



## Interaction between Financial Risk Management and Value of the Firm among Private Equity Firms in Frontier Markets: A Theoretical Perspective

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### **Keywords**

Financial Risk Management, Value of the Firm, Private Capital Firms.

### **Jel Classification**

G29, G32, G39.

### **Received**

18.03.2019

### **1<sup>st</sup> revision**

20.04.2019

### **2<sup>nd</sup> revision**

10.05.2019

### **Accepted**

23.05.2019

### **Abstract**

**Purpose:** The study attempts to establish a theoretical basis for the interaction between financial risk management and value of the firm among private capital firms.

**Design and Methodology:** The study was based on a theoretical review of the interaction between financial risk management and value of the firm focusing on the applicability of agency theory, trade-off theory and credit metrics model in anchoring capital management risk, liquidity risk and credit risk

**Findings:** The study shows that although private equity firms are not publicly listed, they face financial risks associated with defaults on loans advanced, volatility of interest rates, liquidity management and capital management. The agency theory explains the role of capital management risk and liquidity risk by incurring agency costs to deter the management from engaging in activities hindering achievement of wealth maximization goal. Similarly, companies balance between threat of bankruptcy and tax benefits of debt by finding an understanding between the advantages and the disadvantages that come with debt as outlined in the trade-off theory while credit metrics model help firms to quantify credit risk on loans, fixed income instruments, commercial contracts.

**Practical Implications:** Private equity firms must constantly be engaged in risk mitigation activities by extensively evaluating their financial, legal and business environments. The management of private equity companies must also always try to balance between the threat of bankruptcy and the tax benefits of debt in the formulation of capital structure by finding a compromise between the benefits and costs of raising debt. The management should also carefully consider credit risks during the credit appraisal and credit awarding process by using appropriate credit appraisal models such as credit metrics model.

**The Significance of the Study:** The conclusions reached in this study significantly impacts the perspective of the management with regard to risk management particularly in the banking sector which is predominantly adversely affected by credit risk, liquidity risk and capital management risks. Consequently the management would be in a better position to manage their risks using appropriate models and improve organizational efficiency and performance.

## **Introduction**

Risk management is a concept that cannot be ignored when it comes to financial institution business activities since they are exposed to a multidimensional risk in pursuit of their objectives, to maximize profitability and shareholders' wealth. According to Christoffersen (2012) risk is the possibility of unfavourable events occurring in future. It is generally classified into two; business risk and financial risk. Financial risk is the likelihood of the organisation failure to meet its financial commitments as and when they fall due. Rejda (2011) classified financial risks in to two; outward financial risks, which depend on changes in financial markets and internal financial risks resulting from within the firm. According to Sadgrove (2016), financial risk is sub-classified into market, liquidity and credit risks. Financial risk results from uncertainties associated with defaults on loans advanced, volatility of interest rates, liquidity management and changes in foreign exchange rates. Decisions involving financial institution activities therefore have an element of risk, which has effects on the overall performance and value of the firm (Schonborn, 2010).

Private equity firms do not have their securities trading publicly in the stock market and therefore they are not under obligation to follow the guidelines set by the market regulator for risk management. However private equity firms constantly engaged in risk mitigation activities by extensively evaluating their financial, legal and business environments. It is noted that understanding how to correctly quantify and manage the risks in private equity firms remain limited and continues to considerably lag behind that of other traditional asset classes. According to Jegadeesh, Kräussl and Pollet (2015) private equity investments differ from other conventional investments such as stocks or bonds in that they are illiquid and long term this is mainly because they are not easily transferable and secondary markets for private equity funds are highly inefficient, making it costly for investors to sell their positions as well as risk management a challenging task. Secondly, private equity firms are difficult to value because investors makes an initial capital commitment which may later be transferred to other investors upon which they would be valued at the transfer point. Thus, the invested capital changes dynamically over the lifetime of a fund and private equity investments require active cash flow management of capital calls and distributions (Gompers, Kaplan & Mukharlyamov, 2016).

The process of financial risk management (Bessis, 2011) involves setting objectives, risk identification, risk assessment, control activities, monitoring and communicating risk exposures on time to reduce or eliminate the exposures to loss by the institution. The process, if well engaged, can assist the firms to realize their ultimate objective of maximizing shareholders wealth. Askari, Iqbal and Mirakhor (2011) also noted that a robust risk management framework could enhance financial performance of organizations by helping them reduce their exposure to risks. In concurrence, McNeil, Frey and Embrechts (2015) concluded that Financial risk management help companies to reduce costs, increase profits, widen their client base and finally, to make the cost structure produce maximum results.

Globally, risk management as a process has been used by many firms as part of their business strategies. This follows increasingly strong links between risk management and organizational performance and the value of the firm (Saunders & Allen, 2010). It is arguably logical that institutions with better risk management strategies are more likely to withstand economic turbulences such as financial crises. For this reason, there is increasing attempts among financial institutions to keep to a minimum the risks that result from dynamics in interest rates, changes in the prices of commodities, currencies and organisations equities (Landier, Sraer & Thesmar, 2013). Additionally, financial risk management in the international scene is characterised by risks caused by political cultural and legal changes associated to exposure to uncertainties that result due to the dynamics of conducting business and the transfer of firm assets which is common among global enterprises (Minnis, 2011). Financial institutions, mainly in Sub-Sahara Africa, do not have means by which they can use to measure, identify, evaluate and regulate risks since they also do not use risk management systems (Sadgrove, 2016). As a result, several banks in Kenya such as Dubai Bank and Chase Bank have been put under receivership due to various malpractices, which could have been mitigated if the risk management framework was properly articulated and put in place (Republic of Kenya (ROK)), 2016).

Empirical literature shows that there is congruence among conclusions reached by scholars on the relationship that exist between value of the firm and risk management. Papaioannou (2015) concluded that there was need to measure and regulate exposure to uncertainties and risks if the firm is to minimize it being affected by changes occurring in interest rates

and exchange rates which have the ability to affect the organisations valuation and revenues. Moreover, liquidity level as measured by the ability of the firm to repay debts and gearing level positively influences firm value as shown by Kamunde (2011). Matundura (2012) concluded that future dividends expectations does affect the valuation of an organisation. Krause and Tse (2016) concluded that risk management has a positive effect on an organisations valuation and returns and also leads to decreased cash flow and return volatility.

Further, Mwangi (2012) indicated that a notable association does exist between profitability of the organisation and credit risk management. Yuko (2016) evaluating the impact dividend policy had on an organisations valuation of companies that are part of the Nairobi securities exchange established that the size of the organisation and offering a dividend payout has a favourable and significant impact on the valuation of an organisation. Magnifique (2013) found that credit risk in commercial institutions had a positive relationship with the banks performance a positive correlation between credit risk management and performance of commercial banks. In light of the evidence gathered, this study finds that little efforts have been made to establish the interaction between financial risks and value of private equity firms. This study will therefore seek fill this gap by theoretically evaluating the interaction between the variables.

### **Value of the firm**

Value of the firm has over decades been a major concern among scholars and practitioners. The discourse has mainly revolved around what contributes to the value of the firm (Fama & French, 2002; Christoffersen, 2012). Existing literature shows that firm value is affected by different complex and differentiated factors such as leverage level, operational efficiency, liquidity level, growth capacity and the investment plan of the firm (Saunders & Allen, 2010; Fama & French, 2002; Minnis, 2011; Nyamu 2012). Financial risk has also been shown as a factor of firm value. Christoffersen (2012) found that financial risk exposes the firm to financial distress, which in turn adversely affects its value. Further, dividend policy, market capitalization rate, corporate governance and corporate social responsibility have been found to positively correlate with a company's value (Kipruto, 2014; Yuko, 2016). This paper presents a theoretical basis on which the interaction between financial risk management and value of private equity firm can be empirically tested. It also sets

theoretical based propositions which can be converted into testable hypothesis in subsequent studies.

### **Theoretical Perspectives in Financial Risk and Firm Value**

This section reviews relevant theoretical literature that supports the constructs in the paper.

#### **Agency Theory**

This theory which was coined in 1976 by Jensen and Meckling (1976), describes agency relationships that exist in a firm. The association in this theory is between the principles who are the people who own the firm and the agents who are the people tasked with management of the organisation. The agents or managers are expected to run the organisation in line with the interests of the owners or shareholders. The principle expects the agents to protect and grow their capital and interests. This does not always happen as there are instances where the agents opt to make firm decision based on their interests rather than the interests of the principles. Such interests do not usually agree with the interests of the shareholders (Mustapha & Che Ahmad, 2011).

Although private equity firms are not listed in the stock exchange some of the powers that pertain to the control and organisation ownership are given to a few people in the management since not all shareholders are engaged in the management of the firm but instead they entrust the management to a few elected shareholders in to the management committee resulting to separation of powers. In addition, private equity firms find it necessary to employ managers who have the technical skills to run the firm on their behalf. In this sense, these organisations have to deal with separation of powers as the shareholders have to task managers with the responsibility for running the organisations and in some cases it is hard to hold these managers accountable (DeMarzo, Fishman & Wang, 2012). The fundamental concern that arises then is what needs to be done to ensure that the interests of the shareholders are maximized to increase the valuation of the organisation as envisaged by shareholders. The proponents argued that the principal may incur agency costs such as residue, monitoring and bonding expenditure to deter the management from engaging in activities hindering achievement of their wealth maximization goal (Lan & Heracleous, 2010).

The shareholders attempting to protect their interests may therefore incur agency costs such as audit fees, monitoring costs and investigation costs to keep an eye on the agent's actions in a bid to ensure that the decisions made are in the best interest of their principals (Karkrah & Ameyaw, 2010). However, when these costs are incurred they reduce the amount available and set apart for the firm's financial responsibilities and amount distributable to the shareholders in form of dividends. Investors would therefore attach lower value to such firms (Gill, Bigger & Mathur, 2010). The agency theory is therefore relevant in explaining the role of capital management risk and liquidity risk, which are elements of financial risk, on the value of private equity firms. With these arguments in mind, the paper derives the below propositions:

*Proposition 1: Due to the nature of their operations, financial institutions are constantly faced by the risk of losing their capital more so the private equity firms whose stocks do not trade openly in the stock markets which makes it difficult to reasonably observe the trends in value of the firm. Previous literature has shown contradicting results on the effect of capital management risk on value of the firm where one strand shows a positive effect of capital management risk on the value of the firm while the other supports that capital management risk has a negative effect on the value of the firm. To test these claims the paper postulates that capital risk has a significant effect on value of private equity firms.*

*Proposition 2: Since private equity firms do not raise capital from the members of the public through issue of share and debt instruments, such institutions rely on shareholders equity and borrowings from financial institutions. Private equity firms may therefore fail to meet their cash needs for investment thus hindering the ability of the firm to maximise the value of the firm. Therefore, it is proposed that Liquidity risk has a significant effect on the value of private equity firms.*

### **Trade-off theory**

The trade-off theory outlines how a company makes a choice between the amount of debt and shares to use in their operations in a bid to reap the maximum advantages that come with having both as sources of capital. The theorists, Kraus and Litzenberger (1973), noted that it is important for organisations to strike a balance between bankruptcy and agency expenditure and the tax saving benefits accrued from having debt. They concluded that a firm's management decides on a target debt level by balancing the costs of bankruptcy

associated with debt against the tax benefits of the debt (Harris, 2015). Hackbarth, Hennessy and Leland (2007) noted that debt capital offers a better balance when it came to tax savings and bankruptcy expenditure implying that as debt level increases, the firm is more exposed to bankruptcy. Bankruptcy costs which result from credit risk as a result of increased use of debt results to an adverse effect on the firm's valuation since its onset may necessitate parties other than equity and debt holders sharing in the firm's cash flow (Eckbo & Kisser, 2015). These costs can thus cause the value of the firm to reduce if the firm over relies on debt. The trade-off theory thus suggests that higher expected bankruptcy costs would push firms towards lower debt ratios in an attempt to minimize suffering from costs, which also imply that the firm will not optimize their productivity limiting on value creation (Muathe, Mwangi & Kosimbei, 2014).

The theory further notes that more debts increase the risk of bankruptcy which makes debts an unattractive to the organisation. On the other hand, the tax shields that comes with debt capital makes debt attractive to the organisation. This is why a balance should be struck between the costs and benefit of debt capital if the firm wishes to get borrowed funds (Eckbo & Kisser, 2015). Consequently, the theory is applicable in explaining how debt as part of the firm's capital affects its valuation. Precisely, the theory supports interest rate risk and credit risk since as the level of debt increases, the fixed charge interest expense also increases exposing private equity firms to lower interest coverage. This problem is compounded where the long-term debt attracts a variable interest rate which becomes unpredictable thus increasing interest rate risk. The paper derives the following proposition:

*Proposition 3: As companies borrow more and more, interest risk payment which is mandatory continue to increase proportionately. Thus overreliance on debt increases the risk of the firm to be unable to meet their interest rate payment thus exposing the firm to interest rate risk. Further this exposes the firm to bankruptcy and insolvency costs that reduces the profitability and value of the firm. Thus the paper propose that interest rate risk has a significant effect on the value of private equity firms.*

### **Credit Metrics theory**

Credit metrics model as developed by Cantor & Packer (1996) aimed at deducing the value at risk of the credit portfolio over time. The model came up with a Value at Risk (VAR)

framework that could be used by global firms to come up with a portfolio that could show the association between credit portfolio and valuation at risk. This framework was aimed at reducing credit risks and in making wise investment choices (Creal, Schwaab, Koopman & Lucas, 2014). Therefore, this model gives a way to measure risks among different credit instruments such as market-driven credit instruments and fixed income instruments in the likes of receivables, forwards, swaps, traditional credit, letters of credit and commitment (Miller, 2015). The proponents of credit metrics model argue that it is a framework that makes it easy to determine the risk posed by changes in debt valuation as a result of obligor credit quality dynamics.

Part of the theory provides the valuation changes that occur due to expected events and also the changes that arise due to unexpected changes such as the rise or fall in the quality of credit. In instances of credit default the recovery rate is said to be the value of the credit portfolio (Altman & Kuehne, 2016). The framework uses standard deviation and percentile level to measure credit risk which imply that the changes in the portfolio are based on each of the debt instruments movements and these movements are based on the quality of the credit. Miller (2015) observed that while the credit metrics is the leading credit management measure, the method is constantly changing since it is updated regularly in line with the changes in the regulations and financial markets frameworks (Pal, Sana & Chaudhuri, 2014). For instance, the credit manager that is currently in use makes use of the Hull-White pricing framework. This framework uses user-estimated collateral and recovery rates in both default and non-default credit valuation.

Compared to the previous framework, this one is a better approach when it comes to determining the valuation and risks of taking different credit instruments (Duman & Sahin, 2016). The theory was found to be ideal when it comes to evaluation and measuring of credit risks when making decision on debt capital. Considering the credit risk posed by different debt instruments can help firms make the best decisions when it comes to taking debt capital. It also helps reduce the non-performing loans in a firm and the risk of default which increases the debts written off and eventually affecting the value of the firm. The paper derives the following proposition:

*Proposition 4: Due to lending money to a wide range of customers, financial institutions do so in the expectations that the debts will be honoured by the borrowers. However careful the*



*management may be in assessing the credit worth of their clients using available models there is still a possibility that some debts will not be honoured. This reduces the profitability of the firm and reduces the capital base. Therefore continued failure to recover debts continuously reduce the value of the firm. As such the study proposes that credit risk has a significant effect on the value of private equity firms.*

### **Conclusion**

The study provides an understanding on the relevance of agency theory to conclude that since the agency problem between shareholders and the management may be resolved by incurring agency costs to deter the management to engage in activities hindering achievement of their wealth maximization goal. The paper therefore supports that a direct association does exist between capital management risk and profitability which is a function of firm value. The paper also established that firm management should always consider the balance between the bankruptcy and agency costs and the tax saving benefits of debt. This is because debt capital offers a better balance when it comes to tax savings and bankruptcy expenditure implying that as debt level increases, the firm is more exposed to bankruptcy. It was also noted that bankruptcy costs have adverse impact on the value of the firm since its onset may necessitate parties other than equity and debt holders sharing in the firm's cash flow to invest in agency costs to avert any occurrence of such events. This results to a lower firm valuation.

Further, the paper found that credit metrics model may be used as an evaluation tool, for a portfolio to come up with a Value at Risk (VAR) framework showing the credit event correlation. It therefore provides a methodology to quantify credit risk loans, fixed income instruments, commercial contracts. Consequently, carefully evaluating credit risks associated with different debt instruments helps reduce the non-performing loans of an organisation. It is anticipated that empirical results of this study would be of great relevance to the government of Kenya and its agencies especially the ministry of finance and Kenya Revenue Authority as it would provide valuable information to the regulator to design targeted risk management policies and programs that support business organisations in managing financial risks. The study also adds value to Researchers and Scholars by contributing to the literature on the effects of financial risk management and value of the firm.

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