# CHAPTER-V DATA ANALYSIS AND INTERPRETATION

#### **CHAPTER-V**

#### DATA ANALYSIS AND INTERPRETATION

#### **5.1 INTRODUCTION:**

Present chapter deals with conducted the presentation and interpretation of data. The data is presented as per the requirement of the study, so as to fulfill the objectives of the study and the testing the hypothesis.

Data is presented in five parts. Each part is sub-dividing to narrating details of entire data. Data is analyzed with the help of statistical tools and technique such as average, percentage, correlation, mean, standard deviation. The Chi-square test, Z test, proportion test and Mann- Whitney test are used for testing of hypothesis. five parts for presentation of data are as below:

#### **5.2 DEMOGRAPHIC ANALYSIS:**

In this part researcher has analyzed the group wise data i.e. age group, gender group, occupation, education and income. The researcher also interprets group wise data as per primary data collection.

Table No.5.1

Age-wise Classification of Respondents (n=100)

Age	Number of Respondents	Percentage of respondents
18- 30	74	74%
31-40	17	17%
41-50	4	4%
51-60	5	5%
Above 61	0	0%
Total	100	100

(Source: Compiled from Field Work)

The data in table 5.1 revealed that the younger customers are in majority who are using online banking services. It is so, because of technological advancement and its adoption is more in cases youngsters than the old ones. It is observed that customers in the age of 41 to 60 are less using online banking services, because they believe this online banking service is not trustworthy. Those who are above the age of 61 are less found transactional traditional banking facilities because they don't trust on online banking facilities.

Table No. 5.2

Gender Based Classification of Respondents (n=100)

Gender	Number of Respondents	Percentage of respondents
Male	87	87%
Female	13	13%
Total	100	100

Above table no.5.2 shows that the majority of the respondents (87%) are male. Female are not interested or not are using online services. Again female are not having financial autonomy and even earning women still rely on men.

Table No. 5.3

Occupation Based Classification of Respondents (n=100)

Occupation	Number of Respondents	Percentage of respondents
Student	40	40%
Govt. Employee	21	21%
Private Employee	20	20%
Traders/ Businessman	10	10%
Others	9	9%
Total	100	100%

(Source: Compiled from Field Work)

Above table no.5.3 indicate that among all the students are large numbers (40%) using online banking services. They use online banking for Mobile recharge, online shopping, fund transfer to friend, and transfer of recruitment fees. Government employees (21%) and Private employees (20%) respectively. Traders and businessman's are found frequently using online banking services it's save time. Whereas some of businessman and traders are found using traditional banking services like Demand Draft, Cheque for sake of evidence of transactions.

Table No. 5.4

Education Based Classification of Respondents (n=100)

Education	Number of Respondents	Percentage of respondents
Primary School	0	0%
High school	10	10%
Under Graduate	22	22%
Post Graduate	68	68%
Total	100	100%

Above table no.5.4 shows the classification of respondents on the basis of their education shows that the majority (68%) are post graduate followed by undergraduate (22%) and high school level educated (10%). This implied that the level of education and usages of online banking services are positively correlated to each other.

Table No. 5.5

Annual Income Wise Classification of Respondents (n=100)

Income	Number of Respondents	Percentage of respondents
Up to 50000	35	35%
50001 to 100000	16	16%
100001 to 150000	12	12%
150001 to 200000	14	14%
Above 200001	23	23%
Total	100	100%

(Source: Compiled from Field Work)

Above table no.5.5 shows that 35% respondents belongs to first income group (i.e. up to 50000 p.a.) followed by that (23%) last group of Rs. 200000 and above. The middle income groups members are less in number as compared to those I first and last income groups. For use of online banking services there is no income level condition, so from all income group of customers are using online banking services because they can check there account status.

#### **5.3 ANALYSIS OF CUSTOMER SATISFACTION:**

In this study researcher has analyzed comprehensive data as per set objective of the present study. The researcher touches of all the comprehensive details of the respondents on the basis of their response.

Analysis of Respondents' satisfaction with their decision to operate on-line banking with Bank of India.

The customer satisfaction with his decision to operate BOI online services is quantified as under.

Table No. 5.6

Classification of Respondents and Calculation of Satisfaction Level

Satisfaction Level	No. of Respondents	Weights	Weighted Score
Quite Right	25	5	125
Right	59	4	236
Neutral	8	5	25
To Some Extent	4	2	8
Dissatisfied	4	1	8
Total	100		397
Mean Score	3.97		
Percentile Value	(3.97x20) = 79.40%		

(Source: Compiled from Field Work)

Mean Score= Total Weighted score / Frequency

Percentile Value of the score showing overall satisfaction level of all respondents is ascertained by using the following formula.

= Weighted average score x 20

=3.97x20

= 79.40%.

Here, Score 1=20%, 2=40%, 3=60%, 4=80% and 5=100%.

Researcher has given weightages for different responses of respondents as under.

Dissatisfied= 1(20%), To some Extent = 2 (40%), Neutral =3 (60%), Right =3(80%), Quit Right=5 (100%).

Table 5.6 shows data on satisfaction level on the decision of the sample respondents to use online banking services. It is revealed from the data that the overall satisfaction level is 79.40%. This implied that the satisfaction level of the respondents is better. Majority (84%) of the respondents are more satisfied with their decision to use online banking services of Bank of India. Where, as only 8% respondents are neutral and 4% are dissatisfied. This is in response to user-friendliness of the system and customer oriented behavior of the staff of the Lacmipuri branch of Bank of India.

When asked about main purpose of opening online banking account the following data is available.

Table No. 5.7

Classification of Respondents as per Purpose of Operating Online Bank Account

Purpose	Number of Respondents	Percentage of respondents
Made Self Transactions	25	25%
Time Saving	42	42%
Access any where	26	26%
User-friendly	7	7%
Total	100	100%

(Source: Compiled from Field Work)

The data in table 5.7 implied that the main purpose of operating bank account online is to save time and to make transaction from any place and at own. Majority 42% respondents are using online banking services in order to save the time. Whereas, 26% respondents opened to operate their account from any place and 25% respondents have opened their online bank account in order to operate their bank transaction at their own.

The traditional banking service using consumers have to wait in queue for physical services in the branch wasting time whereas; it is proved from the data in table 5.7 that online banking service of Bank of India has helped the customer to save their time.

Online Banking is quite useful to Respondents. Ranking of Online Users/ Customers on Online Services A study of measurement of ranking of customers ranking of online banking services is very important to above study. The following analysis and interpretation depends up on data by raking of respondents of rank in percent.

Response Ranking Score 5= First Rank (20%), 4 = Second Rank (40%), 3= Third Rank (neutral) (60%), 2= Fourth Rank (80%), 1= Fifth Rank (100%) the respondents rendered was processed on a computer under expert supervision and by developing application specific technique.

Ranking level	1	2	3	4	5
No of Respondents	3	2	5	45	45
Statistical formula	<b>x</b> 1	x2	<b>x</b> 3	x4	x5
Score=	3	6	15	180	225
(Ranking level x no. Res	spond	lents)	)		
	4	29			
Overall Ranking Score =	=		= 4	4.29	
	1	00			

Total score 429 divided by No. Respondents 100 = 4.29 if the highest possible mean score of 5=100%. Then mean score of 4.29=85.8 (percentile value) the majoring the opinion of a 100 respondents of online users.

Table No. 5.8

Ranking for Online Banking Services (n=100)

Ranking	Number of	Weight of	Respondents Ranking
	Respondents (A)	Ranking (B)	Weight Score (A x B)
First Rank	45	5	225
Second Rank	45	4	180
Third Rank	5	3	15
Fourth Rank	2	2	6
Fifth Rank	3	1	3
Total	100		429
Mean			4.29
Percentile Value			85.80

Table 5.8 reveals that 45% respondents have given first rank and another 45% respondent have given second rank to online services as per its usefulness to them. It means online banking services signify very important role to them for performing their bank transaction. The mean score 4.29 and its percentile value 85.80 proves the same.

Table No. 5.9

Classification of Respondents as per Fulfillment of the Purpose of Opening

Online Bank Account

Purpose	Number of Respondents	Percentage of respondents
Yes	95	95%
No	5	5%
Total	100	100%

(Source: Compiled from Field Work)

The table 5.9 shows that 95% of respondents' main purpose of opening online bank account is being served and 5% of respondents have reported that their purpose to open online bank account is not served. This negative response is experienced by those respondents who use online banking services very rarely.

When asked the respondents about frequent use of on-line services, it is found that among all other online services, internet banking is popular most. Followed by mobile banking, fund transfer and pay bills.

Table No.5.10

Classification of Respondents on the Basis of Frequency of using Online Services

Online Services	Number of Respondents	Percentage of respondents
Internet Banking	60	60%
Mobile banking	17	17%
Online share trading	1	1%
Fund Transfer	10	10%
Ticket- Booking	3	3%
Pay Bills	9	9%
Tax Payment	0	0%

RTGS	0	0%
NEFT	0	0%
Star e-remit	0	0%
Total	100	100%

Graph No. 5.1

Classification of Respondents on the Basis of Frequency of using Online Services

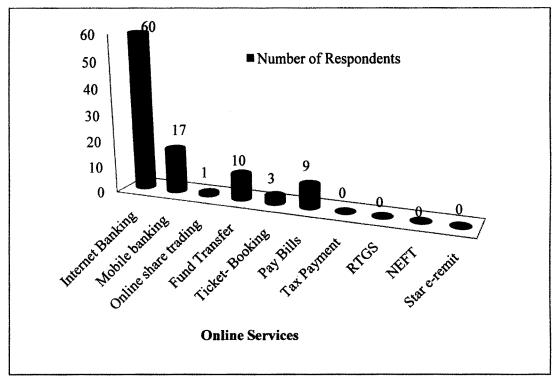


Table 5.10 and Graph 5.1 implied that the internet banking is easiest among all other services to the customers. More people are familiar with internet than the mobile banking. Also fund transfer service is being used by very few customers. The Tax Payment service has its independent software system which is available on the website of the Department of Income Tax that creates complexity in operations. On the same time RTGS, NEFT, and Star e-remits services are to be linked with the help of bank staff for which the customer has to visit the bank. This again results in time consuming. Therefore, the customers use these services very rarely.

When the Respondents asked to rank the on-line banking services as per their choice (to show the most useful service as of first choice and the least useful service as of last),

Table No. 5.11

Ranking of Online Banking Services as per Respondents Best Choice

Online Services	No. of Respondents	Ranks
Internet Banking	63	1
Mobile banking	15	2
Pay Bills	9	3
Fund Transfer	5	4
RTGS	3	5
NEFT	2	6
Online share trading	2	7
Ticket- Booking	1	8
Tax Payment	0	9
Star e-remit	0	10

it is again found that the internet banking is popular among the customers which is ranked first by 63% respondents (Table 5.11), followed by mobile banking, Pay bills, fund transfer and so on respectively ranked second third and fourth. The RTGS, NEFT, Online share trading, E-Ticket Booking have used by very few customers and therefore they have ranked these services of last choice.

Table No. 5.12

Problems of Online Services faced by respondents (n=100)

Problems	Number of Respondents	Percentage of respondents				
System Use	18	18%				
System design	17	17%				
Bank Server problem	27	27%				
Information System	12	12%				
Difficult to Understand	15	15%				
Far Away	3	3%				
No any Problem	8	8%				
Total	100	100%				

(Source: Compiled from Field Work)

Above table no.5.12 shows that 27% respondents are facing the problem of bank server down. The 18% respondents are facing problem of system. It is followed by the problem of system design faced 17% respondents. The 15% respondents are facing the problem of difficult to understand and that of information system respectively. Among all 8% respondents are not facing any problem of online banking. It is also observed that customers use online banking with the facilities and instrument available with them.

Table No. 5.13

Classification of Respondents as per the Frequency of their Visit to Bank

Visiting Times	Number of Respondents	Percentage of respondents			
Ones	38	38%			
2 to 4 times	46	46%			
5 to 8 times	10	10%			
9 to 12 time	4	4%			
above 12 times	2	2%			
Total	100	100%			

(Source: Compiled from Field Work)

Above table 5.13 shows that 46% respondent are visiting the bank 2 to 4 times per months. Where, 38% respondents visited once in a month. Only 2% respondents visited above 12 times. It also observed that due to online banking service customers visits to bank are decreased.

Table No. 5.14

Respondent's Classification on the basis of frequency of Online Transaction

Using Times	Number of Respondents	Percentage of respondents		
Never	4	4%		
1 to 4 times	55	55%		
5 to 8 times	26	26% 12%		
9 to 12 time	12			
above 12 times	3	3%		
Total	100	100%		

(Source: Compiled from Field Work)

Above table 5.14 shows that 55% respondent are using their online banking services 1 to 4 times per months. The 26% respondents made transaction 5 to 9 times per month, 4% respondents have used online banking services very rarely. Only 3% respondents are using online banking services above 12 times.

When asked question of Respondents about using instruments for on-line banking then, following information received.

Table No. 5.15

Respondent's Classification Based on use of Instruments for Online Banking

Services (n=100)

Name of Instruments	Number of Respondents	Percentage of respondents				
Phone Accessibility	19	19%				
Website Accessibility	27	27%				
Telebanking	6	6%				
Personal Computer	29	29%				
Lap-top	19	19%				
Total	100	100%				

(Source: Compiled from Field Work)

Graph No. 5.2

Respondent's Using Instruments to the Online Banking Services

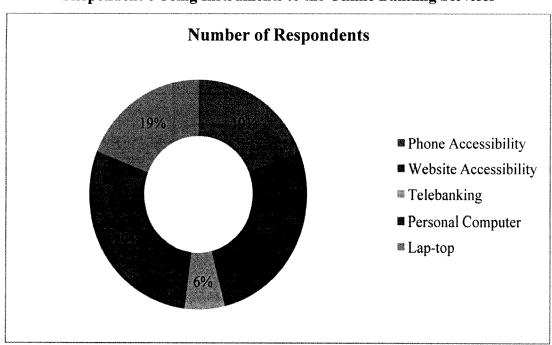


Table no.5.15 and graph 5.2 show that 29% and 19% respondent are using Personal Computer and lap-top respectively, for the purpose of online banking services. The 27% respondents are using website accessibility and 19% respondents are using phone accessibility. The personal computer and Lap-Tops are used by more customers because they can easily operate their bank transaction online by connecting these instruments to internet.

Table No. 5.16

Opinion of Education and Income affect on usages of online banking (n=100)

Particular	Number of Respondents	Percentage of respondents		
Yes	79	79%		
No	17	17%		
Can't Say	4	4%		
Total	100	100%		

(Source: Compiled from Field Work)

When asked the respondents about the impact of income and education of the use online banking, (table no 5.16), 79% respondents say's yes, 17% say's no whereas 4% can't give their opinion. This revealed that the education and income of the respondents are positively co-related with the online banking services.

In the same way when the respondents asked their response about change in their life style due to use of online banking services. Following information received.

Table No. 5.17
Classification on Life Style Changing of User's Opinion (n=100)

Particular	Number of Respondents	Percentage of respondents
Yes	80	80%
No	16	16%
Can't Say	4	4%
Total	100	100%

(Source: Compiled from Field Work)

Table no. 5.17 reviles that 80% respondents said yes, 16% said no whereas 4% can't say anything. This again revealed that use of online banking services has changed their life style of the respondents positively.

When asked the BOI's online banking users which on-line services are more popular? Then following information received.

Table No.18

Popularity of Online Services (n=100)

Name of Services	Number of Respondents	Percentage of respondents		
Internet Banking	64	64%		
Mobile Banking	17	17%		
Bill Payment	7	7%		
Fund Transfer	12	12%		
Total	100	100%		

Above table 5.18 shows that internet banking is being used by 64% respondents. Whereas, 17% respondents are using mobile banking followed by that fund transfer (12%) and bill payment (7%). This exhibit that the internet banking is most popular among all other services.

Impact of online banking services on respondents mind after opening and using.

Table No. 19

Classification of Customers Based on Impact of Online Services

Response	Number of Respondents	Percentage of Respondents		
Positive Impact	87	87%		
Negative Impact	7	7%		
Can't Say	6	6%		
Total	100	100%		

(Source: Compiled from Field Work)

Above table no. 5.19 shows that 87% respondents said that there is positive impact on their mind to having online banking services and very less number (6%) has confused to say whether positive or negative impact on them. There are 7% customers having negative impact on them.

# 5.4 Measurement of Customer Satisfaction about Online Banking Services Provided by Bank of India.

Attracting new customers and retaining existing ones are the major aspects in the success of an organization. The customer satisfaction plays crucial role in this regards, which is the result of the quality of services offered, its consistency, effectiveness of service delivery and cost of services to the customers. The services offered by banks particularly, new services like online banking offered to customers have made new roadmap in the services of the bank. Therefore, it is worthwhile to measure customer satisfaction regarding online banking services offered by the bank with special reference to Bank of India, Laxmipuri Branch Kolhapur. Forgoing pages elaborate the same. The

 $\begin{tabular}{ll} \textbf{Table No. 5.20} \\ \begin{tabular}{ll} \textbf{The score of Customer Satisfaction about Online Banking Services} & (n=100) \\ \end{tabular}$ 

Sr.	Statement	1	2	3	4	5	Total	Mean	Percentile
No							Score	Value	Value
1	2	3	4	5	6	7	8	9	10
1	Internet Banking	2	6	6	132	300	446	4.46	89.2
2	Mobile banking	3	6	45	102	225	381	3.81	76.2
3	Online share trading	2	8	165	72	55	302	3.02	60.4
4	Pay Bills	0	10	57	120	230	417	4.17	83.4
5	Book Ticket- Rail	3	12	48	132	210	405	4.05	81
6	Book Ticket- Air	5	10	168	88	60	331	3.31	66.2
7	Tax Payment	2	14	150	96	70	332	3.32	66.4
8	Star e-remit	4	12	180	76	55	327	3.27	65.4
9	RTGS	2	6	144	80	135	367	3.67	73.4
10	NEFT	1	4	138	88	145	376	3.76	75.2
11	Transaction history	1	2	57	132	230	422	4.22	84.4
12	Balance enquiry	1	2	42	128	260	433	4.33	86.6
13	Online transfer of funds	1	10	81	96	215	403	4.03	80.6
14	Pre paid mobile recharge	2	10	69	100	225	406	4.06	81.2
15	Buy and sell Mutual Fund	3	16	156	96	65	336	3.36	67.2
16	Online shopping	4	10	54	116	220	404	4.04	80.8
17	Loan Information	5	20	153	80	70	328	3.28	65.6
18	Insurance policy management	6	14	144	104	65	333	3.33	66.6
19	Pension plan management	8	16	159	72	65	320	3.2	64
20	Recent transactions	2	4	16	144	220	386	3.86	77.2

21	Recruitment Fees	4	12	37	96	145	294	2.94	58.8
	(Govt. and Pvt.)								

(Source: Compiled From Field Data)

The data in table 5.20 shows level of customer satisfaction regarding different online services availed from Bank of India. Figure in column 3 to 7 show the weighted score based on the level of satisfaction. Score 1 represent Strongly Dissatisfied and score 5 represent strongly Satisfied. These weightages are multiplied by the no. of (Customers) respondents. For example the score of first service "Internet Banking" is ascertained as under.

Mean Score = 
$$\frac{\text{Total Weighted Score}}{\text{Total Sample}}$$
Mean Score = 
$$\frac{2+6+6+132+300}{100}$$

$$\frac{446}{100} = \frac{4.46}{100}$$

Total score 446 divided by No. of respondents 100 = 4.46. The highest possible mean score 5=100%. Then mean score 4.46= 89.20%. The respondents' score was processed on a computer under expert supervision and by developing application specific technique, mean score of each service was converted into percentile value which is shown in table 5.20.

The respondents have shown their highest satisfaction regarding 'internet banking' with 89.20 percent level of satisfaction followed by 'balance enquiry' service (86.60 percent), 'transaction history' (84.40 percent), 'Pay bill' (83.40 percent), 'prepaid mobile recharge' (81.20 percent) and so on. The least score 64 percent is in respects of pension plan management. This obvious that the pension plan management is related

with the retired people (above age of 60 years). It is quite desirable that the old people are not more acquainted than the younger customers are with the modern technology based online banking services. The data exhibit the same.

The satisfaction level of about all services is higher than 64 percent. This revels that the online banking services are becoming more popular among all respondents.

# 5.5 Measurement of Satisfaction Level relating to Factors of Online Banking Services Provided by BOI

Table No.5.21
Satisfaction Level relating to Factors in Online Banking Services

1	2	3	4	5	6	7	8	9	10
Sr. No.	Statement	1	2	3	4	5	Total Score	Mean Value	Percentile Value
	Satisfied about On-line services	3	0	15	148	275	441	4.41	88.2
2	Satisfied about website design	4	6	63	164	155	392	3.92	78.4
3	Satisfied about Internet banking service	3	2	33	164	220	422	4.22	84.4
4	Satisfied about information On-line services	2	14	60	152	165	393	3.93	78.6
5	Satisfied about speed of transactions	4	8	63	132	190	397	3.97	79.4
6	Satisfied about Security of Information of transactions	1	20	69	132	165	387	3.87	77.4
7	Satisfied about Accessibility	1	10	63	124	110	308	3.08	61.6
8	Satisfied about flexibility	1	16	54	96	245	412	4.12	82.4
9	Satisfied about transferency	1	6	60	124	230	421	4.21	84.2
10	Satisfied about reliability	1	36	54	112	240	443	4.43	88.6

11	Satisfied about problem/ query solving	7	36	105	100	70	318	3.18	63.6
12	Satisfied about User friendly	0	8	48	124	245	425	4.25	85
13	Satisfied about ease to use	1	8	57	132	215	413	4.13	82.6
14	Satisfied about Cost of Effectiveness (services)	2	8	69	116	210	405	4.05	81
15	Satisfied about advertisement on screen at the time transactions	6	36	120	84	75	321	3.21	64.2
16	Satisfied about Charges levied	4	12	69	92	220	397	3.97	79.4
17	Satisfied about home page	2	18	81	144	130	375	3.75	75
18	Satisfied about feedback of transactions on screen	3	20	96	136	105	360	3.6	72
19	Satisfied about feedback of transactions on as SMS	1	18	60	156	155	390	3.9	78
20	Satisfied about login and log out process	0	12	66	180	135	393	3.93	78.6
21	Satisfied about accuracy of transactions	0	4	48	132	245	429	4.29	85.8
22	Satisfied about online banking process	1	10	90	164	165	430	4.3	86

The data in table 5.21 shows the weighted score, mean and percentile value of satisfaction level depicted by the respondents relating to the factors that determine the quality of online banking services. The weighted score, of Mean score and its percentile value are ascertained on the same line that is explained earlier in case of data in table 5.20.

The data revels that about half of the aspects that determine the quality of online banking services are more prominent in respect of which the respondents have

reported more than 80 percent satisfaction level. Reliability ranks at the top with 88.60 percent level of satisfaction followed by online services (88.20%), Online banking process (86 %), accuracy (85.80%), user friendliness (85%), net banking services (84.40%), transferency (84.20%), easy to use (82.60%), and flexibility (82.40%), cost effectiveness (of services).

Accessibility to the services shows least (61.60%) level of satisfaction. This shows that the satisfaction level of respondents regarding aspects of online banking services provided by Bank of India is quite moderate (more than 60% level).

It can be concluded that the aspects selected by the bank are relevant.

### 5.6 Analysis of Correlation between Age, Education and Annual Income Relating to Customer Satisfaction of Online Banking Services.

Further data was analyzed to show correlation between age, gender, income, education of the respondents and their satisfaction level relating to online banking services availed by them from Bank of India. It is observed from the data that men are more satisfied with the online banking services than their counterpart women. This is so because the female are using online services very rarely. Again, all those services are not being availed by them.

## A. Correlation between Age and customer satisfaction to online banking services provided by BOI Laxmipuri branch, Kolhapur.

Table No.5.22

Correlation of Age and Level of Customer Satisfaction Relating to online banking services provided by BOI Laxmipuri branch, Kolhapur.

		Customer Satisfaction Relating to OBS
Age	Pearson Correlation	020
	Sig. (2-tailed)	.840
	N	100

Data Table 5.22 shows that there is low negative correlation (-.020) between Age and Customer satisfaction relating to Online Banking Services provided by Bank of India. It means age factor adversely affected on customer satisfaction.

B. Correlation between Education and customer satisfaction to online banking services provided by BOI Laxmipuri branch, Kolhapur.

Table No.5.23

Correlation of Education and Level Customer Satisfaction Relating to online banking services provided by BOI Laxmipuri branch, Kolhapur.

		Customer
		Satisfaction
		Relating to OBS
Education	Pearson Correlation	.063
	Sig. (2-tailed)	.532
	N	100

Data in table 5.23 shows that there is low positive correlation (0.062) between Education and Customer satisfaction relating to online banking services provided by Bank of India. It means the education affected positively on the satisfaction of the customers.

C. Correlation between Income and level of customer satisfaction relating to online banking services provided by BOI Laxmipuri Branch, Kolhapur.

Table No.5.24

Correlation of Income and Level of Customer Satisfaction

		Customer Satisfaction Relating to OBS
Annual	Pearson Correlation	062
Income	Sig. (2-tailed)	.540
	N	100

Data in table 5.24 shows negative correlation (-0.62) between Income and Customer satisfaction relating to online banking services provided by Bank of India. Annual income of Bank of India online users are not correlated to their satisfaction level.

#### 5.7 Hypotheses Testing

#### 5.7.1 H1-. Internet banking service is most popular service among all other online services provided by Bank of India.

#### Proportion test (Z test)

Ho: Proportion of popularity of internet banking and other online services is same.

H1: Proportion of popularity of internet banking is more than proportion of popularity of other online services.

Table No. 5.25

Proportion Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (1- tailed)
Popularity of Online	Group 1	Internet Banking	87	.87	.50	.000 <sup>b</sup>
Banking Services	Group 2	Other Online Services	13	.13		
	Total		100	1.00		

a. Based on Z Approximation.

(Source: Filled Data)

H0: P = 0.5

H1: P>0.5

The table shows significance value less than 0.05 hence the H0 (null hypothesis) is rejected at 5% level of significance that implies proportion of popularity of internet banking is more than that of all other online services.

b. Exact Results are provided instead of Monte Carlo for this test.

# 5.7.2 H2- Education and Income are having positive co-relation with on-line services provided by Bank of India.

Chi square test for independence

#### A. Testing of co-relation of Education and Online services

Ho: Education and Online banking services are independents

H1: Education and Online banking services are dependents.

Table No. 5.26

The classification of Respondents on the basis of Income level and Satisfaction level

167.61							
Education	Online Banking Services Level of Customer Satisfaction						
Education		Moderate Dissatisfied	Neutral	Moderate Satisfied	Strongly Satisfied	Total	
High school	0	1	5	2	2	10	
Under Graduate	0	1	10	4	7	22	
Post Graduate	3	0	21	14	30	68	
Total	3	2	36	20	39	100	

(Source: Compiled from Filled Data)

Table No. 5.27 Chi-Square Tests

	Value	df	Asymp. Sig. (1-sided)
Pearson Chi-Square	9.991ª	8	.133

(Source: Compiled from Filled Data)

Hence,

H0: P=0.5

H1: P>0.5

Data table 5.27 reveals that accept H0 at 5% level of significance it means that education and online service are independent

#### B. Testing of co-relation of Income and Online services

Ho: Income and Online banking services are independents.

H1: Income and Online banking services are dependents.

Table No. 5.28

## The classification of Respondents on the basis of Income level and Satisfaction level

	No. of Respondents giving satisfaction						
Annual Income	Strongly Dissatisfied	Moderate Dissatisfied	Neutral	Moderate Satisfied	Strongly Satisfied	Total	
up to 50000	1	0	11	8	15	35	
50001 to 100000	1	1	6	4	4	16	
100001 to 150000	0	1	6	1	4	12	
150001 to 200000	1	0	5	4	4	14	
Above 200001	0	0	8	3	12	23	
Total	3	2	36	20	39	100	

(Source: Filled Data)

Table No. 5.29

Chi-Square Tests

	Value	Df	Asymp. Sig. (1-sided)
Pearson Chi-Square	13.265ª	16	.163

(Source: Filled Data).

H0: P=0.5 H1: P>0.5

As the level of significance value 0.163 is more than 0.05 significance level, the H0 is accepted that income and online banking services are independent to each other.

# 5.7.3 H3- Cost of services and user friendliness factors of On-line banking services give more satisfaction to the customers.

#### Mann-Whitney Test

This is used to test the hypothesis that two independent samples come from populations having the same distribution. This is equivalent to the independent group's t-test.

 $\mu 1=$  Mean value of Cost Effectiveness and User friendliness of online banking services taken together.

 $\mu$ 2= Mean value of other factors of online banking services taken together.

H0:  $\mu 1 = \mu 2$ H1:  $\mu 1 > \mu 2$ 

Table No. 5.30

**Ranks Factors Gives Satisfaction** 

Factors		N	Mean Rank	Sum of Ranks
1. Factors of Cost Effectiveness and User friendliness Mean Value of online services	1	100	107.72	10772.00
2. Other factors of online banking services	2	100	93.28	9328.00
Total		200		

(Source: Field Data)

Table No. 5.31

Test Statistics

	Factors of Cost Effectiveness and User friendliness Mean Value of online services
Mann-Whitney	4278.000
Asymp. Sig. (1-tailed)	.0385
a. Grouping Variable: O	ther factors of online banking services.

Hence: By using Mann-Whitney test the significance value is less than 0.05. That's why the Null Hypothesis is rejected and alterative hypothesis is accepted.