

Impact of Microfinance on Microbusinesses: Case of Haryana, India

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Abstract: *The paper examines the impact of microfinance on the performance of microbusinesses 349 micro-enterprises in the Haryana state of India, by considering profit as a proxy for the performance of the sampled micro-businesses. The findings suggest a significant difference among the various level of microfinancing and their effectiveness in impacting the profitability of the designated business. The results suggest that the performance of micro-businesses availing microfinance in the range of Rs 30,000-50,000, is much better than those with a low level or high levels of microfinance. The verdict advised that for augmenting the profitability or performance of the microenterprises in Haryana; the level of microfinance needs to be maintained at a middle level, i.e., microbusinesses cannot realize their full potential (highest profit) either with a shallow level or too much finance. The study advocates that the level of microfinancing (investment) need to be raised for enhancing the profitability as well as performance and long-run survival of the micro-businesses operational in Haryana.*

Keywords: *Microfinance; Microbusiness; Post hoc test; Profitability.*

I. Introduction

Entrepreneurial development is a key tool for stimulating growth and refers to any deliberate attempt of the individual(s) or organisation (s) to create a new business, a new organisation, venture for self-employment, and the expansion of an existing business (Reynolds et al., 2005). Entrepreneurship acts as a vital tool to revive the stagnant economy through innovations and entrepreneurial activities promote economic growth (Lerner 2010; Frederick & Monsen, 2011) with the process of employment creation (Van Praag & Versloot, 2007) and improving the quality of life of its people (Bayineni, 2005). The Entrepreneurial process comprises an important element of the availability and accessibility of a lucrative opportunity for starting a business (Shane & Venkataraman, 2000), and the nations are experiencing growth owing to entrepreneurship at individual levels (Linan & Chen, 2009), as well as aggregate levels (Linan et al., 2011). An entrepreneur is an employer, master, merchant but explicitly considered as a capitalist (Smith, 1776). Entrepreneurs are called calculated risk-takers they strive to maximise the potential of their venture while simultaneously minimising risk and usually creates small business. Entrepreneurs involved in social entrepreneurial activities are more risk plungers (Mor et al., 2020a) and create new products or services, improve on current products or services, or find a new way to market exiting products or services. An entrepreneur is a person who organises, operates and they promote wellbeing by creating and sustaining social values, consistently pursuing new opportunities, undertaking innovation, adaptation, and learning and risk-taking activities (Mor & Ashta, 2018).

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Microfinance is a source of funding for entrepreneurs and small businesses lacking access to formal banking facilities and related services. Microfinance is the process of formulating groups within a community to assist poverty-stricken people by lending them money without the need of credit or collateral. Chowdhury et al. (2005) termed the access to financial services in the developing world, a significant step to escape poverty and, extending markets, reducing poverty and fostering social change (Armendariz & Morduch, 2005). Riding et al. (1994) propound that the relationships between small business and banks are critical to economic growth as borrowing from banks is one of the most common sources of external financing for small business, and finance influences the relationship between gender and enterprise (Roper & Scott, 2009). Ashta and Mor (2017) found that as income increases, microfinance should also progress to build entrepreneurship in the State, the number of Self-help groups should be increased, for economic development and wellbeing, a culture of taking loans for entrepreneurship is required, and this in itself requires changing the culture of people on the demand side as well as the culture of governance of the firms on the supply side, to enable people to profit from the financial infrastructure.

The term microenterprise, also known as a microbusiness, refers to a small business that usually employs fewer than ten people, and started with a small amount of investment. Mead and Liedholm (1998) express that micro-entrepreneurship have grown constantly during the most recent couple of decades and making occupations in low-salary nations. Tipple (2005) reports that family units and micro-organisations are inseparably entwined, and informal capital is still predominantly used over formal capital sources for financing firm start-up (Elston et al., 2016). The activities of micro-businesses are under the preview of Micro, Small and Medium Enterprises (MSMEs) in India, including the activities of both formal and informal sectors, and out of 36.17 million total enterprises, 34.61 million (94.47 per cent) were in the unregistered sector (MOSPI, 2005). The informal business sector includes all unregistered private busienss engaged in the production, processign and sale of goods and services, managed by properiter(s), partners, and households. With less than ten total workers, tiny capital resources with self-employed basis and whose activities are not accouted under any legal provision or do not maintain any regular accounts (Mor & Madan, 2019).

Research explored various issues related to the growth, financing pattern, gender and development of MSMEs in Haryana. Mor et al., (2020b) discussed the factors affecting the long-run survival of micro-businesses functioning in the State, whereas Rani and Sinha (2016) examined the problems faced by microentrepreneurs. Female-owned microbusinesses are more prone to self-savings as a source of finance as well as the tendency own a microbusiness is more pronounced in young women (Singh et al., 2018) but the entrepreneurial likelihood increases with age, but after a certain point it starts to decrease (Mor, 2018a). Microfinance institutions can increase their output level by 59 per cent without increasing the quantum of inputs (Mor, 2018b), MFIs operating in south India are more technically efficient when compared to Northern India (Singh et al., 2013), reduction in administrative costs and fixed costs on the one hand, and enhancing the personnel expenses (Singh, 2017). Madan and Jain (2015) analyse the growth of MSMEs, whereas Goyal and Goel (2014) examined the effect of microfinance on small enterprises. Till date, no research examined the impact of investment on the performance of microenterprises as well as on the profitability of micro ventures in Haryana.

The performance of an enterprise is very crucial for its long-run survival and resembled in three indicators like sale, profit, and employment generation. The research measured the performance in terms of

growth or profitability (Perren, 2000), growth (Murphy et al., 1996), and profitability (Lumpkin & Dess, 1996) and most used measures for the performance of profitability and growth (number of employees). Besides this, some authors use the business period as a practical measure of individual business success (Luk, 1996; Sapienza & Grimm, 1997; Penning et al., 1998). Therefore, the present study considers profit as the performance indicator for the growth of the microbusiness in Haryana. In the backdrop, the paper explores the effect of microfinance on the performance of microbusiness in Haryana, India, and the performance of the sampled micro-businesses is measured by the level of profit. The present study proposes to test the following hypotheses:

H₀₁: Microfinance don't affect the performance of microbusiness; and

H₀₂: The profitability of a micro business is independent of microfinancing.

The study develops as follows. Section 2 discusses the material & methods employed in the course of the study, while Section 3 deals with the results and discussion. The conclusions and suggestions will be elaborated in Section 4.

II. Material and methods

This section deals with the tools and techniques, the data and explanation of variables used in the study.

2.1 Tools and techniques

The study intends to employ the ANOVA technique, but due to violation of the assumption of homogeneity of variance, ANOVA technique is not applicable; Therefore, we used the Welch test for testing the (Robust) equality of means. Put it differently, one-way ANOVA is an omnibus test statistic and cannot indicate the specific groups that are not statistically significantly different from each other. Post hoc test used to compare all possible combinations of group differences when the assumption of homogeneity of variances is violated, and it offers confidence intervals for the differences between group means and shows whether the differences are statistically significant. Games-Howell (Post-hoc) is a nonparametric approach and applied to compare combinations of groups as it does not assume equal variances and sample sizes.

2.2 Data

The performance of 500 microenterprises functioning in the informal segment in the Haryana state of India has been examined; The microentrepreneurs from 10 different categories like ironsmiths, mechanics, barbers, carpenters, electricians, painters, photographers, flower vendors and food has been selected by employing a well-structured and pre-tested survey schedule for gathering the desired information ranging from personal characteristics to business plans, financial plans, marketing plans, etc. For the purpose, the Haryana state is divided into five zones viz. North zone, South zone, East zone, West zone, and Central zone and 100 respondents from each zone have been selected using purposive sampling. Out of 500 respondents only 349 have availed the microfinance, hence the study analysis their performance only. The entire information collected is solely based on the respondent's recall instead of official or written records due to the informal sector characteristics.

2.3 Explanation of variables used in the study

The present analysis employs microfinance as a categorical variable for examining the impact of various levels of microfinance on the profitability/performance of micro-businesses in Haryana, India. The study uses the Post hoc test for testing the difference of opinion in various groups of respondents and the variables used in this study are described as:

A. Dependent Variable:

Profit: The profit has been used as a proxy for measuring the performance of sampled microbusinesses in Haryana for the year 2015-16.

B. Independent Variables:

Microfinance: Microfinance, a categorical variable, representing four levels of microfinance used by the different categories of micro business is described below:

- I: Upto Rs. 10,000;
- II: Rs. 10,000 to Rs. 30,000;
- III: Rs. 30,000 to Rs. 50,000; and
- IV: Rs. 50,000-1.25 lakh.

III. Results and Discussion

This section deals with the main features of the variable used in the study. To test the various upheld hypotheses the Post hoc test and the Welch test is employed in the study.

3.1: Key sample statistics

Table 1 highlights that the average age of business is 15.46 years and further manifests that the age of the oldest firm is 22.2 years (Photographers), and the youngest firm is 9.54 (Carpenters). The average age of the respondent’s owners of the selected microenterprises is 29.35 years, highest in Tailors and lowest in Flower vendors, whereas the average education is 9.25 years, Electricians (11.46 years) seems highly educated while Flower Vendors least one (6.76 years). The table further shows that 70 per cent of the respondents (349) have availed microfinance, and 256 respondents have claimed their present business as their first one. The table further shows that the Ironsmiths have the highest number (34 respondents) who have their present business as the first business, while the painters have the minimum (16 respondents) amongst the selected respondents.

Table 1. Basic statistics of microentrepreneurs surveyed in Haryana, India

Categories	Mean Age (Yrs)	Mean Education (Yrs)	Age of Business	First Business	Microfinance		Total
					Used	Not	
Barbers	27.96	9.48	15.4	33	37	13	50
Photographers	30.20	10.96	22.2	25	33	17	50
Electricians	29.08	11.46	18.3	25	33	17	50
Flower Vendors	26.52	6.76	5.66	19	44	6	50
Food	29.7	9.7	15.4	28	33	1	50

Vendors	6.86	6	1.6		6	4	0
Ironsmiths	3	8.4	1		3	1	5
Flower Vendors	2.18	6	5.44	34	7	3	0
Painters	3	6.7	1		3	1	5
Carpenters	0.76	6	3.92	23	2	8	0
Tailors	2	8.8	1		3	1	5
	9.92	6	7.92	16	3	7	0
	2	8.4	9		3	1	5
	7.16	8	.54	32	7	3	0
	3	7.7	1		3	1	5
	2.86	2	4.58	21	7	3	0
Total (Haryana)	2	9.2	1	25	3	1	5
	9.35	5	5.46	6	49	51	00

Source: Field Survey.

Table 2 indicates that the profit of the sampled respondents is Rs. 3,14,258/- for the year 2015-16. Carpenters disclosed the highest reported profit (Rs. 3,52,920/-) and Painters the least (Rs. 2,70,240/-). Table 2 further presents four different levels of microfinance opted by the sampled micro-enterprises in Haryana. The table reflects that highest number of micro-entrepreneurs (46 per cent), have used meagre microfinance, i.e., less than Rs. 10,000/-, 30 per cent of respondents in the range of Rs. 10,000 to 30,000 and only 10 per cent of the microenterprise under consideration have used microfinance Rs. 50,000/- to Rs 1,25,000/-. The majority of Electricians (70 per cent), Painters (70 per cent), Carpenters (67 per cent), Food Vendors (67 per cent), Flower Vendors (56 per cent), Ironsmiths (41 per cent) and Barbers (32 per cent) are operating with microfinance up to Rs. 10,000/- only. Interestingly, 38 per cent of the photographers are operating with microfinance of Rs. 50,000/- to Rs 1,25,000/, whereas Mechanics (44 per cent) and Tailors (43 per cent) have used microfinance ranging between Rs 10,000-30,000 in their respective businesses

Table 2: Microfinance and profitability of sampled Microentrepreneurs in Haryana

Category (Rs.)	Barbers	Carpenters	Electricians	Food Vendors	Ironsmiths	Mechanics	Painters	Photographers	Tailors	Average	
Profit	93760	52920	14880	304416	27456	38640	07680	70240	23280	309312	14258
Level of Microfinance											
upto 10000	232)	267)	370)	2956)	467)	541)	328)	370)	38)	027)	6046)

0000-30000	19)	24)	24)	2 (35)	19)	3 (35)	4 44)	24)	2 (32)	1 (43)	6 (30)	05
0000-50000	0 27)	9)	6)	2 (9)	14)	16)	13)	6)	8 (22)		16)	6 14)
0000 – , 25000	22)					8)	15)		1 (4 38)		14)	5 10)
otal	7	3	3	4	6	7	2	3	7	3	7	49

Source: Field Survey.

Note: 1. Figures in parenthesis represent the percentage of the respective category.

3.2 Testing of the hypotheses

The application of the Post hoc test and the Welch on the level of profit and different levels of microfinance availed by the selected microentrepreneurs in Haryana is explained in the present section.

Table 3: Microfinance statistics of Microentrepreneurs in Haryana

Microfinance Level (Rs)	Mean	Standard Deviation	Standard Error	Minimum	Maximum
Upto 10000	5 60	1200 02373	7586 00.9	29 0431	866 421
10000-30000	5 05	1259 07859	1465 20.9	29 2231	668 421
30000-50000	5 6	8246 66075	1359 0.08	40 7431	866 421
50000 – 1, 25000	4 5	1161 80054	1985 77.2	43 6231	800 421
Total	5 49	1179 07057	5434 73.5	29 0431	866 421

Source: Field Survey.

Table 3 shows variations in the average annual profit in line with the microfinance used to initiate a new micro-enterprise. The average annual profit for all the four categories of microfinance turned out to be Rs. 5,07,057/-, highest (Rs. 5,66,075/-) for those microentrepreneurs who started their business with microfinance in

a range of Rs 30,000-50,000, whereas the microentrepreneurs associated with microfinance level in the range of Rs. 50,000-1,25,000, have been found least profitable (Rs. 4,80,054/-) amongst the selected microentrepreneurs in the Haryana state of India. This reflects that the performance of those microbusinesses availed microfinance in a range of Rs 30,000-50,000, is much better than those at the lowest brackets of microfinance or at the top levels.

Table 4: Test of Homogeneity of Variances

Annual Profit (2015-16)			
Levene Statistic	df1	df2	Significance level
3.289	3	506	0.026

Table 4 pinpoints that the variance in profit is not homogenous for all different levels of microfinance, as suggested by the Levene statistic. Hence, the assumption of homogeneity of variance among four levels of microfinance in line with the size of the microfinance, cannot be maintained as indicated by the value of Levene statistic, significant at 1 level of significance,

Table 5: Robust Tests of Equality of Means

Annual Profit (2015-16)			
Welch Statistic ^a	df1	df2	Significance level
3.673	3	173.591	0.016
a. Asymptotically F distributed.			

Table 5, shows that the Games-Howell Post-hoc test is applied with a view to analyze that specific level of microfinance which can explain variations in profits significantly. The Welch test statistic is significant at a 1 percent level of significance, indicating that the level of microfinance is an important factor in explaining variations in the profit of microentrepreneurs.

Table 6: Post hoc test estimate for sampled microbusiness in Haryana.

Dependent Variable: Annual Profit (Games-Howell: Post hoc)				
(I) Total Microfinance used to start business (Rs)	(J) Total microfinance used	Mean Difference (I-J)	Standard Error	Significance level
I: Upto 10000				
II: 10000- 30000				
III: 30000-50000				
IV: 50000 – 1, 25000				
I: Upto 10000	II	6751.74	12517.3	0.991
	III	-	11	0.035

		23583.9*	596.75	
	IV	19967	202.56	0.435
II: 10000- 30000	I	4221.7 35	12 517.3	0.980
	III	- 29070.7*	16 079.58	0.029
	IV	59480. 3	20 751.45	0.136
III: 30000-50000	I	23583. 9	11 596.75	0.035
	II	29070. 7	16 079.58	0.029
	IV	87286	20 126.22	0.007
IV: 50000 – 1, 25000	I	62437. 04	17 202.56	0.635
	II	56950. 31	20 751.45	0.430
	III	- 87286*	20 126.22	0.007

Source: Field Survey.

*The mean difference is statistically significant at the 5 level of significance.

Table 6 displays the Post hoc test statistics for examining the impact of microfinance on the profitability of the sampled microbusiness in Haryana, India. The results indicate that there exist significant differences in the profitability level of those microentrepreneurs, who used microfinance up to Rs. 10,000/- than those who used microfinance Rs. 30,000-50,000. The average profit level of those who have used microfinance Rs. 30,000-50,000 is substantially higher than those who used microfinance up to Rs. 10,000/- by Rs. 23,583/- annually. Similarly, there exists a significant disparity in the microfinance level of microentrepreneurs availed microfinance in the brackets of Rs. 30,000-50,000, when compared to those with microfinance of Rs. 50,000-1,25,000. The mean annual profit of those microbusinesses with microfinance of in the range of Rs. 30,000-50,000 is higher by Rs. 87,286/- as compared to those who pumped Rs. 30,000-50,000 microfinance. Therefore, it stems from the above investigation that microfinance of Rs. 30,000-50,000 in the microbusiness segment in Haryana, India, has been found affecting significantly the profitability of the surveyed respondents when compared to other categories either at the top level or at bottom levels.

From the above analysis, it can be inferred that the microfinance (middle range) is very handy for the growth performance of the micro-businesses in the informal segment of Haryana state in India. Therefore, our first maintained hypothesis that microfinance doesn't affect the performance of microbusiness has been rejected.

Similarly, our second maintained hypothesis that the profitability of microbusiness is independent of microfinancing among the various levels of microfinancing, is also rejected as we found that the microbusinesses availing microfinance in the range of Rs. 30,000-50,000 have been found realising more profit as compared to other three microfinancing levels.

To sum up, it can be stated that the performance of the micro-businesses in the informal sector is affected by microfinance. The findings are very crucial keeping in view the fact that the performance is measured by a proxy variable, i.e., level of profit, which infers that for increasing the profit, there is an immense need to manage a medium level of microfinancing, i.e., Rs. 30,000-50,000 especially in the informal micro-business segment of Haryana. Furthermore, the results highlight that an investment of Rs. 30,000-50,000 in the form of microfinance will be very significant in augmenting the profitability of the small business operated by the micro-entrepreneurs in the Haryana state of India.

IV. Conclusions and Suggestions

The paper examined the impact of microfinance on the profitability of 500 micro-businesses in the unorganised segment in the Haryana state of India by applying Post hoc and the Welch test. The majority of microentrepreneurs are young, educated up to high school, and operating their first business. The results suggest that the performance of those micro-businesses, who availed microfinance in a range of Rs. 30,000-50,000, is much better than those at the lowest brackets of microfinance or at the top levels. The verdicts further advised that for augmenting the performance of the microenterprises in Haryana; the level of microfinance may be maintained at a middle level, i.e., microbusinesses cannot realise their full potential (highest profit) either with a very low level or too much finance.

Hence, the study found that there is a dire need to increase the level of microfinancing from the bottom levels besides curtailing it slightly from the higher levels for the micro-business segment in Haryana to enhance their profitability. Furthermore, the inferences pinpointed that the micro-entrepreneurs are availing microfinance from Rs. 30,000-50,000 reaped considerably higher profits in their respective enterprises. Both of our maintained hypotheses have been rejected, thus pointing to the need for more investment from microfinancing, especially Rs. 30,000-50,000.

The study involves all the limitations of the survey-based studies, especially when the data is of cross-sectional, metric, and categorical besides the fact its inferences are solely based on the respondent's memory. The present attempt just related to the smaller area of India, which offers scope for further research on the broader area. This study is specifically carried out to examine the impact of microfinance on the level of profit of the selected microbusiness operating in the informal sector in the Haryana. Further, the paper only assesses the four levels of microfinancing to impact the growth, performance, and profitability of micro-ventures; however, there may be several other aspects that can affect the growth performance as well as the profitability of the small businesses.

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