

A THEORETICAL CONTRIBUTION OF SME MANAGER'S OVERCONFIDENCE BIAS IN WORKING CAPITAL MANAGEMENT AND PERFORMANCE

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ABSTRACT

We argue that managerial overconfidence bias affects working capital management. Overconfident SME managers overestimate their sales growth and underestimate the volatility of cash flow of their firms and thus overinvest in inventory for higher returns if they have enough personal capital or cheaper sources of external capital. An overconfident SME manager will overinvest because of the transactional motive, market signaling effect and market leadership motive. We describe SME managers as overconfident if the person claims to have superior financial ability, perfect industry knowledge and is optimistic in business and thus systematically fail to reduce their personal exposures (maximization wealth) to their firms' specific risks. Thus, overconfidence can serve as useful framework for most SME managers who make working capital decisions, particularly inventory based on their personal characteristics.

Keywords: SME, Overconfidence, Working Capital Management, Inventory Management, Theoretical Contribution

INTRODUCTION

Working capital management and performance are of great concern to Small and Medium Enterprises (SMEs). The traditional finance suggests that corporate entities follow models to make financial decision for optimal solutions. Whether the decision is about cash, inventory, receivable or any other short-term decisions, SMEs are required to apply the standard working capital practices or models to maximise returns on investment. In particular, it is assumed that applying the Economic Order Quantity (EOQ) and other inventory models will result in optimal investment in working capital in the area of inventory by trading off the costs and benefits to maximise expected performance (Deloof, 2002; Ross et al., 2010). On the contrary, Khoury, et al., (1999); Howorth & West head (2003) assert that most SMEs adopt ad-hoc or subjective approach to working capital management. Consistent with this argument, Filbeck & Lee (2000) disclose that SMEs rarely use working capital models.

Following these assertions, the main finding from few empirical studies is that SMEs lack knowledge of standard working capital management practices and do not follow theories in managing working capital (Pieterse, 2012; Donkor, 2015; Bandara & Rathnasiri, 2016). Instead, they rely on manager's experience and personal attributes to make inventory decisions to attain the desired performance (Marfo-Yiadom, 2000; Agyei-Mensah, 2012; Kusi et al., 2015; Bandara & Rathnasiri, 2016).

To the extent that SMEs largely depend on a manager's experience and personal attributes, they may highly regard these personality traits as a useful framework for working capital decision. This may suggest that such managers have exceptional financial abilities and other qualities that distinguishes them from their peers in the industry. Yet, modern finance has failed to offer any plausible explanation for a better appreciation of managers' behavior in inventory management.

A growing literature in social psychology and behavioral finance show that individual behavior, personal characteristics, and beliefs play key role in making financial decisions (Slovic, 1972; Tversky & Kahneman, 1974; Malmendier & Tate, 2005), especially when their economic needs and desires cannot adequately be met by the traditional paradigm (Taylor & Brown, 1988).

Relying solely on cognitive abilities and personal beliefs in making financial decisions can expose people to systematic mistakes or biases in the ways they think or assess themselves to be better than others make people overconfident. Thus, overconfidence, to a large extent, allows people to realise the desired economic outcome, which the classical theories have failed to offer.

In this way, overconfidence induces people to perceive only favorable outcomes of their decision, without considering the expected future failure because such people believe they have total control of future events than they actually perceived. Besides, overconfidence tendencies motivate people to excessively trust in their sources of information and overrate the accuracy of their knowledge about the occurrence of future events. In effect, overconfidence infuses people with notion of being superior and thus can perform better than others in every field of endeavors.

In general, overconfident people can be found in several professions such as medicine, law, sports (marathon runners) driving and so on (Lichtenstein & Fischhoff, 1977; Bazerman, 1990; Krawczyk & Wilamowski, 2016). For this reason, corporate managers are likely to exhibit overconfidence behaviors because of their key role in financial decisions making and that can influence the outcome of investment and financial decisions they control in order to realise a higher performance for their firms to justify their claim of being better.

Generally, many CEOs of large companies who are overconfident believe that they can increase the share value of their firms and thus overestimate the cash flows to their investment projects, thereby engaging in a lot of mergers and acquisitions and other huge capital expenditures according to their preferred sources of financing.

In order to improve our understanding how managerial overconfidence might affect corporate investment and financing policies, Heaton (2002) proposes alternative explanation for overconfident managers' financing choices related to information asymmetric. In addition, Malmendier & Zheng (2005) provide that overconfident CEOs fail to diversify their personal portfolio exposure to their company specific risk and thus hold option until expiration in order to realise capital gain from their trade.

Despite the accusations that SMEs make decision based on personal characteristics and beliefs, these critics have failed to realise that managers of SMEs may exhibit traits of overconfidence in working capital management, particularly inventory. As a result, there is a limited understanding of the impact of SMEs managers' overconfidence on inventory management and firm performance.

Therefore, we try to contest whether SMEs managers' overconfidence behavior explain observed levels of working capital management and levels of performance of their firms. Our paper addresses this critical statement by proposing that SMEs managers' overconfidence can lead to a higher investment in inventory and a higher performance in their firms. The other parts of this paper are presented in the following sections. The second section is covers theoretical and literature review. While section three is the contribution to theory, section four provides discussion, which covers the justification for the relationship between SME manager overconfidence and inventory management and performance. The final section is conclusions covering implications and limitation of the study.

Overconfidence Theory

Overconfidence entails the assessment of people's abilities or knowledge, private information and future prospects to a reference point. Overconfidence comes from different

sources and one of them is the famous “better-than-average effect”. The better than average manifests itself through overestimation, which arises from individual’s tendency to exaggerate their abilities higher above the average level (Larwood & Whittaker, 1977; Svenson, 1981; Thompson et al., 1998; Moore & Healy, 2008). As an illustration, when asked to assess their driving skills relative to their colleagues, most of the drivers rated their skills above average (Svenson, 1981). This bias tends to be complicated by self-serving bias as people usually expect their actions to yield good results, they will attribute favorable success to their abilities, but blame their failure on bad omen or external factors (Miller & Ross, 1975).

Similarly, overconfidence also occurs through an illusion of control, when individuals think they can better control outcome of events (Langer, 1975; Weinstein, 1980). This bias can be exacerbated by excessive optimism for assigning high probabilities to good things and underweight the probability of unfavorable events following prior experience or reasoned analysis (Weinstein, 1980; Cooper et al., 1988; Ackert & Deaves, 2010).

Moreover, over precision as overconfidence bias is unwarranted beliefs or overestimation of accuracy of knowledge, ability, and information (Glaser et al., 2004). In reality, mis-calibration induces people in overestimating the accuracy of their knowledge in performing a task. Clinical psychologists tend to overrate their diagnoses accuracy rate (28%) lower than confidence level (53%) (Oskamp, 1965). Physicians also overestimate the accuracy of their diagnoses resulting in overconfident bias (Christensen-Szalanski & Bushyhead, 1981). Similarly, project managers and lay workers also overestimate the project completion time (Buehler, Griffin & Ross, 1994).

In the same vein, overconfident entrepreneurs overestimate the precision of their competence in general knowledge in entrepreneurial business success (Ilieva et al., 2018). Moreover, an individual driver showing symptoms of overconfidence is not only driven by mis-calibration but also social requirement in competitive market pressure. Besides, highly competent individuals exhibit overconfidence (Camerer & Lovallo, 1999) in executing challenging tasks (Griffin & Tversky, 1992). In essence, overconfident people exist in many careers, such as engineers and others (Lichtenstein & Fischhoff, 1977; Bazerman, 1990).

As compared to their peers (other professionals), corporate managers appear to be highly overconfident due to effect of these psychological factors: “better than average effect” and “illusion of control” (Malmendier & Tate, 2005a) and “miscalibration” (Ben-David et al., 2019). Various studies have confirmed the validity of managerial overconfidence (Cooper & Dunkelberg 1988; Galasso & Simcoe, 2011; Eichholtz & Yönder, 2015).

In considering how managerial overconfidence might affect corporate investment and financing decision. Heaton (2002); Malmendier & Tate (2015) suggest that executives who exhibit tendencies of overconfidence usually overestimate the value they can create for their respective firms. To do so, such managers systematically overestimate the expected returns on personally selected investment projects because of the assumption that the firm’s current shares are underpriced by the capital market (Malmendier & Tate, 2005a; Malmendier & Tate, 2015).

With this in mind, an overconfident CEO may decide to invest in capital expenditure or merger and acquisitions by using internally generated funds, riskless debt, long-term debt or equity (Malmendier & Tate, 2015). Because overconfident managers think that the financial market has underpriced firms’ stock, they are unwilling to use external financing by issuing new equities in order to safeguard the interest of existing shareholders from perceived dilution. However, when managers agree that the prices of “riskless debt” and “risky debt” are accurate, they will utilise internal funds first before considering external sources of capital in order of preference, with debt financing next and finally equity financing.

But the ultimate choice of overconfident CEOs to overinvest largely depends on whether or not they have enough internal funds. In other words, such managers are more likely to overinvest provided their firms have plenty internal capital. However, if they do have sufficient funds and there is a shortfall in the expected cash inflows, they might reduce the level of their investments (Malmendier & Tate, 2015). Thus, managerial overconfidence does necessarily simply over investment.

To understand why managerial overconfidence may distort corporate policies, Heaton (2002) provides an alternative explanation for the influence of overconfidence on corporate investment, which is related to information asymmetry. Building on Heaton's (2002) work, Malmendier, et al., (2005); Malmendier & Tate (2005a) propose an alternative explanation and assert that "personal attributes of CEOs lead to distortions in corporate investment policies might be failure to diversify company-specific risk on their personal portfolios. Since overconfident managers tend to overestimate the future performance of their companies, a CEO may hold options all the way to expiration in order to profit from future stock price appreciation." So, overconfident CEO may be reluctant to minimize his exposure to company systematic risk due to overly trust in personal information about future share price increase that may delay the exercise of an option in the "moneyness". For this reason, overconfident CEO may hold options until expiration in order to communicate costly signals to potential investors that their company's future prospects are better than their counterpart firms (Malmendier et al., 2005; Malmendier & Tate, 2005a).

Extending the theoretical understanding of managerial overconfidence, (Goel & Thakor 2008) assert that moderately overconfident CEOs can better enhance a company's share value by moderating the potential effect of risk averse behavior of unbiased managers. In addition, Campbell, et al., (2011) assert that relatively moderately optimistic CEOs tend to have stable tenure as compared to both highly optimistic CEOs and lowly optimistic CEOs who are more likely to "face forced turnover". This revelation suggests that there is "an optimum level of managerial optimism that maximises firm value" (Malmendier & Tate 2005a; Malmendier et al., 2005).

Furthermore, Malmendier, et al., (2011) argue that since overconfident managers are reluctant to use equity financing they minimize the level of external finance and, if they wish to use external capital; issue more debt and less equity relatively than their counterparts, because of the former aversion to equity financing. Moreover, overconfident CEOs can be beneficial to their firms when their principals offer them "equity-linked or bonus compensations" in the form of "smaller grants and fewer bonus payments". This compensation packages how "smart or clever" principals can exploit biased or irrational agents (Otto, 2014).

Given the theoretical underlying reasons backing the association between "managerial overconfidence and corporate investment", we still do not understand how and why SMEs managers' overconfidence bias affects inventory management and performance.

Managerial Overconfidence and Corporate Investment Policies

A plethora of scholarly works find that individuals do not make rational decisions (Larwood & Whittaker, 1977; Svenson, 1981; Alicke, 1985). They make systematic errors or bias judgement resulting in overconfidence (Glaser et al., 2013). Investors and managers are found to be overconfident while making financial decisions (Ben-David et al., 2019; Chen & Hung Lin, 2013; Malmendier & Tate, 2015).

The primary intuition of overconfident managers is that they can produce more value for their firms than their peers (Malmendier & Tate, 2015) because of the precision of their personal information, their exceptional skills and their ability to control future outcome of decisions. (Larwood & Whittaker, 1977; Benos, 1998; Malmendier & Tate, 2015). These beliefs induce managers to "systematically overestimate the return to their investment projects (Malmendier and Tate, 2015) and systematically overestimate the probability of good firm performance and underestimate the probability of bad firm performance" (Heaton, 2002).

Heaton (2002) finds that overoptimistic managers overinvest and subsequently Malmendier & Tate (2015) find both CEO and CFO of some U.S public companies overinvest. More precisely, overconfident CEOs engage in a lot mergers and diversify deals whenever they have access to internal funds (Malmendier & Tate, 2008). Galasso & Simcoe (2011) also show that innovation investment is more likely to be affected by overconfident CEOs than overconfident CFOs because the former plays a substantial role in innovation decisions. Moreover, overconfident CEO of U.S., Real Estate Investment Trust (REIT) overinvest because

they made a lot of acquisitions and less disposals of assets (Eichholtz & Yönder, 2015).

Apart from that, overconfidence bias also distorts the information asymmetry that exist between the capital market and firm. Most overconfident managers prefer internal funds to debts and equity capital (Malmendier et al., 2011). Chen & Hung Lin (2013); Eichholtz & Yönder (2015) affirm this claim and indicate that the availability of internal funds allow overconfident manager to overinvest in various long-term projects. But managers reduce the level of investment if the expected cash flow is less than expected or insufficient (Malmendier & Tate, 2015). Yet, such a manager feels reluctant to raise additional capital because of high cost of capital due to the perceived devaluation of share price, and fear that this might dilute the existing shareholders (Malmendier et al., 2011).

Barros & Silveira (2008) pointed out that when optimistic managers employ aggressive financial policy they increase the debt ratio in their firms's capital structure. The results of aggressive financial and higher debt preference increase the costs of financial distress (Fairchild, 2010). Nonetheless, Malmendier, et al., (2011) establish that optimistic CFOs use more debt and less equity when the firm has a high financial deficit. Besides, evidence is also clear that "overconfident CEOs use more debt financing than equity and also increases cash to assets ratio leading to a decline in financial performance" (Yung et al., 2015).

Although, managerial overconfidence bias in investment decisions contribute to firm performance, Eichholtz & Yönder (2015) indicate that CEO overconfidence leads to negative firm performance. Roll (1986); Hackbarth (2008) also report that underestimation of risk results in lower returns. Nonetheless, aggressive managers produce higher performance than conservative managers do in other company. Meanwhile moderately overconfident executives had higher returns on investment (ROI), except highly overconfident CEOs earned a lower rate of return on investment because of excessive overinvestment (Bertrand & Schoar, 2003). Moreover, "under-invested firm with a highly optimistic CEO can improve the firm's investment efficiency by reducing the degree of underinvestment, which further increases the firm's value (Chen & Lin Hung, 2013).

It can be concluded that managerial overconfidence should be a means of creating value since such a manager believes that he is acting in the best interest of shareholders.

Inventory Management

Substantial studies show that working capital management is an important short-term financial decision for SMEs. Such decisions are essential to determine how much to invest in current assets (Baños-Caballero et al., 2010; Ross et al., 2010). It has been observed that inventory constitutes a greater portion of most SMEs investment in current assets (Mathuva, 2013; Kontuš, 2014). This is because holding inventory is important for transactional, precautionary, and speculative purposes.

The common evidence in the literature shows that the level of investment in inventory determines the level of performance, holding other variables constant. However, although most studies tend to support lower inventory; the suitable level of inventory investment to hold is subject to debate

According to Baños-Caballero, García-Teruel & Martinez (2012), SMEs should lower investment in inventory in order to avoid tie up capital. This idea has been supported by similar studies (Pais & Gama, 2015; Gorondutse et al., 2017). In this line, Afrifa & Padachi (2016) demonstrate that a lower level of inventory reduces not only inventory holding costs but also unwanted bad debt, thereby enhancing cash flows generation. The generation of regular cash flows improve SMEs' financial position and help them minimise the constraints of excessing external finance (Baños-Caballero et al., 2012; Pais & Gama, 2015). Nonetheless, Ullah, et al., (2018) caution that if inventory investment is curtailed too much, SMEs might miss potential sales and that can reduce the profit margins.

In contrast, other studies suggest that a higher investment in inventory is the most appropriate decision for SMEs for several reasons. Such investment can help a firm to supply customer's needs regularly, make more sales and increase return on investment (Deloof, 2003;

Bhattacharya, 2008). In addition to that, a higher level of inventory can avert the possibility of intermittent disruption in production schedules, resulting poor product quality (Schiff & Lieber, 1974) and loss of business due to shortage of goods (Blinder & Maccini, 1991). Alternatively, a higher level of inventory also means that the firm is not making enough sales, showing its inability to collect the expected cash from customers and therefore builds up capital in inventories and decreases cash flows (Mathuva, 2013).

In general, inventory decisions should not only consider benefits, but also costs of holding inventory such as warehousing, insurance, spoilage, obsolescence costs (Ross et al., 2010; Chambers & Lacey, 2011; Kontuš, 2014). Because a firm incurs more costs for holding a higher level of inventory, it also increases the maintenance costs of inventories' economic value (Ross et al., 2010; Kontuš, 2014).

On the other hand, insufficient inventory can lead to stock out, which can reduce sales revenue and profit margins. Meanwhile, extreme stock out situation can further increase the costs associated with the shortage of stock and will force firms to suspend credit to customers, leading to loss of business and customers, goodwill, and result in total disruption of the production process and daily trading activities.

Overall, the cost implication of holding higher inventory decreases cash in hand and increases the opportunity costs due to loss of economic value for given up other viable projects. Comparatively, firms with a higher level of inventory may offer better future cash flows than their counterpart will have (Ross et al., 2010). But, the sustainability requires a great deal of financing. Based on the costs implications, Koumanakos (2008) warns that lack of stock can damage corporate image and strains its relationship with customers and result in drastic decline in sales.

It has also been established that efficient inventory decision involves in a trade-off between the costs and benefits of holding optimal inventory that minimises the carrying cost and the shortage costs or ordering costs (Mathuva, 2013; Ross et al., 2010), which allows a firm to earn a reasonable rate of returns on investment in inventory.

In view of this, Mathuva (2013) argues that for a firm to attain an optimal inventory level must consider both the internal and external factors in the decision-making process. Serrasqueiro & Azevedo (2016) reveal that sales growth, cash flows significantly impact inventory decision of SMEs. Because inventories have higher liquidity and low-cost adjustment, investment in inventories is highly affected by financial factors than tangible assets (Guariglia & Mateut, 2010). Consequently, smaller or younger firms are more likely to face greater risk since inventory investment is more sensitive to cash flow due to their over reliance on trade credit (Carpenter et al., 1998). In effect, all firms, particularly SMEs can create more value if they lower investment in current assets due to constraints to obtain long-term capital (Pais & Gama, 2013; Gorodutse et al., 2017).

Considering the potential impact of over and under investment on SME daily operations and operating liquidity, there are suggestions that when firms adopt formal working capital management practices, they can maximise their investments in current assets and achieve better performance. Since working capital directly influence both performance and operating liquidity, SMEs should hold optimal working capital in order to trade-off costs and benefits associated with over and under investment current assets so as to maximise high returns (Knauer & Wohrmann, 2013; Mathuva, 2013; Ross et al., 2010), which can help firms avoid the possibility of stock out situation and incur additional financial costs.

Holding optimal inventory investment can be done through application of working capital management framework such as the Economic Order quantity (EOQ), ABC, JIT (Chiu & Chiu, 2006; Ross et al., 2010). Chambers & Lacey (2011) argue that, 'the economic order quantity analysis should be applied to every product that represents a significant proportion of sales in order to minimize total costs of investments in inventories'.

However, earlier studies find that SMEs employ unconventional working capital management practices. More specifically, SMEs working capital practices are less formalised and so most decisions are somewhat subjective (Khoury et al., 1999; Filbeck & Lee, 2000; Howorth & Westhead, 2003)

Subsequent studies observe that the inventory management practices are yet to be fully understood by SMEs while making inventory decision. Even the few ones that tried such practices were not able to properly implement them due to lack of knowledge (Pham, 2013; WMuchaendepi et al., 2019). It was therefore not surprising when Filbeck & Lee (2000) emphatically stated, "SMEs do not apply working capital models".

In line with the earliest finding, Bandara & Rathnasiri (2016) provide that SMEs in Sri Lanka lack the ability to apply the Economic order quantity (EOQ) to determine optimal inventory level; instead, a manager's experience has become the model for making optimal decisions and performance. Further, Agyei-Mensah (2012) affirms that about 90 percent of small businesses in Ghana relies on manager's experience in managing working capital, which support previous findings (Nyamao et al., 2012).

Indeed, most of the SMEs do not keep optimal inventories and are unable determine appropriate re-order quantity resulting in frequent replenishment of stock (Kasim et al., 2015) But, SMEs determine inventory level based on manager interest and preference.

It is not surprising that about 74.6 percent of SMEs in Nairobi have no knowledge of "Economic Order Quantity (EOQ) Model and more than 58% of them determine the level of inventory based on owner/manager's experience despite the regular review of inventory level (Pham, 2013; Wire, 2015) to maximise performance.

In order to appreciate the predicament of SME, Pieteron (2012) discloses that although managers are aware of inventory management practices they are not formalised and such decisions are made subject to manager's daily operations. Based on these developments, Donkor (2015) argue that SMEs value manager's experience more than the application of theories in inventory.

In fact, the stylized facts show SMEs managers may be more conversant with and more comfortable with the subjective approach to working capital management rather than the implementation of the standard inventory management practice (Marfo-Yiadom, 2000). Hence managers following their preference and interest to take inventory decisions (Kusi et al., 2015) thereby maximizing their expected performance.

Small and Medium Enterprises Performance

Performance is the ultimate goal of maximizing owner's wealth (Agyei-Mensah, 2011). SMEs performance is very important as it demonstrates efficiency and effective use of resources to generate reasonable returns on investment in working capital. In addition, it also enhances the firm's competitiveness, success and survival and determines its contribution to taxation and Gross Domestic Products (GDP).

The factors that influence SMEs performance include firm characteristics, industry forces, market forces, and others. Among these factors, working capital makes a higher impact due its direct contribution to SMEs performance. The common evidence is that a decreased level of working capital, for example, inventory, can substantially increase performance than an increased level of investment in inventory. Since SMEs face higher constraints obtaining long-term capital and borrow loans at high cost, a higher level of working investment in inventory overinvestment in inventory, in majority of cases, tie up capital and destroys firm performance (Soenen,1986; Mathuva, 2013).

Contribution to Overconfidence Theory

Operational Definition and Conceptual Framework

Summarising the discussion to this point, we propose a "simple model" that shows the "influence of managerial overconfidence on working capital management" In particular, we look at the relationship between overconfident SMEs managers and inventory investment and performance. Since our aim is to demonstrate that SMEs overconfidence bias distorts inventory management to maximise firm performance, we define and clarify the sources and the construct

of SME overconfidence.

In modeling this relationship, we define overconfidence as overestimation of ability, knowledge and the accuracy of information, overestimation of future outcome and ability to control it.

This definition demonstrates that overconfidence normally arises in the assessment of one's skills or knowledge, private information, outcomes of future decision to a reference point. In doing so, people tend to overestimate their relative potentials above the benchmark and underestimate the potential effects of unexpected events, thereby thinking that the future is more prosperous than they actually believe and make people feel that they can determine the course of future event. In other words, people have unwarranted faith when they compare their competence or skills to others and exaggerate their capabilities to accurately predict the expected future results.

In order to clarify the model, our discussion now focuses on the nature, sources of SMEs overconfidence and how it effects working capital management and performance.

Nature and Sources of SME Manager's Overconfidence Behaviors

The nature of SMEs managers' overconfidence behaviors follows the notion of "better-than-average" (Larwood & Whittaker, 1977; Svenson, 1981), "Illusion of control" (Langer, 1975) and precision of knowledge or excessive optimism (Glaser et al., 2004; Ackert & Deaves, 2010). These psychological factors can significantly induce managers' subjective assessment of their personal traits or characteristics relatively to a benchmark.

In accordance with "better-than-average effect" (Larwood & Whittaker, 1977) overconfidence occurs whenever managers assess their relative financial knowledge and feel that they possess superior financial ability as compared to their colleagues. Malmendier & Tate (2005) also note that top executives "overstate their acumen relative to the average" because of the "value of manager's human capital and ability to pick profitable investment". However, in our case, SMEs managers will claim to have higher financial prowess because of the attainment of financial goals over time, capital appreciation (firm's growth) and growth in personal wealth.

These achievements can make managers have unrealistic feelings about their abilities to the extent of regarding themselves to be far better than their peers. Besides, managers will be more convinced about their financial prowess for surviving the industry challenges and to build a successful business. As evidence shows that SMEs have high rate of failure and more than 50% of SME businesses collapse within six years (Kerr & Nanda, 2010; Åstebro et al., 2014), such managers are more likely to conclude that their competences surpass the average, which has resulted in the successful implementation of financial plans and ultimately they will claim to have considerable industry experience. The claim of superiority can be exacerbated by self-attribution bias to the extent that SMEs managers will attribute good business success to their financial acumen and blame business failure on bad omen or economic conditions beyond their control (Miller & Ross, 1975).

Under illusion of control and excessive optimism (Langer, 1975; Weinstein, 1980; Landier & Thesmar, 2009) managers will believe that they are more likely to succeed in business than to fail and also can perfectly predict the expected probability of achieving financial plans and expected goals. The optimistic behavior can be attributed to childhood experiences of success, power to choose and decision making and high commitment to favorable outcomes. Since childhood experience has taught a person that success is rewarded and failure is abhorred, people always yearn for success to prove their capabilities. In so doing, an individual will grow up with the mindset of being successful in every endeavor, which is consistent with Määttä & Uusiautti (2015) assumption that "success begins in childhood". Because success does come on a platter, such managers may have the ability to adjust, cope with adversities and make compromise (Määttä & Uusiautti, 2012, 2013). Consistent with Keltner et al., (2003) inhibition theory of power", Fast et al., 2009) notes that power makes people to exaggerate their "perceptions of control over outcomes". We anticipate the SME managers who have power to decision making will be more emotionally committed to their

choices than people that decisions are made on their behalf. Having the power to make personal choices imposes a high degree of responsibility on the managers and thus become more ambitious to deliver to the expectation.

Using the Self-determination theory (Deci & Ryan, 1985) we argue that high commitment to favorable outcomes or goals induces optimistic behaviors. These behaviors emanate when people feel that they have the ability or the know-how to achieve their goals. In this case, prior success becomes a benchmark for such individuals to reach the set goal. Consequently, individuals will feel they are in control of their goals and be devoted to the chosen course of action to ensure that the future prospect is attained to enhance his/her self-esteem, pride and ego. For these reasons, such managers are more likely to survival in unpredictable and challenging business environment because they assume to have ability to identify and exploit viable business opportunities to expedite firm growth, which other managers may shy away as noted by these scholars (Greene, 2006; Åstebro et al., 2014). Thus optimistic behaviors may drive managers to overestimate their firm growth prospects and underestimate their risk of failure, thereby increasing their personal exposure or risk to their firm risk of failure.

As with the precision of knowledge, managers might assume to have perfect industry knowledge. A typical manager may believe that longevity of industry experience can lead to complete/perfect industry knowledge. This belief may induce a manager to assume that they have complete knowledge of market forces and industry dynamic and thus can better to forecast sales and market demands to the extent of disregarding vital ideas from their subordinate.

Thus, all the three factors: superior financial ability and knowledge, perfect industry knowledge and optimistic in business success are relevant in the context of working capital management, particularly inventory management.

An SME manager who makes inventory decision based on personal characteristics (preference and experience) is likely to believe that his or her performance is better, and has more favorable expectation of future outcome and can accurately determine the amount and the timing of future cash flows, thereby narrowing the probability of actual performance or underestimating the variance of actual firm performance or the volatility of sales revenue. Besides, a typical SME manager with such responsibility will be more optimistic about the firm's future growth and will be more willing to commit more financial resources into working capital in order to maximise higher sales revenue and returns and improve personal wealth.

Considering how overconfidence might influence inventory management, overconfident, SME managers systematically overestimate the sales growth of their firms and thus, overinvest in working capital by buying more inventories to maximise higher performance. With respect to sources of financing, because of the information asymmetric between SME and lenders, managers may consider personal capital or internally generated funds first to avoid costly bank loans, which they perceive can consume a substantial portion of their profit's margins.

We argue that the level of inventory investment that SMEs firms will hold by SMEs firms to expedite sales growth is based on the friction between SME manager's beliefs and expectations about lenders.

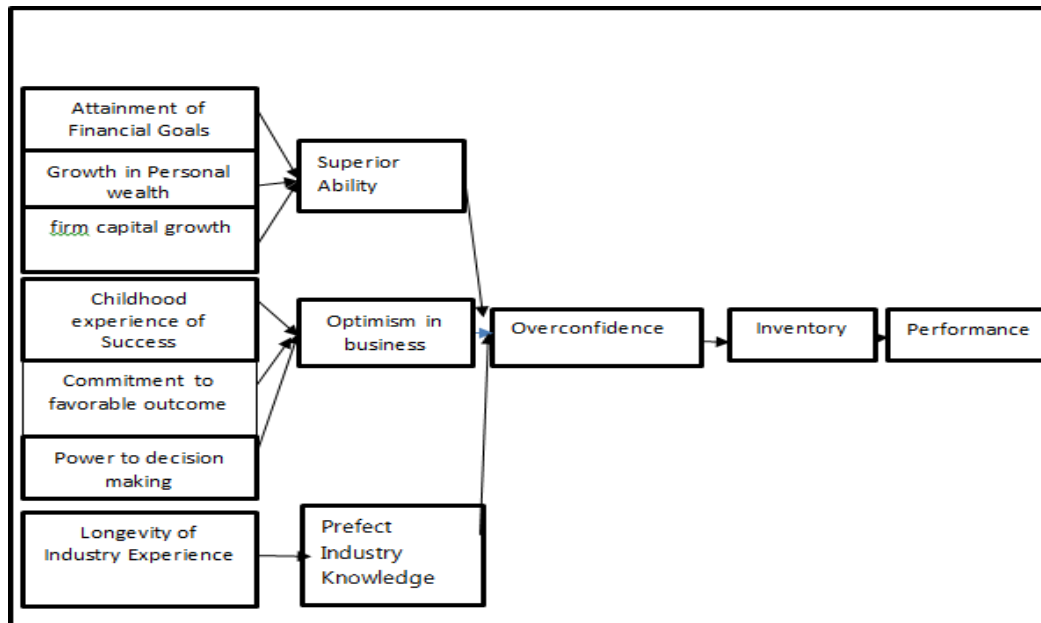


FIGURE 1
CONCEPTUAL FRAMEWORK FOR OVERCONFIDENCE, INVENTORY
MANAGEMENT AND PERFORMANCE

Justifications for the Relationship between SME Manager's Overconfidence, Inventory Management and Performance

We propose that SMEs manager's overconfidence leads to a higher investment in inventory and higher performance of their firms.

One caveat to this proposition is that SMEs manager's overconfidence should not be vaguely interpreted as overinvestment, but rather overconfident SME manager will only hold higher inventory in order to maximise higher performance conditioned that they personally have sufficient capital or can borrow funds at relatively cheaper cost. Thus, a SME firm that has enough internal funds or access to cheaper external capital and whose managers are overconfident will be more likely to buy more inventory.

There are three main reasons why overconfident SME managers assume that investing more in working capital, particularly inventory can increase performance as discussed below.

First, SME managers will invest more in working capital because of transactional motives about the future performance. This motive suggests that holding a higher level of inventory can enable managersto conduct daily operations, increase sales revenue and thus meet the expected higher profit. In so doing, such managers envisage that higher performance will facilitate the expected firm growth. However, the preference for overinvestment in inventory varies where the firm's existing investment is low. In such circumstance, there is a high possibility that highly overconfident manager may relatively overinvest in inventories than moderately overconfident manager and lowly overconfident managers to maximise their respective desired returns to facilitate the expected sales growth.

As a result, a firm with overconfident managers may have higher growth opportunity and requires higher inventory to realise higher profit. Keeping pace with sales growth expectations, overconfident managers may have few cash on hand. This is because managers tend to persistently over estimate their sales revenue and amount and timing of their cash flows.

However, persistently underestimating the riskiness of actual sales revenue might cause operating cash flow sensitivity for overconfident managers than rational managers if overconfident does not curtail investment early, noticing sluggish or erratic sales.

The second reason why a manager will overinvest in working capital in terms of inventory is to convey signal effect to the market. Based on the signaling effect, managers can provide accurate information to the market about the future growth of the firm and their

readiness to meet market demand. So, keeping more inventory will help a manager to attract more customers than their counterparts. The regular fulfilment of market demands can enhance manager's relationship with the customers, which will boost customers' confidence and trust to repeat purchases, thereby increasing a firm's profit margins. However, signaling effect may be sustainable in the long-term if managers do not experience cash flow sensitivity or do not curtail investment level.

Finally, a manager will keep higher inventory to increase performance due to market leadership motive. Since overconfident managers assume to be superior to their peers and anticipate higher business growth, an increase in working capital inventory is beneficial for such SMEs to consolidate and expand their market share. Consequently, a manager can compete effectively and avert the possibility of losing loyal customers, resulting in loss of profit to competitors.

We argue that the theoretical insight of overconfidence may better enhance working capital management of SMEs.

CONCLUSION

A growing body of knowledge demonstrates that a great number of corporate managers who are overconfident influence the outcomes of corporate investment and financing policies (Roll, 1986; Hackbarth, 2008; Eichholtz & Yönder, 2015). While most SMEs managers may also demonstrate similar behaviors mainly because they focus on their personal characteristics and personal interest for making working decision about inventory investment, we follow the notion of "illusion of control", "better-than-average" effect and "precision of knowledge and excessive optimism", which stand in as our contribution to the overconfidence theory.

We demonstrate that SME manager's overconfidence behaviors emanate from as superior financial ability, optimism in business success and perfect industry knowledge while they assess their financial ability, the likelihood of business success and accuracy of their knowledge about the industry relative to a bench mark or to a reference point.

Given the presence of overconfidence, we assume that SMEs managers may expect higher sales growth to maximise higher performance and therefore increase their investment level in working capital inventory. Overconfident SME manager may overinvest in working capital-inventory because of transactional motive, market signaling motive and market leadership motives. We conclude that overconfidence matters and can be the alternative framework to SMEs managers particularly to those who make inventory decision based on their personal attributes to maximise expected performance.

Our overconfidence based model for inventory management has several implications for practice and future research. In general, the levels of working capital investment of inventory strictly differ according to the levels of overconfidence: highly overconfident SME managers, moderately overconfident SME manager and lowly overconfident SME managers due to availability of internal resources and expected performance. Consequently, highly overconfident SME manager is likely to invest substantially in inventories while moderate and low overconfident SMEs manager may invest moderately in inventories.

In effect, overconfident SMEs managers are more likely increase investment in working capital inventories to produce higher performance than non-overconfident if both managers have enough internal funds, all things being equal. Alternatively, overconfident SME managers can also enhance the risk averse behaviour of conservative SME managers by improving firm performance through moderate investment because overconfident SME managers may have less or no financial risk since they prefer internal sources of finance to external when it comes to overinvestment in inventory. The saved financial costs by overconfident managers can enhance SME performance and owner's wealth relative to non-conservative managers who might incur financial cost for using external capital. Nonetheless, over reliance on internally sources of capital can make overconfident SME manager's investment very sensitive to internal funds since they perceived external capital, bank loan to be costly. However, moderate or low overconfident SME managers may enhance firm value more than highly overconfident SME

managers. Therefore, overconfident matters in working capital management to enhance performance for firms rich in internal funds.

Despite the theoretical implications, there are some potential limitations for future investigations to advance the insight of SME overconfidence. Our study only focused on the theoretical insight of overconfidence and inventory management. We suggest future investigation of overconfidence and accounts payable management, cash management and accounts receivable management to expand the body of knowledge of overconfidence in working capital management which has lagged behind.

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