

Agency influence on leveraging

Can the agency theory shed light on decisions about debt-equity ratios in the capital structure of South African listed SMEs? This groundbreaking empirical study looked for evidence of agency effects.

by Joshua Abor and Nicholas Biekpe

A company's management will always pursue policies aimed at maximising shareholders' wealth. Or so conventional corporate finance theories assume. The agency theory, on the other hand, suggests that the divide between ownership and control may lead to conflicts of interest because of differing goals. As agents, managers will often use the opportunity to control companies' resources in ways that protect, or even advance, their own interests to the disadvantage of those of shareholders.

One of the areas where this agency effect manifests itself is in the capital structure of companies. Managers virtually have a free hand to impose decisions about the ratio of external debt to owners' equity. Since debt is a more risky source of finance than new stock issues, managers would prefer to keep debt down in favour of more equity, to avoid the risk of insolvency.

Shareholders, in contrast, prefer more debt. When a new capital project starts paying off through increased profits, debt financiers merely get their capital and interest back. Equity investors share in the profits; the more shareholders there are, the more diluted each

investor's share will be. The tax advantage of interest expense further reduces the cost of debt, making it the cheapest form of capital available to most businesses. Therefore shareholders would prefer to leverage their income by relying on higher debt levels.

Shareholders are also likely to have a more diversified portfolio of investments. They would be less concerned about the bankruptcy of one particular investment, unlike managers who usually have most of their future wealth locked up in this one company.

Empirical research into the agency problem has been limited, especially in the context of a developing country. This motivated research at the University of Stellenbosch Business School (USB) which targeted the South African listed small and medium enterprise (SME) sector for its investigation of possible agency effects.

Why the focus on listed SMEs?

Unlike larger listed companies with a clear-cut split between owners and management, listed SMEs have varying degrees of separation between the two. On a continuum of ownership, one end represents management owning 100% of the company (in which case no agency problem exists), the other end represents managers as merely paid employees. In between are those companies in which managers own part of the equity. Listed SMEs typically lie between the extremes. The varying split of ownership between management and shareholders offered attractive ground for studying the agency theory.



Image : Fotosearch

Expectations of agency effects that would come to light

The USB study based its approach on past research into agency problems, and identified certain variables by which the agency phenomenon had been investigated. Hypotheses were formulated of how agency problems would manifest themselves in listed South African SMEs under different degrees of management versus owner control.

The first variable was the degree of *insider shareholding*. Managers with shareholding suffer the same wealth losses as other shareholders when they choose to use less than the optimal levels of debt. It was therefore expected that the higher the proportion of insider shareholding, the more managers would align themselves with other shareholders and prefer more debt in their capital structure decisions.

The presence of institutional shareholding or *blockholding* was the second variable. Blocks of concentrated shareholders may be more effective in monitoring managers and may direct them to use more debt. Higher percentages of

blockholding should therefore result in higher levels of debt.

However, certain studies have indicated that a larger number of blockholders negatively influences the measure of control exercised by blockholders. Therefore, a further expectation was that a higher *number of blockholders* (as a third variable) would result in lower debt levels.

Another variable that may expose the impact of the agency problem is the proportion of *tangible fixed assets*. Managers would prefer not to use too high levels of debt that tie up their assets as collateral.

Lastly, *growth opportunities* affect the risk situation of companies. Managers' freedom to exploit risky growth opportunities may be inhibited by high debt levels. Debt-holders, in this case, may also want to monitor the activities of companies and restrict managers through measures that protect their collateral. Companies with many growth opportunities are therefore expected to prefer less debt in their capital structure.

Turning the spotlight on SMEs

To test its propositions, the study examined all listed South African SMEs that met any two of the following three criteria from the National Small Business Act: fewer than 200 employees; less than R50 million turnover; or gross assets of less than R18 million. A total of 68 listed SMEs qualified for the study. Data were obtained from annual reports and JSE Fact Books for the period 1998–2004.

The variables and the way they were measured are shown in the box below.

Two statistical methods, pairwise correlation and Analysis-of-Variance (ANOVA), were used to test the relationships between *capital structure* and each of the other variables.

What did the evidence reveal?

Insider shareholding

The graph (on page 12, top) shows how debt levels varied with the different categories of insider shareholding.

Contrary to expectation, lower levels of debt were used as insider shareholding increased.

Variable	Explanation	Measure used	Expected behaviour
Capital structure	The ratio of debt to total capital (i.e. debt divided by debt plus equity)	Measured as a ratio %	--
Insider shareholding %	Proportion of total shareholding held by managers and directors	Clustered as follows: <ul style="list-style-type: none"> < 26% 26-50% 51-75% > 75% 	Debt % to increase with increasing insider shareholding
Blockholding %	Proportion of total shareholding held by blockholders	Clustered as follows: <ul style="list-style-type: none"> < 26% 26-50% 51-75% > 75% 	Debt % to increase with increasing blockholding
Number of blockholders	Number of institutions holding at least 5% of shares	One, two, or three	Debt % to decrease as number of blockholders increase
Tangible-assets ratio	Tangible fixed assets divided by total assets	Clustered as follows: <ul style="list-style-type: none"> < 26% 26-50% 51-75% > 75% 	Debt % to decrease as ratio of tangible assets increases
Growth opportunities	Used market-to-book value (MTBV) as an indicator (i.e. market value of shares divided by book value of shares)	Clustered as follows: <ul style="list-style-type: none"> < 1 1 to 5 5 to 20 > 20 	Debt % to decrease as MTBV increases



In a few past studies that had revealed similar trends, the researchers argued that insider (manager) shareholders could feel less diversified than external shareholders. They would act more in their own interest and prefer strategies that avoid the risk of insolvency.

However, the findings as shown in the graph did not test as statistically significant. The patterns found could therefore not with reasonable certainty be attributed to the variables tested; they may even have resulted from other influences.

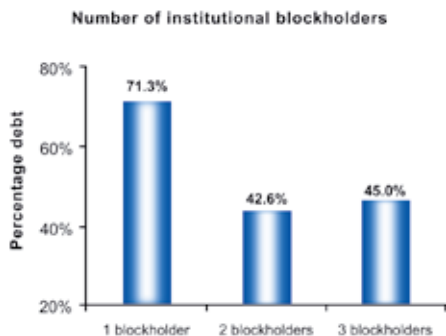
Blockholding

The expected relationship – that a higher proportion of blockholding would lead to higher debt levels – was not found. No particular pattern was evident from the data analysed, and the relationships proved to be statistically insignificant.

Number of blockholders

The results supported the expectation that higher numbers of blockholders would increase the agency problem and lead to lower debt levels. The graph below shows that for one blockholder the debt ratio was considerably higher than for two and three blockholders.

This relationship tested as statistically



significant. It can therefore reasonably be assumed that one blockholder is more effective in monitoring management’s activities. The blockholder would use its influence to convince managers to use more debt to leverage shareholders’ income.

Tangible assets ratio

As in the case of blockholding as a percentage, no particular direction was evident from the analysis of tangible assets versus capital structure. The relationships were also not statistically significant, which implies that it is unlikely that a reasonable explanation of the relationship between these two variables exists with regard to SMEs.

The inevitable deduction was that capital structure decisions in listed SMEs are subject to many more influences than agency.

Growth opportunities

Growth opportunities, like blockholding, behaved contrary to what had been theorised. Debt levels increased with higher growth opportunities – or with the market-to-book-value ratio, which was the indicator used. This pattern can be seen clearly in the graph below.

Moreover, the relationship shown was found



to be statistically significant. This means that, with a reasonable level of certainty, a theory other than the agency theory exists in this case to explain the relationship between the two variables.

A possible explanation is that SMEs with high


growth potential may just be more successful in attracting debt finance. SMEs with limited growth opportunities may also not need to raise debt because it is possible to finance their lower growth from internal funds.

Other influences still need to be uncovered

This research is one of a ground-breaking few empirical studies that have investigated the agency issue and capital structure of SMEs in sub-Saharan Africa. Though agency problems are mostly associated with larger companies, the USB study found some presence of agency effects in listed SMEs. The one clear indication of the agency problem was where there is one

blockholder that can effectively impose shareholders’ wishes above management’s interests. The other variables studied behaved either contrary to expectation (in terms of agency reasoning) or with no particular direction.

The inevitable deduction was that capital structure decisions in listed SMEs are subject to many more influences than agency. More research is needed to examine these important factors in South Africa’s SME sector.



These findings were published by Joshua Abor (pictured) (joshabor@ug.edu.gh) and Nicholas Biekpe in the SA *Journal of Accounting Research*, 2006, 20 (1), in an article titled *An empirical test of the agency problems and capital structure of South African quoted SMEs*. The study formed part of Abor’s doctoral research conducted under the supervision of Prof Nicholas Biekpe. Abor’s dissertation, *Capital structure and financing of SMEs: Empirical evidence from Ghana and South Africa*, was presented to the USB in December 2007.