

CHAPTER-V

Data Analysis & Interpretation

5.1 : Introduction

In this chapter, a thorough conversation has been made with respect to information analysis, interpretations and findings from the present research work. Different statistical tools have been applied to find out the different employee empowerment factors, and also that of satisfaction. Successful endeavors have been made to build up a connection connecting empowerment to satisfaction among West Bengal bank employees. In banks, both empowerment and satisfaction of the workforce are highly desirable and valued. This is because presence of both the concepts is a must for organizations to achieve and sustain enhanced productivity, improved quality of goods and services, and customer loyalty. They help organizations to survive, to grow, and to enjoy a competitive advantage throughout a delayed time frame. It is hereby felt necessary to understand various underlying factors which impact employee empowerment considering both the psychological and structural aspects of it. Since employee satisfaction also assumes huge significance in modern business scenario, there has likewise been an endeavor to perceive and clarify the variables of employee satisfaction. At long last , a connection is set up and explained among empowerment and worker satisfaction. Through open – ended questions, the areas which function as keys for accomplishing the empowerment process and also those areas which behave as barriers for empowerment process have been established, analysed and explained.

5.2: Reliability Analysis

The main aim of an exploratory study is to have an accurate and unambiguous data measurement. A good research design should be reliable. Reliability describes how much the estimation instrument is liberated from measurement errors. An instrument which satisfies the test of reliability is conveniently assumed to be free of intermediate and situational factors. The statistical instruments utilized in this investigation to record the item's internal

consistency is Cronbach Alpha. This has been utilized to measure the 5 – point Likert Scale Questionnaire. Cronbach alpha reliability coefficient ranges somewhere in the range of 0 and 1. However , statistically the value is interpreted to show superb reliability between various items of a multiple item scale if it demonstrates values exceeding 0.8. Scores of 0.7 to 0.8 indicates good interrelatedness for the study variables. The questionnaire has 12 questions on psychological empowerment of workforce , 25 questions on structural empowerment of the workforce and 20 questions on satisfaction of the employed class regarding their employment. All the 57 questions have been placed on 5 point Likert Scale.

Table: 5.1

Reliability Statistics of Psychological Employee Empowerment

Cronbach's Alpha	Cronbach Alpha Based on Standardized Items	N Of Items
0.937	0.937	12

Total cases : 382

Here, at first the Cronbach alpha(α) of the twelve psychological empowerment variables have been determined. It has 0.937 value. This demonstrates astounding interior consistency between the different items of the scale.

Table: 5.2

Reliability Analysis of Structural Employee Empowerment

Cronbach Alpha (α)	Cronbach Alpha (α) Based on Standardized Items	Number of Items
0.964	0.964	25

Total cases : 382

Next, the Chronbach alpha (α) of the twenty – five structural empowerment variables are determined. The Cronbach alpha(α) of structural empowerment is 0.964 . This also denotes very good internal consistency between the different scale items.

Table : 5.3

Reliability Analysis of Employee Satisfaction

Cronbach Alpha (α)	Cronbach Alpha (α) Based on Standardized Items	Number of Items
0.927	0.927	20

Total cases : 382

Next, the Chronbach Alpha (α) of twenty employee satisfaction variables has been ascertained.

The above table demonstrates it for employee satisfaction to be 0.927 for our study. This again reaffirms very good interior consistency between various variables in measuring instrument.

5.3: An Investigation of the Demographic Profile of the Respondents

It has been well established that organizing and processing of data are essential so to foresee accurate analysis and interpretation. Processing of data entails editing, compiling and tabulation of data for it to become computable. This section manages the arrangement of data in tabular form. It encompasses the descriptive portions of the questionnaire. Descriptive statistics offer us a precise idea on the data which may have numerical or graphical representation. It provides more important data presentation which results in a better and simpler understanding. The researcher , here, has analysed the data by utilising Microsoft Excel 2007.

5.3.1: Sector Wise Analysis of Responses Obtained

In the study 382 data sets from different branches of both Private and Public sector banks have been collected. Sector – wise distribution of responses procured from the sampled employees attached to different banks are given below

Table: 5.4 : Sector Wise Analysis of Responses Obtained

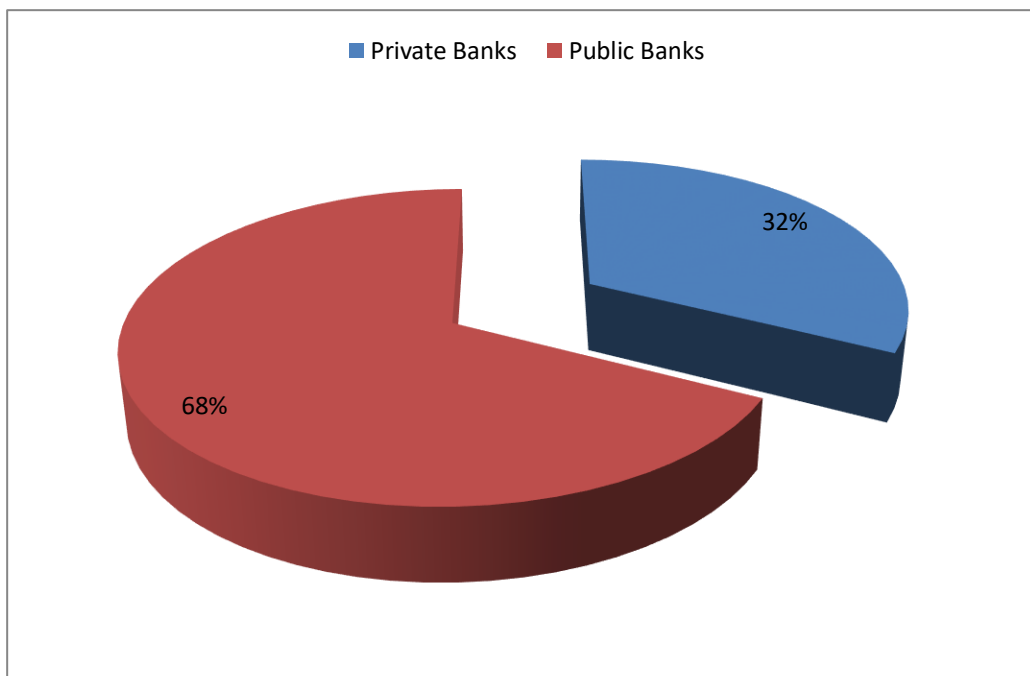
Sector	Frequency	Percentage
Private	124	32
Public	258	68

Total Cases : 382

So from the table it is ascertained that most the respondents belong to Public Sector banks (258) while 124 come from Private Sector bank

Fig : 5.1

Pie – Chart Showing Percentage – Wise Respondents from the Two Sectors



So we see, that 68 % sample are from Government Banks while only 32 % are from Private Banks.

5.3.2: Classification of Respondents on the Basis of Age

Here the workforce have been categorized under the following sub – groups:

Age group upto 30 years is denoted as 1

Age group of 31 – 40 years is denoted as 2

Age group of 41 – 50 years is denoted as 3

Age group above 50 years is denoted as 4

Table: 5.5

Classification of Data from Personnel on Their Age Basis

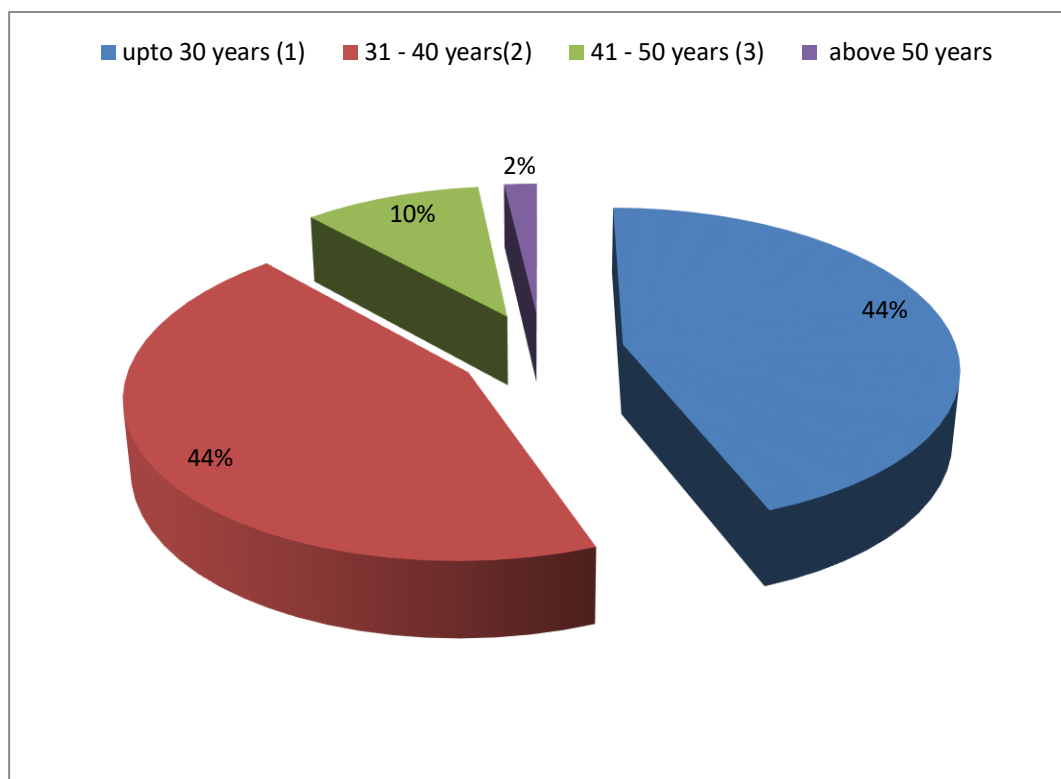
Age	Frequency	Percentage
Below 30 years	169	44
31 – 40 years	168	44
41 – 50 years	38	10
Above 51 years	7	2

Total Cases : 382

We see many respondents, i.e 88% from all the banks are between 18 – 40 years. Only 10% have ages between 41 – 50. While only 2 percent are above 51 years.

Fig: 5.2

Pie – Chart of the Personnel According to Their Ages



Total Cases : 382

5.3.3: Classification of Respondents on Basis of Gender

The participants' gender have been categorised as under :

Male is denoted as 1

Female is denoted as 2

Table: 5.6

Classification of Data Based on Gender

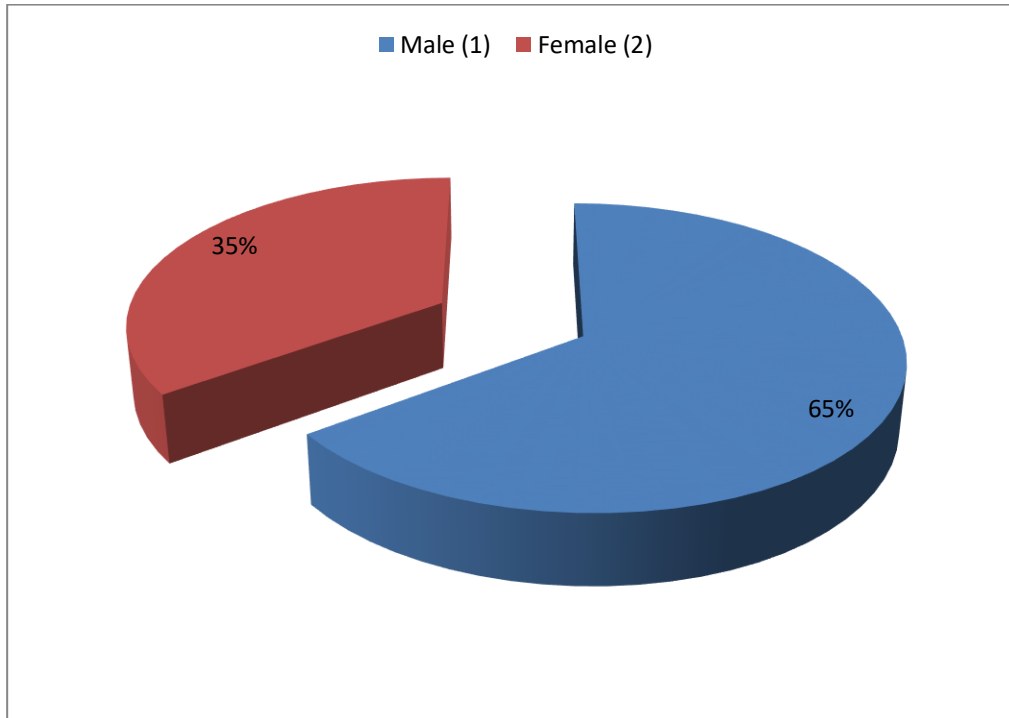
Gender	Frequency	Percentage
Male	248	65
Female	134	35

Total cases : 382

There is a clear demonstration that majority are male, that is 248 respondents are male. There are 134 females respondents.

Fig : 5.3

Pie – Chart Depiction of the Personnel Based on Their Gender



Total Cases: 382

The above chart clearly shows a male bias , where 65 % consist of males while 35 % consist of females.

5.3.4: Classification of Respondents by Marital Status

The 382 respondents that form the sample have different marital statuses that are classified into three groups. The three groups are given different numbers for adequate representation.

Married is designated as 1

Unmarried is designated as 2

Widow/er is designated as 3

Divorced is designated as 4

Table : 5.7

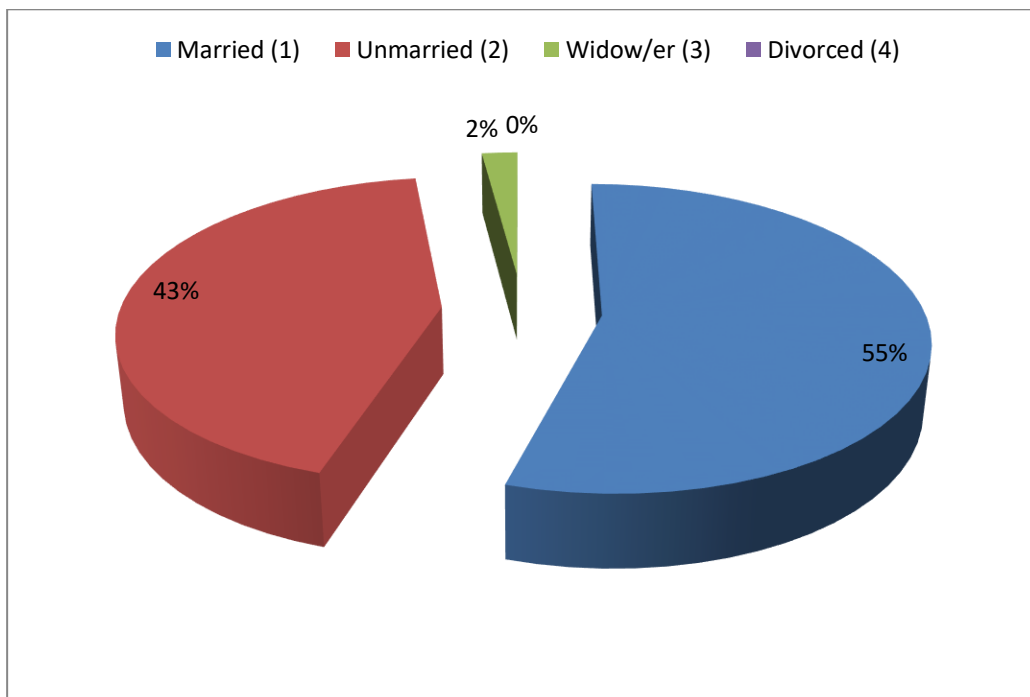
Classification of Data Based on Marital Status

Marital status	Frequency	Percentage
Married	209	55
Unmarried	165	43
Widow/er	08	02
Divorced	00	00

Total cases 382

Fig : 5.4

Pie Chart Representation by Marital Status



Total cases 382

5.3.5: Classification Based on Education Status

The 382 respondents which form the sample have been categorized into various groups by qualifications. They are differentiated as below.

Graduation Degree is denoted as 1

Post – Graduation Degree is denoted as 2

Professional Degree is assigned 3

Any other Degree is represented by 4

Table : 5.8

Classification of Data According to Education Status

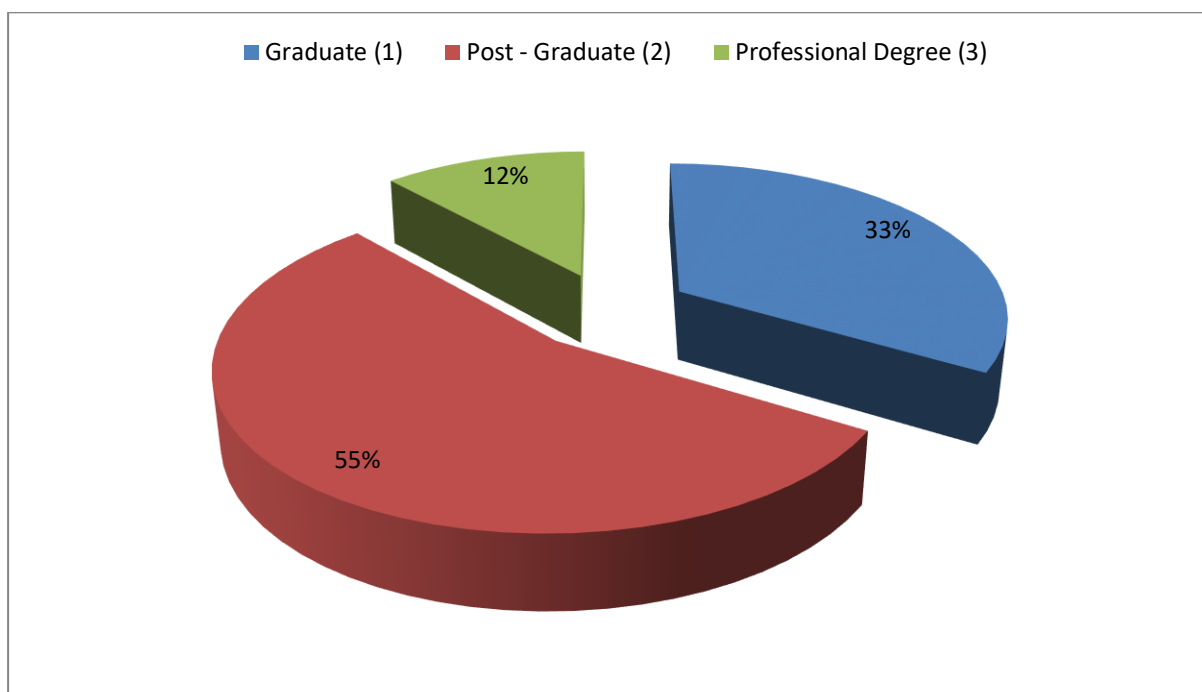
Education Status	Frequency	Percentage
Graduate	128	34
Post Graduate	209	54
Professional Degree	45	12

Total cases : 382

Previous table clearly shows that respondents with Post – graduation degree are a large part of sample size, that is 209. Again 128 respondents have Graduation Degrees. But, the people with professional degree are 45 in numbers.

Fig : 5.5

Pie – Chart Depiction of Personnel by Educational Status



Total cases : 382

5.3.6: Differentiation of the People According to Official Designation

The 382 respondents work in different cadres in the sampled banks. They are categorized by official designations. These are:

Clerks have value 1.

Scale I Officers are taken as 2.

Scale II Officers are grouped to be 3.

Scale III Officers are known as 4.

Table: 5.9

Classification of Data According to Official Designation

Official Designation	Frequency	Percentage
Clerks	137	36
Scale I Officer	173	45

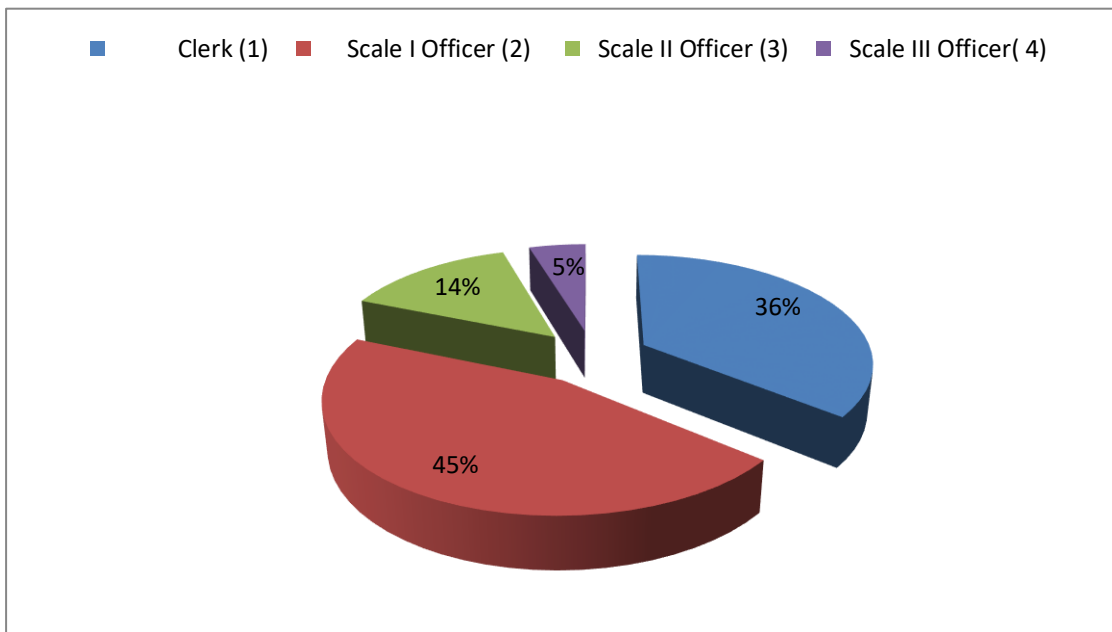
Scale II Officer	54	14
Scale III Officer	18	5

Total cases : 382

Preceding table demonstrates that Scale I Officers constitute the bulk of the respondents, numbering at 173. This is followed by 137 Clerks who are the second most sampled respondents. There are 54 Scale II Officers and only 18 Scale III Officers.

Fig : 5.6

Pie –Chart Depiction of Employees Following the Criteria of Official Designations



Total Cases : 382

5.3.7: Classification of Sampled Employees by the Monthly Incomes

The 382 participants are categorized following the range of their respective monthly incomes. They are described as below.

Rs 10,000 - Rs20,000 is denoted to be 1

Rs 21,000 – Rs 30,000 is depicted as 2

Rs 31,000 – Rs 40,000 is 3

Rs 41, 000 – Rs 50,000 is categorized as 4

More than 50,000 is 5

Table : 5.10

Classification of Data Considering the Monthly Income

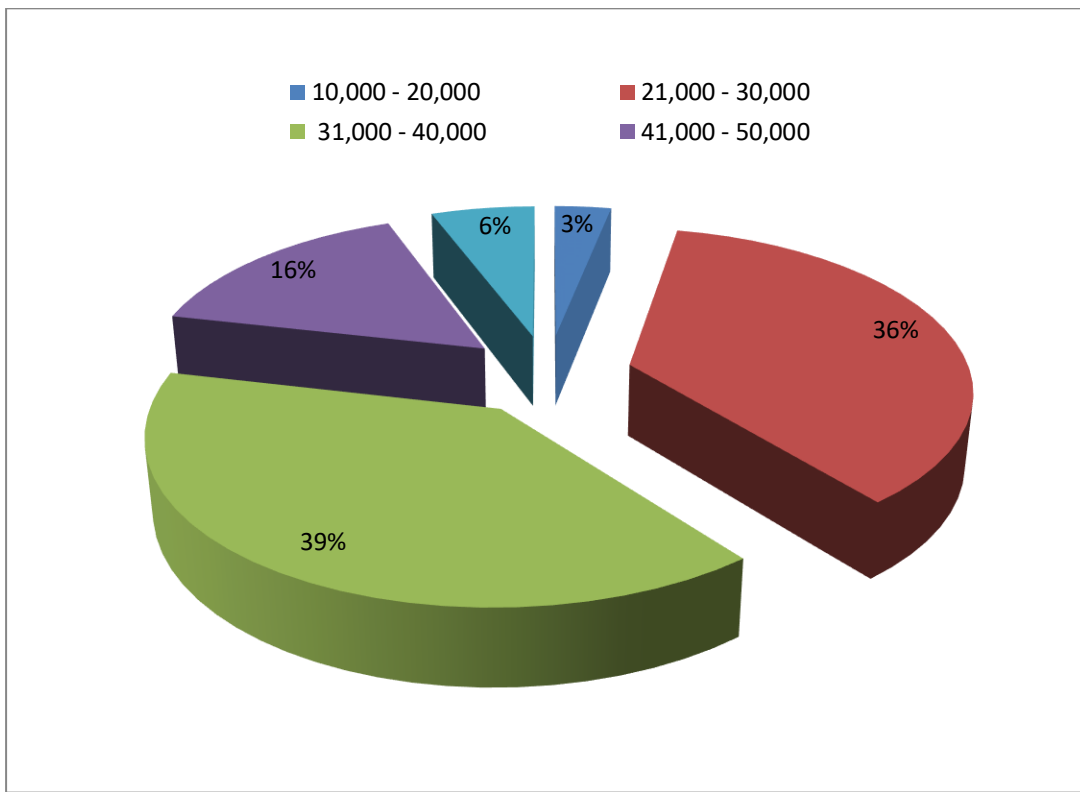
Monthly Income	Frequency	Percentage
10,000 – 20,000	12	3
21,000 – 30, 000	138	36
31,000 – 40,000	150	39
41,000 – 50,000	60	16
More than 51,000	22	6

Total cases : 382

Preceding table demonstrates that many respondents , exactly 150 draw a monthly salary of Rs 31,000 – Rs 40,000. This is followed by 138 respondents who draw Rs 21,000 – 30,000. Only 12 people are in category of Rs 10,000 – Rs 20,000. There are 60 respondents who draw monthly salary between Rs 41,000 – 50,000. 22 respondents draw monthly salary more than Rs 51,000.

Fig: 5.7

Pie –Chart Summarization of Employees Following the Monthly Salary



Total cases : 382

Demographic Profile Summary

450 respondents are chosen using random sampling design. Of them 402 (approx 89%) respondents provided back the questionnaires with answers filled in. However 20 questionnaires have been rejected as they are incomplete in character. The sampled personnel has consisted of 65 % male bank employees. 88 % are between 20- 40 years, and they are mainly married professionals (55%). 68% of the people interviewed are government sector employees. 54 % of personnel had post – graduate degree as highest qualifications. The sample has mainly Clerks and Scale I Officers , who together constitute 81% of the sample size. Again the chunk fell in the income category of Rs 21,000 – Rs 30,000 and Rs 31,000 – Rs 40,000; constituting 36% and 37% respectively.

5.4: Objective 1

To find out the factors of employee empowerment.

The researcher has tried to ascertain the factors of psychological and structural empowerment separately through SPSS.

5.4.1: Factor Analysis of the Psychological Employee Empowerment

For psychological empowerment 12 variables based on literature review has been outlined.

These follow :

1. P1: Meaningful to organization
2. P2 : Importance ,
3. P3 : Meaningful to self ,
4. P4 :Capability ,
5. P5: Self assurance,
6. P6 : Mastery over self ,
7. P7 :Autonomy at work,
8. P8 :Decisive,
9. P9 : Opportunity for Independence ,
10. P10 : Impact,
11. P11 : Control ,and
12. P12 : Influence.

Here, researcher has performed Factor Analysis on all the 12 variables of Psychological Empowerment.

For this purpose, a Kaiser – Meyer – Olkin (KMO) statistics has been conducted to take decisions whether factor analysis will be appropriate for the available dataset or not. Kaiser – Meyer – Olkin is a statistical test used frequently to ascertain if data will factor properly , considering correlation and partial correlation. The value of KMO lies from 0 - 1.0 and it has

to be at least 0.6 or more to continue the factor analysis. Bartlett's test of sphericity examines the assumption that the variables are significantly connected.

Table: 5.11

KMO and Bartlett's Test of Psychological Empowerment

KMO & BARTLETT'S TEST		
Kaiser – Meyer – Olkin Measure of Sampling Adequacy		0.906
Bartlett's Test of Sphericity	Approx Chi – Square	4354.248
	Df	66
	Sig	0.000

The preceding table presents the view that, KMO value of Psychological Employee Empowerment is 0.915 which implies adequate size of chosen sample. It also appears that significant value is 0.00, which is lower than 0.005. Hence, Bartlett's test assumes significance and factor analysis of Psychological empowerment may be proceeded with in this research study. Next we analyse the Communalities Table by SPSS. Communalities values show if the items are fit or unfit for this analysis. When value is smaller than 0.5, it is excluded from the analysis.

Table: 5.12

Communalities

	Initial	Extraction
P1	1	.764
P2	1	.785

P3	1	.762
P4	1	.837
P5	1	.811
P6	1	.666
P7	1	.700
P8	1	.746
P9	1	.721
P10	1	.738
P11	1	.785
P12	1	.785

Extraction Method : Principal Component Analysis

We see all the values are above 0.5. So they are fit for analysis.

Next , we shall proceed to determine and analyse Total Variance Explained Table by using SPSS.

Table: 5.13
Total Variance Explained

Total Variance Explained									
Component	Initial Eigen Values			Extraction Sum of Squared Loadings			Rotation Sum of Squared Loadings		
	Total	% of variance	Cumulative	Total	% of variance	Cumulative	Total	% of variance	Cumulative
1	7.10	59.198	59.198	7.014	59.198	59.198	4.643	38.696	38.696

	4								
2	2.00	16.672	75.870	2.001	16.672	75.870	4.461	37.175	75.870
	1								
3	.709	5.905	81.775						
4	.567	4.727	86.502						
5	.337	2.812	89.315						
6	.287	2.388	91.703						
7	.233	1.940	93.644						
8	.205	1.707	95.351						
9	.167	1.388	96.739						
10	.153	1.277	98.016						
11	.133	1.112	99.128						
12	.105	.872	100.00						

Extraction Method: Principal Component Analysis

The preceding table clearly demonstrates that two factors can be extracted through Factor analysis and these two factors explain 75.870% of total variance.

Next , we proceed to construct Rotated Component Matrix. This will make us identify factors ascertained in our research work.

Table: 5.14

Rotated Component Matrix of Psychological Empowerment

	COMPONENT	
	1	2
P4. Capability	.881	
P5. Self assurance	.867	
P2. Importance	.848	
P1. Meaningful to organization	.832	
P3. Meaningful to self	.822	
P6. Mastery over self	.794	
P11. Control		.859
P12. Influence		.858
P8. Decisive		.852
P9. Opportunity for independence		.833
P10. Impact		.818
P7. Autonomy at work		.766

Extraction method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization

Rotation converged in 3 iterations.

The above table demonstrates to us that six variables in the first factor possess heightened values and so they are clubbed together. They are:

1. Capability,
2. Self assurance,
3. Importance,
4. Meaningful to organization,
5. Meaningful to self and
6. Mastery over self.

We have clubbed these variables as F1 : Competence as these are important dimensions of Competence.

Also six other variables have high values and are clubbed together. They are :

1. Control,
2. Influence,
3. Decisive,
4. Opportunity for independence,
5. Impact and
6. Autonomy at Work.

They are categorized under F2 : Autonomy as these are important characteristics of Autonomy. The table very clearly demonstrates that Factor 1 that is Competence explains 59.198 % of variance followed by Autonomy which explains 16.672 %. Together, this research thesis has accounted for 78.024 % of variance through the above stated components.

5.4.2 : Factor Analysis of Structural Employee Empowerment

For structural empowerment 25 variables are outlined based on literature review. These are :

1. S.1: Success in job
2. S.2: Change inducers
3. S.3: Promotability
4. S.4 :Non – domination

5. S.5 : Purposeful work life
6. S.6: Knowledge about rules
7. S.7: Expectation of seniors
8. S.8: Expectation of colleagues
9. S.9 : Value equality
10. S.10: Control over job scheduling
11. S.11: Job flexibility
12. S.12: Solution of work problems
13. S.13: Clear instructions
14. S.14: Periodic Informations
15. S.15: Approachability of experts
16. S.16 : Informal suggestions
17. S.17 : Performance Appraisal
18. S.18: Due recognition
19. S.19 :Effective communications
20. S.20 :Counselling by boss
21. S.21 : Trusting environment
22. S.22 : Respect to employees
23. S.23 : Friendly relations
24. S.24 :Training Needs Assessment
25. S.25 :Evaluation of Training

A statistical test of Factor Analysis is conducted on all the 25 variables of Structural Empowerment. For this purpose , a Kaiser – Meyer – Olkin (KMO) statistics has been conducted to take decisions whether factor analysis will be appropriate for the available dataset or not.

Table: 5.15

KMO and Bartlett's Test of Structural Empowerment

KMO and BARTLETT'S TEST of STRUCTURAL EMPLOYEE EMPOWERMENT		
Kaiser – Meyer – Olkin Measure of Sampling Adequacy		0.949
Bartlett's Test of Sphericity	Approx Chi – Square	8977.094
	Df	300
	Sig Value	0.000

From the above table 5.15 , it comes into view that, KMO value of Structural Employee Empowerment is 0.949 which implies adequate size of sample. It also appears that significant value is .000 , which is lower than 0.005. Hence, Bartlett's test is highly significant and we may proceed with factor analysis.

Next we analyse the Communalities Table by SPSS. Communalities values show if the items are fit or unfit for this analysis. When value is less than 0.5, it is excluded from the analysis.

Table: 5.16

Communalities

	Initial	Extraction
S1	1	.668
S2	1	.547
S3	1	.649
S4	1	.564
S5	1	.662
S6	1	.597
S7	1	.718

S8	1	.694
S9	1	.571
S10	1	.634
S11	1	.617
S12	1	.554
S13	1	.686
S14	1	.689
S15	1	.666
S16	1	.595
S17	1	.734
S18	1	.778
S19	1	.581
S20	1	.731
S21	1	.798
S22	1	.824
S23	1	.793
S24	1	.721
S25	1	.756

Extraction Method : Principal Component Analysis

We see these values to be above 0.5. So they are fit for analysis.

Next , we shall proceed to determine and analyse the Total Variance Explained Table through the aid of SPSS.

Table: 5.17**Total Variance Explained**

Total Variance Explained									
Component	Initial Eigen Values			Extraction Sum of Squared Loadings			Rotation Sum of Squared Loadings		
	Total	% of variance	Cumulative	Total	% of variance	Cumulative	Total	% of variance	Cumulative
1	13.545	54.181	54.181	13.545	54.181	54.181	9.502	38.008	38.008
2	2.922	11.688	65.869	2.922	11.688	65.869	6.965	27.861	65.869
3	.970	3.879	69.748						
4	.846	3.383	73.132						
5	.746	2.985	76.116						
6	.605	2.419	78.536						
7	.567	2.269	80.805						
8	.553	2.211	83.015						
9	.462	1.847	84.862						
10	.418	1.673	86.535						
11	.411	1.642	88.178						
12	.376	1.506	89.683						
13	.349	1.396	91.080						
14	.320	1.281	92.361						
15	.261	1.043	93.404						
16	.255	1.020	94.423						

17	.220	.880	95.303						
18	.211	.845	96.148						
19	.204	.818	96.966						
20	.183	.731	97.697						
21	.147	.589	98.286						
22	.133	.534	98.819						
23	.109	.437	99.257						
24	.097	.386	99.643						
25	.089	.357	100.00						

Extraction Method: Principal Component Analysis

The above table clearly demonstrates that two factors have been obtained through Factor analysis and these two factors explain 65.869 percent data set variance.

Next , we proceed to construct the rotated component matrix which will make us understand the factors from our research work.

Table : 5.18

Rotated Component Matrix of Structural Empowerment

	Components	
	1	2
S22. Respect to employees	.885	
S14. Periodic Informations	.871	
S25.Evaluation of training	.862	
S23.Friendly relations	.861	
S24.Training needs Assessment	.844	

S18 Due recognition	.810	
S17 Performance Appraisal	.809	
S20.Counselling by boss	.801	
S19.Effective communication	.737	
S15.Approachability of experts	.676	
S16. Informal suggestions	.678	
S21.Trusting environment	.634	.536
S10. Job scheduling control	.619	.501
S13.Clear instructions	.612	.557
S11. Job flexibility	.577	.533
S5.Purposeful Work life		.801
S1.Success in job		.794
S7.Expectation of seniors		.772
S3.Promotability		.753
S4.Non – domination		.747
S6. Knowledge about rules		.744
S2. Change inducers		.722
S8. Expectation of colleagues	.554	.630
S12.Solution of work problems		.606
S9.Value equality		.502

Extraction method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization

Rotation converged in 3 iterations

The previous table points out implicitly two definite factors affecting structural employee empowerment in banks in West Bengal. Of them five variables are coming in both the

components. But they are put in that component for which their values are higher. So we see that , Factor 1 has 15 variable. These fifteen variables possess exalted values and so they are clubbed together. They are:

1. Respect to employees,
2. Periodic informations,
3. Evaluation of training,
4. Friendly Relations,
5. Training needs assessment,
6. Due recognition,
7. Performance appraisal,
8. Counselling by boss,
9. Effective communications,
10. Informal suggestions,
11. Approachability of experts,
12. Trusting environment
13. Job scheduling control,
14. Clear instructions, and
15. Job flexibility

These variables are termed as F1 : Information Sharing as these demonstrate direct or indirect relation to Information sharing.

We additionally have ten other variables have high values and are clubbed together. They are :

1. . Purposeful Work Life,
2. Success in job,

3. Expectation of seniors,
4. Promotability,
5. Non – domination,
6. Knowledge about rules,
7. Change inducers,
8. Expectation of colleagues,
9. Solution of work problems,
10. Value equality.

We categorize these variables as F2 : Authority and Responsibility as these are important characteristics of having Authority and Responsibility. Preceding table evidently show that Factor 1 that is Information Sharing accounts for 54.181 % of variance followed by Factor 2 that is Authority and Responsibility correspond to 11.688 % of variance.

Together this research paper have accounted for 65.869 % of variance through the two above stated components. So Four Factors are seen to affect Employee empowerment. They are :

1. Competence
2. Autonomy
3. Information Sharing and
4. Authority and Responsibility.

5.5 : Objective 2

To ascertain the indicators of employee satisfaction

For employee satisfaction, twenty are outlined based on literature review.

They are :

1. SA 1: Busy with responsibilities.
2. SA 2: Chance to work alone.
3. SA 3: Do different things.

4. SA 4: Recognition.
5. SA 5: Dyadic relation
6. SA 6 : Competence of supervisors
7. SA 7 : Ethical work
8. SA 8 : Provision for steady employment.
9. SA 9 : Help others
10. SA 10 : Give instructions to others.
11. SA 11 : Utilisation of abilities.
12. SA 12 : Company policies.
13. SA 13 : Payment linked to work.
14. SA 14 : Chances for advancements
15. SA 15 : Use own judgements
16. SA 16 : Try own methods
17. SA 17 : Working conditions
18. SA 18 : Relationship with peers
19. SA 19 : External validation
20. SA 20: Self esteem

The researcher has performed a Factor Analysis on all the 20 variables of Employee Satisfaction. For this purpose, a Kaiser – Meyer – Olkin (KMO) statistics has been conducted to take decisions whether factor analysis will be appropriate for the available dataset or not.

Table : 5.19

KMO and Bartlett's Test of Employee Satisfaction

KMO and Bartlett's Test		
Kaiser - Meyer – Olkin Measure of Sampling Adequacy		.888
	Approx Chi square	6509.452
	Df	190
	Sig Value	.000

The table 5.19 , makes it clear that, KMO of Employee Satisfaction is 0.888 which implies adequate size of sample. It also appears that the significant value has been 0.000 that is actually lower than 0.05. Hence, Bartlett's test is highly significant and we may continue factor analysis.

Next we shall analyse the Community Table by SPSS. Community values show if variables are fit or unfit for this analysis. When it is below 0.5, that variable is taken away from the analysis.

Table: 5.20

Community Table

	Initial	Extraction
SA1	1	.682
SA2	1	.604
SA3	1	.698
SA4	1	.802
SA5	1	.713
SA6	1	.526

SA7	1	.783
SA8	1	.749
SA9	1	.630
SA10	1	.766
SA11	1	.838
SA12	1	.848
SA13	1	.755
SA14	1	.816
SA15	1	.809
SA16	1	.871
SA17	1	.747
SA18	1	.761
SA19	1	.815
SA20	1	.870

Extraction Method: Principal Component Analysis

We see all the values are above 0.5 . So they are fit for analysis.

Next , we shall proceed to determine and analyse the Total Variance Explained Table with the help of SPSS .

Table : 5.21

Total Variance Explained

Total Variance Explained									
Component	Initial Eigen Values			Extraction Sum of Squared Loadings			Rotation Sum of Squared Loadings		
	Total	% of variance	Cumulative	Total	% of variance	Cumulative	Total	% of variance	Cumulative
1	8.598	42.990	42.990	8.598	42.990	42.990	5.028	25.142	25.142
2	2.855	14.775	57.766	2.955	14.775	57.766	4.248	21.238	46.380
3	2.071	10.355	68.121	2.071	10.355	68.121	3.325	16.626	63.005
4	1.460	7.302	75.423	1.460	7.302	75.423	2.484	12.418	75.423
5	.704	3.518	78.941						
6	.622	3.109	82.050						
7	.486	2.428	84.479						
8	.452	2.262	86.741						
9	.412	2.060	88.801						
10	.359	1.797	90.597						
11	.317	1.587	92.185						
12	.278	1.391	93.576						
13	.249	1.247	94.822						
14	.226	1.132	95.954						
15	.197	.986	96.940						
16	.153	.763	97.703						

17	.135	.676	98.378						
18	.126	.628	99.006						
19	.113	.564	99.570						
20	.086	.430	100.00						

Extraction Method : Principal Component Analysis

From the above table , it becomes clear that four factors could be obtained through Factor analysis which explain 75.423 % of variance.

Next , we proceed to construct the Rotated Component Matrix so as to point out the research factors in our area.

Table: 5.22

Rotated Component Matrix of Employee Satisfaction

Rotated Component Matrix				
	Components			
	1	2	3	4
SA11.Utilisation of abilities	.885			
SA12.Company Policies	.877			
SA13.Payment linked to work	.843			
SA10.Give instructions to others	.834			
SA9. Help others	.766			
SA8.Provision for steady employment	.703			
SA7.Ethical work	.673	.516		
SA4. Recognition		.832		

SA3. Do Different things		.814		
SA1.Busy with responsibilities		.783		
SA2.Chance to work alone		.761		
SA5.Dyadic relation		.693		
SA6.Competence of supervisors		.661		
SA16.Try own methods			.892	
SA15. Use Own judgement			.850	
SA17.Working Conditions			.833	
SA14Chances for advancements			.832	
SA20. Self Esteem				.887
SA19.External Validation				.845
SA18. Relationship with peers				.825

Extraction method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization

Rotation converged in 3 iterations

The previous table clearly demonstrates definite factors affecting employee satisfaction in Banks in West Bengal. Of them one variables is coming in both the components. But it is put in that component for which it has higher value. So we see that , Factor 1 has seven variables.

The previous table indicates that seven items of first factor possess enhanced values and so they are clubbed together. They are:

1. Utilisation of abilities,
2. Company Policies,
3. Payment linked to work,

4. Give instructions to others,
5. Help others,
6. Provision for steady employment and
7. Ethical work.

These variables are grouped as F1 : Company Policies as these constitute and contribute to Company Policies.

We have six other variables with high values and are clubbed together. They are :

1. Recognition,
2. Do Different things,
3. Busy with responsibilities,
4. Chance to work alone,
5. Dyadic relation and
6. Competence of supervisors.

They are clubbed as one factor F2 : Nature of Job, as majority describe the Nature of Job.

Next we find four other variables which have high values and are clubbed together. They are:

1. Try own methods,
2. Use own judgements,
3. Working Conditions, and
4. Chances for advancements.

These four variables got categorized under one factor F3 : Work Environment , as they describe the environment at work.

Lastly, three variables that possess high values have been clubbed together. They are :

1. Self Esteem
2. External validation, and

3. Relationship with peers.

They are classified under one factor F4 : Self - Esteem. The previously demonstrated table makes it amply clear that Factor 1 that is Company Policies accounts for 42.99% of variance followed by Factor 2 that is Nature of the job that represents 14.775% of variance. Next, Factor 3 that is Work Environment again accounts for 10.355% of variance followed by Factor 4 that is Self - Esteem that explains 7.302 % of variance. Together 75.423% of variance is explained in this research paper through the above stated four components.

So the four indicators of Employee Satisfaction are:

Factor 1 : Company Policies

Factor 2 : Nature of Job

Factor 3 : Work Environment

Factor 4 : Self - Esteem

5.6: Objective 3

To establish a model to depict the relation between employee empowerment and employee satisfaction.

5.6.1 Normality Testing

The endeavour here is ascertainment of extent of relation which occurs between four factors of empowerment and satisfaction of employees. For this , first normality testing for dependent and independent variables are conducted. Normality testing is defined as a statistical method for finding out if a particular collection of the sample exhibits a standard normal distribution. In this research study, we have four independent variables, that actually represent the empowerment factors. They are : Competence , Autonomy, Information Sharing and, Authority and Responsibility. For convenience value of Competence for 382 respondents is calculated. It is denoted as PE1. Value of Autonomy for 382 respondents is

calculated and denoted as PE2. Value of Information Sharing is calculated and denoted as SE1. Value of Authority and Responsibility is calculated and denoted as SE2. Value of Employee Satisfaction is taken as dependent variable, denoted as SAT.

From normality testing it is seen that the values are not normal. Data correction has been undertaken through the method of Square Root Transformation. The Psychological Empowerment 1 (PE 1) value , after square root transformation is denoted as SQRTPE1. The Psychological Empowerment 2 (PE 2) value , after square root transformation is denoted as SQRTPE2. The Structural Empowerment 1 (SE1) value after Square root transformation is denoted as SQRTSE1. Similarly, the Structural Empowerment 2 value , after Square root transformation is denoted as SQRTSE2. The skewness value of SQRTPE1 is -1.115. The skewness value of SQRTPE2 is -.509 which lies between 1 and -1. So data follows a near normal distribution. Again , the skewness value of SQRTSE1 is -.708, which lies between 1 and -1. So it also follows a near normal distribution. The skewness value of SQRTSE2 is seen as -.672. This again lies between 1 and -1. Again, the total employee satisfaction score after Square Root Transformation is denoted as SQRTSAT. The skewness value of SQRTSAT is -.508. This value lies between 1 and -1. So this data also follows a near normal distribution. From this we see data set as approximately normal and parametric – tests may be conducted.

5.6.2: Multiple Regression Analysis

Multiple Regression Analysis is employed to assess how independent variables influence the dependent variables. It concerns two or more independent variables and one dependent variable. Multiple Regression is written as $Y = a + b_1X_1 + b_2X_2 + b_3X_3 + \dots + b_mX_m$

Here Y is the dependent variable and ‘a’ is the regression constant estimation. b1, b2, b3,.....bm are the regression coefficient estimations of ‘m’ number of independent variables

X1, X2, X3,...Xm.

Here , Competence , Autonomy, Information Sharing and, Authority and Responsibility are taken as Independent variables. After Square Root Transformation for data correction they are denoted as follows SQRTPE1, SQRTPE2, SQRTSE1, SQRTSE2 respectively. The overall score of employee satisfaction has been taken as the Dependent Variable. After Square Root Transformation for data correction, it is denoted as SQRTSAT.

Table: 5.23

Correlations

		SQRTSA T	SQRTPE1	SQRTPE2	SQRTSE1	SQRTSE2
Pearson Correlation	SQRTSA T	1.000	.608	.572	.774	.697
	SQRTPE1	.608	1.000	.545	.427	.331
	SQRTPE2	.572	.545	1.000	.359	.331
	SQRTSE1	.774	.427	.359	1.000	.652
	SQRTSE2	.697	.331	.331	.652	1.000
Sig. (1-tailed)	SQRTSA T	.	.000	.000	.000	.000
	SQRTPE1	.000	.	.000	.000	.000
	SQRTPE2	.000	.000	.	.000	.000

	SQRTSE1	.000	.000	.000	.	.000
	SQRTSE2	.000	.000	.000	.000	.
N	SQRTSA T	382	382	382	382	382
	SQRTPE1	382	382	382	382	382
	SQRTPE2	382	382	382	382	382
	SQRTSE1	382	382	382	382	382
	SQRTSE2	382	382	382	382	382

Table 5.23 demonstrates the Pearson Correlations Coefficients. They are calculated among the four independent variables. As no correlation value has attained 0.80 threshold, the analysis shows that no two variables are closely related.

Table: 5.24

Model Summary

Model Summary										
					Change Statistics					
Model	R	R Square	Adjusted R Square	Standard error of the estimate	R square change	F change	df 1	df 2	Sig F change	Durbin – Watson
1	.880	.775	.773	.44139	.775	325.141	4	377	0.000	1.703

Predictors(constant):Competence(SQRTPE1),Autonomy(SQRTPE2),

Information

Sharing(SQRTSE1), Authority & Responsibility (SQRTSE2)

Dependent Variable : Employee Satisfaction.(SQRTSAT)

Here, R has a value of 0.880, which indicates a good degree of positive correlation. The R^2 value emphasizes how variance of 'Employee Satisfaction' can be attributed to the independent variables. In this particular case, 77.5 % variance in Employee satisfaction can be attributed to be due to Employee Empowerment, which is quite high.

So : $R^2 = .775$; Combined, the independent variables: Competence, Autonomy, Information Sharing and Authority and Responsibility account for 77.5% of variance in Employee Satisfaction.

Durbin – Watson is utilized to judge the autocorrelation between residuals. Autocorrelation is explained as how much the values of particular variables correlate with each other between different observations for data set. In Multiple Regression when residuals are not independent, then autocorrelation is said to exist. The existence of this feature is checked by Durbin – Watson d test. This value may range from 0 – 4. Values nearing 2 suggest that Autocorrelation is absent for the data set. In Table 5.24, the Durbin – Watson is determined to be 1.703. It lies near to 2. So, it is concluded that residuals do not show autocorrelations.

Table: 5.25

Result of ANOVA

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	253.386	4	63.346	325.141	.000 ^b
	Residual	73.450	377	.195		
	Total	326.836	381			

The ANOVA table demonstrates how adequately data is being described through regression equation, (i.e. accurately explains dependent variable).

Table 5.25 demonstrates how regression model explains the dependent variable significantly well. Here p (Sig) is lower than 0.001, which is actually lower than 0.05. It points out that the overall regression model is significant, and : $F(4, 377) = 325.141$, $p < 0.001$, $R^2 = .775$ So the model is suitable for this data set.

Table :5.26

Regression Coefficients Result

Coefficients							
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig value	Collinearity Statistics	
	B	Standard error	Beta			Tolerance	V.I.F
1. Constant	.785	.219		3.587	.000		
SQRTPE1	.299	.041	.223	7.302	.000	.641	1.560

SQRTPE2	.300	.043	.207	6.959	.000	.674	1.483
SQRTSE1	.374	.030	.030	12.507	.000	.522	1.914
SQRTSE2	.352	.041	.041	8.585	.000	.564	1.773

Constant : Employee satisfaction

Dependent : SQRTPE1(Competence), SQRTPE2 (Autonomy), SQRTSE1 (Information sharing), SQRTSE2 (Authority and Responsibility)

In Table 5.26, the p scores of predictor variables, which is given by the Sig value is noted. We find the sig value of independent variable SQRTPE1 to be .000, which is smaller than 0.05. Again we see, that the sig value of SQRTPE2, SQRTSE1 and SQRTSE2 are all respectively .000 which are ultimately less than .05. So SQRTPE1, SQRTPE2, SQRTSE1 and SQRTSE2 are all statistically significant at 5% level of significance.

All the four Predictor variables have positive 'Unstandardized Coefficients' value. From Table 5.26, it shows that one unit change in SQRTPE1 or competence results in 0.299 units change in SQRTSAT or Employee Satisfaction. Again one unit change in SQRTPE2 or Autonomy results in 0.300 units change in SQRTSAT or Employee Satisfaction. Again one unit change in SQRTSE1 or Information Sharing result in 0.374 units change in SQRTSAT or Employee Satisfaction. The analysis also highlights that one unit change in SQRTSE2 or Authority and Responsibility results in 0.352 units change in SQRTSAT or Employee Satisfaction. As p values (Sig) of four independent variables are lower than 0.05 and the 'Unstandardized Coefficients' have positive value, so we can assert that the dependent and independent variables at 5% level of significance enjoy a positive relationship.

So Competence, and Autonomy as factors of Psychological Employee Empowerment have a positive effect on Employee Satisfaction. So H₁₁ is proved correct.

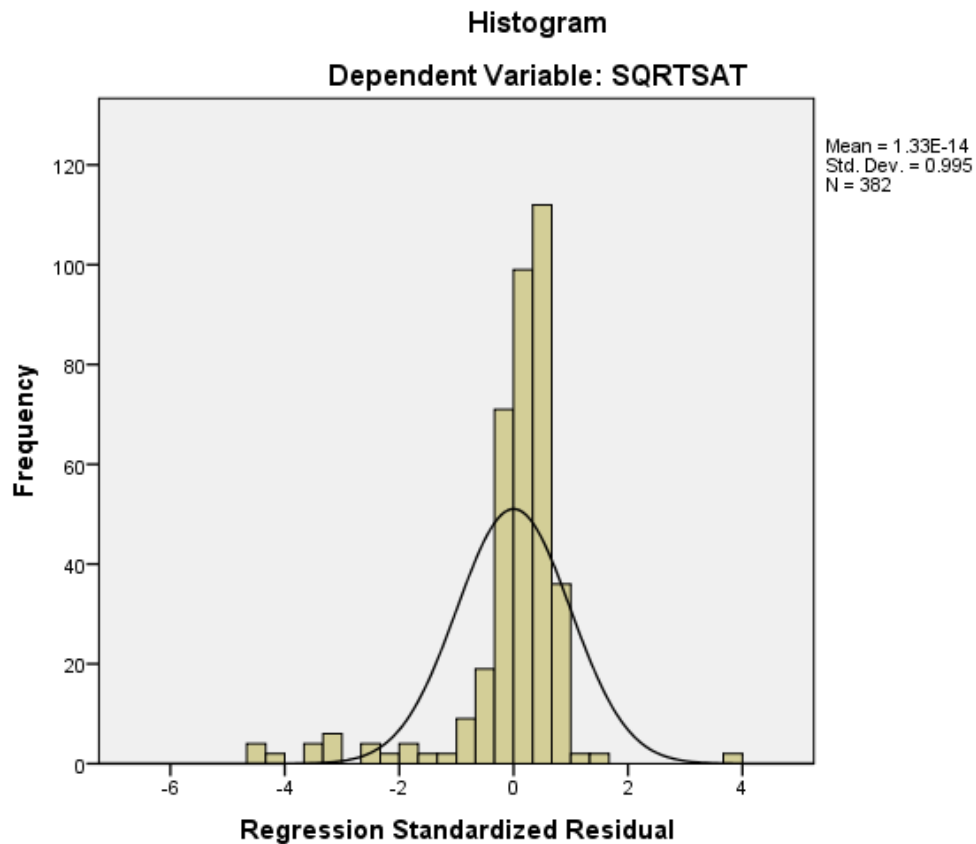
Again Information Sharing, and Authority and Responsibility as factors of Structural Employee Empowerment have a positive effect on Employee Satisfaction. Hence H₁₂ is

proved correct.

Table 5.26, can show if there is presence or absence of multicollinearity.

Multicollinearity is a condition where two or more independent variables strongly correlate with each other. The independent variables need to have tolerance values more than 0.1 to demonstrate absence of multicollinearity. The Tolerance value of SQRTPE1, SQRTPE2, SQRTSE1 and SQRTSE2 are respectively 0.641, 0.674, 0.522, and 0.564 respectively. All the values are more than 0.1 Thus evidently, multicollinearity is non – existent in this data. The value of Variance Inflation Factor (VIF), which describes multicollinearity will be lower than 3 for acceptability range. SQRTPE1, SQRTPE2, SQRTSE1 and SQRTSE2 each have VIF as 1.560, 1.483, 1.914, and 1.773 respectively. From this, it is said multicollinearity is non existent for this data set.

Fig : 5.8



From this we can conclude that multicollinearity does not exist for this data set

Therefore, from Table 5.26, we can write the fitted model as:

$$\text{SQRTSA} = .785 + .299\text{SQRTPE1} + .300\text{SQRTPE2} + .374\text{SQRTSE1} + .352\text{SQRTSE2},$$

Where SQRTSAT denotes Employee satisfaction

SQRTPE1 denotes Competence

SQRTPE2 denotes Autonomy

SQRTSE1 denotes Information sharing, and

SQRTSE2 denotes Authority and Responsibility.

5.7: Objective 4

To explore the areas which serve as keys to success of employee empowerment.

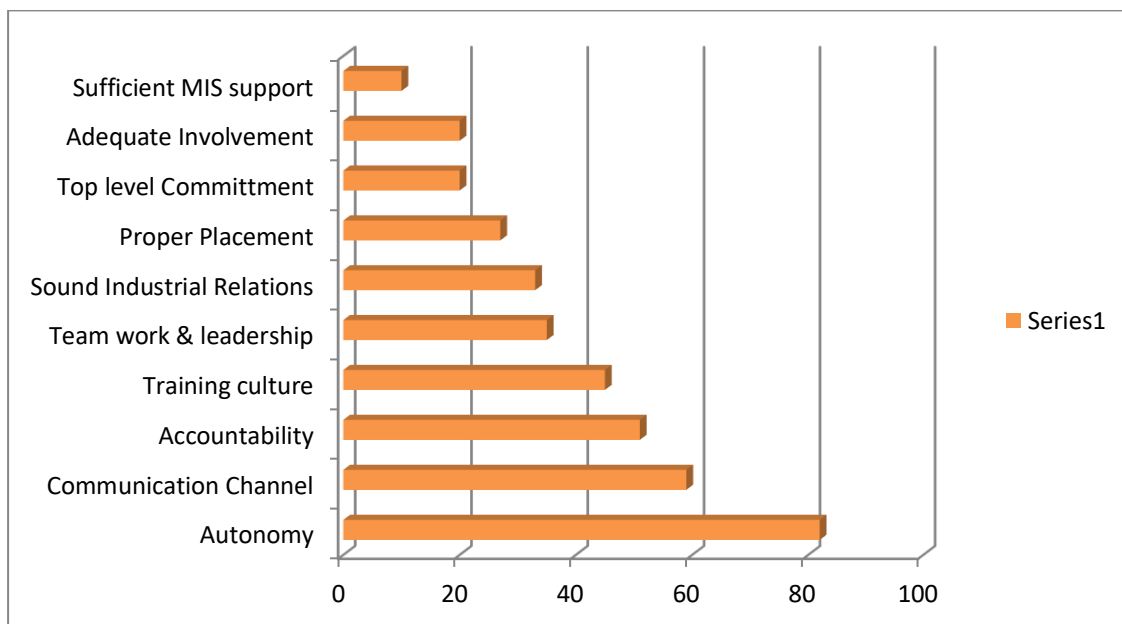
To ascertain this objective, we have kept an open ended question and asked research respondents to name and describe the vital most area , which they feel give rise to successful

empowerment process within their organizations. Accordingly, ten different answers have been obtained as suggestive ways of improving empowerment cycle. They are :

1. Autonomy
2. Open Communication Channel
3. Accountability
4. Training and Skill Development
5. Team Work and Leadership Capabilities
6. Sound Industrial Relations
7. Proper Placement
8. Top Management Committment
9. Adequate Involvement
10. Sufficient MIS Support.

Fig :5.9

Key Areas That Promote Empowerment



The frequency distribution of the key areas and also the percentage of occurances in the

sampled employees' responses have been mentioned here

Table: 5.27

Key Areas That Make Empowerment Successful

Key areas for empowerment	Frequency	Percentage
Autonomy	82	21.46
Communication Channel	59	15.44
Accountability	51	13.35
Training Culture	45	11.78
Team work & leadership	35	9.16
Sound Industrial relations	33	8.64
Proper Placement	27	7.07
Top level Commitment	20	5.24
Adequate Involvement	20	5.24
Sufficient MIS Support	10	2.62

Total cases :382

1. So, we see that 82 of the 382 respondents have considered 'Autonomy' as a vital area that contributes most towards developing an empowered environment. This means that those 21% of sampled employees believe proper autonomy provided to employees can make them adequately empowered. Strategy rules should be adaptable with more dynamic decisions. Also regarding implementation of empowerment policy of autonomy, and also, every staff ought to be dealt with similarly with no individual predilection or biases of the top administration. There additionally must be objective target evaluation – whether bonafide or malafide.
2. An overwhelming 59 of the 382 respondents have put the onus of successful

empowerment policy on the existence of a proper two way communication channel. They have expressed that for empowerment to be successful, a proper counseling workforce with adequate explanation of their new job roles is imperative. The workers to be empowered ought to have clear guidelines and also be provided with product or service knowledge. Their doubts and clarifications should receive adequate and efficient redressal, if needs be via one – to – one meetings. The work milieu should be stress – free , co-operative and encouraging.

3. 51 employees or 13.35% feel that for empowerment to be successful, there must be an accentuation on responsibility. For effective functioning of empowerment, organizations have need to see that authority is moved to subordinates alongside duty and responsibility. The organization ought to mean to confirm that the empowered personnel are putting forth a valiant effort working towards mutually agreed goals and demonstrating responsible behaviour towards each other.
4. 45 respondents or 11.78% of sampled staff assume one aspect to becomes prominent in making empowerment successful; and that becomes existence of a culture that promotes and facilitates training and development. This should be regular and need – based.
5. 9.16% of the respondents, numbering at 35 think thrust of empowerment should be on leadership and team building. It implies that empowerment needs to be team – work. Instead of giving powers to individuals, authority and power should be delegated to teams where all the constituents get equal training. Decision should be taken unanimously by the team. It is only when such a scenario exists, then empowerment would be successful.
6. 33 sampled respondents feel healthy and sound industrial relations make successful empowerment policy in any organization. This 8.64% respondents have listed sound

industrial relations as the vital most contributory factor to the effective empowerment process. They opine that, industrial relations generate a state of mutuality, and ,an environment of peaceful working climate among peers, subordinates and bosses. This also brings all the stakeholders close together that helps to make empowerment process successful in organizations.

7. 7.07 % people listed the proper placement of employees in jobs of their choice as a prerequisite which plays a key role towards successful empowerment policy. This 27 employees view that to take full advantage of employee empowerment, employees must be placed in jobs that suit their areas of interest. There should be job clarity.
8. 20 employees have listed top management commitment and support as vital most factor that can result in successful implementation of empowerment policy. 5.24% staff think empowerment initiatives to be effective and achievable, when there is exalted values of commitment throughout management hierarchy and more so at the top most or corporate policy making strata of administration.
9. One key area that makes an functionally effective empowerment process is involving people in various activities. This viewpoint is held by 5.24% respondents or 20 employees. Employee involvement is a participative management process, whereby the total capacity of workers are utilized which also accentuates their commitments towards organizational success. In such a scenario, the employees more willingly feel responsible to fulfill their official obligations and that too successfully and efficiently.
10. Lastly, 10 employees or 2.62%, feel that for empowerment policy to be successful the organization needs to boast of proper management information system (MIS) support. Also they have voiced that empowerment as a process should be made a slow , gradual and graded procedure, accompanied with timely check , evaluation and revision of performance of empowered employees and when satisfactory outcome is

obtained, only then degree of empowerment may be increased. So , such performance data is accessible easily by both the higher management and the concerned employees. This will make empowerment more effective and also ensure that the employees did not misuse empowerment.

5.8: Objective 5

To find out those areas which create barriers to effective empowerment .

To ascertain this objective, again an open ended question has been kept before the respondents, who are asked to name and describe the most significant area , which they feel functions as barriers to the empowerment process within their organizations. Accordingly, eight different answers which might or actually matter has been obtained. These have been outlined as :

1. Lack of Information
2. Fear of Retribution.
3. Absence of Proper Infrastructure.
4. Faulty Capability Judgement.
5. Climate of Suspicion and Distrust.
6. Lack of Fairness in Implementation
7. Dependent upon Superior's Ideology
8. Presence of Knowledge Gap.

Fig : 5.10

Areas That Act as Barriers to Empowerment

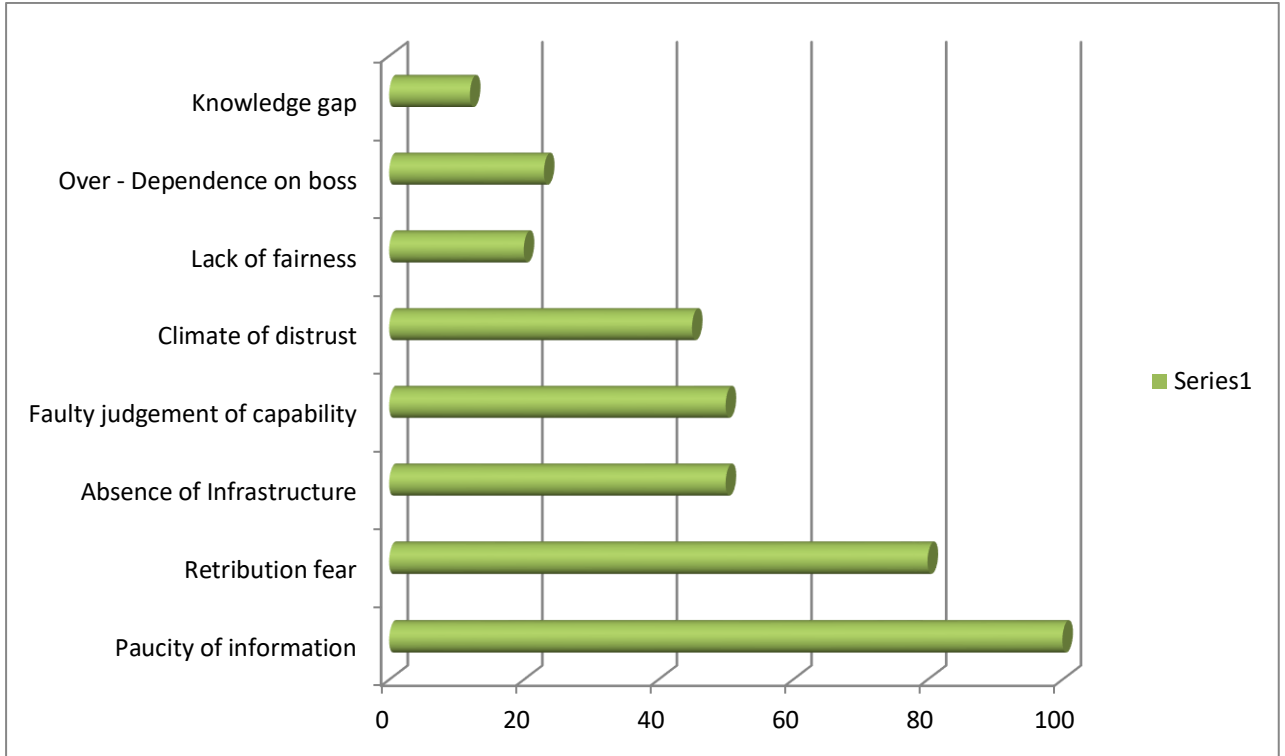


Table :5.28

Areas That Act as Barriers to Empowerment

Areas that act as barriers to empowerment	Frequency	Percentage
Lack of information	100	26.17
Fear of retribution	80	20.94
Absence of proper infrastructure	50	13.08
Faulty capability judgement	50	13.08

Climate of suspicion & distrust	45	11.78
Lack of fairness in implementation	22	5.76
Over- Dependence on superior's ideology	23	6.02
Presence of knowledge gap	12	3.14

Total Cases : 382

From Table 5.28, we find :

1. Non – availability of relevant information is projected as a major barrier towards employee empowerment according to 100 sampled employees. This 26.17% of respondents feel that it promotes free flowing and adequate network of communication , which restrains empowerment .
2. What may block empowerment is the chance of reprisal from top administration that is dreaded by the workers if there should arise an occurrence of failure of their drives. This viewpoint is held by 80 or 20.94% respondents So pressure from top management and, absence of an encouraging climate precludes the labor force and prohibits them from openly expressing their viewpoints. This result in stifling of their voices.
3. 13.08% respondents , or 50 believe that nonappearance of appropriate framework and absence of legitimate MIS uphold additionally ruins the empowerment cycle.
4. 50 employees opine that before empowering employees , organization need to undertake a capability judgment to ascertain if situations exist for more autonomy and power. If not, then adequate skill development and training program should be initiated for them. Absence of arrangement for training openings obscures the

empowering process. Thus 13.08% respondents assume , when there are errors in capability judgements of employees, then that would hinder the total system of empowerment.

5. 45 employees opine that a climate of suspicion and distrust whereby employees may assume to be overburdened in the name of empowerment. This may hinders empowerment process. Those 11.78% believe that in such a case, a deficit in trust and management goodwill is evident which slows down empowerment.
6. 5.23% respondents acknowledged that non availability of fairness and transparency in the total empowerment methodology sometimes make them view management's intentions suspiciously. These 20 people state that if the overall policies of the policy makers are unfair and unjust, then even the honest initiatives of empowerment would be viewed negatively, which would obstruct empowerment.
7. 23 personnel view that many a times the implementation of empowerment is reliant on the personal choices of the management. 6.02% of respondents opine that in such a scenario, this might actually pose as hindrances, when the concerned boss/ superiors are against this very concept of adequate empowerment. However the ideal scenario should be that empowerment practices being constituent of company policy, and not dependant upon the personal inclinations of certain individuals.
8. 12 respondents or 3.14 % feel, the knowledge gap amongst employees and inadequate exposure to skill development opportunities result in the failure of proper empowerment process. Also mismatch of mentality amongst the team members harms the overall team performance which further hinders the empowerment.

5.9 : Conclusion

So, in this chapter, we have analysed the data obtained and successfully ascertained the five objectives for study. Through interpretation of the data the significant findings are obtained.

1. We have determined four factors of empowerment, which are –
 - a. Information Sharing,
 - b. Authority and Responsibility,
 - c. Competence and
 - d. Autonomy.

Therefore, from this research work, we can state that business establishments concentrate on these empowerment factors.

2. Also we have deduced the indicators of employee satisfaction which are –
 - a. Company Policies,
 - b. Nature of Job ,
 - c. Work Environment and
 - d. Self- Esteem.

In a nutshell , the banks should try to implement and ensure that these factors prevail in their environment such that empowerment and satisfaction are facilitated

3. We have additionally attempted to study how empowerment factors influence satisfaction in the employees. The four factors of empowerment were have positively affected satisfaction process. More the employee empowerment, more satisfied are the employees.
4. Ten areas which bring success of empowerment process are also ascertained. They are:
 - a. Autonomy,
 - b. Open Communication Channel ,
 - c. Accountability ,
 - d. Training and Skill Development,
 - e. Team work and Leadership Capabilities ,

- f. Sound Industrial Relations,
 - g. Proper Placement,
 - h. Commitment of Top Management,
 - i. Adequate Involvement and
 - j. Sufficient MIS Support.
5. We have discerned eight areas that hinders empowerment process. They are :
- a. Lack of Information
 - b. Fear of Retribution ,
 - c. Absence of Proper Infrastructure ,
 - d. Faulty Capability Judgement ,
 - e. Climate of Suspicion and Distrust ,
 - f. Lack of Fairness in Implementation,
 - g. Dependent upon Superior's Ideology and
 - h. Presence of Knowledge