Research Paper

Management

Borrower Rating Model For Women Entrepreneurs

C. Kavitha	Ph.D., Research Scholar, Management Studies, Mother Teresa Women's University, Kodaikanal – 624 102, Tamil Nadu
Dr. N. Markkandeyan	Academic Director, GTN Arts College, Dindigul – 624 004, Tamil Nadu

ABSTRACT *Revolution of contemporary business environment results in more engagement of women in employment and business. In recent years, this ratio becomes increasing even with developing context including India. Hence, women cope them to involve on entrepreneurial activities with the support of external financial sources mainly includes public sector banks. However, most of the women entrepreneurs (WE) don't know whether they are eligible for loan approval from banks, despite the fact some of the existing studies focused on the problems of financial adoption of WE through banks but still limited with exploring the rating model for the WE borrowers. Minding this gap, this study sought to propose a borrower rating model under the concern of WE with replies of selected five bank managers, includes SBI, IB, IOB, CB, and BOI. From the study, it can be revealed the rating model for WE borrowers, by which both bankers and WE's can improve their credit assessment process.*

KEYWORDS : Women entrepreneurs; Borrower's rating model; AHP

Introduction

Recent years, awareness became the one of the element for success not only general but mostly correlated with women entrepreneurs particularly while assessing loans. Hence, it is mandatory to know about themselves, whether they are eligible for applying for a loan or not. Most of the recent banks never having any rating model which is also not detailed to public. Hence, the WE are in chaos to questioning themselves that whether I am fit for applying for a loan. With these dilemmas, they are not performing well and their self-confidence level lacks. On contrary to that, there are no previous studies exists in this arena, however so do exist but mainly focused on credit risk assessment which solely with bankers perspective. Hence, minding this gap, this study sought to propose a borrower rating model with the concern of WE with the aim of providing a clear picture to both WEs and bankers. By which the relationship between the borrower (WE) and banker may improve, furthermore results in a "win-win" strategy.

Hence, common factors related to the borrower rating were collected from the existing literature, in which some of the crucial factors were consolidated, which further analyzed through AHP. In such analysis, the sub factors are ranked and their scores are projected in the borrower rating model.

The remaining sections of the paper are as follows: Section 2 details the methodology along with the interesting topics includes research design, sampling, and tool for analysis. Collected data were analyzed and the interpretations were made, which is registered in Section 3. Finally, this study concluded with Section 4 along with limitations and future extensions.

Methodology

However, as an initial step, the existing literature in the core field was reviewed by which the questionnaire was framed. For the purpose of this study, the required database of bankers was collected from the appropriate banks. The type of research used for the study is descriptive in nature.

Data collection methods

For the reliability of the study, the data were collected from both primary and secondary sources. Primary data are the fresh data which are collected the replies of respondents whereas the secondary data has been composed of web, journals, periodical and newspapers.

Research Design

The type of research is descriptive in nature, which is having the sample size of 141, drawn from the result of a population study.

Sampling method

As discussed earlier population study was adapted for sampling. The area of the study is classified into 14 blocks such as Madurai city, Madurai east, Madurai west, Thirupparangundram, Melur, Kottampatti, Vadipatti, Alanganallur, Thriumangalam, Kalligudi, Usilampatti, Chellampatti, Sedapatti and T. Kallupatti. The total population of bankers (creditors) in Madurai district is 141.

Tool for analysis

Data are analyzed through descriptive analysis with the assistance of the statistical techniques percentage analysis and in order to balance the multi-criteria influence, analytical hierarchy process (AHP) was applied.

Data Analysis and interpretation

The data analysis folds into three categories namely demographics, relationship between the bank of employment and decision-making and the relationship between age and decision making.

Table 1: Demographic profile of bankers

S. No	Factors	Number of Respondents	
		Numbers (141)	Percentage (%)
1	**Bank** SBI IB IOB CB BOI	40 29 25 34 13	28.37 20.57 17.73 24.11 9.22
	Total	141	100
2	**Block** Madurai City Madurai East Madurai West Thirupparangundram Melur Kottampatti Vadipatti Alanganallur Thirumangalam Kalligudi Usilampatti Chellampatti Sedapatti T. Kallupatti	73 9 2 7 6 5 5 5 5 4 6 4 5 5	51.77 6.38 1.42 4.96 4.26 3.55 3.55 3.55 3.55 2.84 4.26 2.84 3.55 3.55
	Total (14 Blocks)	141	100
3	**Area** Rural Urban	68 73	48.23 51.77
	Total	141	100
4	**Position** Branch Manager Credit Manager	68 73	48.23 51.77

		141	100
5	**Gender** Male Female	**97** **44**	**68.79** **31.21**
	Total	141	100
6	**Age** <25 25-40 40-55 >55	**0** **92** **36** **13**	**0** **65.25** **25.53** **9.22**
	Total	141	100

Source: Primary Data

From Table 1 it is clearly revealed that, among five commercial banks, SBI holds the position in number in Madurai district. Next to that, Indian bank captures the second position and the least number can be seen on BOI. However, as mentioned earlier Madurai district was categorized into 14 blocks, in which most of the banks are situated in Madurai city block with the percentage of 51.77. From the table, it is come to know that 51.77 % of banks are situated in urban region whereas 48.23% lies in the rural region. Generally, in rural areas the bank manager also acts as credit manager owing to the area limit and business capacity of the bank, hence it is projected as the position of the respondent depend on the area. Most of the respondents are male with an average of 68.79 % and remaining holds by female candidates, it is quite surprising that most of the managers fall under the age group of 25-40, it is nearly 65.23% of total numbers, also there is not a single manager below the age of 25.

Borrower rating
In order to the rate the borrower, some of the basic factors related to the borrower rating were collected with the help of a secondary database. By which the 44 factors are identified and organized in Table 2.

Table 2: Factors considered for borrower rating

S. No	Dimensions	Factors
1		Age
2		Educational Qualification
3	Personal Factors	Marital Status
4		No. of Dependents
5		Family Type
6		Community/Religion
7		Self-image
8	3S	Self-confidence
9		Self-awareness
10		Confident in business
11	4C	Competitiveness
12		Commitment
13		Control over the business
14	2E	Entrepreneurial intention
15		Entrepreneurial competency
16		Previous Employment Status
17		Designation
18	Experience (for business/ to start a business)	No. of years of employment
19		Gross Monthly Income (other than business)
20		Employment Experience in the same business
26		Other debt/liabilities
27		Quality of Building and Construction
28		Age of the Building
29		Presence of Amenities in the business
30		Marketability of the Property
31	Profile of existing business (in case)	Actual Bank EMI as % of Maxi. EMI in the business
32		Stage in business life cycle
33		Nature of Competition
34		Assistance from other sources (like subsidiary)

Table 2 (continued)

35		Type of business
36		Size of business
37		Nature of business (SP/P)
38		Location of business (R/U/Industrial Estates)
39		Vulnerable business
40	Business factors	Innovative business
41		High tech business
42		Extension of family business – family business
43		Business family background – business family
44		Type of entrepreneur (factor, efficiency, and innovation were driven)

Source: Secondary data

However, all the collected factors can't be used for the study, because most of the factors are less evident factors, which may cause bias in the study's output. Hence, the factors which can be easily evident by the bankers are listed below in Table 3.

Table 3: Final factors considered for borrower rating

S. No	Factor	Possible options
1	Age	<20
		20-30
		30-40
		40-50
		>50
2	Marital status	Married
		Unmarried
		Others
3	Educational qualification	Less than 10th
		Less than 12th
		UG
		Business Degree
		PG
		Professional
4	No. of. Dependent	>2
		3
		>4
5	% of Finance by an individual (WE)	Less than 10%
		10-20
		Others
6	No. of. Years employment	Fresher
		0-5 yrs.
		Others
7	Location of business	Rural
		Urban
		Semi Urban
		Others
8	Types of business	Trading
		service
		manufacturing
10	Size of business	Sole
		Partnership
11	Types of Finance	Start up
		Working
		Purchase of Machines
		Others

Among these 11 factors, each and every do possess different options, for an instance, it can be considered as if age is the important factor for borrower, then the question immediately raise with their options, like which age, whether it fall under below 20 or above 50 or others. Hence, in order to answer these questions, this study made a study to find the weights of each sub factor in order to reveal the best borrower rating model with the assistance of AHP.

In AHP, the factors are rated as a pairwise comparison with the replies of the respondents, furthermore normalized the same in order to attain the Eigen value of each sub factor (nothing but the weights). From the weights, the sub factors can be prioritized, for an instance,

the example of "Age" was illustrated below.

Table 4 Pairwise comparison among - Age

	A1	A2	A3	A4	A5
A1	1	1/3	1/5	1/4	1/2
A2	3	1	1/3	1/2	2
A3	5	3	1	2	4
A4	4	2	1/2	1	3
A5	2	1/2	1/4	1/3	1

Table 5 Normalized matrix – Age

	A1	A2	A3	A4	A5
A1	0.0667	0.0488	0.0876	0.0612	0.0476
A2	0.2000	0.1463	0.1460	0.1224	0.1905
A3	0.3333	0.4390	0.4380	0.4898	0.3810
A4	0.2667	0.2927	0.2190	0.2449	0.2857
A5	0.1333	0.0732	0.1095	0.0816	0.0952

Table 6 Eigen value with ranks – Age

Age	Eigen Values (x)	Rank
<20	0.09123`	5
20-30	0.16105	3
30-40	0.416212	1
40-50	0.261788	2
>50	0.098573	4

Likewise, the other ranks are identified through AHP, in which the high rank i.e., rank 1 is the high weighted factor hence the borrower rating model should be based on the ranks. By which the borrower rating model for WE was proposed in Table 7.

Table 7: Borrower rating model for WE

Personal Details			Scores
(A)	Age		
	a.	<20	1
	b.	20-30	3
	c.	30-40	5
	d.	40-50	4
	e.	>50	2
B)	Marital status		
	a.	Married	0
	B.	Unmarried	0
	c.	Others	0
C)	No. of. Dependent		
	a.	>2	0
	b.	3	0
	c.	>4	0
C)	Educational Qualification		
	a.	Less than 10th	1
	b.	Less than 12th	2
	c.	UG	3
	d.	Business Degree	4
	e.	PG	5
	f.	Professional	5
Employment Details			
A)	No. of Years of Employment		
	a.	Fresher	2
	b.	0-5 Years	1
	c.	Others	0
Financial Details			
A)	% of Finance by individual		
	a.	Less than 10%	1
	B.	10%-20%	2
	C.	Others	0
Business Details			
A)	Location of Business		
	a.	Rural	2
	b.	Urban	4
	c.	Semi-urban	3

	d.	Others	1
B)	Type of Business		
	a.	Trading	1
	b.	Service	3
	c.	Manufacturing	2
C)	Size of Business		
	a.	Tiny	4
	b.	Micro	3
	c.	Small	5
	d.	Medium	2
	e.	Large	1
D)	Nature of Business		
	a.	Sole	2
	b.	Partnership	1
E)	Type of Finance		
	a.	Start ups	3
	b.	Working	2
	c.	Purchase of machines	4
	d.	Others	1

Grading Scales	Score
A	22-33
B	11-22
C	0-11

From the Table 7, it is clearly revealed the borrower rating scores, for an instance, a borrower score 0-11, then she may not fit for applying for loan and this chances of likeness increases with the increase in scores, on the other hand, if the borrower scores 22-33, then she may be highly recommended for applying for loan. However, this is the basic, model which can be adapted for all banks; further, the bank can add some of the factors which are related to their geography, mission, vision values, strategies and so on.

Conclusion

Owing to improve the awareness level of women entrepreneurs as borrower and to assist the banks with the qualified rating model, this study itself take the responsibility to proposed a borrower rating model under the consideration of WE with the assistance of PSU banks namely SBI, IB, IOB, CB, and BOI. In order to achieve the aim, this study adapted descriptive statistical techniques along with AHP with the focus assessing the weights of sub factors involved in borrower rating. Totally 11 criteria were finalized from 44, by which the banks can provide loans and among 11 factors, the sub factors also explored with their corresponding ranks further converted to scores for borrower rating model. However, as mentioned earlier, this is the basic model which may fit for all systems, but in addition, some of the factors may be considered with the concern of relevant banking sector or geography. However, this study assists both WE and banks with the proposed borrower rating model. In future, this study can be adapted for all available banks in order to improve the reliability.