0	0
Safety	-0.244	0.416	0	0	0	0
Staff Service	-0.214	0.334	0.367	0	0	0
Comfort	-0.377	0.431	0.385	0.310	0	0
<b>Satisfaction</b>	-0.125	0.455	-0.443	-0.011	-0.988	0

It can be seen from the above table that the factor Bank has negative total effect on almost all the factors. Lakshmi Vilas Bank, being coded as '1' in the data preparation, implies that the services of LVB are better than SBI in all the contributing factors of satisfaction. The

negative coefficient in the total effect - 0.528 means that LVB is well ahead of SBI in technical factor (*Pamphlets/ statements are virtually appealing, Banks fulfils its promises at the time indicated, Distance to the office (premises) of the bank, Bank staffs have*

the knowledge to answer). This is achieved by LVB despite the fact that SBI has more number of branches SBI in the district than LVB. The model for overall satisfaction explained by the contributory factors can be expressed by the regression model Satisfaction = -0.200 + 0.262 (Technical) + 0.826 (Personal) + 0.235 (Safety) – 0.02 (Staff Service) – 1.553 (Comfort). From this equation it can be inferred that the factors Staff service and comfort have an inverse relationship with the explained variable Satisfaction. The variable Technical has a positive indirect effect, the variable Personal has a positive direct effect, but however it has little bit of indirect effect also; the variable Safety has a positive direct effect and the variable Staff Service has a positive direct effect. But the factor comfort has a strong indirect

effect on satisfaction. Hence it is suggested that the banks have to pay more attention to the customers to make them more comfortable by way of offering flexible service timings and assisting customers to meet their requirements. Also it can be seen from the table that there is positive direct path between Staff service and Comfort (.636), meaning if the Staff service is good, the customers will feel comfortable. Further, there is positive direct path between safety and personal (.755) implying that if the customers are given personal care, they feel they are secured.

The various hypotheses set in the model are tested for their validity and the result is reproduced in the following table 4.4.3.4:

**Table 4.7:** Hypothesis testing of factors in the model

Factors		Hypothesis	P	R <sup>2</sup>	Inference
<b>Technical</b>	<--- Bank	The factor Bank does not have any impact on the 'Technical' factor	<.001	0.279	Rejected
<b>Personal</b>	<--- Bank	Bank does not have any impact on 'Personal'	0.645	0.324	Not rejected
	<--- Technical	Technical does not have any impact on 'Personal'	<.001		Rejected
<b>Safety</b>	<--- Personal	Personal does not have any impact on 'Safety'	<.001	0.589	Rejected
	<--- Bank	Bank does not have any impact on 'Safety'	0.608		Not rejected
<b>Staff Service</b>	<--- Personal	Personal does not have any impact on 'staff service'	0.148	0.578	Not rejected
	<--- Safety	Safety does not have any impact on 'staff service'	0.011		Rejected
	<--- Bank	Bank does not have any impact on 'staff service'	0.006		Rejected
<b>Comfort</b>	<--- Personal	Personal does not have any impact on 'comfort'	0.001	0.92	Rejected
	<--- Staff Service	Staff service does not have any impact on 'comfort'	<.001		Rejected
	<--- Bank	Bank does not have any impact on 'comfort'	0.692		Not rejected
<b>Satisfaction</b>	<--- Comfort	Comfort does not have any impact on 'satisfaction'	0.519	0.766	Not rejected
	<--- Staff Service	Staff service does not have any impact on 'satisfaction'	0.544		Not rejected
	<--- Safety	Safety does not have any impact on 'satisfaction'	0.121		Not rejected
	<--- Technical	Technical does not have any impact on 'satisfaction'	0.008		Rejected
	<--- Personal	Personal does not have any impact on 'satisfaction'	0.192		Not rejected
	<--- Bank	Bank does not have any impact on 'satisfaction'	0.573		Not rejected

It can be seen from the above table that bank has an impact on the factors Technical and Staff service. The factor 'Technical' has significant contribution to the factor 'Personal' and overall satisfaction. The factor 'personal' has a significant influence on the factors 'Safety' and 'Comfort'. The factor 'safety' is significantly influencing 'staff service'.

### **Conclusion**

The main aim of the study was to examine the level of satisfaction of customers on various banking services offered by Lakshmi Vilas Bank and other nationalized banks in Tiruchengode taluk. The sample customers across three different resident areas, viz. rural, semi-urban and urban areas comprising of 300 numbers were studying by issuing a questionnaire on 26 items of services and the data was gathered. The principal component analysis was used to reduce the 26 items which were finally reduced to four main components of service namely Personal, Comfort, Technical and Staff Service. A model was developed for measuring the contributory level of these factors to customer customers and tested for validity through Structural equation modeling.

The results revealed that about 77 per cent of the variations in customer satisfaction was explained by these four factors and within these four factors, several of them were leading to contribute much to the factor 'comfort'. It is derived from the analysis that the banks should

concentrate to improve the comfort level of their customers to raise the overall satisfaction which will ultimately lead to increase in business volume and thereby will result in more profit. It is concluded through this study that the overall satisfaction level on various banking services of LVB is better than other nationalized banks in Tiruchengode taluk.

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