

# The Impact of Debt Policy on the Investment Decision of Small Business Owners in India

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## Abstract

This study examines the impact of debt policy on the investment decision of small business service firms in India. Small business owners from the Punjab area of India were surveyed to gather information. Subjects were asked about their perceptions, beliefs, and feelings regarding the debt policy and investment decision. This study utilized survey research (a non-experimental field study design). The findings of this study show that debt policy, small business performance, current assets, and family positively influence the investment decision of small business owners of service firms in India. This study contributes to the literature on the factors that affect investment decision of small business service firms. The findings may be useful for financial managers, small business owners, investors, and small business management consultants.

**Keywords:** Debt Policy, Small Business Performance, Investment Decision.

## 1. Introduction

The majority of firms start as small businesses. After sometime, small business firms start growing which leads to further investment in the tangible assets (e.g., land, building, and equipment) and intangible assets (e.g., license, patents, and copyrights). Small business firms rely on the debt financing rather than equity financing because of their small sizes (Gill *et al.*, 2012). Therefore, debt policy is

very important for the growth and prosperity of small business firms and to minimize bankruptcy chances.

India is a unique country in its population growth (growth rate about 1.58% per year), culture, varied array of language, religion, caste, and regionalism (India Online, 2012; Dana, 2000). This study concentrates on small business service firms. The tangible assets in the small business service firms are almost non-existent (Gill *et al.*, 2009). Once small business firms in the service industry start growing, the needs for real estate investment tend to exist. For example, small business owners who run retail stores start realizing the need for warehouses and start buying land and buildings. Debt policy of small business firms plays an important role in the decision of real estate investment.

The capital structure theory has been around since 1958 (see Modigliani and Miller, 1958) and a lot of research has been done to develop new theory. However, there has not been much research conducted on the impact of debt policy on the investment decision of small business service firms. Therefore, this study concentrates on the relationship between debt policy and investment decision of the small business service firms operating in India. Five proxy variables were borrowed from previous empirical studies. These proxy variables are: Debt Policy, Small Business Performance, Current Assets, Family, and Investment Decision. This study contributes to the literature on the factors that affect investment decision of small business service firms. The results can be generalized to the small business service industry.

## 2. Literature Review

There is no doubt about that agency problem (conflict between agent and principal) pioneered by Jensen and Meckling (1976) takes place even in the small business firms. However, the agency problem in the small business firms is lower than the larger publically traded firms. This is because, majority of the small business firms are operated by family members and family has full control on small business firms in India (Gollakota and Gupta, 2006). One should not ignore the fact that asymmetric information problem also takes place between small business firms and creditors because owners/managers have better information than creditors such as banks and inventory suppliers (Myers and Majluf, 1984; Ross, 1977).

From pecking order theory point of view, small business owners of service firms invest funds from personal savings and then borrow funds from relatives, friends, and financial institutions. Myers (1984) refers this to a "pecking order." The pecking order is a theory of finance stating that firms use internally generated funds in the form of retained earnings before turning to external sources. When retained earnings are not enough, firms first seek out sources of debt before they use more costly external equity (Gill *et al.*, 2012). One of the reasons for using personal financial sources is the asymmetric information issues between insiders (small business owners) and outsiders (banks) described by Myers and Majluf (1984). Thus, small business owners put their own capital at risk first before they put creditors at risk. This, in turn, helps minimizing asymmetric information issues in the small business industry.

Because of the risk of capital losses, the need for an optimal capital structure takes place. An optimal capital structure of small business service firms is defined as capital structure that maximizes tax advantages, minimizes chances of bankruptcy, and maximizes shareholders' wealth (Gill *et al.*, 2012). The injection of personal funds forces small business owners to have a sound debt policy that helps i) minimize bankruptcy risk and ii) small businesses service firms to grow and prosper.

A limited list of international empirical studies on the relationship between debt policy and investment decision is as follows:

Aivazian, Ge, and Qiu (2005) collected and analyzed data from Canadian industrial companies from 1982 to 1999, and found a negative relationship between leverage and investment decision.

Umutlu (2010) collected data from Turkey and found a negative relationship between leverage and investment decision.

Noravesh and Yazdani (2010) collected data from Iran and found that leverage is negatively related to investment decision.

Bao (2010) used 1686 Chinese listed companies in the period 1992-2009 and found that leverage imposes negative effects on investment.

Franklin and Muthusamy (2011) used data from Indian pharmaceutical companies during the period from 1998 to 2009 and found a negative relationship between leverage and investment decision.

In summary, limited availability of literature shows that debt policy affects the investment decision of the firm.

### 3. Method

#### 3.1. Measurement

The measures for this study were taken from four empirical studies. All the measures pertaining to:

- (i) Small Business Performance were taken from Zehiret *et al.* (2006),
- (ii) Investment Decision were taken from Gillet *et al.* (2011),
- (iii) Debt Policy were taken from Beattie *et al.* (2006), and
- (iv) Current Assets were taken from Michaelas *et al.* (1999).

All the scale items were reworded to apply to Indian small business owners and the reliability of these re-worded items was re-tested. Respondents were asked to indicate their agreement with each item related to debt policy and small business performance, using a five-point Likert scale ranging from “Strongly Disagree” to “Strongly Agree.” Respondents were also asked to indicate their agreement with each item related to investment decision, using a five-point Likert scale ranging from “0%-5%” to “76%-100%.” Table 4 shows factor analysis and scale items that were used in this study. Table 1 shows the proxy variables and their measurements.

**Table 1:** Proxy Variables and their Measurements

<b>Dependent Variable</b>	<b>Measurement</b>
Investment Decision (ID)	Measured as the extent to which small business owners perceive that they allocate proportion of their total individual portfolio (e.g., personal savings, business, etc.) in the real estate market to i) obtain higher rate of return and ii) diversify risk. Two items were used to measure investment decision of small business owners. Cronbach alpha: 0.842
<b>Independent Variables</b>	<b>Measurement</b>
Debt Policy (DP)	Measured as the extent to which small business owners perceive that they maintain a level of financial leverage that i) maximizes tax advantage of interest deductions, ii) improves company performance, iii) maximizes cash inflows, iv) minimizes chances of bankruptcy, and v) indicates long-term survival. Five items were used to measure debt policy. Cronbach alpha: 0.928
<b>Control Variable</b>	<b>Measurement</b>
Small Business Performance (SBP)	Measured as the extent to which small business owners perceive that net profit margin and rate of return on invested capital of their companies have improved over the past three years. Two items were used to measure small business performance. Cronbach alpha: 0.895.
<b>Dummy Variables</b>	<b>Measurement</b>
Current Assets (CA)	Measured by a single item that asked respondents to describe if current assets of their companies increased within past three years. Categorized alternative responses were: 1) Yes and 0) No.
Family	Measured by a single item that asked respondents to describe their family characteristics. Categorized alternative responses were: 0) Single Family and 1) Joint Family.

### 3.2. Sampling Frame, Questionnaire Distribution, and Collection

The current study consisted of the population of Indian small business owners. Indian small business owners living in Punjab (Ludhiana, Malerkotla, Raikot, Banga, Hoshiar Pur, Kaputhala, Phagwara, Jalandhar, and Sahid Bhagat Singh Nagar) area of India were chosen as a sampling frame.

### 3.3. Sampling Method, Sampling Issues, and Possible Planned Solutions

The Punjab (Ludhiana, Malerkotla, Raikot, Banga, Hoshiar Pur, Kaputhala, Phagwara, Jalandhar, and Sahid Bhagat Singh Nagar) area of India was chosen as the research site to collect data. The focal population was comprised of small business owners in the Punjab area of India. There was no need to translate the survey questions into Punjabi or Hindi since almost all the small business owners can read and write English. In cases of difficulties, researchers were available for translation. The instruction sheet indicated that participants could contact the researchers by telephone and/or email regarding any questions or concerns they might have about the research.

To avoid sampling bias, data collection team members were asked to only choose participants that represent the target population. Non-Indian small business owners were excluded.

To achieve a reasonable convenience sample, an exhaustive list of Indian small business owners' names and telephone numbers was created. Survey questionnaire bundles coupled with an instruction sheet were provided to the surveyors for distribution.

The sample included approximately 600 Indian small business owners. A total of 142 surveys were completed over the telephone (approximately 10% of the surveys were completed over the telephone), through personal visits, and received by mail. Three cases were non-usable. The response rate was roughly 23.67%. The remaining cases were assumed to be similar to the selected research participants.

### 3.4. Issues Related to Confidentiality of the Research Participants

All individuals who were approached were ensured that their names will not be disclosed and confidentiality will be strictly maintained. Since the research was based on the survey questionnaire small business owners were not forced to respond to each specific question. All subjects were provided with stamped envelopes and confidentiality was ensured. There was no obligation for the subjects to answer our questions over the telephone and in person. Before any telephone interview the person was asked for willingness to participate and no one was forced to participate. Small business owners' Consent Letter specifically indicated that by completing the survey, subjects have consented to participate in the study. Any information that was obtained in connection with this study and that can be identified with subjects will remain confidential and will be disclosed only with subjects' permission or as required by law.

## 4. Data Analysis, Findings, Discussion, Conclusion and Recommendations, Limitations, and Future Research

Table 2 shows descriptive statistics related to this study.

Skewness: -0.537 to -1.20

Crobach Alpha (Entire Sample): DP: 0.949; SBP: 0.897; ID: 0.917

**Table 2:** Descriptive Statistics

	Minimum	Maximum	Mean	SD
<b>Debt Policy (DP)</b>				
Maintaining a level of leverage that...:				
DP1) ... Maximizes tax advantage of interest deductions.	1	5	3.91	0.936
DP2) ... Improves company performance.	1	5	3.82	0.903

**Table 2:** Descriptive Statistics - Continued

DP3) ... Maximizes cash inflows.	1	5	3.73	0.931
DP4) ... Minimizes chances of bankruptcy.	1	5	3.86	0.960
DP5) ... Indicates long-term survival.	1	5	3.87	0.969
<b>Small Business Performance (SBP)</b>				
SBP1) Changes in net profit margin over the last three years.	1	5	3.91	1.056
SBP2) Changes in return on invested capital over last three years.	1	5	3.63	0.986
<b>Investment Decision (ID)</b>				
Investing capital in real estate market to...:				
ID1) ... Obtain higher rate of return.	1	5	3.20	1.078
ID2) ... Diversify risk.	1	5	3.25	1.149

SD = Standard Deviation

The principle components analysis (a cluster analysis tool designed to capture the variance in a dataset in terms of principle components) with number of factors set to 3 and a varimax rotation explained 86.91% of the variance in the original scores (see Table 3). As can be seen in Table 4, all the items loaded on the expected factors.

**Table 3:** Total Variance Explained – Rotation Sums of Square Loadings

Component	Total Variance Explained		
	Total	% of Variance	Cumulative %
1	4.025	44.724	44.724
2	1.908	21.205	65.929
3	1.889	20.984	86.914

Extraction Method: Principal Component Analysis.

**Table 4:** Rotated Component Matrix <sup>a</sup>

	Component		
	1	2	3
<b>Debt Policy (DP)</b>			
I maintain a level of leverage that...:			
DP1) ... Maximizes tax advantage of interest deductions.	<b>0.881</b>	0.220	0.184
DP2) ... Improves company performance.	<b>0.875</b>	0.218	0.154
DP3) ... Maximizes cash inflows.	<b>0.856</b>	0.190	0.148
DP4) ... Minimizes chances of bankruptcy.	<b>0.866</b>	0.207	0.213
DP5) ... Indicates long-term survival.	<b>0.879</b>	0.180	0.158
<b>Small Business Performance (SBP)</b>			
SBP1) The net profit margin of my company has gone up over last three years.	0.197	0.147	<b>0.921</b>
SBP2) The return on invested capital has gone up over last three years.	0.212	0.157	<b>0.915</b>
<b>Investment Decision (ID)</b>			
What proportion of your total individual portfolio (e.g., personal savings, business, etc.) do you allocate in real estate market to...?			
ID1) ... Obtain higher rate of return?	0.309	<b>0.890</b>	0.183
ID2) ... Diversify risk?	0.221	<b>0.929</b>	0.143

**Notes:** <sup>a</sup>Extraction Method: Principal Component Analysis  
 Rotation Method: Varimax with Kaiser Normalization  
 Rotation converged in 4 iterations

#### 4.1. Pearson Bivariate Correlation

Pearson bivariate correlation analysis shows that investment decision of small business owners is positively correlated with debt policy of small business service firms, small business performance, and family.

**Table 5:** Pearson Bivariate Correlation Analysis

	ID	DP	SBP	CA	Family
ID	1	0.506**	0.373**	0.165	0.310**
DP		1	0.422**	0.009	0.284**
SBP			1	0.034	0.205*
CA				1	-0.044
Family					1

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

ID = Investment decision

DP = Debt policy

SBP = Small business performance

CA = Current assets

#### 4.2. Regression Analysis

In this section, we present the empirical findings regarding the relationships between DP, SBP, CA, Family, and ID of small business firms.

Positive relationships between i) DP and ID, ii) SBP and ID, iii) CA and ID, and iv) Family and ID were found (see Table 4); These factors predict the investment decision of small business service firms in India.

**Table 6:** Regression Coefficients <sup>a, b, c</sup>

R <sup>2</sup> = 0.339; Adjusted R <sup>2</sup> = 0.319; SEE = 0.825; F = 17.14; ANOVA's Test Sig. = 0.000 Regression Equation: ID = -0.535 + 0.384 DP + 0.170 SBP + 0.455 CA + 0.349 Family							
	Unstandardized Coefficients		Standardized Coefficients <sup>c</sup>	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-0.535	0.194		-2.757	0.007		
DP	0.384	0.079	0.384	4.827	0.000	0.781	1.280
SBP	0.170	0.078	0.170	2.184	0.031	0.813	1.230
CA	0.455	0.196	0.164	2.325	0.022	0.996	1.004
Family	0.349	0.149	0.173	2.349	0.020	0.908	1.101

<sup>a</sup> Dependent Variable: ID

<sup>b</sup> Independent Variables: DP, SBP, CA, and Family

<sup>c</sup> Linear Regression through the Origin

SEE = Standard Error of the Estimate

Note that:

- A test for multicollinearity was performed. All the variance inflation factor (VIF) coefficients are less than 3 and tolerance coefficients are greater than 0.50.
- Family, CA, SBP, and DP explain 33.9% of the variance in investment decision of small business owners in India.

#### 4.3. Discussion

The main purpose of this study was to examine the perceived impact of debt policy on the investment decisions of small business owners. This was

done by surveying a sample of small business owners of service firms from Punjab area of India. The findings of this study show that debt policy, small business performance, current assets, and family positively influence the investment decision of small business owners of service firms in India. The findings of this study contradicts with the findings of Aivazian, Ge, and Qiu (2005), Umutlu (2010), Noravesh, and Yazdani (2010), Bao (2010), and Franklin and Muthusamy (2011) who found a negative relationship between leverage and investment decision. This may be because previous studies were conducted on publically traded firms. The nature of the publically traded firms and small business unlisted firms differ.

In conclusion, debt policy, small business performance, current assets, and family positively impact on the investment decision of small business owners.

#### 4.4. Limitations

The present study asks for responses from fixed format, set-questions survey tools, which could direct questions to the exclusion of providing additional input. The sample size is also small.

#### 4.5. Future Research

The present study is limited to perceptions and intentions. The relations found may suffer from common factor bias, as the questions were parts of the same data collection instrument. Future research is needed to test the relation of debt policy with investment decision through longitudinal data. Additional variables such as gender, age, and culture may also be included in the future study.

### References

- [1] Aivazian, V.A., Y. Ge., and J. Qiu (2005). "The impact of leverage on firm investment: Canadian evidence", *Journal of Corporate Finance*, 11, pp. 277-291.
- [2] Bao, H. (2010). "A Study on Leverage and Firm Investment: Chinese Evidence", *Royal Institute of Technology*, pp. 1-46. Retrieved August 15, 2012 from [http://www.kth.se/polopoly\\_fs/1.169309!/Menu/general/column-content/attachment/Huijie%20Bao.pdf](http://www.kth.se/polopoly_fs/1.169309!/Menu/general/column-content/attachment/Huijie%20Bao.pdf)
- [3] Beattie, V., A. Goodacre, and S.J. Thomson (2006). "Corporate financing decisions: UK survey evidence", *Journal of Business Finance and Accounting*, 33(9/10), pp. 1402-1434.
- [4] Dana, L.P. (2000). "Creating entrepreneurs in India", *Journal of Small Business Management*, 38(1), 86-91.
- [5] Franklin, J.S. and K. Muthusamy (2011). "Impact of leverage on firms investment decision", *International Journal of Scientific & Engineering Research*, 2(4), pp. 1-5.
- [6] Gill, A., N. Biger, C.Pai, and S. Bhutani (2009). "The determinants of capital structure in the service industry: evidence from United States", *The Open Business journal*, 2, pp. 48-53.
- [7] Gill, A., N. Biger, H.Mand, and S. Gill (2011). "Factors that affect mutual fund investment decision of Indian investors", *International Journal of Behavioural Accounting and Finance*, 2(3/4), 328-345.
- [8] Gill, A., N. Biger, H.S. Mand, and C. Shah (2012). "Corporate governance and capital structure of small business service firms in India", *International Journal of Economics and Finance*, 4(8), 83-92.
- [9] Gollakota, K. and V. Gupta (2006). "History, ownership forms and corporate governance in India", *Journal of Management History*, 12(2), pp. 185-198.
- [10] India Online (2012). "India's population 2012." Available at <http://www.indiaonlinepages.com/population/india-current-population.html> (accessed August 1, 2012)
- [11] Jensen, M. and W. Meckling (1976). "Theory of the firm: managerial behaviour, agency costs and ownership structure", *Journal of Financial Economics*, 3, pp. 305-60.

- [12] Michaelas, N., F. Chittenden, and P. Poutziouris (1999). "Financial policy and capital structure choice in U.K. SMEs: Empirical evidence from company panel data", *Small Business Economics*, 12(2), pp. 113-130.
- [13] Modigliani, F. and M. Miller (1958). "The cost of capital, corporation finance and the theory of investment", *The American Economic Review*, 48(3), pp. 261-97.
- [14] Myers, S.C. (1984). "The capital structure puzzle", *Journal of Finance*, 39, pp. 575-92.
- [15] Myers, S.C. and N. Majluf (1984). "Corporate financing and investment decisions when firms have information that investors do not have", *Journal of Financial Economics*, 13, 187-221.
- [16] Noravesh, I.S. and Y.S. Yazdani (2010). "The impact of leverage on firm investments in Tehran Stock Exchange (TSE)", 2(2), pp.35-48.
- [17] Ross, G.C. (1977). "The determination of financial structure: The incentive signaling approach", *Bell Journal of Economics & Management Science*, 8(1), pp. 23-40.
- [18] Umutlu, A. (2010). "Firm leverage and investment decision in an emerging market", *Quality and Quantity*, 44(5), pp. 1005-1013.
- [19] Zehir, C., A.Z. Acar, and H. Tanriverdi (2006). "Identifying organizational capabilities as predictors of growth and business performance", *The Business Review*, 5(2), pp. 109-116.