



Does financial literacy improve firm performance in India?

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Abstract

The paper attempts to find out how different types of financial literacy (general, specific and aggregate) and other explanatory variables (profile of entrepreneurs and enterprise) improve the performance of the MSEs in the state of Punjab, India. The data was collected from 309 entrepreneurs using a structured questionnaire. Using Ordered Logit model this study found that all types of financial literacy have a positive and significant effect on performances of the MSEs. It was also found that education of the entrepreneur, along with their financial literacy, increases firm's performance significantly. Furthermore, problems of marketing, production and human resource have a significant negative influence on the level of the performances of the firm. The findings of the present study provide entrepreneurs of MSEs and policymakers with insights to design appropriate strategies and measures to boost the performance of MSEs through financial literacy.

Keywords: Financial Literacy, Entrepreneurs, MSEs, Performance

INTRODUCTION

Micro and Small Enterprises (MSEs) are the pillars of emerging economies with respect to economic development, sustainability, employability, and business integration. Globally, they represent around 90 percent of ventures and above 70 percent of employment. MSEs engaged in the formal sector contribute up to 40 percent of national income in developing countries (United Nations, 2021). In Indian context, this sector accounts for 30 percent to Gross Domestic Product

(GDP), contributes 48 percent of the total exports (India Brand Equity Foundation, 2020) and projects a growth rate of 12.88 percent (Government of India, 2021). However, statistics reveal that 20 percent of small ventures fail in year of their incorporation, 30 percent in second year, 50 percent after five years and 70 percent of MSEs fail in their tenth year of their operation (McIntyre, 2018). This sector has been struggling with the numerous challenges such as shortage of required credit, lack of access to new technology, poor marketing platform (Mukherjee, 2018), paucity of digital support, deficient literacy, insufficient formal procedure and discipline, scarcity of financial resources, lack of talented Human Resource and dearth of experience of using consultants (Atkinson, 2017).

Key seminal studies depict that inadequate financial literacy acts as a hindrance in the growth and development of MSEs which avert them to procure timely funds from the financial institutions (Karadag, 2018). Therefore, this problem can be overcome by enhancing the level of financial literacy among the MSE entrepreneurs (Nasr and Rostom, 2013).

Financial Literacy

A strong financial foundation of MSEs entrepreneurs is a crucial indicator for the success and expansion of the enterprise. Lusardi and Mitchell (2009) defined financial literacy as “the knowledge of basic financial concepts and ability to do simple calculations”. A widely accepted comprehensive definition of financial literacy has been apprehended by Organisation for Economic Co-operation and Development (OECD) as “knowledge and understanding of financial concepts and risks, and the skills, motivation and confidence to apply such knowledge and understanding in order to make effective decisions across a range of financial contexts, to improve the financial well-being of individuals and society, and to enable participation in economic life” (OECD, 2014). According to Ali et al. (2018) “financial knowledge is the ability to manage financial matters”. Likewise, Atkinson and Messy (2012) described financial literacy as “a combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound

financial decisions and ultimately achieve individual financial wellbeing”.Further, Carlin and Robinson (2012)comprehended financial literacy as “the ability to make financial decisions in their own best short-and long- term interests.”

Karadag, (2018)stated that lack of financial literacy among the entrepreneurs creates a problem of accessing finance in emerging economies. Also the low level of financial literacy is a problem in understanding/assessing different sources of financing provision, for navigating loan application procedure (Eniola andEntebang, 2017), in utilisation of financial services, record keeping, monitoring profit/loss and cash management practices (Barte, 2012), maintenance of proper financial statements(DahmenandRodrigues 2014) and easy repayment of loan (Njoroge, 2013), difficulty while preparing profitability forecast, interpreting balance sheet and profit & loss account and performance variables. Hence, the literature revealed that financial literacy is one of the most prominent variableswheregovernment can interveneto endogenize in the process of growth and performance of MSEs.

India has low level of overall financial literacy in spite of initiatives taken by Government of India andReserve Bank of India. As per Global Survey by Standard and Poor’s (S & P) nearly 76 percent of Indian adults does not understand even basic concept of finance (Qazi, 2017). Also, the report published byVisa Study (2012) states that India secured 23rd position with only 35 per cent of the Indian financially literate out of total 28 nations. Similarly, according to the Global Financial Literacy Excellence Center, only 24 percent of Indian adultsare financially literate(Roy, 2020).

Therefore, this paper sets to explore the impact of financial literacy of the entrepreneurs along with other variables on the performance of the MSEs. Hence,the present paper aims:

- To assess the effect of demographic variables on the level of performance of MSEs in the state of Punjab, India.
- To examine the impact of different types of financial literacy (general, specific and aggregate) of the entrepreneurs on the performance of MSEs.
- To analyse the impact of various problems (Financial, Human Resource,Production and Marketing) on performance of MSEs.

REVIEW OF LITERATURE

Financial Literacy of Entrepreneurs

Financial literacy of the entrepreneurs is vital in order to boost up the profitability of the firm, manage finance, mitigate risk and hence improve the performance of the firm. This will help them to make more timely and sound decisions for their enterprise (Barte, 2012). Njoroge, (2013) stated that the majority of the businessmen were well-educated and understood financial concepts namely, inflation, interest rates, diversification, stock market, etc. that led to easy borrowings, risk taking, diversification, and profitable investments. Dahmen and Rodriguez (2014) found that 50 percent of entrepreneurs did not evaluate financial statements of the firm and 86 percent of such enterprises faced financial constraints. The reasons for financial scarcity were lower income, inadequate cash flow, and extravagant credit. Hence, a standardized questionnaire was developed in the present study to measure the general financial literacy (required for all financial decisions in managing the day-to-day operations) and specific financial literacy (required specifically by the entrepreneurs to manage and survive their business).

Financial Performance of MSEs

Performance of small firms is multidimensional in its nature and is typically used as a metric of measuring financial health of enterprise over a span of time. A number of parameters have also been identified by various scholars to assess the Performance of MSEs such as Profitability (gross profit margin, net profit from operations), Return on Asset (ROA), Return on Investment (ROI), Return on Equity (ROE), Return on Sales (ROS), Market Share, and Operational Efficiency (Adomako & Danso, 2014). Maduekwe and Kamala, (2016) ascertained the extent of usage of financial and non-financial performance parameters in managing their firms in the Cape

Metropole. Pervan et al.(2019) advocated that age of the enterprise, labour cost, industry concentration, GDP and inflation significantly impacts the firm's profit margins. The literature showed that previous studies have used both financial and non-financial parameters to measure the performance of the firm. Since, the financial parameters are assessed objectively therefore, in the present study only financial parameters such as profitability, growth, investment, solvency and liquidity have been used to measure the level of performance of MSEs. These parameters are considered critical to measure the state of financial health of an enterprise.

Financial Literacy of Entrepreneurs and Performance of the MSEs

Financial literacy aids the entrepreneurs to understand and acquire the external funds; maintain optimum capital; manage operating cost; adequate money management; ability to attain short- and long-term loans; increase revenues and capability to meet the financial requirement. This would ultimately lead to better performance and sustainability of the MSEs. Wise, (2013) indicated that the entrepreneur's financial literacy led to maintenance of the proper financial statements and easy repayment of loans and lesser loan defaults. This resulted in the growth and survival of the ventures. Adomako and Danso (2014) confirmed that availability of financial capital played a moderating role in the relationship between financial literacy and firm performance. Thus, it can be interpreted that the financial literacy improves firm performance, particularly when the entrepreneurs were able to access finance with ease. Sabana, (2014) recommended that the entrepreneurs should improve their financial literacy in the spheres of financial planning, budgeting, cash flow management and preparation of financial statements in order to enhance the performance of their microenterprises. However, Eresia and Raath (2013) exhibited that there was no significant relationship between owners' financial literacy and business growth. Osinde et al.,(2013) discovered that individuals who attended training recorded an escalated performance with respect to sales growth and profitability. 83.3 percent respondents who attended training demonstrated fair growth in profitability in comparison to 41.2 percent of those who never attended training. Higher gross profit ratio leads to higher level of all three types of financial literacy of the

entrepreneurs. In the nutshell, financial literacy aids entrepreneurs to efficiently utilized financial services (Nunooand Andoh, 2011) and made sound financial decisions (Barte, 2012). However, the previous literature has not investigated the role of financial literacy in the performance of MSEs in the Indian context in general and specifically in the state of Punjab, thus creating a research gap. Therefore, the state of Punjab, India has been chosen in the present study. The work adds to the body of knowledge by investigating and evaluating the impact of various types of financial literacy along with other pertinent variables on the performance of MSEs first time using multivariate Ordered Logit model.

RESEARCH METHODOLOGY

Sampling Design

In the present study, entrepreneurs of MSEs registered under the Micro, Small and Enterprise Development Act, 2006 in the state of Punjab have been used for survey. The data states that 11,894 MSEs were registered in the period from 2007-08 to 2014-15 (Government of India, 2016). Hence, 375 entrepreneurs were selected using random and snowball sampling technique based on the Krejcie and Morgan, (1970) for the sample size determination using multi stage random sampling technique (Table 1 and Figure 1).

Stage I: Using Purposive Sampling, only Micro and Small Enterprises were determined because these account for 99.19 percent of the total number of registered MSMEs in the year 2015.

Stage II: By deploying Judgemental Sampling Technique, districts such as Ludhiana, Jalandhar and S.A.S. Nagar with the highest number of registered MSEs were chosen.

Stage III: The Convenience Cluster Sampling Technique was used to select three industrial areas in the main cities of the selected Districts of Ludhiana City, Jalandhar City and S.A.S. Nagar City.

Stage IV: Proportional Stratified Sampling and Snow Ball Sampling were deployed to select 375 Enterprises (282 Micro Enterprises and 93 Small Enterprises) in proportion to the registered MSEs in the selected Districts.

While, 309 entrepreneurs responded with duly filled questionnaires (82.4 percent).

Table 1: Sample of the study				
City	Number of Registered Micro Enterprises	Number of Registered Small Enterprises	Number of Micro Enterprises	Number of Small Enterprises
Ludhiana	5384	2008	170	63
Jalandhar	2255	564	71	18
S.A.S. Nagar	1307	376	41	12
Total	8946	2948	282	93
Total Sample	375			

Source: Government of India (2016), Department of MSMEs

Formula used to determine the sample size (Nargundkar, 2003),

$$N = p(1-p)(Z/e)^2$$

Where,

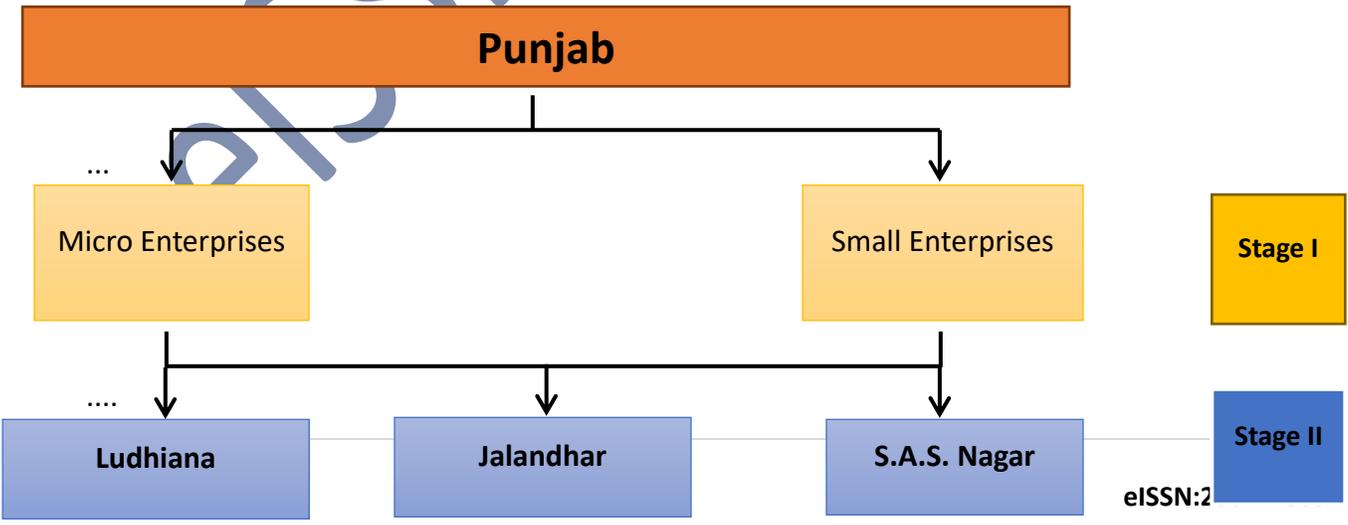
N = Sample Size

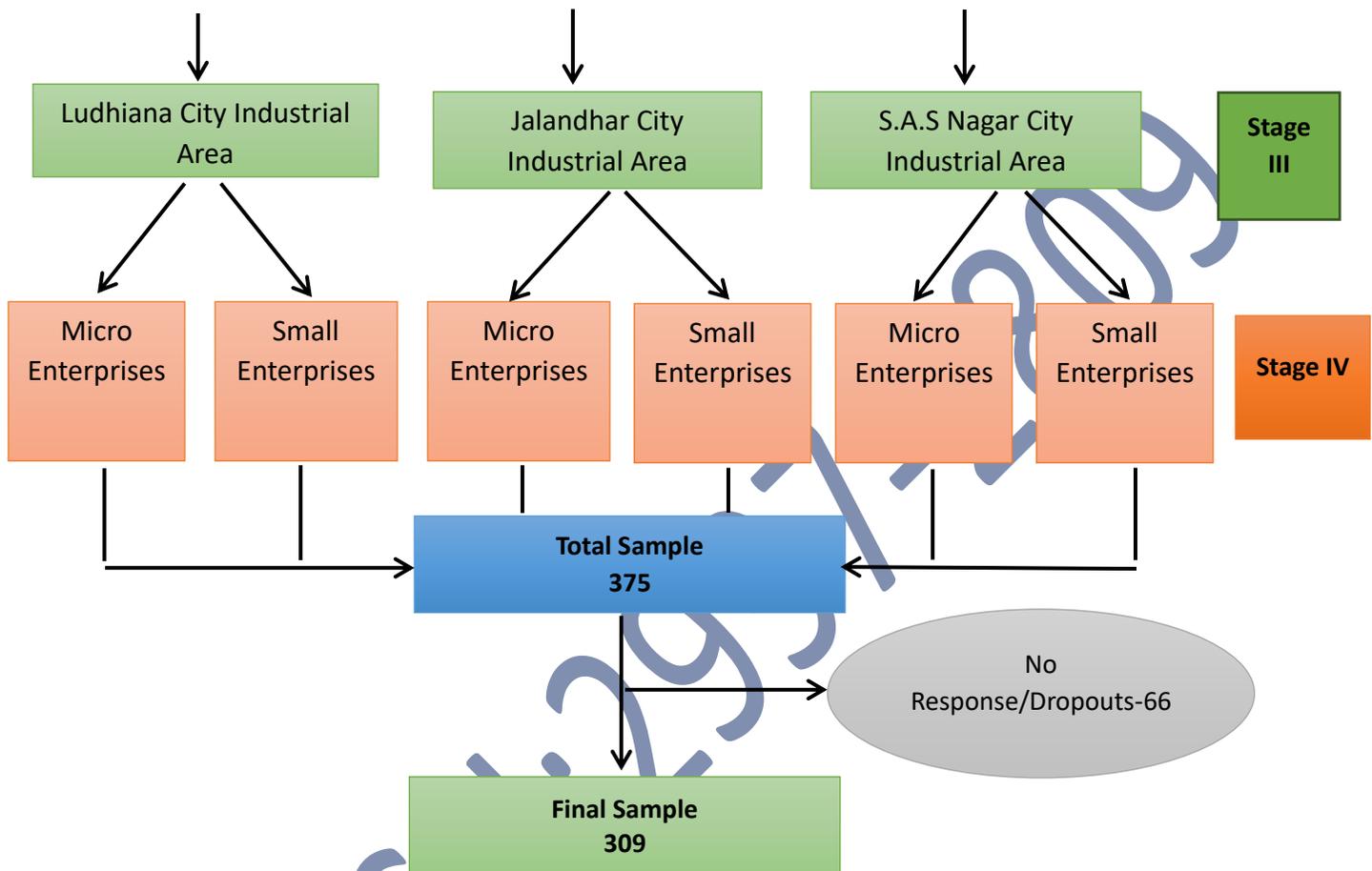
Z = Value from the standard normal distribution that depicts the confidence level (e.g., Z = 1.96 for 95 per cent has been used in the present study)

p = Frequency of occurrence of a choice expressed as proportion (0.5)

e = Desired margin of error. 0.05 has been assumed for the study

Figure 1: Sampling Procedure





Data Collection

A structured questionnaire was employed to collect used in this paper.

3.3. Statistical Techniques

In the present study, the dependent variable is ordinal in nature and therefore Ordered Logit Multivariate Regression model is most appropriate to examine the impact of various possible variables (profile of entrepreneurs and MSEs, different types of financial literacy of entrepreneurs, problems faced by MSEs) on the level of performance of MSEs.

This study estimates the following model:

FirmPerformances_i

$$\begin{aligned}
 &= \beta_0 + \beta_1 Age_i + \beta_2 Education_i + \beta_3 Age_{Enterprise_i} + \beta_4 Dms_i \\
 &+ \beta_5 Dsm_i + \beta_6 Dss_i + \beta_7 DLudhi_i + \beta_8 DJalan_i + \beta_9 Market_i \\
 &+ \beta_{10} Production_i + \beta_{11} Human\ resources_i \\
 &+ \beta_{12} GeneralFL\ or,\ SpecificFL\ or,\ AggregateFL_i + e_i \text{ --- (1)}
 \end{aligned}$$

Where, = different financial performance of firm ‘i’ considered separately as dependent variable and e_i is the random error term. Detail description and the summary statistics of variables mentioned in equation (1) is presented in table 2.

RESULTS AND DISCUSSION

Descriptive Analysis

The analysis of the data was carried out by using descriptive analysis shown in Table 2. This clearly shows that entrepreneurs of the registered MSEs are generally moderately educated. It was found that the average age of the enterprises is at 36 years which indicates that most of the enterprises are at growth stage. Other results are self explanatory.

Table2: Descriptive Analysis

Variables	Description of the Variables	Mean (\bar{x})	Standard Deviation (s)	Minimum	Maximum
Age of the Entrepreneur	Age (in years): “1”=25 and Below (51); “2”=26-35 (110); “3”=36-45 (101); “4”=46-55 (44); “5”=55 and Above (3)	35.515	9.134	19	57
Education	Education of the Entrepreneur: “1”=Matric (49); “2”= Senior Secondary (55); “3”=Professional Diploma (102); “4”=Graduate (58); “5”=Professional Degree (17) and “6”=Postgraduate (28)	3.103	1.467	1	6

Age of Enterprise	Age of the Enterprise: “1”= below 5 years (71); “2”= 5 to 10 years (134) and “3”=10 years and above (104)	2.107	0.746	1	3
Gross Profit Ratio	Gross Profit Ratio: “1”=Low;“2”=Moderate and “3”=High	1.793	0.787	1	3
Net Profit Ratio	Net Profit Ratio: “1”=Low;“2”=Moderate and “3”=High	1.576	0.692	1	3
Growth in Sales	Growth in Sales: “1”=Low;“2”=Moderate and “3”=High	1.715	0.758	1	3
Growth in Assets	Growth in Assets: “1”=Low;“2”=Moderate and “3”=High	1.618	0.727	1	3
Return on Assets	Return on Assets: “1”=Low;“2”=Moderate and “3”=High	1.576	.678	1	3
Return on Investment	Return on Investment:“1”=Low;“2”=Moderate and “3”=High	1.615	.737	1	3
Current Ratio	Current Ratio: “1”=Low;“2”=Moderate and “3”=High	1.718	.717	1	3
Debt-Equity Ratio	Debt-Equity Ratio: “1”=Low;“2”=Moderate and “3”=High	1.550	.694	1	3
GeneralFL	General Financial Literacy: (0=lowest literacy and 6=highest literacy)	4.158	1.359	1	6
SpecificFL	Specific Financial Literacy: (0=lowest literacy and 14=highest literacy)	7.588	2.607	2	13
AggregateFL	Aggregate Literacy=General Financial Literacy +Specific Financial Literacy	11.702	3.439	6	18
Financial Problems	Financial Problems: “1”=Strongly Disagree; “2”=Disagree;“3”=Neutral; “4”=Agree; “5”=Strongly Agree	4.003	0.565	1.71	5
Marketing Problems	Marketing Problems: “1”=Strongly Disagree; “2”=Disagree;“3”=Neutral; “4”=Agree; “5”=Strongly Agree	3.705	0.592	2.33	5
Production Problems	Production Problems: “1”=Strongly Disagree; “2”=Disagree;“3”=Neutral; “4”=Agree; “5”=Strongly Agree	3.585	0.576	1.67	5
Human Resource Problems	Human ResourceProblems: “1”=Strongly Disagree; “2”=Disagree; “3”=Neutral; “4”=Agree; “5”=Strongly Agree	3.777	0.704	1	5
DLudhiana	In case enterprise is located in Ludhiana=1; otherwise=0	0.605	0.490	0	1
DJalandhar	In case enterprise is located inJalandhar=1; otherwise=0	0.236	0.425	0	1
DSASNagar	In case enterprise is located inS. A. S. Nagar=1; otherwise=0, (default dummy)	0.159	0.366	0	1
Dmm	In case enterprise is Micro-Manufacturing (180)=1; otherwise=0, (default dummy)	0.583	0.494	0	1
Dms	In case enterprise is Micro-Service (50)=1; otherwise 0	0.197	0.399	0	1

Dsm	In case enterprise is Small-Manufacturing (61)=1; otherwise=0	0.162	0.369	0	1
Dss	In case enterprise is Small-Service (18)=1; otherwise=0	0.058	0.235	0	1

²Gross Profit Ratio, Net Profit Ratio, Growth in Sales, Growth in Assets, Return on Assets, Return on Investment, Current Ratio, Debt-Equity Ratio

Performance of MSEs

The Ordered Logit Multivariate Regression Analysis was conducted to test the impact of profile of entrepreneurs and MSEs, financial literacy (General, Specific And Aggregate) and problems of MSEs on performance of MSEs (gross profit ratio, net profit ratio, growth of sales, growth of assets, return on assets, return on investment, current ratio and debt-equity ratio).

Table 3: Financial Literacy, Gross Profit and Net Profit Ratio (estimated co-efficient from equation)

Independent Variables	Dependent Variables					
	Gross profit ratio (1)	Gross profit ratio (2)	Gross profit ratio (3)	Net profit ratio (4)	Net profit ratio (5)	Net profit ratio (6)
Age	0.0123 (0.90)	0.0117 (0.86)	0.0107 (0.77)	-0.0136 (-0.90)	-0.0108 (-0.72)	-0.0177 (-1.13)
Education	0.2108** (2.44)	0.1672* (1.90)	0.1075 (1.19)	0.2351*** (2.64)	0.1469 (1.60)	0.0392 (0.40)
Age_Enterprise	-0.4466*** (-2.63)	-0.3393** (-2.01)	-0.3955** (-2.31)	-0.1997 (-1.08)	0.0131 (0.07)	-0.0618 (-0.32)
Dms	0.2992 (0.95)	0.2573 (0.81)	-0.0160 (-0.05)	-0.0361 (-0.11)	-0.2566 (-0.76)	-0.8337** (-2.26)
Dsm	-0.5140 (-1.48)	-0.4215 (-1.21)	-0.5770 (-1.61)	-0.7491* (-1.89)	-0.8837** (-2.19)	-1.2206*** (-2.80)
Dss	1.4920*** (2.67)	1.6127*** (2.73)	1.2613** (2.14)	0.3895 (0.78)	0.2693 (0.51)	-0.3159 (-0.58)
DLudhiana	-0.4105 (-1.16)	-0.3189 (-0.90)	-0.3231 (-0.89)	-0.2132 (-0.56)	-0.1607 (-0.42)	-0.0226 (-0.06)
DJalandhar	-0.3129 (-0.79)	-0.2301 (-0.58)	-0.3047 (-0.75)	-0.3125 (-0.74)	-0.1434 (-0.34)	-0.2153 (-0.48)
Marketing Problems	-0.1219 (-0.54)	-0.1282 (-0.56)	-0.1601 (-0.69)	-0.2483 (-1.03)	-0.0886 (-0.36)	-0.1977 (-0.77)
Production Problems	-0.4805* (1.80)	-0.5829** (2.16)	-0.5346* (1.96)	0.3986 (1.40)	0.5368 (1.88)	0.4755 (1.59)

Human Resource Problems	-0.5310** (-2.54)	-0.4950** (-2.33)	-0.4492** (-2.08)	-0.3741* (-1.74)	-0.3329 (-1.53)	-0.2045 (-0.89)
General FL	0.6427*** (6.09)			0.8704*** (7.29)		
Specific FL		0.3883*** (6.68)			0.5551*** (8.17)	
AggregateFL			0.3490*** (7.62)			0.5872*** (9.63)
Pseudo R-squared	0.182	0.197	0.221	0.206	0.238	0.318
LR Chi- squared	119.924***	129.503***	145.397***	120.698***	139.647***	186.637***
Note: i) Figures within parentheses represent t-statistics; ii) ***, ** and * represents the level of significance at 1 percent; 5 percent and 10 percent level respectively.						

The estimated coefficient of education (Table 3) is positive and significant for both Gross and Net Profit Ratio which indicates that higher level of education of the entrepreneur lead to the higher profits of the enterprise. Recent studies (Kolstad and Wiig, 2014; Akinyemi et al., 2017; Rajni and Mehta, 2018) have documented that educated entrepreneurs plan and manage their firms efficiently by gazing the market trends. They maintain accurate accounting records, set standards, and closely evaluate their businesses and achieve better performance. Further, age of the enterprise is significantly negative for the gross profit ratio. The reason attributed to this is as the firm grows older, the cost of production rises due to obsolete technology and production procedures, thus, reduces the profitability of the firm. Pervan et al., (2019) asserted that as age of the enterprise increases, its profitability tends to decline. Negative effect of age of enterprise on profitability implies as a firm grows older, their areas of operations (production, logistics, quality control, etc.) obsolete and thereby increasing the operational cost and reducing the profit margins of the enterprise. However, the findings disagree with the previous study by Khaleque (2018) which stressed that older enterprises operate their ventures with more experience and a stronger financial position to execute their business that enhances their profitability. Besides this, the estimated coefficient of small-service firms is positive and significant only for Gross Profit Ratio. While the estimated coefficient of micro-service and small-manufacturing enterprises is negative significant for Net Profit Ratio. The finding accords with the result of Truventor (2021)

which highlighted that, due to the small size of the enterprises, they find it difficult to get raw materials at reasonable prices thereby considerably reducing their profitability margins. On the similar lines, human resource problems negatively influence the level of both gross and net profit ratio of the firm. This indicates that human resource problems such as unavailability of talented workforce and trained management personnel will most probably reduce the profitability of the organisation. The analysis further renders that all the three types of financial literacy i.e. general, specific and aggregate has a positive and significant impact on the level of gross profit ratio and net profit ratio. This indicates that with the higher level of financial literacy, the entrepreneurs are able to manage both their income and expenses which leads to higher profits on the capital invested.

Table 4: Financial Literacy, Growth in Sales and Growth in Assets (estimated co-efficient)

Independent Variables	Dependent Variables					
	Growth in Sales (1)	Growth in Sales (2)	Growth in Sales (3)	Growth in Assets (4)	Growth in Assets (5)	Growth in Assets (6)
Age	-0.0017 (-0.13)	-0.0064 (-0.45)	-0.0100 (-0.68)	0.0247 (1.70)	0.0217 (1.46)	0.0217 (1.44)
Education	0.2074** (2.41)	0.0911 (1.01)	0.0060 (0.06)	0.0863 (1.00)	-0.0408 (-0.45)	-0.1323 (-1.38)
Age_Enterprise	-0.2480 (-1.47)	-0.0591 (-0.34)	-0.1173 (-0.65)	-0.4625*** (-2.58)	-0.2838 (-1.57)	-0.3492* (-1.88)
Dms	0.5902* (1.90)	0.4047 (1.26)	0.0542 (0.16)	0.7777** (2.43)	0.5821* (1.78)	0.2732 (0.81)
Dsm	0.1288 (0.37)	0.1871 (0.52)	0.0289 (0.08)	0.1414 (0.40)	0.1773 (0.48)	0.0523 (0.14)
Dss	1.0692** (1.99)	0.7785 (1.42)	0.3909 (0.71)	0.7606 (1.48)	0.4690 (0.87)	0.1140 (0.21)
DLudhiana	-0.3754 (-1.03)	-0.3665 (-0.95)	-0.3416 (-0.86)	-0.9474*** (-2.62)	-0.9063** (-2.39)	-0.9221** (-2.40)
DJalandhar	-0.1766 (-0.44)	-0.0943 (-0.22)	-0.1646 (-0.38)	-1.2054*** (-2.90)	-1.1527*** (-2.70)	-1.2712*** (-2.91)
Marketing Problems	0.0338 (0.15)	0.1353 (0.57)	0.0761 (0.31)	-0.5258** (-2.29)	-0.4942** (-2.09)	-0.5907** (-2.41)
Production Problems	-0.0343 (-0.13)	0.0423 (0.15)	-0.0618 (-0.22)	0.0833 (0.31)	0.0541 (0.20)	-0.0469 (-0.17)
Human Resource Problems	-0.2258 (-1.12)	-0.1123 (-0.53)	-0.0348 (-0.16)	-0.1529 (-0.76)	0.0194 (0.09)	0.1080 (0.50)
GeneralFL	0.6915*** (6.46)			0.6334*** (5.77)		

SpecificFL		0.5461*** (8.45)			0.5071*** (7.84)	
AggregateFL			0.5038*** (9.50)			0.4698*** (8.83)
Pseudo R-squared	0.176	0.240	0.286	0.166	0.228	0.267
LR Chi- squared	112.785***	153.652***	182.679***	100.977***	138.359***	162.169***
Note: i) Figures within parentheses represent t-statistics; ii) ***, ** and * represents the level of significance at 1 percent; 5 percent and 10 percent level respectively.						

Results provided in Table 4 depicts that the estimated coefficient of the education is positively significant only for the growth in sales and the age of the enterprise has a negative and significant impact on growth of assets of the enterprise. The findings contradicts with Barbera and Hasso, (2013) which enumerated that enterprises usually focus on their sustainability in the early phase of the life cycle, how ever priorities relevant to sales growth become vital as the enterprises succeeds to the next stage of its lifecycle. Other results are similar to the findings presented in table 3.

Table 5: Financial Literacy, Return on Assets and Return on Investment (estimated co-efficient)

Independent Variables	Dependent Variables					
	Return on Assets (1)	Return on Assets (2)	Return on Assets (3)	Return on Investment (4)	Return on Investment (5)	Return on Investment (6)
Age	0.0092 (0.61)	0.0095 (0.61)	0.0070 (0.43)	0.0160 (1.09)	0.0118 (0.78)	0.0109 (0.72)
Education	0.2915*** (3.17)	0.2093** (2.16)	0.1146 (1.12)	0.3315*** (3.71)	0.1872** (1.97)	0.1443 (1.49)
Age_Enterprise	-0.4760** (-2.55)	-0.2894 (-1.52)	-0.4077** (-2.00)	-0.3463* (-1.94)	-0.1771 (-0.96)	-0.2414 (-1.28)
Dms	0.3077 (0.90)	0.1281 (0.36)	-0.3544 (-0.94)	0.7768** (2.38)	0.3769 (1.09)	0.0924 (0.26)
Dsm	0.1874 (0.51)	0.1889 (0.49)	-0.0287 (-0.07)	-0.0373 (-0.10)	-0.1280 (-0.33)	-0.2587 (-0.65)
Dss	0.8966 (1.63)	0.6217 (1.11)	0.1614 (0.28)	0.7003 (1.37)	0.3905 (0.70)	0.0579 (0.10)
DLudhiana	-0.4200 (-1.10)	-0.2028 (-0.50)	-0.2369 (-0.56)	-0.7745 (-2.14)	-0.6453 (-1.66)	-0.6535 (-1.66)
DJalandhar	-0.5447 (-1.26)	-0.1708 (-0.38)	-0.4069 (-0.86)	-0.6278 (-1.55)	-0.5163 (-1.20)	-0.6439 (-1.48)
Marketing Problems	0.1352 (0.55)	0.2476 (0.96)	0.1552 (0.58)	-0.0345 (-0.14)	-0.0007 (-0.00)	-0.1171 (-0.43)
Production Problems	-0.1433 (-0.50)	-0.0628 (-0.22)	-0.1429 (-0.47)	-0.4119 (-1.47)	-0.4341 (-1.45)	-0.5331* (-1.77)
Human Resources Problems	-0.2643 (-1.26)	-0.2167 (-0.98)	-0.0978 (-0.42)	-0.5295** (-2.40)	-0.4399* (-1.86)	-0.3528 (-1.48)

GeneralFL	0.8556*** (7.19)			0.5031*** (4.76)		
SpecificFL		0.6088*** (8.53)			0.5039*** (7.70)	
AggregateFL			0.5902*** (9.53)			0.4387*** (8.39)
Pseudo R-squared	0.236	0.290	0.351	0.185	0.262	0.285
LR Chi- squared	137.671***	168.981***	204.640***	112.559***	159.241***	173.106***
Note: i) Figures within parentheses represent t-statistics; ii) ***, ** and * represents the level of significance at 1 percent; 5 percent and 10 percent level respectively						

Table 5 reports that the estimated coefficient of the education is positively significant for both return on assets and return on investment. The educated entrepreneurs are able to efficiently manage the assets and investments by evaluating them on the basis of payback period, cost and benefit analysis.

Most important findings reveals that all three types of General, Specific and Aggregate Financial Literacy are highly significant with regards to return on assets and return on sales. This stipulates that with the higher level of financial literacy, the entrepreneurs will be able to manage the investments and assets effectively and efficiently. This will increase the amount of return generated by investing in assets and investments of the enterprise.

Table 6: Financial Literacy, Current Asset Ratio and Debt Equity Ratio (estimated co-efficient)

Independent variables	Dependent Variables:					
	Current Ratio (1)	Current Ratio (2)	Current Ratio (3)	Debt-Equity Ratio (4)	Debt-Equity Ratio (5)	Debt-Equity Ratio (6)
Age	0.0203 (1.46)	0.0155 (1.09)	0.0132 (0.92)	0.0017 (0.12)	-0.0050 (-0.35)	-0.0069 (-0.48)
Education	0.2705*** (3.08)	0.1322 (1.42)	0.0787 (0.83)	0.0076 (0.09)	-0.1361 (-1.46)	-0.1996** (-2.07)
Age_Enterprise	-0.3023 (-1.78)	-0.1631 (-0.92)	-0.2078 (-1.18)	0.0886 (0.51)	0.2621 (1.47)	0.2225 (1.24)
Dms	0.7467** (2.37)	0.4690 (1.44)	0.2472 (0.74)	-0.0697 (-0.22)	-0.3913 (-1.16)	-0.6556* (-1.89)

Dsm	-0.2493 (-0.72)	-0.3686 (-1.01)	-0.4452 (-1.21)	0.0448 (0.12)	-0.0212 (-0.06)	-0.0572 (-0.15)
Dss	0.3446 (0.71)	-0.0466 (-0.09)	-0.3133 (-0.62)	0.5808 (1.15)	0.2031 (0.38)	-0.0489 (-0.09)
DLudhiana	-1.0364*** (-3.04)	-0.9878*** (-2.74)	-0.9700*** (-2.68)	-0.2581 (-0.72)	-0.1955 (-0.53)	-0.1405 (-0.37)
DJalandhar	-0.3192 (-0.83)	-0.1961 (-0.49)	-0.2345 (-0.59)	0.1599 (0.39)	0.3392 (0.81)	0.3382 (0.80)
Marketing Problems	-0.6099*** (-2.71)	-0.7016*** (-2.99)	-0.7751*** (-3.24)	-0.5793*** (-2.58)	-0.6328*** (-2.71)	-0.7146*** (-3.00)
Production Problems	0.0694 (0.27)	0.1339 (0.49)	0.0455 (0.17)	-0.4808* (-1.79)	-0.4533 (-1.63)	-0.5680** (-2.03)
Human Resources Problems	-0.1257 (-0.64)	0.0345 (0.17)	0.1115 (0.53)	-0.2628 (-1.34)	-0.1755 (-0.85)	-0.1123 (-0.54)
GeneralFL	0.3915*** (3.86)			0.4503*** (4.21)		
SpecificFL		0.4635*** (7.62)			0.4419*** (7.07)	
AggregateFL			0.3885*** (7.94)			0.3808*** (7.68)
Pseudo R-squared	0.138	0.220	0.230	0.112	0.179	0.196
LR Chi- squared	86.767***	138.031***	144.612***	64.605***	103.457***	113.688***
Note: i) Figures within parentheses represent t-statistics; ii) ***, ** and * represents the level of significance at 1 percent; 5 percent and 10 percent level respectively.						

The estimated co-efficients of table 6 are similar to the findings presented in tables 3, 4 and 5.

CONCLUSION AND RECOMMENDATIONS

The present study attempted to find out the impact of financial literacy (general, specific and aggregate financial literacy) and other variables on the level of performance of the MSEs in the state of Punjab, India. The data was collected from 309 entrepreneurs from the three districts namely, Ludhiana, Jalandhar and S.A.S. Nagar via structured questionnaire. Performance of MSEs being multidimensional its nature has been measured with diverse parameters such as profitability,

growth, investment, liquidity and solvency of the firm. The findings reveal that the performance of the enterprise's ranges between low to medium of the standard benchmarks. Further, it has been found that education of the entrepreneurs has a significant impact on the gross profit ratio, net profit ratio, growth in sales, return on assets, return on investments, and current asset ratio. Similarly, age of the enterprise has a significant negative impact on the gross profit ratio, growth in asset, return on asset, return on investment, and current asset ratio. Also, problems of production, human resource and marketing significantly influence the level of the performance of the firm. It is not surprising to note that all three types of financial literacy viz; general, specific and aggregate has a significant positive impact on the performance of MSEs (Gross Profit Ratio, Net Profit Ratio, Growth in Sales, Growth in Assets, Return on Assets, Return on Investment, Current Asset Ratio and Debt-Equity Ratio). Hence, the study recommended the need of one/two credit course on basic concept of entrepreneurship and financial literacy at the school level and advanced concept at diploma/degree level for all the streams. Increased knowledge on issues such as financial capabilities, financial literacy, financial management, entrepreneurial competencies, and skills can act as a persuader to opt entrepreneurship as a profession. Furthermore, to augment the level of financial literacy of entrepreneurs in manufacturing sector micro or small, financial, managerial and ICT training interventions are suggested, and district wise cluster should be formed for registration of MSEs for getting compulsory training once in three years.

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