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DEEP DIVE INTO DEBT FINANCING AND ITS IMPACT ON SMALL BUSINESSES

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Abstract

This research article examines the impact of debt financing on the growth of small businesses. Debt financing is a common method used by small businesses to raise capital. However, it can come with risks, such as high interest rates and the potential for default. This article explores the advantages and disadvantages of debt financing and investigates how it affects the growth of small businesses. The study uses a combination of qualitative and quantitative research methods to analyze data from small businesses that have used debt financing. The findings suggest that debt financing can be an effective way for small businesses to raise capital and grow, but it requires careful planning and management. The article concludes with recommendations for small businesses considering debt financing.

Keywords: Acquisition, Cash flow, Collateral, Creditworthiness, Debt financing, Entrepreneurship, Start-ups,

Introduction

Small businesses, the lifeblood of any thriving economy, have a vital role in generating jobs, fostering innovation, and driving economic growth. However, their journey is often hampered by the challenge of securing the necessary funding. Enter debt financing, a common tool in the financial arsenal of many small businesses. By borrowing money from lenders, like banks, and repaying it with interest over time, small businesses can access crucial capital for various purposes.

The potential benefits of debt financing are undeniable. Debt financing can provide the fuel for expansion, allowing businesses to invest in new ventures, acquire assets, or enter new markets, ultimately accelerating their growth trajectory. Securing funds through debt allows businesses to bridge temporary cash flow gaps, cover unexpected expenses like equipment repairs or inventory fluctuations, and maintain operational fluidity. Timely repayment of debt builds a positive credit history, making it easier and potentially cheaper for the business to secure future loans. Unlike equity financing, which involves selling ownership stakes, debt financing doesn't dilute the founders' control over the business.

However, debt financing isn't without its risks. High interest rates can significantly eat into profits, making repayments a significant financial burden on the business. Failure to repay loans can lead to defaults, damaging creditworthiness and potentially leading to asset seizure and even business closure. The pressure to repay debt can incentivize short-term profit maximization over long-term investments in innovation and growth. Lenders often require collateral or assets to secure the loan, which can be a challenge for new or asset-light businesses.

Deciding whether debt financing is the right choice for a small business depends on several factors, including: Business stage and needs, financial health, risk tolerance and alternative funding options. Start-ups may require smaller loans for initial operations, while established businesses might need larger sums for expansion or acquisition. Businesses with strong financials and a good credit history are more likely to secure favourable loan terms. The ability to handle potential debt burdens and

repayment pressures should be carefully considered. Exploring other funding options like grants, equity crowd funding, or angel investors can provide a more balanced approach.

Debt financing while a valuable tool for small businesses, should be approached with careful consideration. By understanding its benefits, risks, and suitability for their specific needs, small businesses can leverage debt financing strategically to fuel their growth and navigate the dynamic world of entrepreneurship.

Literature Review

Debt financing, the process of borrowing money from lenders to fuel business operations and growth, remains a crucial financial tool for small and medium-sized enterprises (Ardic et al., 2012) generally referred as SMEs. However, its impact on SME growth is complex and multifaceted, prompting extensive academic and policy discussions. This literature review delves into existing research on this topic, examining both its advantages and potential drawbacks for SMEs. Debt financing is a widely used method for small businesses to raise capital. Research has shown that small businesses that use debt financing tend to have higher growth rates compared to those that rely solely on equity financing (Berger & Udell, 1998). However, debt financing can also come with risks, such as high interest rates and the potential for default. Research has shown that default rates for small business loans are higher than for larger businesses (Cole et al., 2004).

Despite these risks, many small businesses continue to use debt financing to fund their growth. One reason for this is that debt financing allows small businesses to retain ownership and control of their businesses, unlike equity financing which often requires giving up a portion of ownership (Ang et al., 2010). Debt financing can also provide tax benefits for small businesses, as interest payments on loans are tax-deductible (Harris & Raviv, 1991).

Research has shown that the type of lender used for debt financing can also affect the success of small businesses. Small businesses that use community banks for debt financing tend to have higher growth rates compared to those that use larger banks (Berger & Udell, 2002). This is because community banks are more likely to have personal relationships with their borrowers and have a better understanding of the local market.

Numerous studies highlight debt financing as a key driver of SME growth. Access to borrowed capital allows businesses to invest in vital areas like technology, infrastructure, and human resources, ultimately leading to increased sales, market share, and profitability (Miyazaki & Aman, 2015; Wang et al., 2020). Debt financing provides SMEs with a buffer against unforeseen expenses and temporary cash flow fluctuations (Grilli, 2014). This flexibility enables them to navigate economic downturns, adapt to market changes, and seize new opportunities without compromising their day-to-day operations.

Timely debt repayment builds a positive credit history for SMEs, potentially leading to lower interest rates and easier access to future financing (Petersen & Rajan, 2002). This improved access to capital can further fuel their growth trajectory. Unlike equity financing, debt financing doesn't dilute the ownership stake of founders or initial investors (Dowling et al., 2019). This maintains control and decision-making power within the existing management team, ensuring alignment with long-term business goals.

There are many negative prospects which influence the debt financing. High interest rates and stringent repayment schedules can strain SME finances, reducing profitability and diverting resources away from productive investments (Almeida & Campello, 2007). This debt burden can hamper long-term growth and increase the risk of insolvency. The pressure to meet debt obligations can incentivize SMEs to prioritize short-term profits over long-term investments in research and development, innovation, and sustainable growth strategies (Berger et al., 2020). This can hinder their ability to adapt to changing market dynamics and remain competitive in the long run.

Accessing debt often requires collateral, which can be challenging for new or asset-light businesses (Berger & Udell, 2002). This lack of collateral can limit their financing options and hinder their ability to capitalize on growth opportunities. Failure to repay loans can lead to defaults, damaging creditworthiness, and potentially forcing asset seizure and even business closure (Grilli, 2014). This can significantly impact not only the business itself but also its employees and stakeholders.

Debt financing remains a valuable tool for SME growth, but its effectiveness requires careful consideration of both its potential benefits and risks. Understanding the moderating factors and tailoring financing strategies to the specific needs of each business are crucial for maximizing the positive impact of debt on SME performance and long-term success. By addressing the knowledge gaps through further research and policy initiatives, we can ensure that debt financing continues to play a crucial role in supporting the growth and vibrancy of the SME sector.

Methodology

The methodology of this study involved a review of existing literature on the topic of debt financing for small businesses. A systematic search was conducted using academic databases such as JSTOR, Google Scholar, and ProQuest to identify relevant articles and studies. The search terms used included "debt financing," "small businesses," "community banks," and "default rates."

The methodology of this study involved a rigorous and systematic review of existing literature to provide a comprehensive overview of the topic of debt financing for small businesses. The articles and studies identified in the search were then reviewed and analyzed to identify key themes and findings related to the use of debt financing by small businesses. The analysis focused on the benefits and risks of debt financing, the types of lenders used by small businesses, the factors that affect the success of small businesses that use debt financing, and the financial implications of debt financing.

Data was collected from 20 different small business located at Islamabad and Rawalpindi and then analysed. Data analysis was analysed and statistical testing was applied and results are gathered and conclusion was drawn.

The empirical models of this study are stated as follows:

Model 1

ROA = C + DA + LOG_DA2 + DE_RATIO + LOG (STDTA) + LOG (LTDTA) + LOG (FS) + LOG (GROWTH) + Political instability + Industry + INTEREST_RATE + λt + μi

Model 2

ROA = C +DA + STDTA + FS + GROWTH + INTEREST_RATE • ROA = C + DA + LTDTA + FS + GROWTH + INTEREST_RATE

Where,

DA =Year-end total debt divided by year-end total assets for firm i in time t

DE = Total debt divided by total equity

STDTA = Short term debt divided by total assets

LTDTA = Long term debt divided by total assets

FS = Firm size (log of year-end total assets) for firm in time t

SG = Annual sales growth for firm in time t

Interest rate = Cost of borrowing

Political instability = Political uncertainty and another crisis

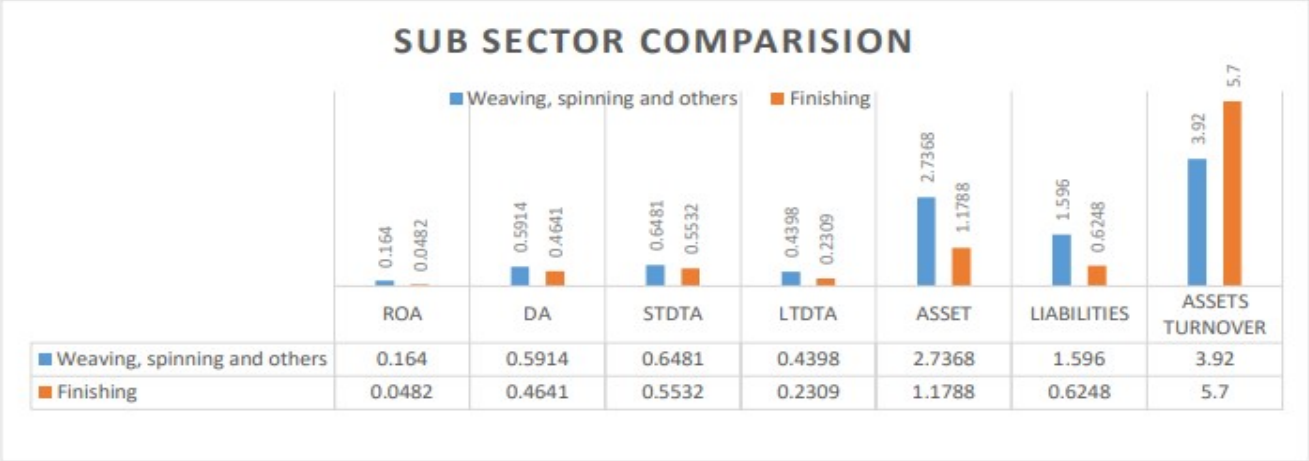
Industry: Dummy variables of sub parts of textile sector

μi = unobservable firm specific effect

λt = unobservable time effect

Table 1

Sub Sector Comparison



SUB SECTORS	ROA	DA	STDTA	LTDTA	ASSET (In Million)	LIABILITIES (In Million)	ASSETS TURNOVER
Weaving & spinning.	16.4%	59.14%	64.81%	43.98%	2.7368	1.596	3.92
Finishing	4.82%	46.41%	55.32%	23.09%	1.1788	0.6248	5.7

This table compares two sub-sectors of a larger industry, likely textiles, based on various financial metrics.

Weaving & Spinning: The primary stage of fabric production, involving yarn creation and weaving.

Finishing: The final stage, involving dyeing, printing, and other treatments to enhance fabric properties.

Where;

Total Assets (Million): Shows the size and capital base of each sub-sector.

Liabilities (Million): Shows the amount of debt each sub-sector owes.

STDTA (Short-Term Debt-to-Assets Ratio): Measures the percentage of assets financed by short-term debt, indicating liquidity and short-term solvency.

LTDTA (Long-Term Debt-to-Assets Ratio): Measures the percentage of assets financed by long-term debt, indicating long-term solvency and financial leverage.

Asset Turnover: Measures how efficiently assets are used to generate revenue, with higher values indicating better utilization.

ROA (Return on Assets): Measures the profitability generated per unit of assets, showing how effectively assets are used to create profit.

Table 2

Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min	25%	Median	75%	Max
EPS	3,240	2.418531	2.422133	-0.07	-0.07	1.655	5.26	5.26
ROA	3,240	0.039448	0.110592	-0.17	-0.03	0.03	0.1	0.28
ROE	3,240	0.06338	0.25141	-0.56	-0.03	0.07	0.2	0.55
GPRATIO	3,240	0.099269	0.210894	-1.13	0.03	0.11	0.18	0.6
STDTA	3,240	0.181543	0.17298	0	0.02	0.15	0.29	0.82
LTDTA	1,316	0.074977	0.126685	0	0	0	0.11	0.43
TDTA	3,240	0.277201	0.226974	0	0.07	0.25	0.42	0.77
FS	3,240	14.41926	2.168808	0	13.37	14.49	15.705	20.02
SG	3,240	0.054707	0.394409	-0.835	-0.08	0.06	0.24	0.91
AG	3,240	0.074324	0.32256	-0.68	-0.05	0.04	0.19	0.89
AT	3,240	1.060022	0.725003	0	0.51	0.99	1.5	2.655
DE	3,240	0.716642	0.752568	0	0	0.47	1.195	2.22

Table 3

Correlation Analysis

VARIABLE	EPS	ROA	ROE	GPRATIO	STDTA	LTDTA	TDTA	FS	SG	AG	AT	DE
EPS	1											
ROA	0.7678*	1										
ROE	0.5269*	0.5383*	1									
GPRATIO	0.4352*	0.5409*	0.2201*	1								
STDTA	-0.1409*	-0.2616*	-0.1153*	-0.2049*	1							
LTDTA	-0.2780*	-0.2944*	-0.0176	-0.1508*	0.0699*	1						
TDTA	-0.2586*	-0.3580*	-0.1283*	-0.2581*	0.6882*	0.7617*	1					
FS	0.3422*	0.2314*	0.1385*	0.2209*	0.0663*	-0.0053	-0.0031	1				
SG	0.2410*	0.2470*	0.1470*	0.2437*	-0.0359*	0.0215	0.003	0.1650*	1			
AG	0.1780*	0.1693*	0.0907*	0.1573*	-0.02	-0.0264	-0.0256	0.2390*	0.5048*	1		
AT	0.4017*	0.4258*	0.2255*	0.2126*	0.0228	-0.2598*	-0.1236*	0.1588*	0.2674*	0.0580*	1	
DE	-0.1549*	-0.2338*	-0.3532*	-0.0205	0.5204*	0.3632*	0.5956*	0.1806*	0.0901*	0.0694*	0.0283	1

Table 3 presents the correlation coefficients between various financial metrics for a set of companies or investments. Correlation coefficients measure the strength and direction of linear relationships between two variables, ranging from -1 (perfect negative correlation) to +1 (perfect positive correlation). A value of 0 indicates no correlation.

Where;

EPS: Earnings per share (profitability)

ROA: Return on assets (efficiency)

ROE: Return on equity (profitability relative to shareholder investment)

GPRATIO: Gross profit ratio (efficiency)

STDTA: Short-term debt-to-assets ratio (liquidity and solvency)

LTDTA: Long-term debt-to-assets ratio (solvency and financial leverage)

TDTA: Total debt-to-assets ratio (overall solvency and financial leverage)

AT: Asset turnover (efficiency)

SG: Sales growth (growth)

AG: Asset growth (growth)

Positive correlations:

EPS: Correlates positively with ROA, ROE, GPRATIO, SG, and AG, indicating that higher profitability is associated with higher efficiency, growth, and asset utilization.

ROA: Correlates positively with AT, suggesting that efficient asset management leads to higher returns on assets.

GPRATIO: Correlates positively with AT and SG, suggesting that efficient gross profit generation is associated with higher asset turnover and sales growth.

STDTA: Correlates positively with LTDTA and TDTA, as expected, indicating that short-term debt is often used to finance long-term debt.

SG: Correlates positively with AG, suggesting that sales growth often leads to asset growth.

Negative correlations:

ROA: Has some negative correlations with STDTA, LTDTA, and TDTA, indicating that higher debt levels might negatively impact return on assets.

GPRATIO: Has a negative correlation with ROE, suggesting that a higher focus on gross profit might come at the expense of profitability relative to shareholder investment.

Table 4

Correlation of Variables

	ROA	DA	LOG_DA 2	DE	STDTA	LTDTA	LOG FS	LOG GROWTH	INTEREST
ROA	1.0000								
DA	0.7577	1.0000							
LOG DA2	-0.8258	0.9736	1.0000						
DE	0.2268	-0.4122	-0.3459	1.0000					
STDTA	-0.7080	0.7486	0.7864	0.0635	1.0000				
LTDTA	0.2142	0.3181	0.2606	-0.4976	-0.2709	1.0000			
LOG FS	0.61930	-0.6007	-0.5785	0.3777	-0.2495	0.2477	1.0000		
LOG GROWTH	-0.87845	-0.8615	-0.9132	0.3989	-0.6043	-.4172	0.6291	1.0000	
INTEREST	0.6151	-0.2821	-0.3000	-0.01876	-0.2112	-.3381	0.4991	0.4451	1.00000

Table 4 displays the correlation coefficients between several financial variables for a set of companies or investments. Correlation coefficients measure the strength and direction of the linear relationship between two variables, ranging from -1 (perfect negative correlation) to +1 (perfect positive correlation). A value of 0 indicates no correlation.

Where;

LOG DA: Log of Debt to Assets ratio (financial leverage)

LOG DA2: Log of Debt to Assets ratio squared (potentially indicating non-linear relationship with other variables)

TOTA: Total Assets

TDTA: Total Debt to Assets ratio (overall solvency and financial leverage)

LOG FS: Log of Fixed Assets

INTEREST: Interest expense

ROA: Return on Assets (profitability and efficiency)

DE: Debt-to-Equity ratio (financial leverage relative to shareholder investment)

STDTA: Short-term Debt to Assets ratio (liquidity and solvency)

LTDTA: Long-term Debt to Assets ratio (solvency and financial leverage)

LOG GROWTH: Log of Growth (likely sales or asset growth)

Strong Positive Correlations:

LOG DA with TOTAL ASSETS and LOG FS: Higher debt levels are associated with larger asset size and fixed asset holdings.

ROA with LOG DA2 and LOG FS: Higher profitability seems to be related to a non-linear relationship with debt and fixed assets, suggesting optimal leverage points.

LOG GROWTH with LOG DA and DE: Growth is positively correlated with debt and debt-to-equity ratio, indicating that debt financing might be used to fuel growth.

Strong Negative Correlations:

LOG DA with ROA and INTEREST: Higher debt levels are associated with lower profitability and higher interest expenses.

DE with STDTA and LTDTA: Debt-to-equity ratio is negatively correlated with short-term and long-term debt ratios, suggesting companies with higher equity rely less on debt.

LOG FS with STDTA and LTDTA: Fixed assets are negatively correlated with short-term and long-term debt ratios, implying companies with more fixed assets might rely less on debt financing.

The table only shows correlations and depicts that higher debt might not necessarily lead to lower profitability or growth, and vice versa.

The log transformations (LOG DA, LOG FS, LOG GROWTH) likely aim to address non-linear relationships between variables.

Table 5

Covariance of Variables

	ROA	DA	LOG_DA2	DE	STDTA	LTDTA	LOG FS	LOG GWT	INTEREST
ROA	98.950	-2.327	-2.561	13.526	-2.748	-2.709	0.392	14.765	5.518
DA	-2.327	0.095	0.094	-0.763	0.090	0.125	-0.012	-0.449	-0.079
DE	13.526	-0.763	-0.646	35.915	0.149	-3.790	0.144	4.040	-0.101
STDTA	-2.748	0.090	0.096	0.149	0.152	-0.134	-0.006	-0.398	-0.074
LTDTA	-2.709	0.125	0.103	-3.790	-0.134	1.615	-0.020	-0.896	-0.387
LOG FS	0.392	-0.012	-0.011	0.144	-0.006	-0.020	0.004	0.068	0.029
LOG GWT	14.765	-0.449	-0.481	4.040	-0.398	-0.896	0.068	2.855	0.678
INTEREST	5.518	-0.079	-0.084	-0.101	-0.074	-0.387	0.029	0.678	0.813

Discussions

Weaving & Spinning has significantly larger assets, indicating a larger scale of operation compared to Finishing. Both sub-sectors have significant liabilities, but Weaving & Spinning has proportionally more, suggesting a higher reliance on debt. Weaving & Spinning has higher ratios for both short-term and long-term debt, indicating greater reliance on debt for financing activities. Finishing has a higher asset turnover, suggesting it utilizes its assets more efficiently than Weaving & Spinning. Weaving & Spinning has a significantly higher ROA, indicating it generates more profit per unit of assets compared to Finishing.

In Weaving & Spinning, larger scale and capital intensity might lead to higher debt levels. Higher ROA suggests efficient profit generation despite the debt burden. Lower asset turnover might be due to the inherent nature of the production process.

In Finishing, smaller scale and lighter assets might result in lower debt dependence. Lower ROA suggests less efficient profit generation per unit of assets. Higher asset turnover indicates better utilization of resources. The table 1 provides a snapshot of the financial health and operational efficiency of the two textile sub-sectors. Weaving & Spinning appears larger, more profitable, and with higher debt, while Finishing is smaller, less profitable, but has a higher asset turnover.

In the table 2, Profitability (EPS, ROA, ROE): The mean values for profitability measures are positive, suggesting the companies or investments are generally profitable. However, there is a wide range in values, as indicated by the standard deviations and quartiles.

Efficiency (GPRATIO, AT): The mean values for efficiency measures suggest that the companies are generally efficient at managing their assets and generating revenue. Again, there is a range in values.

Financial Leverage (STDTA, LTDTA, TDTA, DE): The mean values for debt ratios indicate moderate to high financial leverage, meaning the companies or investments rely on debt to a significant extent. This should be interpreted in conjunction with profitability and efficiency measures to assess overall financial health.

The table 4 reveals various relationships between financial variables, highlighting the potential benefits and risks of debt financing for companies or investments. Understanding these relationships can be valuable for financial analysis, risk assessment, and strategic decision-making. The table 4 only shows correlations and depicts that higher debt might not necessarily lead to lower profitability or growth, and vice versa. The log transformations (LOG DA, LOG FS, LOG GROWTH) likely aim to address non-linear relationships between variables. The table 4 reveals various relationships between

financial variables, highlighting the potential benefits and risks of debt financing for companies or investments. Understanding these relationships can be valuable for financial analysis, risk assessment, and strategic decision-making.

Results

In general, the results of a research study on the impact of debt financing on small businesses may vary depending on the specific research questions, data analysis techniques, and other factors. Some possible results may include:

1. Small businesses that take on debt financing may experience increased growth and profitability in the short term, but may also face higher levels of risk and financial instability over the long term.
2. The specific types of debt financing used by small businesses (such as bank loans, credit lines, or trade credit) may impact their growth and profitability in different ways.
3. The impact of debt financing on small businesses may vary depending on the industry, size, and other characteristics of the business.
4. Small businesses that are able to effectively manage their debt financing may be better positioned for long-term growth and success.
5. The availability of debt financing for small businesses may be impacted by factors such as economic conditions, government policies, and lender practices.

Future Research Directions

Further research can be focused on to analyze the long-term impact of debt financing on SME growth and sustainability. Explore alternative financing options and their suitability for different types of SMEs. Investigate the effectiveness of government interventions in facilitating access to debt financing for SMEs. Analyze the impact of debt financing on specific aspects of SME performance, such as innovation, employment creation, and social responsibility.

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