CHAPTER 6

PROBLEMS WITH BANK FINANCING OF MICRO, SMALL AND MEDIUM ENTERPRISES IN ASSAM

6.1 DEFINITION OF MICRO, SMALL AND MEDIUM INDUSTRIES

Micro, Small and Medium Enterprises in India can be categorised in a number of ways, such as type (micro, small or medium), activity (manufacturing or service) or ownership 0(proprietorship, partnership or company). But the most comprehensive definition has been given by the Ministry of MSMEs which is as per the registration status of the unit.

Registered MSMEs are 'enterprises registered with District Industries Centres in the State/UTs., Khadi and Village Industries Commission/ Khadi and Village Industries Board, Coir Board and factories under the coverage of section 2m (i) and 2m (ii) of the Factories Act, 1948 used for Annual Survey of Industries and having investment in plant & machinery up to ₹10 crores. The total number of registered MSMEs in Assam in 2010-11 was 34,618 units'.

Unregistered MSMEs are 'all MSMEs engaged in the activities of manufacturing or in providing/ rendering of services, not registered permanently or have not filed Entrepreneurs Memorandum Part-II/ [EM-II] with State Directorates of Industries/District Industries Centres are called unregistered MSMEs' (Ministry of MSME Annual Report, 2013-14).

6.2 DIFFICULTIES EXPERIENCED BY MSMEs IN OBTAINING LOANS FROM BANKS

The difficulties being experienced by MSMEs have been measured using 37 sub-variables grouped under 8 variables, namely,

> (i) Application
> (ii) Documentation
> (iii) Staff support
> (iv) Terms and policies
> (v) Sanction process
> (vi) Attitude
> (vii) Support Service

(viii) Post sanction.

All the variables have been individually examined to find out their average scores as well composite mean for each variable in the following sections.

Calculation of Average Scores of Likert Scales Statement-Wise

It was attempted to find out which variables had the highest difficulty ratings using the statements presented to MSME borrowers. Statement-wise average score was calculated for difficulty level using the following formula:

$$\frac{[N (HD) \times (1) + N (D) \times (2) + N (N) \times 3 + N (A) \times 4 + N (HA) \times 5]}{N (R)}$$

Where,

N (HD) = No. of respondents selecting Highly Disagree

N (D) = No. of respondents selecting Disagree

N (N) = No. of respondents selecting Neutral (Neither Agree nor Disagree)

N (A) = No. of respondents selecting Agree

N (HA) = No. of respondents selecting Highly Agree

N(R) = Total no. of respondents

Despite all the disputes on 'Likert type data', "most of the research based on Likert items and scales observed in similar fields treat them as interval scales and analyzes them as such with descriptive statistics like means, standard deviations, etc. and inferential statistics like correlation coefficients, factor analysis, analysis of variance, etc." (Brown, 2011). Higher the average score, higher is the difficulty level associated with that statement. The statements are grouped as per the variables in Table 6.1:

Table 6.1 Average scores of Difficulty Variables

VARIABLES	ITEMS	Average Score	Composite mean score of variable[10]
Application	Application procedure was very time consuming.	3.11	3.1
	Bank demanded too many enclosures during application.	3.28	
	Details being demanded in the application	**3.41***	

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[10] Composite mean is considered a good measure of central tendency for Likert scale. It is the aggregate simple mean of average score of items grouped under a variable, calculated for each variable.

	procedure were unnecessary.		
	Loan application format was very complicated.	2.99	
	Processing charges associated with application procedure were unreasonably high.	2.71	
Documentation	Financial statements required for loan processing were difficult to provide.	2.9	2.71
	Requirement of clearance documents was inconvenient.	**2.53#**	
Staff support	Bank staffs were not proactive in informing the procedure for the release of documents after loan repayment.	2.86	2.69
	Bank staff did not provide timely, appropriate and relevant information.	2.98	
	Bank staffs' approach in loan sanctioning procedure was unsatisfactory.	2.66	
	Bank staffs were not prompt in responding to queries.	**2.59#**	
	Inadequate staff support in the application procedure.	**2.4#**	
Terms and policies	Terms and conditions for availing relaxation (if provided) on repayment were complicated.	3.29	3.1
	Bank has unreasonably high collateral security requirements.	**3.4***	
	Types of assets required as collateral security were not convenient.	3.08	
	Amount of relaxations (if any) offered on repayment was dissatisfactory.	3.07	
	Inconvenience in procuring documentary evidence of assets, to be provided as collateral.	3.09	
	Rate of interest charged was unreasonably high.	2.98	
	Provisions for ad-hoc increase in the sanctioned limit were not satisfactory.	2.94	
	Banks' requirement for personal guarantor was difficult to meet.	2.98	
Attitude	Promotional drives by banks for inviting MSMEs to borrow were not sufficient.	**3.45***	**3.42***
	Overall attitude of the bank in providing credit to MSME was not favourable.	**3.4***	
Sanction process	Unreasonably high time gap between submission and sanction.	**3.43***	2.94
	Procedure adopted in analysing credit worthiness was questionable.	2.96	
	Institution did not provide timely intimations about disputes in approvals.	2.82	
	Procedure for valuation of assets, produced as collateral security, was not appropriate.	2.89	
	Examination and review procedures were very cumbersome.	2.73	
	Feasibility analysis procedure adopted was not transparent.	2.63	
Support service	Bank has not been maintaining adequate customer confidentiality.	2.93	2.92
	Institutional framework for grievance redressal was inadequate.	2.92	
Post sanction.	Time period allowed by the bank for repayment of the loan was not satisfactory.	2.89	**2.55#**
	Monitoring procedure adopted by the bank for utilization of sanctioned amount by the borrower	2.71	

	was complicated.		
	Procedure for release of security by bank after repayment of loan was inconvenient.	2.7	
	Procedure of releasing of funds (in instalment or otherwise) by the bank was not convenient.	**2.5#**	
	Procedure of submission of updated business plan was harassing.	**2.54#**	
	Repayment reminders made by the bank were bothersome.	**2.43#**	
	Repayment procedure was complicated.	**2.45#**	

Cut off score for a 5-point Likert scale,

= (Maximum – Minimum) / Group = (5-1) / 5 = 0.8.

The verbal description should be converted into interval of means of equal difference (0.80 in case of 5-point scale) in order to give interpretations for the mean.

1 to 1.80 (Strongly disagree),

1.81 to 2.60 (Disagree),

2.61 to 3.40 (Neutral),

3.41 to 4.20 (Agree),

4.21 to 5 (Strongly Agree).

From Table 6.1, we find that the variable 'attitude' has scored high on difficulty level.

The **Individual Scales** where highest difficulty (highlighted *) was faced based on average score are:

(i) Promotional drives by banks for inviting MSMEs to borrow were not sufficient (3.45).

(ii) Unreasonably high time gap between submission and sanction (3.43)

(iii) Details being demanded in the application procedure were unnecessary (3.41).

(iv) Overall attitude of the bank in providing credit to MSME was not favourable (3.4).

(v) Bank has unreasonably high collateral security requirements (3.4).

From Table 6.1, we find that the variable 'Post sanction' has scored low on difficulty level. The **Individual Scales** where borrowers faced least difficulty (highlighted #) are based on average score are:

(i) Inadequate staff support during application (2.4).

(ii) Repayment reminders made by the bank (2.43).

(iii) Complicated repayment procedure (2.45).

(iv) Inconvenient procedure of releasing of funds post sanction (2.5).

(v) Requirement of clearance documents (2.53).

(vi) Bank staffs were not prompt in responding to queries (2.59).

## 6.3 DIFFICULTY EXPERIENCED BY MSME UNITS IN BORROWING FROM BANKS

From extensive literature reviews, MSME census reports published by Ministry of MSMEs, examination of annual reports of Ministry of MSMEs and other reputed agencies, feasibility survey and pilot survey of 81 MSMEs, 37 factors were identified as impacting the MSME borrowing experience from banks. Borrowers were asked to assess the difficulty experienced with the whole borrowing [Appendix 1]. The scores allotted were as follows: Highly Disagree = 1, Disagree = 2, Neutral = 3, Agree = 4 and Highly Agree = 5. Similar scales have been adopted in various research articles (Krosnick and Presser, 2010; Willits, Theodori & Luloff, 2016). Higher the difficulty score, higher is the level of difficulty experienced by the respondent. In order to find out what are the differences in the difficulty levels across demographic profiles, it was attempted to compare means of difficulty scores of each sub variable categorised group-wise for various parameters using one way ANOVA and t-test as appropriate in SPSS.

The demographic profile parameters selected for comparison were:

(i)   Gender

(ii)   Age of owner

(iii)   Education level of owner

(iv)   Type of unit

(v)   Nature of business

(vi)   Location of business

(vii)   Experience of business (in years)

(viii)   Registration status (with DIC)

(ix)   Amount of capital invested

(x)   Annual Income

(xi)   Amount of loan applied

(xii)   Amount of loan sanctioned

(xiii)   Type of loan availed (term loan, working capital, cash credit or others)

(xiv)   Type of scheme availed (PMEGP, PMMY, others)

6.3.1 Normality of Data and Likert Scale

A normality test is used to determine whether sample data has been drawn from normally distributed population which is a prerequisite for conducting one way and two way ANOVA, t-test, among others. However, many researchers have argued that with a large enough sample sizes i.e., (> 30), the violation of the normality assumption should not cause major problems. The implication is that in case of samples consisting of hundreds of observation, the distribution of data can be ignored and parametric procedures can be used even when the data are not normally distributed (Altman, 1997; Pallant, 2005; Elliot, 2007). Proceeding further, it is widely followed to assess reasonable normality of data by visually assessing normal probability plots. If these points fall on or are close to the 45° line, the normality is assumed to be reasonable (Morgan, 2017). Therefore, the normal Q-Q plots for the means of 37 sub- variables categorised under 8 variables are presented below:
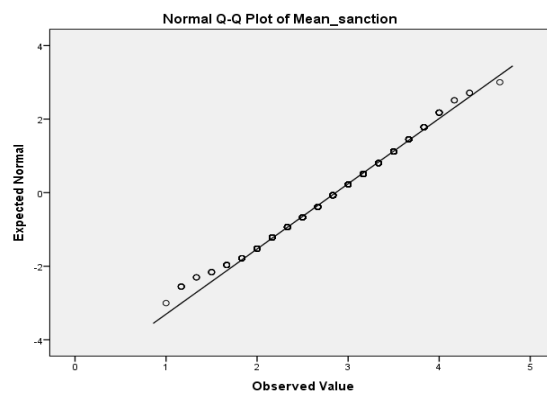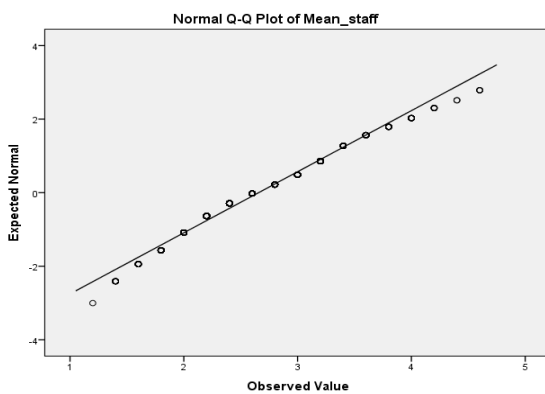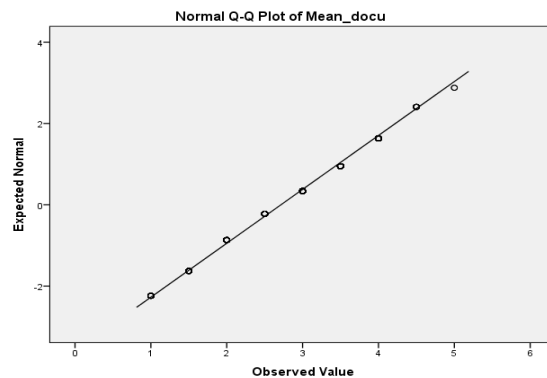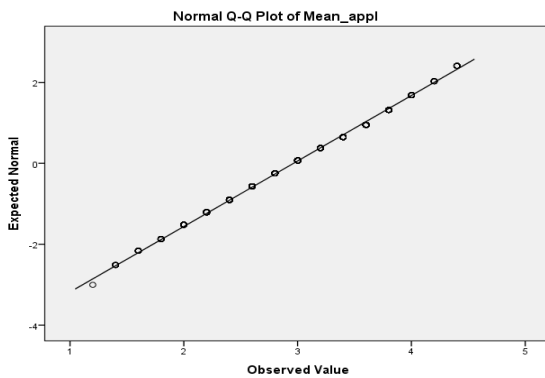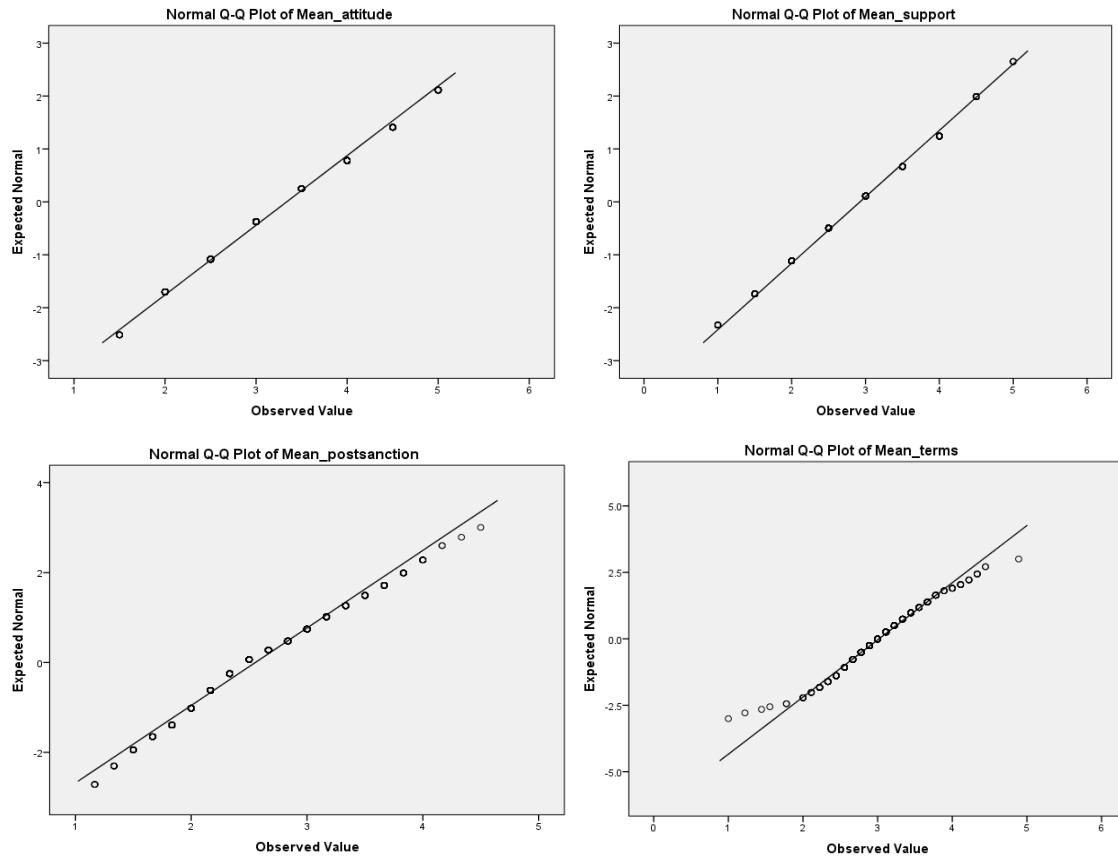
Figure 6.1 Normal Q-Q plots for nine difficulty variables

From Figure 6.1, we can observe that the distribution can be assumed to be reasonably normal. Further, with a sample size of 750, it is assumed to be acceptable to use parametric tests subject to fulfilment of additional requirements.

Over the years it has been argued by many researchers especially in the field of social sciences that Likert scale are as good as continuous scales and can be used for statistical analysis after computing the mean (Pallant, 2005; Willits, Theodori & Luloff, 2016). Vogt (1999) (as cited in Warner, 2008) noted considerable controversy about levels of measurement and choice of analysis. He stated that "as with constitutional law, there are in statistics strict and loose constructionists in the interpretation of adherence to assumptions". Similarly, Howell (1992) concluded that "the underlying level of measurement is not crucial in the choice of a statistic". Gaito (1980) (as cited in Knapp, 1990) reviewed these issues and concluded that "scale properties do not enter into any of the mathematical requirements" for various statistical procedures, such as ANOVA. When scores are obtained by summing responses across many questions, these summary scores are often nearly normally distributed; Carifio and Perla (2008) review evidence

that "application of parametric statistics to these scale scores produces meaningful results". Zumbo and Zimmerman (1993) used computer simulations "to demonstrate that varying the level of measurement for an underlying empirical structure (between ordinal and interval) did not lead to problems when several widely used statistics were applied". Tabachnick and Fidell (2007) also addressed this issue, "the property of variables that is crucial to application of multivariate procedures is not type of measurement so much as the shape of the distribution". They concluded that "it is more important to consider distribution shapes for scores on quantitative variables (rather than their levels of measurement)". Therefore, the mean of Likert scale values may be reasonably considered as a continuous variable to conduct tests like t-test and ANOVA.

6.3.2 Gender and Difficulty

It was attempted to find out whether the average difficulty differed across gender, i.e., male or female. Independent samples t- test, generally considered more appropriate for comparison of means of two groups, was used to test the relationship. The hypothesis framed was as follows:

H_0 = Mean difficulty score does not differ significantly across gender.

H_1 = Mean difficulty scores differs significantly across gender.

Table 6.2: T-test for gender and difficulty

	Gender of owner	Mean	p- value
Application	Male	2.9782	0.205
	Female	2.9037	
Documentation	Male	**2.7398**	**0.040**
	Female	2.5926	
Staff support	Male	2.6699	0.212
	Female	2.5985	
Sanction process	Male	2.8805	0.075
	Female	2.7852	
Attitude	Male	**3.3610**	**0.049**
	Female	3.2185	
Support Service	Male	2.9390	0.271
	Female	2.8556	
Post sanction	Male	**2.5846**	**0.003**
	Female	2.4185	
Terms and policies	Male	**3.0374**	**0.013**
	Female	2.9276	

From Table 6.2, as significant value for t-test is less than 0.05, we reject the null hypothesis for documentation, attitude, post sanction and terms and policies. Therefore it

can be inferred that difficulty scores differ significantly across gender for documentation, attitude, post sanction and terms and policies. Male borrowers are found to experience more difficulty with regard to documentation, attitude, post sanction and terms and policies while obtaining loan from banks.

6.3.3 Age of Owner and Difficulty

It was attempted to find out whether the mean difficulty differed across age groups, i.e., '18 to 30', '31-40', '41-50' or 'above 50'. One way ANOVA was attempted to be used to test the relationship. The hypothesis framed was as follows:

H_0 = Mean difficulty score does not differ significantly across age of owner.

H_1 = Mean difficulty score differs significantly across age of owner.

Table 6.3: One way ANOVA for Age of owner and average difficulty

		Mean	p-value
Application	18-30 years	2.9111	0.346
	F 31-40 years	2.9828	
	F 41-50 years	2.9350	
	Above 50 years	3.0657	
Documentation	18-30 years	2.5864	**0.052**[11]
	F 31-40 years	2.6985	
	F 41-50 years	2.7166	
	Above 50 years	**2.9254**	
Staff support	18-30 years	2.6519	0.614
	F 31-40 years	2.6412	
	F 41-50 years	2.6549	
	Above 50 years	2.7493	
	Total	2.6571	
Sanction process	Upto18- 30 years	2.7819	**0.024**
	F 31-40 years	2.8544	
	F 41-50 years	2.8520	
	Above 50 years	**3.0522**	
Attitude	18-30 years	3.3580	0.561
	F 31-40 years	3.2908	
	F 41-50 years	3.3773	
	Above 50 years	3.3507	
	Total	3.3353	
Support Service	18-30 years	2.7284	0.068
	F 31-40 years	2.9846	
	F 41-50 years	2.9242	
	Above 50 years	2.8657	
	Total	2.9240	
Post sanction	18- 30 years	2.5082	0.731
	F 31-40 years	2.5533	

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[11] Null hypothesis was rejected at 0.052 as post hoc analysis revealed significant results.

		Mean	p-value
	F 41-50 years	2.5548	
	Above 50 years	2.6169	
	Total	2.5547	
Terms and policies	18- 30 years	2.9959	
	F 31-40 years	2.9938	
	F 41-50 years	3.0309	0.310
	Above 50 years	3.1045	
	Total	3.0176	

ANOVA test was conducted and the results from Table 6.3 shows that the null hypothesis is rejected in case of documentation and sanction process, i.e. there is significant difference in average difficulty experienced in documentation and sanction process for various age groups of owner of MSME. Post hoc analysis (shown in Appendix 6A) reveals that the difference is significant between the age groups of '18- 30 years' and 'above 50 years'. It is also observed that borrower 'above 50 years' of age face more difficulty with documentation and sanction process.

6.3.4 Education Level of Owner and Difficulty

It was attempted to find out whether the mean difficulty differed across education level of owner, i.e., 10th, 10+2, Graduate or Postgraduate. One way ANOVA, generally considered more appropriate for comparison of means of three or more groups, was used to test the relationship. The hypothesis framed was as follows:

H_0 = Mean difficulty score does not differ significantly across education level of owner.

H_1 = Mean difficulty score differs significantly across education level of owner.

Table 6.4 One way ANOVA for Education level and average difficulty

		Mean	p-value
Application	10th	2.9081	
	10+2	2.9390	
	Graduate	2.9708	0.367
	Post Graduate	3.1833	
	Others	3.1600	
	Total	2.9648	
Documentation	10th	2.7162	
	10+2	2.6969	
	Graduate	2.7129	0.864
	Post Graduate	2.8750	
	Others	2.8000	
	Total	2.7133	
Staff support	10th	2.6541	0.789
	10+2	2.6494	

	Graduate	2.6692	
	Post Graduate	2.5917	
	Others	2.3600	
	Total	2.6571	
Sanction process	10th	2.8784	0.906
	10+2	2.8559	
	Graduate	2.8655	
	Post Graduate	2.8333	
	Others	3.1000	
	Total	2.8633	
Attitude	10th	3.4189	0.503
	10+2	3.2703	
	Graduate	3.3671	
	Post Graduate	3.3125	
	Others	3.5000	
	Total	3.3353	
Support service	10th	2.8649	0.838
	10+2	2.9382	
	Graduate	2.9165	
	Post Graduate	2.9167	
	Others	3.3000	
	Total	2.9240	
Post sanction	10th	2.4910	0.787
	10+2	2.5515	
	Graduate	2.5690	
	Post Graduate	2.4722	
	Others	2.3667	
	Total	2.5547	
Terms and policies	10th	2.9369	0.359
	10+2	3.0472	
	Graduate	2.9995	
	Post Graduate	3.1111	
	Others	3.1778	
	Total	3.0176	

The results of ANOVA test from Table 6.4 shows that we cannot reject null hypothesis in all the cases. Hence we conclude that there is no significant difference in average difficulty across different education levels of owners.

6.3.5 Type of Unit and Difficulty

It was attempted to find out whether the mean difficulty differed across type of unit, i.e., micro, small or medium. The classification for type of unit is based on the old definition of MSMEs which has been in effect till 30th June, 2020. One way ANOVA test was used to test the relationship. The hypothesis framed was as follows:

H_0 = Mean difficulty score does not differ significantly across type of unit.

H_1 = Mean difficulty score differs significantly across type of unit.

Table 6.5 One way ANOVA for type of unit and average difficulty

		Mean	p-value
Application	Micro	2.9024	**0.000**
	Small	**3.1795**	
	Medium	3.1000	
Documentation	Micro	2.6705	**0.014**
	Small	2.8288	
	Medium	**2.9531**	
Staff support	Micro	2.6570	0.931
	Small	2.6493	
	Medium	2.6938	
Sanction process	Micro	2.8342	**0.017**
	Small	2.9315	
	Medium	**3.0729**	
Attitude	Micro	3.2780	**0.000**
	Small	**3.5548**	
	Medium	3.3594	
Support service	Micro	2.8575	**0.000**
	Small	**3.1404**	
	Medium	3.1250	
Post sanction	Micro	2.5367	0.288
	Small	2.6210	
	Medium	2.5729	
Terms and policies	Micro	2.9977	0.072
	Small	3.0670	
	Medium	3.1493	

The ANOVA test as seen from Table 6.5 shows that null hypothesis is rejected for application, documentation, sanction process, attitude and support service. Hence we conclude that there is a significant difference in average difficulty in application, documentation, sanction process, attitude and support service across types of units. Post hoc analysis (Appendix 6B) reveals significant differences between 'micro' and 'small' units. Medium units faced more difficulty with documentation and sanction process, while small units experienced more difficulty with application, attitude and support services.

6.3.6 Nature of Business and Difficulty

It was attempted to find out whether the mean difficulty differed across nature of business, i.e., manufacturing or service. Independent samples t-test was used to test the relationship as there are two independent variables. The hypothesis framed was as follows:

H_0 = Mean difficulty score does not differ significantly across nature of business.

H_1 = Mean difficulty score differs significantly across nature of business.

Table 6.6: Independent Samples Test for nature of business and average difficulty

	Nature of business	Mean	p-value
Application	Manufacturing	2.9085	0.091
	Service	2.9907	
Documentation	Manufacturing	2.6928	0.627
	Service	2.7228	
Staff support	Manufacturing	2.6932	0.265
	Service	2.6405	
Sanction process	Manufacturing	2.8256	0.214
	Service	2.8807	
Attitude	Manufacturing	3.3178	0.669
	Service	3.3434	
Support Service	Manufacturing	2.9047	0.653
	Service	2.9329	
Post sanction	Manufacturing	2.5261	0.361
	Service	2.5678	
Terms and policies	Manufacturing	2.9967	0.404
	Service	3.0272	

The t-test results show that we do not have sufficient evidence to reject null hypothesis in any of the cases. Therefore it can be inferred that average difficulty does not differ significantly across nature of business.

6.3.7 Location of Unit and Difficulty

It was attempted to find out whether the mean difficulty differed across location of unit, i.e., urban, semi-urban or rural. One way ANOVA, generally considered more appropriate for comparison of means of three or more groups, was used to test the relationship. The following hypothesis was framed to test the relationship.

H_0 = Average difficulty score does not differ significantly across location of unit.

H_1 = Average difficulty score differs significantly across location of unit.

Table 6.7 One way ANOVA for location of unit and average difficulty

		Mean	p-value
Application	Urban	2.9885	0.126
	Semi-urban	2.8744	
	Rural	2.8778	
	Total	2.9648	
Documentation	Urban	2.7128	0.162
	Semi-urban	2.6105	

		Mean	p-value
	Rural	2.8403	
	Total	2.7133	
Staff support	Urban	2.6639	0.645
	Semi-urban	2.6000	
	Rural	2.6694	
	Total	2.6571	
Sanction process	Urban	2.8750	0.454
	Semi-urban	2.8450	
	Rural	2.7894	
	Total	2.8633	
Attitude	Urban	3.3581	0.128
	Semi-urban	3.1802	
	Rural	3.3333	
	Total	3.3353	
Support service	Urban	2.9569	0.091
	Semi-urban	2.7965	
	Rural	2.8056	
	Total	2.9240	
Post sanction	Urban	2.5670	0.448
	Semi-urban	2.5329	
	Rural	2.4792	
	Total	2.5547	
Terms and policies	Urban	3.0381	0.050[12]
	Semi-urban	2.9160	
	Rural	2.9707	
	Total	3.0176	

One way ANOVA test indicates that we cannot reject null hypothesis. Hence we conclude that there is no significant difference in average difficulty across location of unit.

6.3.8 Age of Business and Difficulty

It was attempted to find out whether the mean difficulty differed across age of business, grouped in years, i.e., '0-5 years', '6-10 years', '11-15 years', '16-20 years', '21-25 years' or 'above 25 years'. One way ANOVA, generally considered more appropriate for comparison of means of three or more groups, was used to test the relationship. The hypothesis framed was as follows:

H_0 = Mean difficulty score does not differ significantly across age of business.

H_1 = Mean difficulty score differs significantly across age of business.

Table 6.8 One way ANOVA for age of unit and average difficulty

	Mean	p-value

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[12] Null hypothesis could not be rejected at 0.05 as post hoc analysis revealed no significant differences.

Application	Upto 5 years	2.7982	**0.007**
	6-10years	**3.0374**	
	11-15 years	3.0298	
	16-20 years	2.9850	
	21-25 years	2.9844	
	Above 25 years	2.8405	
	Total	2.9648	
Documentation	Upto 5 years	2.6053	0.515
	6-10years	2.6906	
	11-15 years	2.7791	
	16-20 years	2.6938	
	21-25 years	2.7344	
	Above 25 years	2.7162	
	Total	2.7133	
Staff support	Upto 5 years	2.6842	0.328
	6-10years	2.6993	
	11-15 years	2.6744	
	16-20 years	2.7125	
	21-25 years	2.5750	
	Above 25 years	2.5676	
	Total	2.6571	
Sanction process	Upto 5 years	2.7778	0.391
	6-10years	2.8693	
	11-15 years	2.9124	
	16-20 years	2.9000	
	21-25 years	2.8568	
	Above 25 years	2.8131	
	Total	2.8633	
Attitude	Upto 5 years	3.2851	0.675
	6-10years	3.2626	
	11-15 years	3.3884	
	16-20 years	3.3188	
	21-25 years	3.3711	
	Above 25 years	3.3514	
	Total	3.3353	
Support service	Upto 5 years	2.9912	0.748
	6-10years	2.8525	
	11-15 years	2.9349	
	16-20 years	2.9875	
	21-25 years	2.8945	
	Above 25 years	2.9054	
	Total	2.9240	
Post sanction	Upto 5 years	2.5395	0.724
	6-10years	2.5504	
	11-15 years	2.5907	
	16-20 years	2.6042	
	21-25 years	2.5156	
	Above 25 years	2.4955	
	Total	2.5547	
Terms and policies	Upto 5 years	2.9376	0.330

	6-10years	3.0592	
	11-15 years	3.0243	
	16-20 years	3.0000	
	21-25 years	3.0573	
	Above 25 years	2.9940	
	Total	3.0176	

ANOVA tests in Table 6.8 reveal that null hypothesis is rejected for application. Hence we conclude that there is a significant difference in average difficulty with application across age of unit in years. Post hoc analysis reveals that mean difference is significant between 'upto 5 years' and '6 to 10 years' and 'upto 5 years' and '11 to 15 years' with difficulty in application (Refer Appendix 6C). Businesses which were 6-10 years old faced highest difficulties while businesses up to 5 years old faced the least difficulty with application.

6.3.9 Registration Status (with DIC) and Difficulty

It was attempted to find out whether the mean difficulty experienced in borrowing differed across registration status of the unit with DIC, i.e., registered or unregistered. Independent samples t-test, generally considered more appropriate for comparison of means of two groups, was used to test the relationship. The hypothesis framed was as follows:

H_0 = Mean difficulty score does not differ significantly across registration status.

H_1 = Mean difficulty score differs significantly across registration status.

Table 6.9: Independent Samples T-Test for registration status and average difficulty

	Whether unit registered	Mean	p-value
Application	Yes	2.8304	**0.000**
	No	**3.0992**	
Documentation	Yes	2.6067	**0.000**
	No	**2.8200**	
Staff support	Yes	2.6256	0.152
	No	2.6885	
Sanction process	Yes	2.8222	**0.046**
	No	**2.9044**	
Attitude	Yes	3.2040	**0.000**
	No	**3.4667**	
Support Service	Yes	2.7067	**0.000**
	No	**3.1413**	
Post sanction	Yes	2.5484	0.769
	No	2.5609	
Terms and	Yes	2.9052	**0.000**

		Mean	
policies	No	**3.1301**	

Further, since significance is less than 0.05 for t-test results with equality of variances assumed we reject null hypothesis in case of Application, Documentation, Sanction process, Attitude, Support Service and Terms and policies. Therefore it can be inferred that average difficulty differs significantly across registration status of unit in case of Application, Documentation, Sanction process, Attitude, Support Service and Terms and policies. Units that are not registered with DIC experience higher difficulty in all the cases. A more detailed analysis of the effects of registration has been presented in Chapter 7.

6.3.10 Capital Invested (Amount in ₹) and Difficulty

It was attempted to find out whether the mean difficulty differed across capital invested, amount divided in groups as follows: (i) up to ₹5,00,000, (ii) ₹5,00,001 to ₹15,00,000, (iii) ₹15,00,001 to ₹25,00,000, (iv) ₹25,00,001 to ₹50,00,000, (v) ₹50,00,001 to ₹1,00,00,000, (vi) ₹1,00,00,001 to ₹2,00,00,000 (vii) ₹2,00,00,001 to ₹5,00,00,000 and (viii) ₹5,00,00,001 to ₹10,00,00,000. One way ANOVA, generally considered more appropriate for comparison of means of three or more groups, was used to test the relationship. The hypothesis framed was as follows:

H_0 = Mean difficulty score does not differ significantly across capital invested.

H_1 = Mean difficulty score differs significantly across capital invested.

Table 6.10 One way ANOVA for amount of capital invested and average difficulty

		Mean	p-value
Application	0 to 500000	2.8228	**0.000**
	500001 to 1500000	3.0243	
	1500001 to 2500000	2.9365	
	2500001 to 5000000	3.1368	
	5000001 to 10000000	3.2432	
	10000001 to 20000000	**3.3400**	
	20000001 to 50000000	3.0923	
	50000001 to 100000000	3.1714	
Documentation	0 to 500000	2.5431	**0.000**
	500001 to 1500000	2.8309	
	1500001 to 2500000	2.7540	
	2500001 to 5000000	2.7368	
	5000001 to 10000000	2.7568	
	10000001 to 20000000	**3.1500**	
	20000001 to 50000000	2.8077	
	50000001 to 100000000	3.1071	
Staff support	0 to 500000	2.6131	0.487

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	500001 to 1500000	2.6632	
	1500001 to 2500000	2.6921	
	2500001 to 5000000	2.7579	
	5000001 to 10000000	2.7459	
	10000001 to 20000000	2.5200	
	20000001 to 50000000	2.6462	
	50000001 to 100000000	2.9000	
Sanction process	0 to 500000	2.7374	**0.000**
	500001 to 1500000	2.9216	
	1500001 to 2500000	2.9101	
	2500001 to 5000000	2.9693	
	5000001 to 10000000	2.9730	
	10000001 to 20000000	2.8500	
	20000001 to 50000000	3.0833	
	50000001 to 100000000	**3.1548**	
Attitude	0 to 500000	3.1914	**0.000**
	500001 to 1500000	3.3272	
	1500001 to 2500000	3.4444	
	2500001 to 5000000	3.7368	
	5000001 to 10000000	3.5811	
	10000001 to 20000000	**3.8000**	
	20000001 to 50000000	3.4615	
	50000001 to 100000000	3.6786	
Support service	0 to 500000	2.7138	**0.000**
	500001 to 1500000	3.0129	
	1500001 to 2500000	3.1667	
	2500001 to 5000000	3.1316	
	5000001 to 10000000	2.9459	
	10000001 to 20000000	**3.3000**	
	20000001 to 50000000	3.2115	
	50000001 to 100000000	3.0357	
Post sanction	0 to 500000	2.4816	0.250
	500001 to 1500000	2.6048	
	1500001 to 2500000	2.5952	
	2500001 to 5000000	2.5263	
	5000001 to 10000000	2.5901	
	10000001 to 20000000	2.5333	
	20000001 to 50000000	2.6731	
	50000001 to 100000000	2.6905	
Terms and policies	0 to 500000	2.9487	0.009
	500001 to 1500000	3.0408	
	1500001 to 2500000	2.9753	
	2500001 to 5000000	3.0994	
	5000001 to 10000000	**3.1982**	
	10000001 to 20000000	3.1111	
	20000001 to 50000000	3.1838	
	50000001 to 100000000	3.1111	

One way ANOVA test has been performed and results shown in Table 6.10, where we find that that the null hypothesis is rejected in all cases except staff support and post

sanction. Hence we conclude that there is significant difference in average difficulty in case of application, documentation, attitude, support service, terms and policies, and sanction process across capital invested. Post-hoc analysis (Appendix 6D) reveal that there are significant differences among groups '0 to ₹500000' and '₹500001 to ₹1500000' and '0 to ₹500000' and '₹5000001 to ₹10000000'. MSMEs with an investment of '₹5000001 to ₹10000000' faced comparatively higher difficulties with terms and policies. MSMEs with an investment of '₹100000001 to ₹200000000' faced higher difficulties with support service, attitude, documentation and application. MSMEs with an investment of '₹500000001 to ₹100000000' faced higher difficulties with sanction process.

6.3.11 Annual Income and Difficulty

It was attempted to find out whether the mean difficulty differed across annual income, amount divided in groups as follows: (i) Upto ₹5,00,000, (ii) ₹5,00,001 to ₹10,00,000, (iii) ₹10,00,001 to ₹15,00,000, (iv) ₹15,00,001 to ₹20,00,000, (v) ₹20,00,001 to ₹30,00,000, (vi) ₹30,00,001 to ₹50,00,000, (vii) ₹50,00,001 to ₹1,00,00,000 and (viii) Above ₹1,00,00,000. One way ANOVA, generally considered more appropriate for comparison of means of three or more groups, was used to test the relationship. The hypothesis framed was as follows:

H_0 = Mean difficulty score does not differ significantly across annual income.

H_1 = Mean difficulty score differs significantly across annual income.

Table 6.11 One way ANOVA for amount of annual income and average difficulty

		Mean	p-value
Application	Up to 500000	2.8185	**0.000**
	500001 to 1000000	2.9859	
	1000001 to 1500000	2.9694	
	1500001 to 2000000	3.0952	
	2000001 to 3000000	3.1458	
	3000001 to 5000000	3.4500	
	5000001 to 10000000	**3.8000**	
	Above 10000000	2.3000	
	Total	2.9648	
Documentation	Up to 500000	2.5374	**0.001**
	500001 to 1000000	2.7520	
	1000001 to 1500000	2.8059	
	1500001 to 2000000	2.7500	
	2000001 to 3000000	3.0313	
	3000001 to 5000000	3.0000	
	5000001 to 10000000	**3.2500**	

	Above 10000000	2.7500	
	Total	2.7133	
Staff support	Up to 500000	2.6115	0.645
	500001 to 1000000	2.6484	
	1000001 to 1500000	2.6800	
	1500001 to 2000000	2.6825	
	2000001 to 3000000	2.8042	
	3000001 to 5000000	2.5500	
	5000001 to 10000000	2.9000	
	Above 10000000	2.8000	
	Total	2.6571	
Sanction process	Up to 500000	2.7239	**0.000**
	500001 to 1000000	2.8997	
	1000001 to 1500000	2.8569	
	1500001 to 2000000	2.9405	
	2000001 to 3000000	3.0833	
	3000001 to 5000000	**3.3750**	
	5000001 to 10000000	3.0000	
	Above 10000000	3.0000	
	Total	2.8633	
Attitude	Up to 500000	3.1740	**0.000**
	500001 to 1000000	3.3301	
	1000001 to 1500000	3.5706	
	1500001 to 2000000	3.3730	
	2000001 to 3000000	3.5000	
	3000001 to 5000000	3.7500	
	5000001 to 10000000	**4.5000**	
	Above 10000000	4.0000	
	Total	3.3353	
Support service	Up to 500000	2.6938	**0.000**
	500001 to 1000000	2.9102	
	1000001 to 1500000	3.1824	
	1500001 to 2000000	3.0516	
	2000001 to 3000000	**3.2917**	
	3000001 to 5000000	3.2500	
	5000001 to 10000000	3.0000	
	Above 10000000	2.2500	
	Total	2.9240	
Post sanction	Up to 500000	2.4809	0.063
	500001 to 1000000	2.5801	
	1000001 to 1500000	2.5686	
	1500001 to 2000000	2.5423	
	2000001 to 3000000	2.7743	
	3000001 to 5000000	2.4167	
	5000001 to 10000000	2.3333	
	Above 10000000	3.0833	
	Total	2.5547	
Terms and	Up to 500000	2.9447	**0.005**
	500001 to 1000000	3.0469	
	1000001 to 1500000	3.1255	

		Mean	
policies	1500001 to 2000000	2.9674	
	2000001 to 3000000	3.1204	
	3000001 to 5000000	3.2222	
	5000001 to 10000000	**3.6111**	
	Above 10000000	2.6667	
	Total	3.0176	

From Table 6.11, the results of ANOVA implicates that null hypothesis is rejected for all variables except staff support and post sanction. Hence we conclude that there is significant difference in average difficulty for application, documentation, attitude, sanction process, terms and policies and support service across annual income of the MSMEs. Post-hoc analysis (Appendix 6E) reveals significant difference between groups 'Up to ₹500000' and '₹1500001 to ₹2000000' and 'Up to ₹500000' and '₹2000001 to ₹3000000'. It is observed that MSMEs with yearly income between '₹50,00,000 to ₹1,00,00,000' faced higher difficulties with terms and policies, attitude, documentation and application.

6.3.12 Amount of Loan Applied and Difficulty

It was attempted to find out whether the mean difficulty differed across amount of loan applied by the MSME, i.e., subdivided into categorical groups as follows: Upto ₹5,00,000; ₹5,00,001 to ₹10,00,000; ₹10,00,001 to ₹15,00,000; ₹15,00,001 to ₹20,00,000; ₹20,00,001 to ₹30,00,000; ₹30,00,001 to ₹50,00,000; ₹50,00,001 to ₹1,00,00,000 and above ₹1,00,00,000 . One way ANOVA test was used to test the relationship. Welch ANOVA has been used in case of post sanction where assumptions of homogeneity could not be fulfilled. The following hypothesis was framed to test the relationship:

H_0 = Mean difficulty score does not differ significantly across amount of loan applied.

H_1 = Mean difficulty score differs significantly across amount of loan applied.

Table 6.12 Table showing ANOVA for amount of loan applied and average difficulty

		Mean	p-value
Application	Upto 500000	2.8485	**0.000**
	500001 to 1000000	3.0053	
	1000001 to 1500000	3.0868	
	1500001 to 2000000	3.1000	
	2000001 to 3000000	3.2308	
	3000001 to 5000000	**3.3375**	
	5000001 to 10000000	3.1333	
	Above 10000000	2.6000	

	Total	2.9648	
Documentation	Upto 500000	2.6127	**0.006**
	500001 to 1000000	2.7781	
	1000001 to 1500000	2.7566	
	1500001 to 2000000	2.7829	
	2000001 to 3000000	3.0000	
	3000001 to 5000000	**3.2188**	
	5000001 to 10000000	2.6667	
	Above 10000000	2.7500	
	Total	2.7133	
Staff support	Upto 500000	2.6152	0.386
	500001 to 1000000	2.6802	
	1000001 to 1500000	2.7053	
	1500001 to 2000000	2.7395	
	2000001 to 3000000	2.5846	
	3000001 to 5000000	2.8250	
	5000001 to 10000000	2.7333	
	Above 10000000	2.1000	
	Total	2.6571	
Sanction process	Upto 500000	2.7958	0.079
	500001 to 1000000	2.8868	
	1000001 to 1500000	2.9298	
	1500001 to 2000000	2.9386	
	2000001 to 3000000	2.9808	
	3000001 to 5000000	3.0313	
	5000001 to 10000000	3.1111	
	Above 10000000	2.9167	
	Total	2.8633	
Attitude	Upto 500000	3.2141	**0.000**
	500001 to 1000000	3.3449	
	1000001 to 1500000	3.4539	
	1500001 to 2000000	3.5855	
	2000001 to 3000000	3.5385	
	3000001 to 5000000	**3.7813**	
	5000001 to 10000000	3.4167	
	Above 10000000	3.2500	
	Total	3.3353	
Support service	Upto 500000	2.8141	**0.039**
	500001 to 1000000	3.0374	
	1000001 to 1500000	2.9605	
	1500001 to 2000000	3.0066	
	2000001 to 3000000	3.0000	
	3000001 to 5000000	**3.1875**	
	5000001 to 10000000	3.1667	
	Above 10000000	2.7500	
	Total	2.9240	
Post sanction	Upto 500000	2.5338	0.875
	500001 to 1000000	2.5784	
	1000001 to 1500000	2.4934	
	1500001 to 2000000	2.6338	

	2000001 to 3000000	2.5705	
	3000001 to 5000000	2.6771	
	5000001 to 10000000	2.4722	
	Above 10000000	2.6667	
	Total	2.5547	
Terms and policies	Upto 500000	2.9740	
	500001 to 1000000	3.0077	
	1000001 to 1500000	3.0322	
	1500001 to 2000000	3.1477	
	2000001 to 3000000	3.1624	0.063
	3000001 to 5000000	3.1597	
	5000001 to 10000000	3.0556	
	Above 10000000	2.9444	
	Total	3.0176	

Table 6.12 showing the result of ANOVA implicates null hypothesis is rejected in case of Application, documentation, attitude and support service. Hence we conclude that there is significant difference in average difficulty in case of Application, documentation, attitude and support service across different quantum of loan applied. Higher the amount of loan, higher are the difficulties associated, up to a certain level, after which average difficulties are observed to be lower in comparison. Post hoc analysis (Appendix 6F) reveals significant differences between groups 'Upto ₹500000' and '₹1500001 to ₹2000000' and 'Upto ₹500000' and '₹3000001 to ₹5000000'.

6.3.13 Type of Loan Availed and Difficulty

It was attempted to find out whether the mean difficulty experienced in borrowing differed individually across type of loan availed, viz. cash credit, term loan, working capital loan and others (overdraft etc.). Therefore the influence of type of loan on average difficulty has been tested individually for each type of loan, i.e. whether the MSME unit is a term loan borrower, a cash credit borrower and so on for the bank loan in question. In few cases of multiple loans, borrowers were asked to recount the most recent loan availed. The following hypothesis was framed to test the relationship:

H_0 = Mean difficulty score does not differ significantly across type of loan availed.
H_1 = Mean difficulty score differs significantly across type of loan availed.

Table 6.13 One way ANOVA for type of loan and average difficulty

		N	Mean	p-value
Application	Working Capital	260	2.9662	0.343
	Term loan	429	2.9664	

	Cash credit	30	3.0933	
	Others	31	2.8065	
	Total	750	2.9648	
Documentation	Working Capital	260	2.7288	
	Term loan	429	2.7086	
	Cash credit	30	2.7000	0.963
	Others	31	2.6613	
	Total	750	2.7133	
Staff support	Working Capital	260	2.6485	
	Term loan	429	2.6755	
	Cash credit	30	2.5067	0.485
	Others	31	2.6194	
	Total	750	2.6571	
Sanction process	Working Capital	260	2.8955	
	Term loan	429	2.8512	
	Cash credit	30	2.8500	0.608
	Others	31	2.7742	
	Total	750	2.8633	
Attitude	Working Capital	260	3.3519	
	Term loan	429	3.3100	
	Cash credit	30	3.4667	0.600
	Others	31	3.4194	
	Total	750	3.3353	
Support service	Working Capital	260	2.9096	
	Term loan	429	2.9301	
	Cash credit	30	2.9167	
	Others	31	2.9677	0.977
	Total	750	2.9240	
Post sanction	Working Capital	260	2.5904	
	Term loan	429	2.5474	
	Cash credit	30	2.4056	0.346
	Others	31	2.5000	
	Total	750	2.5547	
Terms and policies	Working Capital	260	3.0009	
	Term loan	429	3.0339	
	Cash credit	30	3.0333	
	Others	31	2.9176	0.507
	Total	750	3.0176	

From Table 6.13 we find that we do not have sufficient evidence to reject null hypothesis from the ANOVA results. Therefore, it can be inferred that average difficulty scores do not differ significantly across type of loan availed.

6.3.14 Type of Scheme (If any) and Difficulty

It was attempted to find out whether the mean difficulty differed individually across type of scheme availed, viz. PMEGP, PMMY, Others and No scheme. Therefore the influence

of type of loan on average difficulty has been tested has been tested individually for each type of scheme, i.e. whether the loan is PMMY, PMEGP and so on. In few cases of multiple loans, borrowers were asked to recount the most recent loan availed. The following hypothesis was framed to test the relationship:

H_0 = Mean difficulty score does not differ significantly across type of scheme availed.

H_1 = Mean difficulty score differs significantly across type of scheme availed.

Table 6.14: ANOVA table for type of scheme availed and difficulty

		Mean	p-value
Application	PMEGP	2.9085	**0.000**
	PMMY	3.1727	
	OTHER SCHEME	2.9532	
	NO SCHEME	**3.1800**	
	Total	3.0397	
Documentation	PMEGP	2.6111	**0.006**
	PMMY	2.8000	
	OTHER SCHEME	2.6649	
	NO SCHEME	**2.8229**	
	Total	2.7133	
Staff support	PMEGP	2.6549	**0.008**
	PMMY	**2.8073**	
	OTHER SCHEME	2.5191	
	NO SCHEME	2.6450	
	Total	2.6571	
Sanction process	PMEGP	2.8810	**0.007**
	PMMY	3.0036	
	OTHER SCHEME	2.8574	
	NO SCHEME	**3.0333**	
	Total	2.9448	
Attitude	PMEGP	3.3301	**0.000**
	PMMY	**3.6136**	
	OTHER SCHEME	3.2713	
	NO SCHEME	3.5083	
	Total	3.4213	
Support service	PMEGP	2.7304	**0.000**
	PMMY	**3.2227**	
	OTHER SCHEME	2.7287	
	NO SCHEME	3.1104	
	Total	2.9240	
Post sanction	PMEGP	2.5501	0.403
	PMMY	2.6394	
	OTHER SCHEME	2.5337	
	NO SCHEME	2.5299	
	Total	2.5547	
Terms and policies	PMEGP	2.9914	**0.000**
	PMMY	**3.1773**	
	OTHER SCHEME	2.9854	

	NO SCHEME	3.1214	
	Total	3.0595	

From Table 6.14, we find that null hypothesis is rejected for application, documentation, attitude, sanction, organisational support, staff support and terms and conditions. Therefore, we conclude that average difficulty is significantly different across type of scheme availed. A post hoc analysis (Appendix 6G) reveals significant difference between 'PMMY' and other scheme, 'PMEGP' and no scheme and 'PMMY' and 'PMEGP'. Borrowers under PMMY scheme face more difficulty with attitude, support service, staff support and terms and conditions, followed by borrowers without any scheme who face highest difficulty with sanction, documentation and application.

6.4 PREDICTIVE POWER OF DEMOGRAPHIC AND NON-DEMOGRAPHIC VARIABLES TOWARDS DIFFICULTY FACED IN BORROWING

Ordinal regression has been attempted to develop models to predict contribution of various demographic and non-demographic variables to difficulty faced by the MSMEs borrowers in obtaining a loan from bank. The model will give an idea of how various demographic and non-demographic variables as tested in section 6.3 of this chapter may have an effect on the overall borrowing experience. The parameter-wise borrowing experience of each borrower has been categorised into three groups (1=Disagree, 2= Neutral and 3 = Agree) using the same intervals as shown in Table 6.1 above. All assumptions have been tested and verified before proceeding with the analysis. To test the presence of multicollinearity, VIF values of the factors were checked and a value of less than 5 has been considered as acceptable (Hair et al, 2005, Ringle et al., 2015).

The results of the ordinal logistics regression are summarised below:

Model fitting information tells whether a Final Model is an improvement over Intercept only model (p value < 0.05 indicates that final model outperforms the null). Table 6.15 shows the results of Model Fitting Information.

Table 6.15: Results of Model Fitting Information

Parameter	Model	-2 Log Likelihood	Chi-Square	Df	Sig.
Application	Intercept Only	1113.888			
	Final	1018.339	95.548	15	.000
Documentation	Intercept Only	1489.156			
	Final	1404.263	84.893	27	.000
Staff support	Intercept Only	1293.528			

	Final	1251.396	42.132	26	.024
Sanction process	Intercept Only	1431.982			
	Final	1365.963	66.019	21	.000
Attitude	Intercept Only	1317.461			
	Final	1273.191	44.270	22	.003
Support service	Intercept Only	1549.353			
	Final	1423.667	125.686	25	.000
Post sanction	Intercept Only	1283.657			
	Final	1244.629	39.029	26	.048
Terms and policies	Intercept Only	1022.630			
	Final	969.968	52.661	18	.000

Link function: Logit.

Goodness of fit test has been done to check model fit (p value > 0.05 indicates a good fit). Table 6.16 shows the result of Goodness of fit test.

Table 6.16: Results of Goodness of fit test

Parameter		Chi-Square	Df	Sig.
Application	Pearson	702.981	689	.348
	Deviance	768.359	689	.019
Documentation	Pearson	1405.466	1363	.207
	Deviance	1364.344	1363	.485
Staff support	Pearson	1366.559	1354	.400
	Deviance	1210.854	1354	.998
Sanction process	Pearson	1270.888	1251	.341
	Deviance	1266.538	1251	.373
Attitude	Pearson	1165.645	1182	.627
	Deviance	1148.255	1182	.754
Support service	Pearson	1349.246	1321	.288
	Deviance	1365.148	1321	.194
Post sanction	Pearson	1421.279	1352	.093
	Deviance	1209.208	1352	.998
Terms and policies	Pearson	933.528	884	.121
	Deviance	828.915	884	.907

Link function: Logit.

Nagelkerke pseudo R square can be used to determine proportion of the total variability explained by the model. Though there is no definite cut-off but a high r-squared value is desirable for a regression prediction. However, it is often argued that r-squared is a measure of variability rather than a measure of the fit of the model. A low r-squared with significant factors may still yield results if high precision results are not possible due to nature of data. Many researchers have argued that in case of data with scope for

variations, there may be many other factors (e.g. a large sample size) that may result in these pseudo R squared values (Smith & McKenna, 2013; Moksony, 1990). This is often encountered in social science research that relies on human perception. Considering the nature of data, a pseudo r squared value of at least 10% has been considered acceptable for the results (Falk & Miller, 1992; Cohen, 1998). However, along with regression model, the results from other statistical tests as presented in section 6.3 of the chapter have also been taken into consideration while drawing inferences from the data in order to achieve the objectives of the research. Table 6.17 shows the pseudo R-squared value by Nagelkerke.

Table 6.17: Pseudo R-Squares for each parameter

Parameter	Nagelkerke
Application	.137
Documentation	.123
Staff support	.106
Sanction process	.136
Attitude	.127
Support service	.175
Post sanction	.131
Terms and policies	.103

Link function: Logit.

To test the assumption of proportional odds assumption, tests of parallel lines have been conducted (p value > 0.05 indicates that the proportional odds assumption has not been violated). The results of test of parallel lines are shown in table 6.18.

Table 6.18 Results of Test of Parallel Lines

Parameter	Model	-2 Log Likelihood	Chi-Square	Df	Sig.
Application	Null Hypothesis	1018.339			
	General	1004.294	14.045	15	.522
Documentation	Null Hypothesis	1404.263			
	General	1374.914[b]	29.349[c]	27	.344
Staff support	Null Hypothesis	1251.396			
	General	1225.855	25.541	26	.489
Sanction process	Null Hypothesis	1365.963			
	General	1342.952	23.012	21	.343
Attitude	Null Hypothesis	1273.191			
	General	1250.225[b]	22.966[c]	22	.404
Support service	Null Hypothesis	1423.667			
	General	1401.346	22.321	25	.617
Post sanction	Null Hypothesis	1244.629			
	General	1219.790	24.839	26	.528

Terms and policies	Null Hypothesis	969.968		
	General	959.051	10.917	18	.898

The null hypothesis states that the location parameters (slope coefficients) are the same across response categories.

a. Link function: Logit.
b. The log-likelihood value cannot be further increased after maximum number of step-halving.
c. The Chi-Square statistic is computed based on the log-likelihood value of the last iteration of the general model. Validity of the test is uncertain.

The parameter estimate is the table which helps in critical variable identification. Table 6.19 to table 6.26 shows the critical variable identification for all the eights parameters of difficulty faced during obtaining of bank loans by borrowers.

Table 6.19 Parameter Estimates for Difficulty with Application
(Reference value = Agree)

		Estimate (β)	Sig.	Exp (β)
Threshold	[Application_Difficulty = 1]	-2.040	.000	0.130029
	[Application_Difficulty = 2]	.364	.347	1.439074
Location	[Age_owner = Upto 30 years]	-.317	.333	0.728331
	[Age_owner= 31-40 years]	-.315	.236	0.729789
	[Age_owner= 41-50 years]	-.502	.058	0.605319
	[Age_owner= Above 50 years]	0ª	.	1
	[Scheme_Loan= PMEGP]	-.980	.000	0.375311
	[Scheme_Loan=PMMY]	.033	.883	1.033551
	[Scheme_Loan= Other Scheme]	-.983	.000	0.374187
	[Scheme_Loan= No scheme]	0ª	.	1
	[Business_Term=Up to 5 years]	.224	.451	1.251071
	[Business_Term= 6-10 years]	.779	.006	2.179292
	[Business_Term=11-15 years]	.574	.030	1.775354
	[Business_Term=16-20 years]	.157	.616	1.169996
	[Business_Term=21-25 years]	.513	.069	1.670295
	[Business_Term=Above 25 years]	0ª	.	1
	[Capital_investment= Upto 5 lakhs]	-.537	.009	0.584499
	[Capital_investment= 5,00,001 – 15 lakhs]	-.098	.603	0.906649
	[Capital_investment= More than 15 lakhs]	0ª	.	1
	[Gender_owner= Male]	.110	.551	1.116278
	[Gender_owner= Female]	0ª	.	1
	[Unit_type= Micro]	-.509	.008	0.601096
	[Unit_type= Small & Medium]	0ª	.	1

Link function: Logit.

Table 6.20 Parameter Estimates for Difficulty with Documentation
(Reference value = Agree)

		Estimate (β)	Sig.	Exp (β)
Threshold	[Documentation_Difficulty = 1]	-1.861	.001	0.155517
	[Documentation_Difficulty = 2]	-.747	.190	0.473786
Location	[Age_owner = Upto 30 years]	-.764	.023	0.465799
	[Age_owner= 31-40 years]	-.745	.006	0.474734
	[Age_owner= 41-50 years]	-.720	.008	0.486752
	[Age_owner= Above 50 years]	0[a]	.	1
	[Business_Term=Up to 5 years]	.261	.413	1.298228
	[Business_Term= 6-10 years]	.066	.823	1.068227
	[Business_Term=11-15 years]	.437	.117	1.548056
	[Business_Term=16-20 years]	.122	.706	1.129754
	[Business_Term=21-25 years]	.264	.375	1.302128
	[Business_Term=Above 25 years]	0[a]	.	1
	[Capital_investment= Upto 5 lakhs]	-.461	.097	0.630653
	[Capital_investment= 5,00,001 – 15 lakhs]	.234	.246	1.263644
	[Capital_investment= More than 15 lakhs]	0[a]	.	1
	[Gender_owner= Male]	.229	.240	1.257342
	[Gender_owner= Female]	0[a]	.	1
	[Unit_type= Micro]	.146	.504	1.157196
	[Unit_type= Small & Medium]	0[a]	.	1
	[Unit_Registration= Yes]	-.626	.000	0.534726
	[Unit_Registration=No]	0[a]	.	1
	[Unit_location= Urban]	-.629	.011	0.533125
	[Unit_location= Semi-urban]	-.651	.046	0.521524
	[Unit_location= Rural]	0[a]	.	1
	[Loan_Type= Working Capital]	.157	.590	1.169996
	[Loan_Type= Term loan]	.253	.365	1.287883
	[Loan_Type= Others]	0[a]	.	1
	[Loan_Applied_Amount= Upto 5 lakhs]	-.716	.037	0.488703
	[Loan_Applied_Amount= 500001-10 lakhs]	-.452	.164	0.636354
	[Loan_Applied_Amount=1000001-15 lakhs]	-.409	.254	0.664314
	[Loan_Applied_Amount=1500001-20 lakhs]	-.586	.089	0.556549
	[Loan_Applied_Amount= More than 20 lakhs]	0[a]	.	1
	[Yearly_Income= Upto 5 lakhs]	-.711	.058	0.491153
	[Yearly_Income=500001-10 lakhs]	-.373	.232	0.688665
	[Yearly_Income=1000001-15 lakhs]	-.431	.201	0.649859
	[Yearly_Income=1500001-20 lakhs]	-.352	.260	0.70328
	[Yearly_Income= More than 20 lakhs]	0[a]	.	1

		Estimate (β)	Sig.	Exp (β)
	[Education_owner= 10+2]	-.073	.653	0.929601
	[Education_owner= Graduate]	0ᵃ	.	1
	[Education_owner=Others]	-.074	.787	0.928672

Link function: Logit.

Table 6.21 Parameter Estimates for Difficulty with Staff support
(Reference value = Agree)

		Estimate (β)	Sig.	Exp (β)
Threshold	[Staff_Difficulty = 1]	-.176	.754	0.838618
	[Staff_Difficulty = 2]	2.303	.000	10.00415
Location	[Age_owner = Upto 30 years]	-.491	.151	0.612014
	[Age_owner= 31-40 years]	-.568	.043	0.566658
	[Age_owner= 41-50 years]	-.542	.051	0.581584
	[Age_owner= Above 50 years]	0ᵃ	.	1
	[Capital_investment= Upto 5 lakhs]	-.293	.291	0.746022
	[Capital_investment= 5,00,001 – 15 lakhs]	.083	.679	1.086542
	[Capital_investment= More than 15 lakhs]	0ᵃ	.	1
	[Gender_owner= Male]	.207	.289	1.229983
	[Gender_owner= Female]	0ᵃ	.	1
	[Unit_type= Micro]	.270	.206	1.309964
	[Unit_type= Small & Medium]	0ᵃ	.	1
	[Unit_Registration= Yes]	-.560	.242	0.571209
	[Unit_Registration=No]	0ᵃ	.	1
	[Unit_location= Urban]	-.418	.094	0.658362
	[Unit_location= Semi-urban]	-.355	.279	0.701173
	[Unit_location= Rural]	0ᵃ	.	1
	[Yearly_Income= Upto 5 lakhs]	-.506	.186	0.602902
	[Yearly_Income=500001-10 lakhs]	-.472	.144	0.623754
	[Yearly_Income=1000001-15 lakhs]	-.426	.224	0.653116
	[Yearly_Income=1500001-20 lakhs]	-.339	.295	0.712482
	[Yearly_Income= More than 20 lakhs]	0ᵃ	.	1
	[Scheme_Loan= PMEGP]	.638	.209	1.892692
	[Scheme_Loan=PMMY]	.707	.002	2.027898
	[Scheme_Loan= Other Scheme]	.114	.788	1.120752
	[Scheme_Loan= No scheme]	0ᵃ	.	1
	[Business_Term=Up to 5 years]	.637	.051	1.8908
	[Business_Term= 6-10 years]	.414	.167	1.512857
	[Business_Term=11-15 years]	.305	.286	1.356625
	[Business_Term=16-20 years]	.574	.082	1.775354
	[Business_Term=21-25 years]	.060	.845	1.061837
	[Business_Term=Above 25 years]	0ᵃ	.	1
	[Education_owner= 10+2]	-.136	.410	0.872843

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		Estimate (β)	Sig.	Exp (β)
	[Education_owner= Graduate]	0ᵃ	.	1
	[Education_owner=Others]	-.167	.556	0.8462
	[Business_Nature=Manufacturing]	.160	.346	1.173511
	[Business_Nature=Service]	0ᵃ	.	1
	[Business_Form=Proprietor]	.282	.223	1.325779
	[Business_Form=Others]	0ᵃ	.	1

Link function: Logit.

Table 6.22 Parameter Estimates for Difficulty with Sanction process
(Reference value = Agree)

		Estimate (β)	Sig.	Exp (β)
Threshold	[Sanction_Difficulty = 1]	-1.634	.002	0.195147
	[Sanction_Difficulty = 2]	.621	.240	1.860788
Location	[Age_owner = Upto 30 years]	-1.018	.002	0.361317
	[Age_owner= 31-40 years]	-.866	.001	0.420631
	[Age_owner= 41-50 years]	-.858	.001	0.424009
	[Age_owner= Above 50 years]	0ᵃ	.	1
	[Capital_investment= Upto 5 lakhs]	-.535	.037	0.585669
	[Capital_investment= 5,00,001 – 15 lakhs]	-.148	.434	0.862431
	[Capital_investment= More than 15 lakhs]	0ᵃ	.	1
	[Gender_owner= Male]	.272	.142	1.312587
	[Gender_owner= Female]	0ᵃ	.	1
	[Unit_Registration= Yes]	-.551	.000	0.576373
	[Unit_Registration=No]	0ᵃ	.	1
	[Unit_location= Urban]	.134	.583	1.143393
	[Unit_location= Semi-urban]	.195	.536	1.215311
	[Unit_location= Rural]	0ᵃ	.	1
	[Yearly_Income= Upto 5 lakhs]	-.794	.026	0.452033
	[Yearly_Income=500001-10 lakhs]	-.529	.080	0.589194
	[Yearly_Income=1000001-15 lakhs]	-.784	.019	0.456576
	[Yearly_Income=1500001-20 lakhs]	-.597	.058	0.550461
	[Yearly_Income= More than 20 lakhs]	0ᵃ	.	1
	[Business_Term=Up to 5 years]	.151	.624	1.162997
	[Business_Term= 6-10 years]	.255	.365	1.290462
	[Business_Term=11-15 years]	.487	.069	1.627427
	[Business_Term=16-20 years]	.533	.088	1.704037
	[Business_Term=21-25 years]	.185	.512	1.203218
	[Business_Term=Above 25 years]	0ᵃ	.	1
	[Business_Nature=Manufacturing]	-.109	.502	0.89673
	[Business_Nature=Service]	0ᵃ	.	1
	[Loan_Type= Working Capital]	.458	.101	1.580909

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		Estimate (β)	Sig.	Exp (β)
	[Loan_Type= Term loan]	.327	.222	1.386801
	[Loan_Type= Others]	0[a]	.	1

Table 6.23 Parameter Estimates for Difficulty with Attitude
(Reference value = Agree)

		Estimate (β)	Sig.	Exp (β)
Threshold	[Attitude_Difficulty = 1]	-2.551	.000	0.078004
	[Attitude_Difficulty = 2]	-1.161	.043	0.313173
Location	[Age_owner = Upto 30 years]	.505	.155	1.656986
	[Age_owner= 31-40 years]	-.169	.551	0.844509
	[Age_owner= 41-50 years]	.007	.981	1.007025
	[Age_owner= Above 50 years]	0[a]	.	1
	[Gender_owner= Male]	.267	.156	1.30604
	[Gender_owner= Female]	0[a]	.	1
	[Unit_location= Urban]	-.074	.768	0.928672
	[Unit_location= Semi-urban]	-.496	.120	0.608962
	[Unit_location= Rural]	0[a]	.	1
	[Business_Term=Up to 5 years]	-.419	.191	0.657704
	[Business_Term= 6-10 years]	-.265	.371	0.767206
	[Business_Term=11-15 years]	-.089	.753	0.914846
	[Business_Term=16-20 years]	-.197	.545	0.821191
	[Business_Term=21-25 years]	.080	.789	1.083287
	[Business_Term=Above 25 years]	0[a]	.	1
	[Business_Nature=Manufacturing]	.130	.439	1.138828
	[Business_Nature=Service]	0[a]	.	1
	[Education_owner= 10+2]	-.209	.194	0.811395
	[Education_owner= Graduate]	0[a]	.	1
	[Education_owner=Others]	-.115	.685	0.891366
	[Scheme_Loan= PMEGP]	-.346	.046	0.707512
	[Scheme_Loan=PMMY]	.122	.616	1.129754
	[Scheme_Loan= Other Scheme]	-.564	.019	0.568929
	[Scheme_Loan= No scheme]	0[a]	.	1
	[Loan_Applied_Amount= Upto 5 lakhs]	-.675	.029	0.509156
	[Loan_Applied_Amount= 500001-10 lakhs]	-.473	.147	0.62313
	[Loan_Applied_Amount=1000001-15 lakhs]	-.214	.565	0.807348
	[Loan_Applied_Amount=1500001-20 lakhs]	-.083	.825	0.920351
	[Loan_Applied_Amount= More than 20 lakhs]	0[a]	.	1
	[Business_Form=Proprietor]	-.167	.463	0.8462
	[Business_Form=Others]	0[a]	.	1

Table 6.24 Parameter Estimates for Difficulty with Support service
(Reference value = Agree)

		Estimate (β)	Sig.	Exp (β)
Threshold	[Support_Difficulty = 1]	-1.512	.007	0.220469
	[Support_Difficulty = 2]	-.315	.576	0.729789
Location	[Age_owner = Upto 30 years]	-.691	.041	0.501075
	[Age_owner= 31-40 years]	-.038	.889	0.962713
	[Age_owner= 41-50 years]	-.167	.538	0.8462
	[Age_owner= Above 50 years]	0ᵃ	.	1
	[Business_Term=Up to 5 years]	.497	.110	1.643783
	[Business_Term= 6-10 years]	-.102	.719	0.90303
	[Business_Term=11-15 years]	.053	.844	1.05443
	[Business_Term=16-20 years]	.279	.382	1.321807
	[Business_Term=21-25 years]	-.043	.880	0.957911
	[Business_Term=Above 25 years]	0ᵃ	.	1
	[Business_Nature=Manufacturing]	.165	.318	1.179393
	[Business_Nature=Service]	0ᵃ	.	1
	[Scheme_Loan= PMEGP]	.102	.833	1.107383
	[Scheme_Loan=PMMY]	.157	.485	1.169996
	[Scheme_Loan= Other Scheme]	-.391	.330	0.67638
	[Scheme_Loan= No scheme]	0ᵃ	.	1
	[Business_Form=1]	-.200	.365	0.818731
	[Business_Form=2]	0ᵃ	.	1
	[Capital_investment= Upto 5 lakhs]	-.460	.083	0.631284
	[Capital_investment= 5,00,001 – 15 lakhs]	.001	.994	1.001001
	[Capital_investment= More than 15 lakhs]	0ᵃ	.	1
	[Yearly_Income= Upto 5 lakhs]	-.800	.031	0.449329
	[Yearly_Income=500001-10 lakhs]	-.294	.350	0.745276
	[Yearly_Income=1000001-15 lakhs]	-.026	.939	0.974335
	[Yearly_Income=1500001-20 lakhs]	-.228	.473	0.796124
	[Yearly_Income= More than 20 lakhs]	0ᵃ	.	1
	[Loan_Type= Working Capital]	.276	.327	1.317848
	[Loan_Type= Term loan]	.381	.158	1.463748
	[Loan_Type= Others]	0ᵃ	.	1
	[Unit_type= Micro]	-.159	.440	0.852996
	[Unit_type= Small & Medium]	0ᵃ	.	1
	[Unit_Registration= Yes]	-1.124	.013	0.324977
	[Unit_Registration=No]	0ᵃ	.	1
	[Unit_location= Urban]	-.038	.878	0.962713
	[Unit_location= Semi-urban]	-.032	.921	0.968507

	[Unit_location= Rural]	0[a]	.	1

Table 6.25 Parameter Estimates for Difficulty with Post sanction
(Reference value = Agree)

		Estimate (β)	Sig.	Exp (β)
Threshold	[Postsanction_Difficulty = 1]	.821	.188	2.272771
	[Postsanction_Difficulty = 2]	3.043	.000	20.96805
Location	[Age_owner = Upto 30 years]	-.250	.457	0.778801
	[Age_owner= 31-40 years]	-.178	.517	0.836942
	[Age_owner= 41-50 years]	-.307	.273	0.735651
	[Age_owner= Above 50 years]	0[a]	.	1
	[Scheme_Loan= PMEGP]	-.174	.739	0.840297
	[Scheme_Loan=PMMY]	.390	.097	1.476981
	[Scheme_Loan= Other Scheme]	-.280	.531	0.755784
	[Scheme_Loan= No scheme]	0[a]	.	1
	[Business_Form=1]	.098	.662	1.102963
	[Business_Form=2]	0[a]	.	1
	[Capital_investment= Upto 5 lakhs]	-.269	.344	0.764143
	[Capital_investment= 5,00,001 – 15 lakhs]	.052	.802	1.053376
	[Capital_investment= More than 15 lakhs]	0[a]	.	1
	[Yearly_Income= Upto 5 lakhs]	-.809	.033	0.445303
	[Yearly_Income=500001-10 lakhs]	-.609	.052	0.543894
	[Yearly_Income=1000001-15 lakhs]	-.542	.113	0.581584
	[Yearly_Income=1500001-20 lakhs]	-.633	.049	0.530996
	[Yearly_Income= More than 20 lakhs]	0[a]	.	1
	[Loan_Type= Working Capital]	.488	.115	1.629055
	[Loan_Type= Term loan]	.412	.168	1.509834
	[Loan_Type= Others]	0[a]	.	1
	[Unit_Registration= Yes]	.294	.550	1.341784
	[Unit_Registration=No]	0[a]	.	1
	[Unit_location= Urban]	.251	.350	1.28531
	[Unit_location= Semi-urban]	.138	.689	1.147976
	[Unit_location= Rural]	0[a]	.	1
	[Education_owner=Others]	-.448	.116	0.638905
	[Education_owner= 10+2]	-.172	.286	0.841979
	[Education_owner= Graduate]	0[a]	.	1
	[Loan_Applied_Amount= Upto 5 lakhs]	.228	.502	1.256085
	[Loan_Applied_Amount= 500001-10 lakhs]	.280	.397	1.32313
	[Loan_Applied_Amount=1000001-15 lakhs]	.070	.850	1.072508
	[Loan_Applied_Amount=1500001-20 lakhs]	.355	.323	1.426181
	[Loan_Applied_Amount= More than 20 lakhs]	0[a]	.	1

		Estimate (β)	Sig.	Exp (β)
	[Gender_owner= Male]	.609	.004	1.838592
	[Gender_owner= Female]	0ᵃ	.	1
	[Business_Nature=Manufacturing]	-.050	.759	0.951229
	[Business_Nature=Service]	0ᵃ	.	1

Table 6.26 Parameter Estimates for Difficulty with Terms and policies
(Reference value = Agree)

		Estimate (β)	Sig.	Exp (β)
Threshold	[Terms_Difficulty = 1]	-2.710	.000	0.066537
	[Terms_Difficulty = 2]	.757	.112	2.131871
Location	[Capital_investment= Upto 5 lakhs]	-.424	.154	0.654424
	[Capital_investment= 5,00,001 – 15 lakhs]	-.197	.371	0.821191
	[Capital_investment= More than 15 lakhs]	0ᵃ	.	1
	[Loan_Type= Working Capital]	.414	.177	1.512857
	[Loan_Type= Term loan]	.395	.179	1.484384
	[Loan_Type= Others]	0ᵃ	.	1
	[Unit_Registration= Yes]	-.695	.000	0.499074
	[Unit_Registration=No]	0ᵃ	.	1
	[Unit_location= Urban]	.276	.309	1.317848
	[Unit_location= Semi-urban]	.161	.641	1.174685
	[Unit_location= Rural]	0ᵃ	.	1
	[Education_owner= 10+2]	.113	.498	1.119632
	[Education_owner= Graduate]	0ᵃ	.	1
	[Education_owner=Others]	.194	.491	1.214096
	[Loan_Applied_Amount= Upto 5 lakhs]	-.764	.039	0.465799
	[Loan_Applied_Amount= 500001-10 lakhs]	-.618	.079	0.539021
	[Loan_Applied_Amount=1000001-15 lakhs]	-.643	.098	0.525713
	[Loan_Applied_Amount=1500001-20 lakhs]	-.107	.773	0.898526
	[Loan_Applied_Amount= More than 20 lakhs]	0ᵃ	.	1
	[Unit_type= Micro]	-.157	.512	0.854704
	[Unit_type= Small & Medium]	0ᵃ	.	1
	[Yearly_Income= Upto 5 lakhs]	-.062	.877	0.939883
	[Yearly_Income=500001-10 lakhs]	.031	.928	1.031486
	[Yearly_Income=1000001-15 lakhs]	-.145	.690	0.865022
	[Yearly_Income=1500001-20 lakhs]	-.630	.065	0.532592
	[Yearly_Income= More than 20 lakhs]	0ᵃ	.	1

Table 6.19 to table 6.26 shows the parameter estimates with the reference variable value "Agree". The significant inferences from the ordinal logistic regression can be summarised as follows:

(i)   In case of loan application process, borrowers under PMEGP and "other schemes" are 0.37 times less likely to face difficulty compared to borrowers with "no scheme". Businesses which are 6-10 years old are 2.18 times and businesses which are 11-15 years old are 1.78 times more likely to face difficulty with application compared to businesses which are more than 25 years old. MSMEs with capital investment of up to ₹ 5 lakhs are 0.58 times less likely to face difficulties with application for loan compared to those MSMEs who have capital investments of more than ₹ 15 lakhs. Micro MSME units are 0.6 times less likely to face problems with application procedure compared to small and medium MSMEs. The classification of micro, small and medium units have been on the basis of old definition of MSMEs which was in force till 30th June, 2020.

(ii)   In terms of difficulty faced with documentation, borrowers (MSME owners/represents) less than 50 years of age are on an average 0.47 times less like to face difficulties with borrowing compared to borrowers of more than 50 years of age. MSME units which are registered are 0.53 times less like to face difficulties with documentation. MSME units located in urban and semi-urban areas are approximately 0.52 times less like to face difficulties with documentation when compared to MSMEs units from rural areas. MSME borrowers who applied for loan amounts of up to ₹ 5 lakhs are 0.49 times less likely to face difficulties with documentation compared to borrowers who applied for loan amounts of more than ₹ 20 lakhs.

(iii) For the parameter staff support, borrowers within the age group of 31-50 years are 0.57 times less likely to face difficulties compared to borrowers more than 50 years old. Borrowers who opted for PMMY scheme were 2.03 times more likely to face difficulties with staff support compared to borrowers with no scheme. Businesses which were up to 5 years old were 1.9 times more like to face difficulty with staff support in comparison to borrowers who were more than 50 years old.

(iv)   For the sanction process, borrowers within 50 years of age were on an average 0.4 times less like to face difficulty compared to those borrowers who were aged above 50 years. MSMEs which invested up to ₹ 5 lakhs in capital are 0.58 times less likely to face difficulties with sanctioning of loan compared to those MSMEs with capital investments of more than ₹. 15 lakhs. Registered MSME units were 0.57 times less likely to face difficulties with sanction process. MSMEs with yearly income of up to ₹ 5 lakhs and more than ₹ 10 lakhs but less than ₹ 15 lakhs were 0.45 times less likely to face difficulty with sanction process compared to those MSMEs which were earning more than ₹ 20 lakhs annually.

(v)   In terms of difficulty with attitude, borrowers under PMEGP scheme were 0.7 times, and borrowers under other schemes (any other scheme than PMEGP and PMMY) were 0.57 times, less likely to face difficulties when compared to borrowers with no schemes.

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MSME borrowers who applied for loan amounts of up to ₹ 5 lakhs were 0.5 times less likely to face difficulties with attitude of banks compared to borrowers who applied for loan amounts of more than ₹ 20 lakhs.

(vi)   Borrowers up to 30 years of age were 0.5 times less likely to face difficulties with support services from banks when compared to borrowers above 50 years of age. MSMEs with yearly income of up to ₹ 5 lakhs were 0.45 times less likely to face difficulty with support services compared to those MSMEs which were earning more than ₹ 20 lakhs annually. Registered MSMEs faced 0.32 times less difficulty with support services.

(vii)   In terms of experience with post sanction issues of loans, borrowers with yearly income of up to ₹ 10 lakhs and more than ₹ 10 lakhs but less than ₹. 20 lakhs were on an average 0.5 times less likely to face difficulties than borrowers earning more than ₹ 20 lakhs annually. Male borrowers were 1.8 times more like to face difficulty with post sanction related issues.

(viii)   Registered units faced 0.5 times less difficulty with terms and conditions of the loan/bank. MSME borrowers who applied for loan amounts of up to ₹ 5 lakhs were 0.46 times less likely to face difficulties with terms and conditions of banks compared to borrowers who applied for loan amounts of more than ₹ 20 lakhs.

6.5 PROFILE OF MSMEs THAT HAVE NOT BORROWED FROM BANK

The study also included few non-borrowers. A separate set of questions were presented to the non-borrowers to find out reasons for not borrowing form banks. A total of 136 non-borrower MSMEs' responses have been included here.

6.5.1 Demographic Profile of Non-Borrowers

A graphical representation of the demographic profiles of non-borrowers, for selected parameters, is presented as follows:
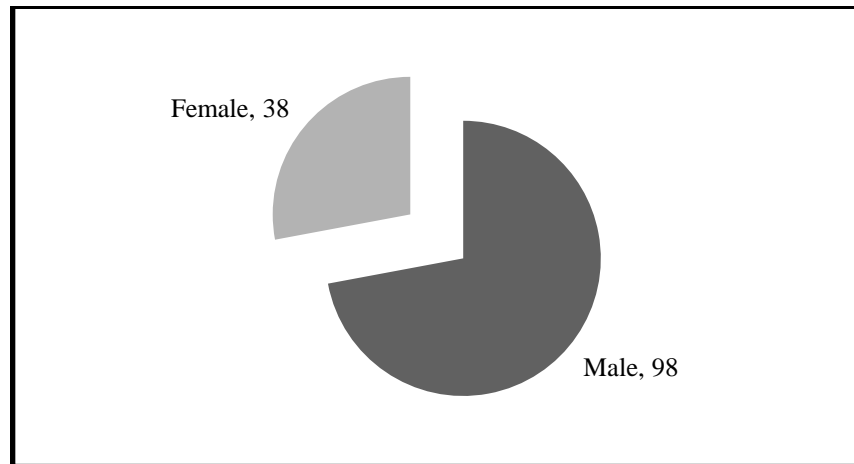
Figure 6.2 Gender of respondent
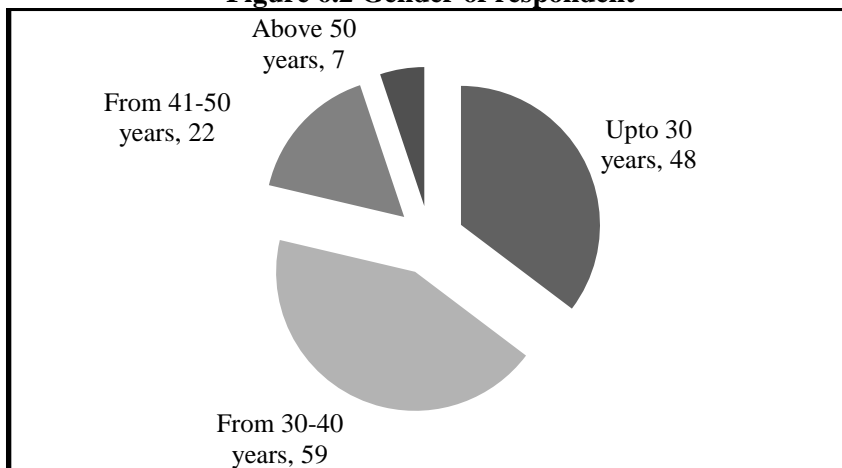
Figure 6.3 Age of respondent
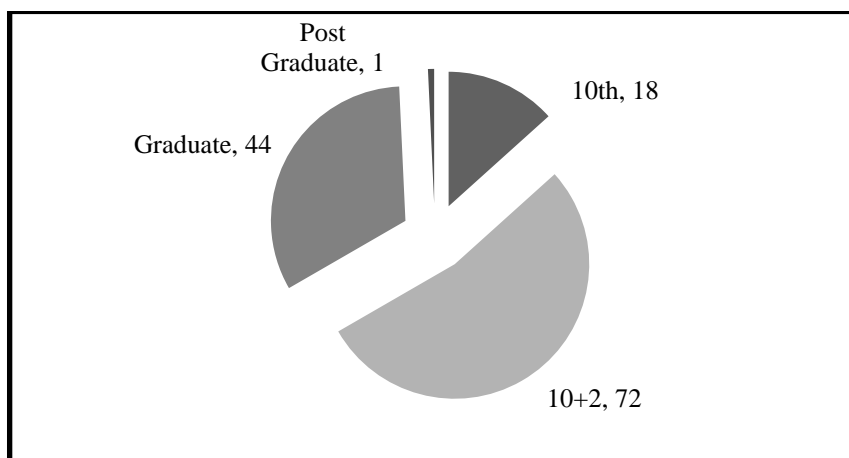
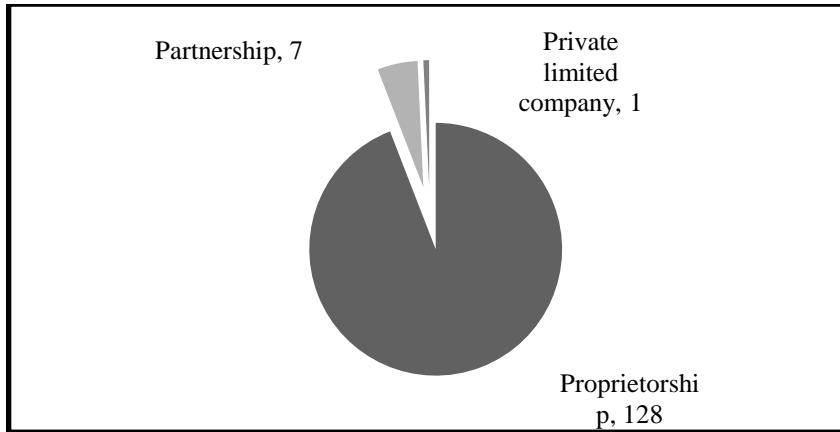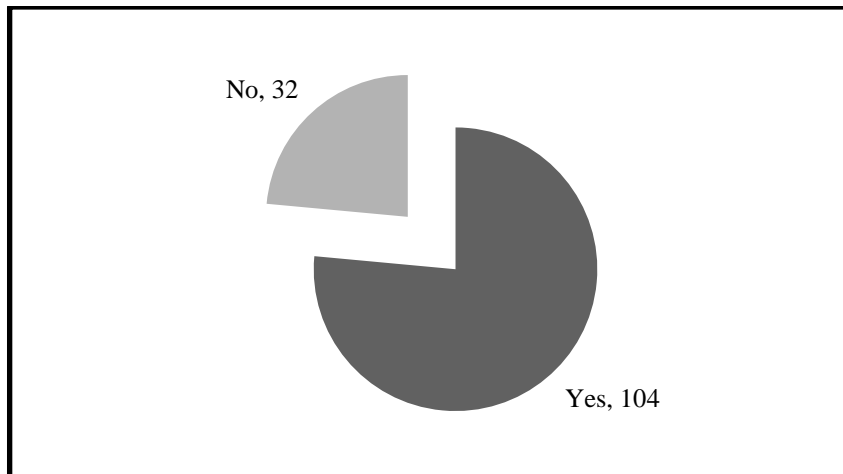
Figure 6.4 Education levels of the respondents

Small, 8

Micro, 128
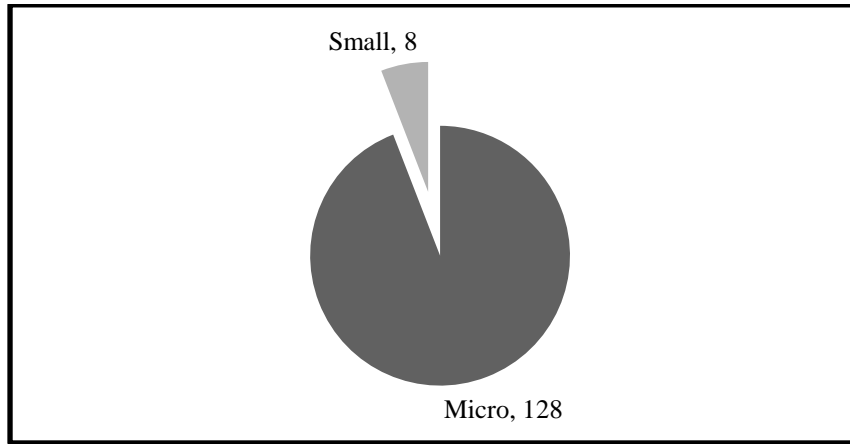
Figure 6. 5 Type of unit

Semi-urban, 3

Urban, 133
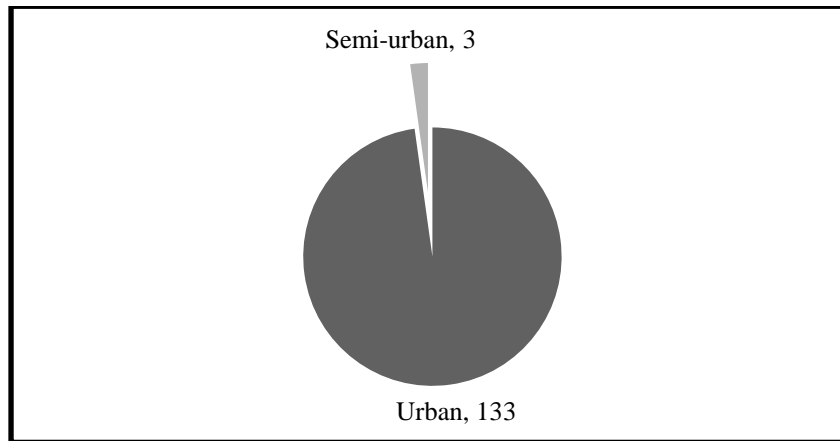
Figure 6.6 Location of unit

Figure 6.7 Form of business

Figure 6.8 Whether registered or not
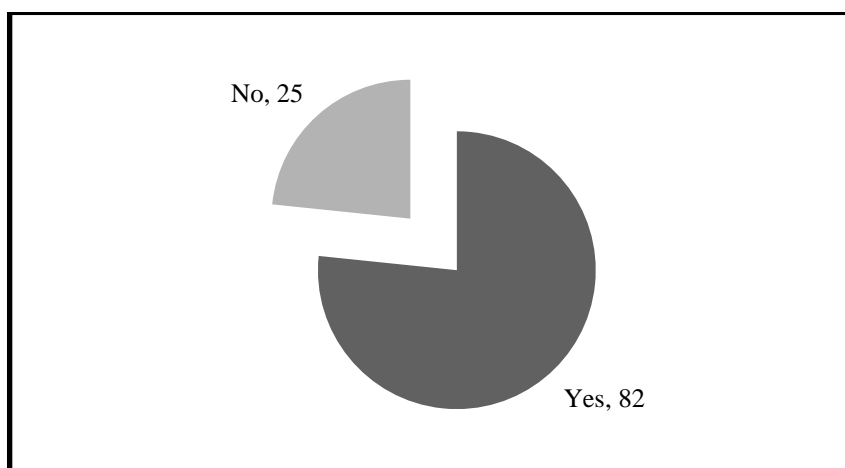
Figure 6.9 Assistance from registering authority (non-financial)

Majority of the respondents (72%) were male. Most of the population are young at 43% of respondents between 30-40 years of age while 35.2% were 30 years old or lesser. Half

of the respondents (52%) had education till 10+2, 32.3% were graduates. 94% of population were micro units and the rest were small units. Majority of the population (97.7%) operates in urban areas while the rest in semi-urban areas. 94% were proprietors and the remaining were partnerships or companies. 76.4% were registered under DIC and the rest were unregistered. 60.2% of registered units had availed some kind of service from DIC (non-financial).
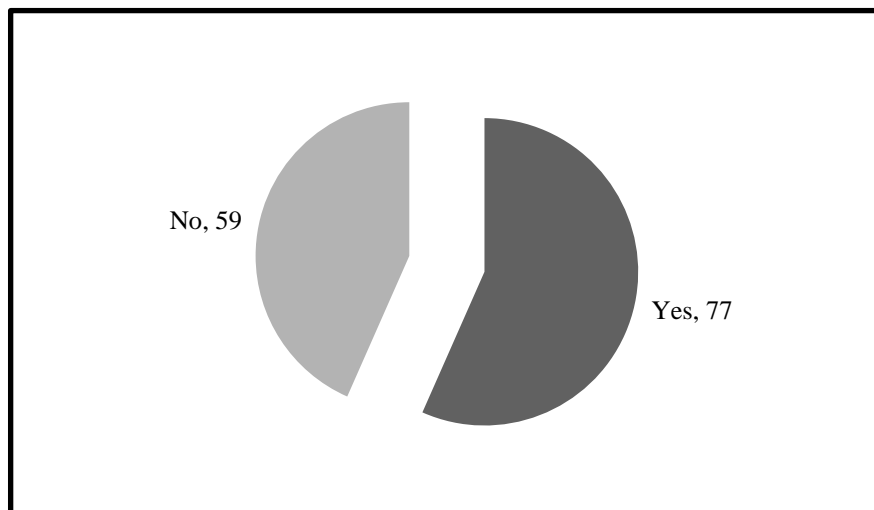
6.5.2 Financial Profile of Non Borrowers
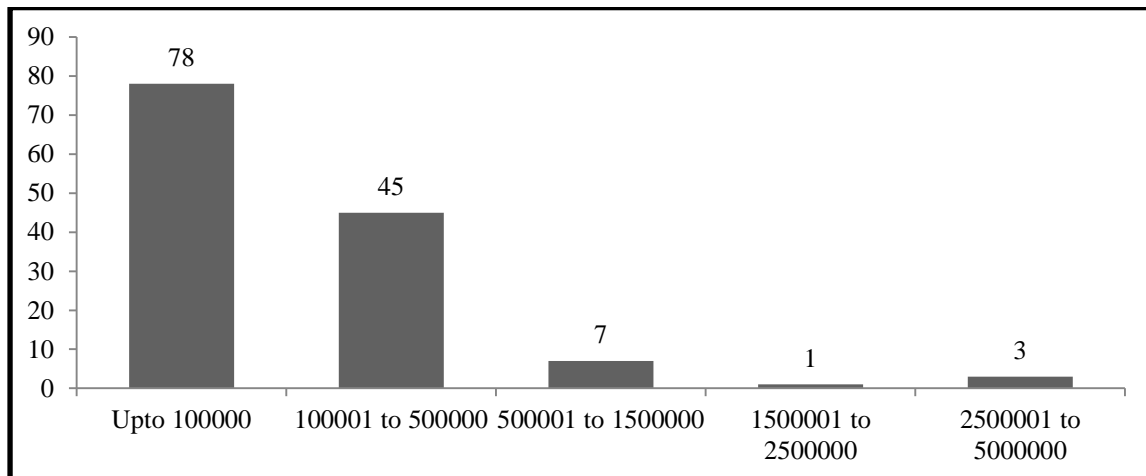
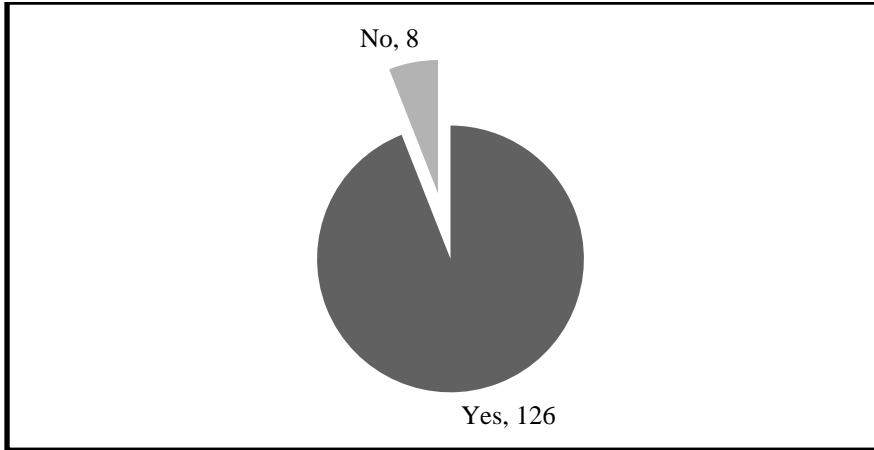
Figure 6.10 Amount of capital invested (in ₹)
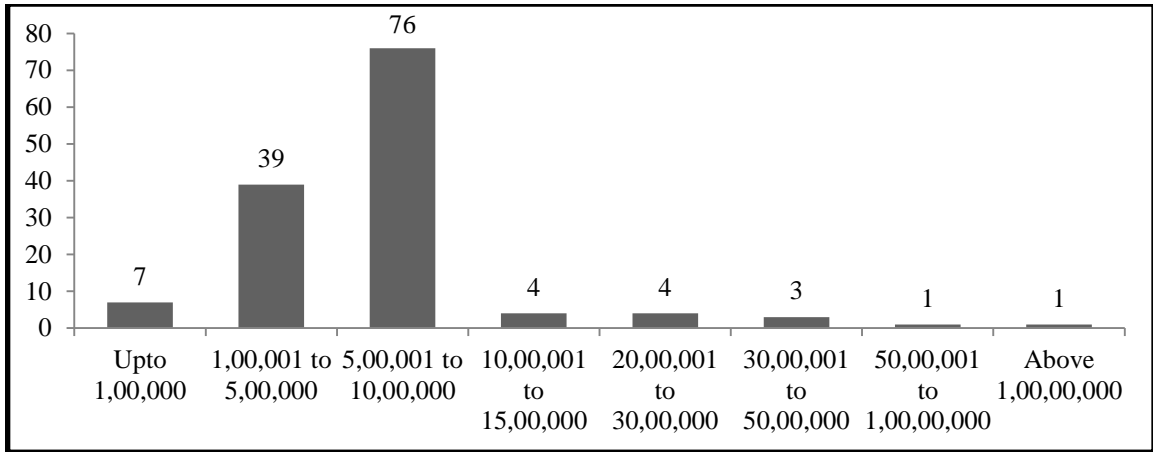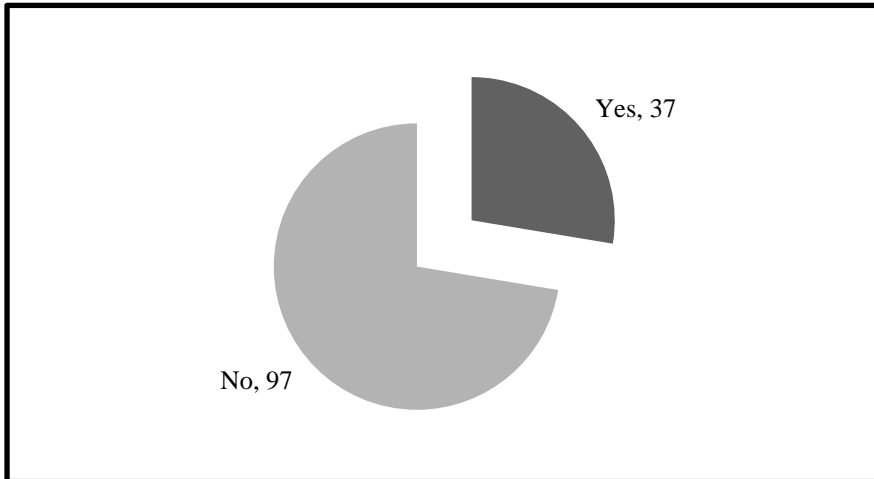
Figure 6.11 Yearly Income (in ₹)
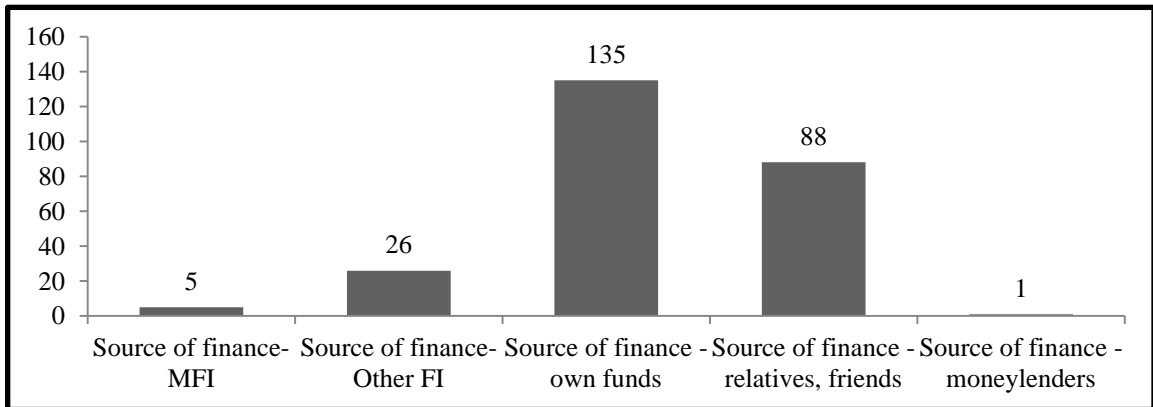
Figure 6.12 Source of Finance

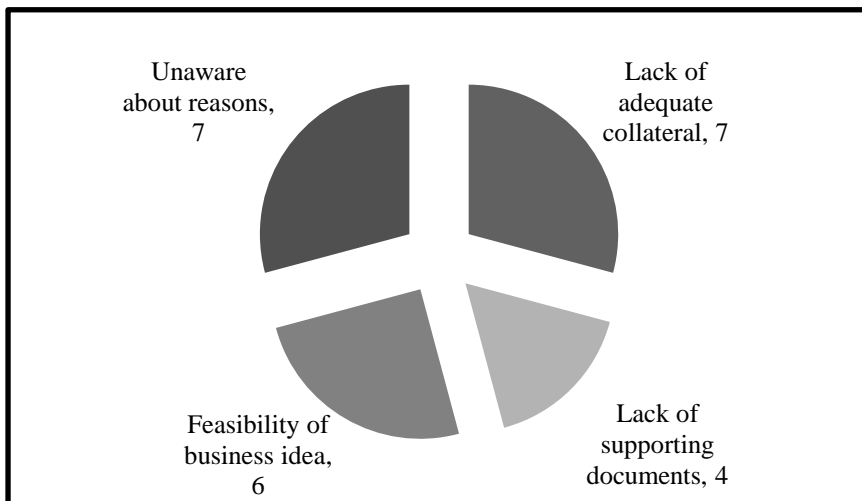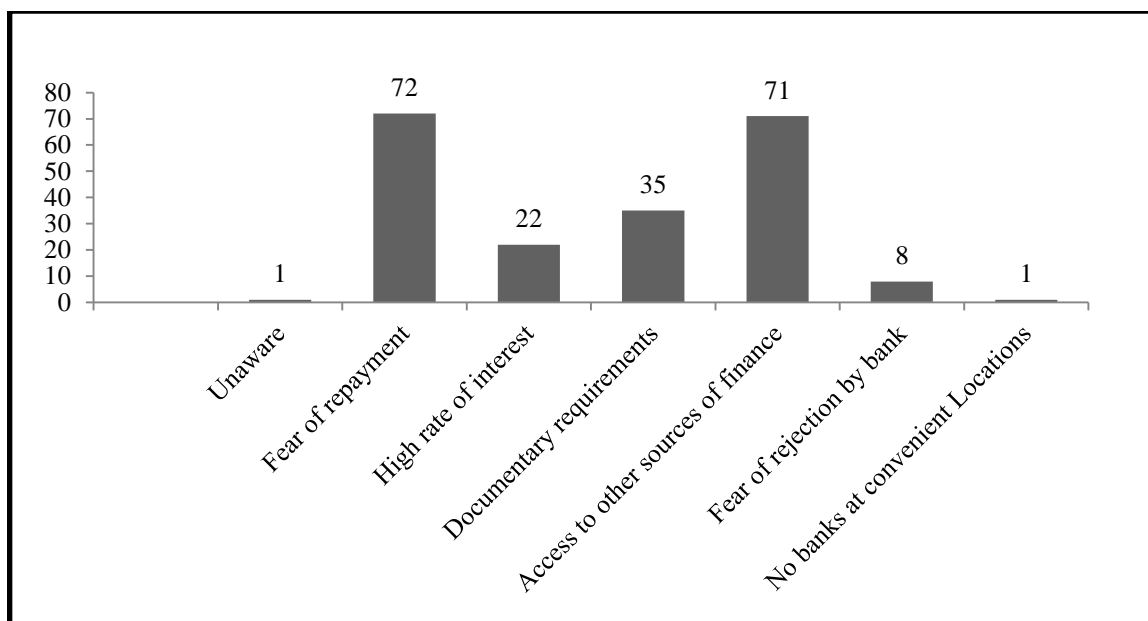**Figure 6.13 Satisfaction with source of finance**

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No, 8

Yes, 126

Figure 6.14 If borrowing from banks will help

Yes, 37

No, 97

Figure 6.15 Whether applied for bank loan

Unaware about reasons, 7

Lack of adequate collateral, 7

Feasibility of business idea, 6

Lack of supporting documents, 4

Figure 6.16 Reasons cited by banks for rejecting borrower

Figure 6.17 Reasons behind not borrowing from bank

Overall investments are lower compared to borrower population with majority (58.2%) investing up to 1,00,000 (Fig 6.10). Yearly income were lower too comparatively with majority (56.2%) earning between 5,00,000 to 10,00,000 annually (Fig 6.11). 100% were dependent on self for funding while 65.1% relied on friends and family. A meagre section relied on micro finance, moneylenders and other financial institutions (Fig 6.12). Although, 56.6% of sample were satisfied with current source of finance, compared to 46.2% in case of borrowers (from Chapter 4), 126 out of 134 respondents also said borrowing from banks would help their business, i.e., 94% felt that borrowing from bank will help (Fig. 6.14). However, 27% had applied for bank loan and got rejected (Fig 6.15). On asked about the reason behind rejection to those MSMEs whose application for loan were rejected by bank, in 29% of the cases no definite reasons were cited by the banks, in another 29% of cases lack of adequate collateral was the reason cited, and in 25% of cases non-feasibility of the project was the reason for rejection (6.16). Reasons cited behind not borrowing from banks were (Fig 6.17):

    (i) Access to other sources of finance 33.8%

    (ii) Fear of repayment 34.2%

    (iii)Documentary requirements 16.7%

    (iv)High rate of interest 10.4%

    (v) Fear of rejection by bank 3.8%

    (vi)Unaware of terms of credit 0.04%

(vii)No banks at convenient Locations 0.04%

6.5.3 Summary of Non-Borrower Profile

Table 6.27 Table showing summary of non-borrower profiles

(amount in ₹)

VARIABLES		Capital invested amount (mean) (non-borrower)	Yearly income in amount (mean) (non-borrower)
Gender of owner	Male	6,46,724	7,98,000
	Female	2,63,769	4,03,615
Owner Age	Upto 30 years	4,63,636	7,36,363
	30-40 years	4,82,187	5,28,266
	41-50 years	4,88,090	7,87,300
	Above 50 years	10,00,000	32,50,000
Owner Education Status	10th	1,66,666	6,00,000
	10+2	3,84,700	4,87,450
	Graduate	7,60,555	7,45,500
	Post Graduate	3,00,000	7,20,000
Type of unit	Micro	3,84,205	4,61,027
	Small	24,00,000	30,00,000
Location of unit	Urban	5,47,025	6,27,342
	Semi-urban	2,83,333	4,13,333
Whether registered	Yes	4,66,521	5,54,000
	No	6,02,842	6,57,000
Nature of business	Manufacturing	7,27,181	9,15,181
	Service	6,68,448	7,37,200

From Table 6.27, the average (mean) values of investments and annual incomes present a broad picture of the population of non-borrower. Units with male owners invested and earned higher. Income and investment were higher in the age group of 'above 50 years'. Graduates invested and earned higher compared to counterparts. Urban areas had more investments and income than semi-urban areas. Unregistered units had higher investment and incomes. Manufacturing units invested and earned slightly higher on an average.

6.6 SUMMARY OF FINDINGS

From Table 6.1, we find respondents 'agree' that 'attitude' of banks is a difficulty experienced in obtaining loan. On individual scales, the dominant problems found are insufficient promotional drives by banks inviting MSMEs to borrow, unreasonably high time gap between submission and sanction, unnecessary demanded in the application procedure, unfavourable overall attitude of the bank in providing credit to MSMEs and unreasonably high collateral security requirements.

Various demographic, financial and borrowing characteristics were examined to find out which of these has significant influence over the difficulty experienced by MSMEs in borrowing loans. The significant results have been summarised in Table 6.28:

Table 6.28: Table showing summary of various parameters affecting average difficulty scores

VARIABLES	PARAMETERS	TEST USED	P-VALUE	INTERPRETATION
Application	TYPE OF UNIT	One way ANOVA	0.000	Significant difference in average difficulty in application, across types of units.
	AGE OF UNIT	One way ANOVA	0.007	Significant difference in average difficulty with application across age of unit
	REGISTRATION STATUS	Independent Samples t-Test	0.000	Significant difference in average difficulty with application across registration status
	CAPITAL INVESTED	One way ANOVA	0.000	Significant difference in average difficulty with application across amounts of capital invested
	ANNUAL INCOME	One way ANOVA	0.000	Significant difference in average difficulty with application across amounts of annual income
	AMOUNT OF LOAN APPLIED	One way ANOVA	0.000	Significant difference in average difficulty with application across amount of loan applied
	TYPE OF SCHEME	One way ANOVA	0.000	Average difficulty with application is significantly different across type of scheme availed
Documentation	GENDER	Independent samples t-test	0.040	Significant difference in average difficulty with documentation across gender
	TYPE OF UNIT	One way ANOVA	0.014	Significant difference in average difficulty with documentation across type of unit
	AGE OF OWNER	One way ANOVA	0.052	Significant difference in average difficulty with documentation across age of owner
	REGISTRATION STATUS	Independent Samples	0.000	Significant difference in average difficulty with documentation

		t-Test		across registration status
	CAPITAL INVESTED	One way ANOVA	0.000	Significant difference in average difficulty with documentation across amount of capital invested
	ANNUAL INCOME	One way ANOVA	0.001	Significant in average difficulty with documentation across amount of annual income
	AMOUNT OF LOAN APPLIED	One way ANOVA	0.006	Significant difference in average difficulty with documentation across amount of loan applied
	TYPE OF SCHEME	One way ANOVA	0.006	Average difficulty with documentation is significantly different across type of scheme availed
Terms and policies	GENDER	Independent samples t-test	0.049	Significant difference in average difficulty with terms and policies across gender
	REGISTRATION STATUS	Independent Samples t-Test	0.000	Significant difference in average difficulty with terms and policies across registration status
	CAPITAL INVESTED	One way ANOVA	0.009	Significant difference in average difficulty with terms and policies across amount of capital invested
	ANNUAL INCOME	One way ANOVA	0.005	Significant difference in average difficulty with terms and policies across amount of annual income
	TYPE OF SCHEME	One way ANOVA	0.008	Average difficulty with terms and conditions is significantly different across type of scheme availed
Sanction process	AGE OF OWNER	One way ANOVA	0.024	Significant difference in average difficulty with sanction process across age of owner
	REGISTRATION STATUS	Independent Samples t-Test	0.046	Significant difference in average difficulty with sanction process across registration status
	TYPE OF UNIT	One way ANOVA	0.017	Significant difference in average difficulty with sanction process across type of unit
	CAPITAL INVESTED	One way ANOVA	0.000	Significant difference in average difficulty with sanction process across amount of capital invested
	ANNUAL INCOME	One way ANOVA	0.000	Significant difference in average difficulty with sanction process across amount of annual income
	TYPE OF SCHEME	One way ANOVA	0.007	Average difficulty with sanction process is significantly different across type of scheme availed
Attitude	GENDER	Independent samples t-test	0.003	Significant difference in average difficulty with attitude of banks across gender
	TYPE OF UNIT	One way ANOVA	0.000	Significant difference in average difficulty with attitude across type of unit
	REGISTRATION STATUS	Independent Samples t-Test	0.000	Significant difference in average difficulty with attitude across registration status
	CAPITAL INVESTED	One way ANOVA	0.000	Significant difference in average difficulty with attitude across

				amount of capital invested
	ANNUAL INCOME	One way ANOVA	0.000	Significant difference in average difficulty with attitude across amount of annual income
	AMOUNT OF LOAN APPLIED	One way ANOVA	0.000	Significant difference in average difficulty with attitude across amount of loan applied
	TYPE OF SCHEME	One way ANOVA	0.000	Average difficulty with attitude is significantly different across type of scheme availed
Support Service	TYPE OF UNIT	One way ANOVA	0.000	Significant difference in average difficulty with support service across type of unit
	REGISTRATION STATUS	Independent Samples t-Test	0.000	Significant difference in average difficulty with support service across registration status
	CAPITAL INVESTED	One way ANOVA	0.000	Significant difference in average difficulty with support service across amount of capital invested
	ANNUAL INCOME	One way ANOVA	0.000	Significant difference in average difficulty with support service across amount of annual income
	AMOUNT OF LOAN APPLIED	One way ANOVA	0.039	Significant difference in average difficulty with support service across amount of loan applied
	TYPE OF SCHEME	One way ANOVA	0.007	Average difficulty with support service is significantly different across type of scheme availed
Post sanction.	GENDER	Independent samples t-test	0.013	Significant difference in average difficulty with post sanction across gender

The result of the regression model confirms that the following variables predict the experience of difficulty with bank loan:

(i)   Type of scheme availed, age of business, capital investment and type of unit can predict difficulty experienced with application process.

(ii)   Age of owner, registration status, location and amount of loan applied can predict difficulty experienced with documentation process.

(iii)   Age of owner, type of scheme availed and age of business can predict difficulty experienced with staff support.

(iv)   Age of owner, capital investment, registration status and yearly income can predict difficulty experienced with sanctioning of loan.

(v)   Type of scheme availed and amount of loan applied can predict difficulty experienced with attitude of banks.

(vi)   Age of owner, yearly income and registration status can predict difficulty experienced with support services.

（vii)   Yearly income and gender of owner can predict difficulty experienced with post sanction process.

(viii)   Registration status and amount of loan applied can predict difficulty experienced with terms and policies of bank/loan.

Among MSMEs which have not borrowed from banks, 99% were dependent on self-finance and 64.7% relied on family and friends for finance and only a negligible per cent relied on other sources (MFIs, moneylenders etc.). However, 43.4% of respondents were dissatisfied with their source of finance and 92.6% of the respondents felt borrowing from banks would help the business. Respondents (27%) had applied for bank loan and got rejected and the dominating reasons behind rejection were, lack of adequate collateral and non-feasibility of project and some reported that no clear reasons were cited for rejected. The remaining respondents (73%) who have not approached bank refrained from doing do because of fear of timely repayment, access to alternate source of finance, documentary requirements and perceived high rate of interest charged by banks.

6.6.1 Comparison of Borrower and Non-Borrower Profile

A comparison between borrowers and non-borrowers is presented as below:

Table 6.29 Table showing summary of borrower and non-borrower profiles

(amount in ₹)

VARIABLES		Capital invested amount (mean) (borrower)	Capital invested amount (mean) (non-borrower)	Yearly income in amount (mean) (borrower)	Yearly income in amount (mean) (non-borrower)
Gender of owner	Male	43,20,324	6,46,724	22,55,089	7,98,000
	Female	33,92,237	2,63,769	26,48,741	4,03,615
Owner Age	Upto 30 years	32,53,580	4,63,636	26,46,420	7,36,363
	30-40 years	44,06,225	4,82,187	25,05,908	5,28,266
	41-50 years	47,07,639	4,88,090	21,45,632	7,87,300
	Above 50 years	17,21,970	10,00,000	18,11,045	32,50,000
Owner Education Status	10th	21,98,270	1,66,666	19,13,514	6,00,000
	10+2	42,75,297	3,84,700	22,16,100	4,87,450
	Graduate	44,38,480	7,60,555	24,59,741	7,45,500
	Post Graduate	8,98,292	3,00,000	17,75,000	7,20,000
Type of unit	Micro	9,96,369	3,84,205	9,96,369	4,61,027

	Small	72,10,466	24,00,000	72,10,466	30,00,000
Location of unit	Urban	44,88,005	5,47,025	24,95,878	6,27,342
	Semi-urban	15,06,977	2,83,333	17,66,395	4,13,333
Whether registered	Yes	41,11,360	4,66,521	23,15,707	5,54,000
	No	41,95,176	6,02,842	23,36,187	6,57,000
Nature of business	Manufacturing	45,77,911	7,27,181	20,15,890	9,15,181
	Service	39,58,296	6,68,448	24,68,307	7,37,200

Some observations from comparison of borrowers and non-borrowers are the following:

- Female entrepreneurs who have borrowed from banks were earning comparatively higher income on an average than male entrepreneurs, whereas it vice versa for non-borrowers.

- Entrepreneurs 'above 50 years' of age who have not borrowed from banks were investing and earning comparatively higher on an average, whereas in case of borrowers, entrepreneurs in the age group of '41 to 50 years' invested and earned highest.

- Unregistered units who have not borrowed from banks invested and earned higher on an average compared to registered units. Whereas, in case of borrowers, the difference between registered and unregistered units is negligible.

- Units from service industry which have not borrowed from banks earned lower income on an average compared to manufacturing units, whereas units from service industry which have borrowed from banks earned higher income than units from manufacturing industry.