



---

## FIRM CHARACTERISTICS AND CORPORATE CASH HOLDINGS: A MANAGERIAL PERSPECTIVE FROM KENYAN PRIVATE MANUFACTURING FIRMS

Samuel Nduati Kariuki\*

Gregory S. Namusonge\*

George O. Orwa\*

---

**Abstract:** *The purpose of this study was to investigate the managerial perspectives on the firm characteristics and corporate cash holdings among in private manufacturing firms in Kenya. Several international studies show that companies retain important cash holdings. Yet, the prevalent questions have been: Why do firms hold huge amount of cash? Is there an optimum level of cash holdings? A review of the extant literature reveals that mostly the current studies depend on secondary data to provide evidence on corporate cash holdings. This survey-based study sought to bridge this gap in the literature by examining chief finance officers of private manufacturing firms to comprehensively investigate the corporate cash holdings from a managerial perspective. A sample of 156 firms was selected for the survey using stratified random sampling technique from which 117 questionnaires were returned. The primary data was sourced through personally administered survey questionnaires to the chief finance officers. Data was analyzed using descriptive statistics and inferential statistics (independent sample t-test). The study concludes that CFOs of private manufacturing firms in Kenya are of the view that growth opportunities, leverage and debt structure, firm size, likelihood of financial distress and cash flow variability are all important drivers of corporate cash holding policy.*

**Keywords:** *Cash holdings, growth opportunities, leverage, firm size, financial distress, cash flow variability*

---

\*Jomo Kenyatta University of Agriculture and Technology (JKUAT), Juja, Kenya



## **1. INTRODUCTION**

In the recent past, empirical studies about the determinants of corporate cash holdings have occupied a significant place in corporate finance literature. According to Gill and Shah (2012) cash holding is defined as cash in hand or readily available for investment in physical assets and to distribute to investors. Therefore, cash holding is regarded as cash or cash equivalent that can easily be changed into cash (Fresard, 2010). In this perspective, cash holding will comprise cash in hand and bank as well as short time investments in money market securities such as treasury bills. Morais and Silva (2013) affirm that research in this area has been motivated by the finding that firms have systematically increased their level of cash holdings. Different approaches are being used to determine factors that influence cash retention due to the importance of cash and its implication in working capital management. It is noteworthy that holding cash is at a cost, which is the opportunity cost of the capital invested in liquid assets. Therefore, the likely profit forgone on holding huge cash balance is an opportunity cost to the firm. According to Adetifa (2005) the costs of cash holding are of two categories. Firstly, the cost of excessive cash holding such as opportunity cost of interest foregone and costs of purchasing power among others. Secondly, the cost of inadequate cash holding including cost of corporate image, loss of cash discount on purchases and loss of business opportunities.

In a perfect Modigliani-Miller world, hoarding huge amounts of cash is irrelevant because companies can easily go to capital markets to fund their profitable investment projects at negligible transaction costs. Nevertheless, several international studies show that companies retain important cash holdings. Notably, Kalcheva and Lins (2003) find that companies hold on average 16% of their total assets in cash or cash equivalents, Ferreira and Vilela (2004) find an average cash retention ratio of 15% for EMU corporations, Guney et al., (2003) observe an average cash holding ratio of 14%, Jigao and Zhengfei (2009) who studied the cash holdings of China's listed companies found that the cash holdings were very high with the average of about 24%. High levels of cash ratio are also observed by Gao et al. (2013) study of public firms in the USA, indicating on average listed firms held 20.45% of their assets in cash or near-cash instruments. Moreover, Iskandar-Datta and Jia (2012) show that the tendency was not set of industrialized countries. Yet, the prevalent questions have been: Why do firms hold huge amount of cash? Is there an optimum level of cash



holdings? Moreover, Chen and Mahajan (2010) observe that the undue cash holdings might result in many problems such as; higher opportunity costs of holding cash, cash abuse, a tool for obtaining the controlled self-interests and the higher agency costs.

## **2. REVIEW OF DETERMINANTS OF CORPORATE CASH HOLDINGS**

This section provides an empirical analysis of the determinants of corporate cash holdings at the firm level.

### **2.1 Growth Opportunities**

Powell and Baker (2010) posit that firms with more abundant investment opportunities and greater uncertainty in their cash flows may retain more cash to ensure being able to fund investments when internally generated cash flow is low and raising external funds is too costly. In the same vein, Baskin (1987) suggests that firms with abundant investment opportunities have an incentive to hold more cash to maintain their competitive positions. Therefore, firms with valuable growth opportunities are expected to require more funds in the future to finance these investments (D'Mello, Krishnaswami & Larkin 2008). However, because the value of those firms is largely determined by their growth opportunities, these firms face larger information asymmetry between managers and investors (Myers 1977).

### **2.2 Leverage and Debt Structure**

Prior work on cash holdings has identified that leverage plays a significant role in determining how much cash firms choose to hold (Guney et al., 2006). In a financial hierarchy world, debt usually grows when investment exceeds retained earnings and falls when investment is less than retained earnings, suggesting a negative relationship between leverage and cash holdings (Ferreira & Vilela, 2004). Furthermore, Drobetz and Grüninger (2007) argue that high-leverage firms are more subject to investor monitoring, implying limited managerial discretion and hence lower cash holdings. Thus, the pecking order theory views cash as negative debt. Firms which have ability to enter into the capital market at larger scale are anticipated to hold less cash at hand for investment purpose than the organizations which have lesser access (Islam, 2012).

### **2.3 Firm Size**

Firm size is an important determinant of cash holdings, but the expected relationship is ambiguous (Drobetz & Grüninger 2007; Niskanen & Niskanen 2007). Firm size may be related to potential agency problems, analyst coverage and monitoring by the market for



corporate control. Since there are substantial fixed costs of acquiring outside financing as well as economies of scale in cash management, both mature and larger companies are expected to get financing in an easier and cheaper way (Dittmar et al., 2003). In addition, larger firms are more diversified (Rajan & Zingales, 1995), can by far get easily bank financing and access to capital markets, can minimize the borrowing cost and less likely to go bankrupt; hence they face fewer financial constraints (Opler et al., 1999; Almeida et al., 2004; Foley 2007). Thus, large firms are less likely to stockpile cash reserves hence there is a negative relationship between firm size and cash balances (Al-Najjar & Belghitar, 2011).

#### **2.4 Likelihood of Financial Distress**

The costs of financial distress arise when the firm cannot meet its payment obligations contracted with creditors. Therefore, these costs affect firms' cash holding decisions, but there is some disagreement about the direction. Han and Qiu (2007), and Ozkan and Ozkan (2004) show that higher levels of uncertainty are associated with higher levels of cash reserves in order to reduce default risk, especially for financially constrained firms. In the opposite direction, Kim et al. (1998) argue that firms with difficulties in meeting their payment commitments have lower levels of liquidity and cannot accumulate cash, since they will use any liquid resources available to pay what they owe. Moreover, growing firms may also incur greater costs in financial distress because their value depends on their growth opportunities rather than on tangible assets or specific cash flows (Kariuki & Kamau 2014; Shleifer & Vishny 1992). In addition, Faulkender and Wang (2006) sustained that low credit ratings (or the absence of them) is an indicator of financial constraints.

#### **2.5 Cash Flow Variability**

It is well argued in literature that cash flow volatility could affect a firm's cash holdings. Firms tend to hold more liquid assets if their industry average cash flow volatility is higher (Opler et al, 1999). Mikkelson and Partch (2003) show that firm's that consistently hold larger cash reserves do not underperform when compared with their peer firms. Therefore it can be said that firms use internally generated funds to hedge against future cash flow uncertainty and to increase their cash holdings in response to increase in cash flow volatility. Firms with higher cash flows/profitability use them for building liquidity to finance their investments, thus they tend to hold more cash (Opler et al., 1999; Ferreira & Vilella, 2004). The literature review indicates that firms are holding significant amounts of cash. The



tradeoff theory of cash holding outline the principal benefit of cash holdings as a safety buffer which allows firms to avoid the costs of raising external funds or liquidating existing assets to raise funds (Fresard, 2010). On the contrary, a large body of financial literature has emphasized the shortcomings of cash holdings. Particularly, the free cash flows theory that posits that cash holding impedes the value of investment decisions (Jensen, 1986). These theories have been reinforced by various empirical studies. Nonetheless, the debate on the importance of corporate cash holdings within the literature has not yet reached consensus on the prospective agency problems of keeping “extra” cash against the precautionary benefits from doing so.

### **3.0 METHODOLOGY**

#### **3.1 Research Design**

Saunders et al. (2009) suggest that the statement of the problem, research questions and research objectives will call for a specific research design. According to Trochim (2005), research design provides the glue that holds the research project together. Therefore, selecting a good research design should be guided by an overarching consideration, specifically whether the design does the best possible job of providing reliable answers to the research questions (Hopkins, 2000). As such, research design guides the choice of population, sampling procedures, method of measurement and plan for data collection and analysis (Sekaran & Bougie, 2010). In this study, the researcher considers the most suitable research design to be descriptive survey design. Descriptive design involves finding out what, who, where, when and occasionally how of the study variables (Cooper & Schindler, 2003), and this was the concern of the research. The purpose of descriptive studies is to observe, describe and document aspects of situation as it naturally occurs (Neuman, 2005). Furthermore, Fink (1995) contends that a survey is a system for collecting information to compare, describe, or explain attitude, knowledge and behaviour.

#### **3.2 Target Population, Sample and Sampling Procedures**

The target population for a survey is the entire set of units for which the survey data are to be used to make inferences (Zikmund et al., 2009). Thus, the target population defines those units for which the findings of the survey are meant to generalize. The target population for this study was all the private manufacturing firms registered with the Kenya Association of Manufacturers (KAM) as published in the 2013 members’ directory. According to KAM



(2013) there were 650 registered manufacturing companies at the close of 2012 in Kenya. Over 80 per cent of these companies are based in Nairobi and its environs, while the rest are located in other major towns and regions. The study sampling frame comprised 504 private manufacturing firms registered with the KAM that are located in Nairobi and surrounding region. These firms were further categorized into 12 sub- sectors. The list which contains all the names of the private manufacturing firms located in Nairobi and surrounding area was obtained from KAM and was be used as the sampling frame.

The study used stratified random sampling technique to select a sample of 153 companies from the study population of 504 private firms located in Nairobi and surrounding area. Stratified random sampling involves process of stratification and a random sample is then drawn from each stratum (Sekaran & Bougie, 2010). Moreover, a stratum is homogenous from within but heterogeneous with other strata (Waller, 2008). According to Donald and Schindler (2003), this method of sample selection is appropriate if the sample involves heterogeneous groups, in order to have a representative sample to represent not only the overall population, but also key subgroups of the population, especially small minority groups. In this study, companies were categorized in different sub- sectors which formed groups or basis of stratification. A sample of 153 firms was deemed sufficient because it forms at least 30 per cent of the targeted population of 504 firms. According to Mugenda and Mugenda (2003), a sample size of 10% is considered adequate for descriptive survey study, which means a sample of 153 employees accounting for 30% of the population was much beyond the 10% required and hence was adequate.

### **3.3 Research Instruments, Data Collection and Analysis**

In a research study, the survey data can be collected through interviewing and questionnaires (Cooper & Schindler, 2003). If the research study requires researcher to collect primary data, then one of the most important task is to develop an instrument (Saunders et al., 2009). The main instrument of collecting primary data in this study was questionnaires containing both closed and open ended questions. Waller (2008) affirms that the closed ended questions offer accurate information which reduce information prejudice and expedite data analysis. The items were derived from the literature with the intent of achieving the study's objective. Additionally, some items were modified from a study conducted by Powell and Baker (2010) on CFOs of 1,000 large U.S. companies to learn their



views about corporate cash holdings. Questionnaires have advantages over some other types of surveys in that they are cheap, do not require as much effort from the questioner as verbal or telephone surveys, and often have standardized answers that make it simple to compile data (Bailey, 1992). Open ended items were also used since Gay (2005) upholds that they give respondents freedom to express their views or opinion and also to make suggestions. In order to test the reliability and validity of the instrument used in the study, pre-test of instruments was conducted on 15 respondents and they were excluded from the main study. The firms were randomly selected from the study population. Faults and inadequacies that were identified in the instruments at this stage were corrected before the main study. After the pilot study, the main study followed. The data from the completed questionnaires was cleaned, coded and entered into the computer using the statistical package for social sciences (SPSS Version 22) for analysis.

The study measured the reliability through the use of Cronbach Alpha ( $\alpha$ ) which established a threshold at an alpha value of 0.6 (Nunnally & Bernstein, 1994). Alpha coefficient ranges in value from 0 to 1 and the higher the score, the more reliable the generated scale is (Delafrooz et al., 2009). The findings as indicated that growth opportunities had a Cronbach Alpha of 0.858, leverage and debt structure 0.739, firm size 0.885, likelihood of financial distress 0.896, cash flow variability 0.890 and corporate cash holdings a Cronbach Alpha of 0.840. Thus, the internal consistency measures of the variables were acceptable and valid since the Cronbach Alpha coefficients exceeded the pre-determined threshold of 0.6.

## **4.0 RESULTS AND DISCUSSIONS**

### **4.1 Growth Opportunities and Corporate Cash Holdings**

The study sought to establish the views of the CFOs on growth opportunities and corporate cash holdings. The study used Likert scale method of collecting data. The factors or constructs were rated in a scale of 1 to 5, that is, from strongly disagree (SD) to disagree (D) to neutral (N) to agree (A) and ultimately strongly agree (SA). The weighted mean, standard deviation (STDEV), and t-value were then computed and significance (P-values) established. From table 1, firms with high investment opportunities being more profitable and therefore holding more cash had a mean of 4.137 and standard deviation (STDEV) of 0.991, firms with abundant investment opportunities holding higher levels of cash to insulate future capital expenditures from the variability of internally generated cash flows had a mean of 3.778



and STDEV of 0.696, firms holding large cash to keep potential investment opportunities alive had a mean of 3.128, firms with better investment opportunities keeping higher levels of cash to avoid financial distress and bankruptcy had a mean of 3.701, firms in growth industries holding higher levels of cash due to uncertainty in timing of investment decisions had a mean of 4.103 and cash reserves playing a major role in shaping firms' investment flexibility had a mean of 3.966.

The study established that CFOs agreed that firms with high investment opportunities are more profitable and therefore hold more cash, firms with abundant investment opportunities hold higher levels of cash to insulate future capital expenditures from the variability of internally generated cash flows, firms with better investment opportunities keep higher levels of cash to avoid financial distress and bankruptcy, firms in growth industries hold higher levels of cash due to uncertainty in timing of investment decisions and cash reserves play a major role in shaping firms' investment flexibility. The findings are in agreement with Drobetz and Grüninger (2007) argument that firms with better investment opportunities will keep higher levels of cash to avoid financial distress and bankruptcy as well as using it as a hedging instrument to fund investments during low cash states (Acharya et al., 2007). The study further supports Bigelli and Sánchez-Vidal (2012) observation that a company with future valuable investment opportunities will try not to run out of cash by the time it needs it. However, CFOs disagreed with the statement that firms with abundant investment opportunities have a strong incentive to hold excess cash in order to maintain their competitive positions as shown in figure 4.4. This contradicts Powell and Baker (2010) assertion that firms with more abundant investment opportunities and greater uncertainty in their cash flows may retain more cash to ensure being able to fund investments when internally generated cash flow is low and raising external funds is too costly. It is therefore apparent that CFOs in firms with high growth opportunities tend to maintain significantly high level of cash. This suggests a positive relationship between the cash holding and growth opportunities in line with precautionary and speculative motives of cash holding.



**Table 1: Managerial Perceptions on Growth Opportunities**

STATEMENT	SD %	D %	N %	A %	SA %	Mean	STDEV	t-Value
Firms with high investment opportunities are more profitable and therefore hold more cash	2.6	5.1	12.0	36.8	43.6	4.137	.991	12.08*
Firms with abundant investment opportunities hold higher levels of cash to insulate future capital expenditures from the variability of internally generated cash flows.	0	5.1	22.2	62.4	10.3	3.778	.696	12.41*
Firms hold large cash to keep potential investment opportunities alive.	4.3	22.2	36.8	29.9	6.8	3.128	.979	1.42
Firms with abundant investment opportunities have a strong incentive to hold excess cash in order to maintain their competitive positions.	6.8	40.2	29.9	19.7	3.4	2.277	.970	-3.05*
Firms with better investment opportunities will keep higher levels of cash to avoid financial distress and bankruptcy.	1.7	9.4	30.8	33.3	24.8	3.701	1.00	7.56*
Firms in growth industries hold higher levels of cash due to uncertainty in timing of investment decisions.	3.4	2.6	5.1	58.1	30.8	4.103	8.75	13.63*
Cash reserves play a major role in shaping firms' investment flexibility	0.9	3.4	19.7	50.4	25.6	3.966	.819	12.75*

SD= Strongly Disagree; D= Disagree; N= Neutral; A=Agree; SA= Strongly Agree

\*Significant at 5% significance level

#### 4.2 Leverage and Debt Structure and Corporate Cash Holdings

The study sought the respondents' view on the leverage and debt structure and corporate cash holdings. Table 2 presents the data findings. From the table, CFOs were neutral to the statement that firms with high level of debt are less able to hoard cash due to the higher monitoring role of financial institutions (mean of 3.308), and firms can hold cash as a substitute for borrowing (mean of 3.393). Moreover, the CFOs disagreed with the statement that firms hold excess cash balances to avoid the disciplining effects from the financial markets that may accompany raising funds externally (mean of 2.547 and STDEV of 0.978).



This implies that management is indifferent to the assertion that high gearing leads to monitoring of the financial activities of the firms by lenders. As a result the monitoring and disciplining effects by financial institutions are not significant factors in explaining cash hoarding behavior among private firms. This is in disagreement with Ferreira and Vilela (2004) argument that firms with high level of debt are less able to hoard cash due to the higher monitoring role of financial institutions and Drobetz and Grüninger (2007) evidence that high-leverage firms are more subject to investor monitoring, implying limited managerial discretion and hence lower cash holdings.

The study further established that the CFOs agreed with the statements that firms with short debt maturity hold more cash as an important part in evading the financial distress (mean of 3.547) and there is a positive relationship between leverage and cash holdings at higher levels of debt where financial distress is possible (mean of 3.590). This point to the fact that firms with short debt maturity hold more cash as a precautionary measure to guard against the difficulty of obtaining other external financing as the debt maturity approaches. This indicates that private manufacturing firms in Kenya employ trade off theory which envisages a negative relationship between debt maturity and cash holding. The study findings resonates with the assertion by Harford (2011) that the use of short term debt forces firms to periodically renew and negotiate the conditions of loans with the risk of no refinancing hence a negative relationship between debt maturity and cash holdings. Consequently, this study is of the view that the cash holdings can moderate debt default risk and increase debt capacity. On whether firms base their capital structure decisions on their net debt ratio, where net debt is total debt minus cash holdings, the findings indicate that 59% of the respondents were in disagreement (mean of 2.444). This is an indication that private manufacturing firms in Kenya do not employ the financial hierarchy theory in determining their capital structure.



**Table 2: Managerial Perceptions on Leverage and Debt Structure**

STATEMENT	SD %	D %	N %	A %	SA %	Mean	STDEV	t-Value
Firms with high level of debt are less able to hoard cash due to the higher monitoring role of financial institutions	6	18.8	20.5	47.9	6.8	3.308	1.04	3.18 *
Firms with short debt maturity hold more cash as an important part in evading the financial distress	7.7	8.5	25.6	37.6	20.5	3.547	1.14	5.19 *
At higher levels of debt where financial distress is possible, there is a positive relationship between leverage and cash holdings	10.3	9.4	20.5	38.5	21.4	3.590	1.13	4.54 *
Firms base their capital structure decisions on their net debt ratio, where net debt is total debt minus cash holdings	18.8	40.2	27.4	5.1	8.5	2.444	1.12	-5.38 *
Firms hold excess cash balances to avoid the disciplining effects from the financial markets when raising funds externally.	9.4	45.3	33.3	5.1	6.8	2.547	.978	-5.01 *
Firms can hold cash as a substitute for borrowing	6.8	12	27.4	42.7	11.1	3.393	1.06	4.02 *

\*Significant at 5% significance level

### 4.3 Managerial Perceptions on Firm Size and Corporate Cash Holdings

The study adopted a Likert approach to find out the respondents' view on firm size and corporate cash holdings using a 5-point Likert scale as already mentioned. The analyzed data was subjected to the already established keys. The findings are presented in table 3. According to the results of this study, 35% of the respondents agreed that larger firms with stronger credit ratings and greater access to the financial institutions hold less cash, 31.6% were neutral, 25.6% disagreed, 6.8% strongly agreed, and 0.9% strongly disagreed with a mean of 3.214 and STADEV of 0.936. The respondents were therefore indifferent to the statement. On whether firms with multiple product lines will tend to hold relatively lower cash balances, 51.3% of the respondents agreed and 1.7% strongly agreed with a mean of 3.35. Thus the evidence indicates that firms with multiple product lines hold lower levels of cash. This supports evidence by Al-Najjar and Belghitar (2011) that larger firms are more diversified, face fewer financial constraints and are less likely to stockpile cash reserves.

The study also established that 45.3% of the respondents agreed and 8.5% strongly agreed that since large firms enjoy economies of scale when issuing securities, they tend to hold



smaller cash balances. An overwhelming majority (79.6%) also agreed that larger firms can get external financing in an easier and cheaper way with a mean of 3.889 (Figure 4.5) which supports similar evidence by Dittmar et al., (2003). This is a further indication of negative relationship between firm size and cash holding. The results are in line with Anjum and Malik (2013) assertion that negative association between cash holdings and firm size may be due to the economies of scale. The study further confirmed the negative relationship between firm size and cash holding since 61.6% of the respondents indicated that small firms keep more cash because they are likely to face borrowing constraints (mean of 3.615). This shows that CFOs in private manufacturing firms in Kenya apply trade off theory which predicts inverse relationship between the firm size and the cash holdings. Thus, large firms tend to invest surplus cash in different investment opportunities instead of stockpiling it. This supports Ranjan and Zingles (1995) argument that larger firms may have less motivation to raise debt resulting in less cash holding.

**Table 3: Managerial Perceptions on Firm Size and Corporate Cash Holdings**

STATEMENT	SD %	D %	N %	A %	SA %	Mean	STDEV	t-Value
Larger firms with stronger credit ratings and greater access to the financial institutions hold less cash.	.9	25.6	31.6	35.0	6.8	3.21	.936	2.47*
Firms with multiple product lines will tend to hold relatively lower cash balances.	5.1	9.4	32.5	51.3	1.7	3.35	.874	4.34*
Because large firms enjoy economies of scale when issuing securities, they tend to hold smaller cash balances.	4.3	14.5	27.4	45.3	8.5	3.39	.982	4.33*
Larger firms can get external financing in an easier and cheaper way	1.7	6	12.8	60.7	18.8	3.89	.838	11.47*
Tax laws encourage large firms to hold more cash	2.6	53	26.5	16.2	1.7	2.62	.849	-4.90*
Small firms retain more cash to avoid the higher costs of raising external funds	6.8	13.7	32.5	40.2	6.8	3.27	1.01	2.83*
Small firms keep more cash because they are likely to face borrowing constraints	6.8	6	25.6	41.9	19.7	3.62	1.08	6.15*
Large firms keep large amount of cash in order to prevent a takeover	16.2	42.7	33.3	6.8	.9	2.33	.861	-8.38*

\*Significant at 5% significance level



#### **4.4 Likelihood of Financial Distress and Corporate Cash Holdings**

The study sought the respondents' view on the likelihood of financial distress and corporate cash holdings using Likert scale for data collection. Table 4 presents the data findings. From the table, 44.4% of the respondents agreed and 7.7% strongly agreed that managers prefer holding larger cash balances to avoid the risk of costly financial distress or bankruptcy with a mean of 3.41. Thus, managers are likely to stockpile cash in line with Niskanen and Niskanen (2007) prediction that firms with a high probability of financial distress attempt to hold high cash reserves in order to alleviate the consequences of financial distress. The study also established that CFOs agreed that financially constrained firms are more likely to save cash from internally generated cash flows to fund future investment opportunities than firms that are not constrained (mean of 3.838), financially constrained firms are more likely to seek optimal levels of cash holdings that balance the profitability of current and future investments (mean of 4.026), firms that have substantial assets in non-core business segments that cannot be easily sold will carry relatively higher levels of cash balances (mean of 3.735), firms with higher cash balances will generally invest more in R&D (mean of 3.47), firms with difficulties in meeting their payment commitments cannot accumulate cash (mean of 3.923), and firms that are aware of increase in the probability of the default tend to shield themselves by holding more cash (mean of 3.521).

However, the CFOs were neutral to the statement that firms that have previously experienced financial difficulties hold higher cash levels (figure 4.6). The costs of financial distress arise when the firm cannot meet its payment obligations contracted with creditors. The findings show that management expressed agreement with almost all the constructs on likelihood of financial distress determining corporate cash holdings. This is an indication of the importance of financial distress construct in the cash holdings discussion. The study findings are consistent with Almeida et al. (2004) argument that for constrained firms the probability to save out of cash flow is high, while the cash savings of unconstrained firms should not be systematically related to cash flows. Thus, constrained firms choose optimal cash policy for balancing the profitability of current and future investments by saving a certain amount of cash flows in support of trade-off theory. The findings also validate Han and Qiu (2007) suggestion that higher levels of uncertainty are associated with higher levels of cash reserves in order to reduce default risk, especially for financially constrained firms.



Therefore, CFOs opinions demonstrate that likelihood of financial distress affects private manufacturing firms' cash holding decisions in Kenya.

**Table 4: Managerial Perceptions on Likelihood of Financial Distress**

STATEMENT	SD %	D %	N %	A %	SA %	Mean	STDEV	t-Value
Managers prefer holding larger cash balances to avoid the risk of costly financial distress or bankruptcy.	2.6	13.7	31.6	44.4	7.7	3.41	.911	4.87*
Financially constrained firms are more likely to use excess cash flows to increase cash holdings	8.5	6.8	33.3	47.9	3.4	3.31	.969	3.44*
Financially constrained firms are more likely to save cash from internally generated cash flows to fund future investment opportunities	4.3	5.1	17.1	49.6	23.9	3.82	.991	9.14*
Financially constrained firms are more likely to seek optimal levels of cash holdings that balance the profitability of current and future investments	3.0	7.0	21	69	17	4.03	2.93	9.62*
Firms that have substantial assets in non-core business segments that cannot be easily sold will carry relatively higher levels of cash balances.	0	19.7	13.7	40.2	26.5	3.74	1.06	7.49*
Firms with higher cash balances will generally invest more in R&D.	6.8	12.8	23.9	39.3	17.1	3.47	1.13	4.52*
Firms with difficulties in meeting their payment commitments have lower levels of liquidity and cannot accumulate cash	3.4	4.3	17.1	47	28.2	3.92	.966	10.33*
Firms that are aware of increase in the probability of the default tend to shield themselves by holding more cash	4.3	6.8	30.8	48.7	9.4	3.52	.915	6.16*
Firms that have previously experienced financial difficulties hold higher cash levels	2.6	41	25.6	22.2	8.5	2.93	1.04	-.71

\*Significant at 5% significance level

#### 4.5 Cash Flow Variability and Corporate Cash Holdings

On the managerial views on cash flow variability and corporate cash holdings, the study established that 60.7 % of the managers agreed that firms tend to hold more cash if their sector average cash flow volatility is high (mean 3.598), 57.3% agreed that firms with greater uncertainty in their future cash flows tend to hold more cash to prevent underinvestment in future profitable projects (mean



3.496), and 53% agreed that firms with more volatile cash flows are expected to hold more cash in an attempt to mitigate the expected costs of liquidity constraints. This is presented in table 5. These results are in agreement with the empirical evidence by Bigelli and Sanchez-Vidal, (2012) that cash can be considered a buffer to absorb adverse shocks and increase the probability of survivorship during periods of poor business conditions. This is also consistent with previous study by Han and Qiu (2007) which concluded that higher levels of uncertainty and risk are typically associated with higher levels of cash reserves, especially for financially constrained firms. Furthermore, the precautionary motive for cash holdings is related to potential concerns about having to cut dividends or suffer potential losses from forced divestitures of assets to obtain cash.

However, the study found that 38.5% of the respondents were neutral to the statement that firms with more volatile cash flows face liquidity constrictions and experience cash deficiency (mean of 2.88 which was not significantly different from 3), 33.3% were neutral that firms use internally generated funds to hedge against future cash flow uncertainty in response to increase in cash flow volatility (mean of 3.265), and 39.3% were neutral that financially constrained firms with high levels of uncertainty and risk hold higher levels of cash reserves (mean of 2.692). Generally, in private firms the level of financial frictions is higher and the access to external financing is more difficult. Hence, more variation in cash flow volatility should lead to higher levels of cash holdings in private manufacturing firms in Kenya.

**Table 5: Managerial Perceptions on Cash Flow Variability**

STATEMENT	SD %	D %	N %	A %	SA %	Mean	STDEV	t-Value
Firms with higher levels of internally generated cash flows tend to hold more cash.	12.8	8.5	38.5	39.3	.9	3.068	1.01	.729
Firms with more volatile cash flows face liquidity constrictions and experience cash deficiency.	14.5	18.8	38.5	20.5	7.7	2.880	1.13	-1.15
Firms with more volatile cash flows are expected to hold more cash in an attempt to mitigate the expected costs of liquidity constraints	0	20.5	26.5	40.2	12.8	3.453	.960	5.10*
Firms use internally generated funds to hedge against future cash flow uncertainty	6.8	12.8	33.3	41	6.0	3.265	.995	2.88*
Firms tend to hold more cash if their sector average cash flow volatility is high	6.8	6.8	25.6	41	19.7	3.598	1.09	5.93*



Firms with greater uncertainty in their future cash flows tend to hold more cash to prevent underinvestment in future profitable projects	4.3	6.8	31.6	49.6	7.7	3.496	.897	5.98*
Financially constrained firms with high levels of uncertainty and risk hold higher levels of cash reserves.	6.8	35.9	39.3	17.1	.9	2.692	.866	-3.85*

\*Significant at 5% significance level

#### 4.6 Managerial Perceptions on Corporate Cash Holdings

On the managerial views on corporate cash holdings, table 6 presents the study findings. The study established that 53% of the managers agreed that firms strive to hold optimal levels of cash that trade off the opportunity costs of holding too much cash against the trading costs of holding too little cash (mean 3.462). This shows support for the tradeoff theory. The findings are consistent with Powell and Baker (2010). On whether firms with higher levels of internally generated cash tend to hold more cash, the results reveal that a modest 46.1% of the managers were in agreement with the statement and 32.5% were neutral with a mean of 3.248. According to the already established key, the mean value indicates that the managers were neutral to the statement. This weakens the study's support for the pecking order theory. The study also sought to establish whether firms that hold persistent large excess levels of cash will have relatively stronger operating performance than other firms that do not. The findings indicate that 59.9% of the managers were in agreement, 27.4% were neutral and a paltry 12.8% disagreed with a mean of 3.598. The mean indicates agreement with the statement. This is an indication that managers are of the view that corporate performance can be enhanced through stockpiling. This validates Mikkelson and Partch (2003) contention that firm's that consistently hold larger cash reserves do not underperform when compared with their peer firms.

On whether by holding large cash reserves, a firm can deter competition in the product market and help maintain its competitive position, an overwhelming majority (67.5%) were in agreement and 23.9% were neutral with a mean of 3.701. Using the afore-mentioned key, the mean value indicates that the majority of the managers agreed with the statement. This point in the direction that corporate finance officers in Kenya are of the view that firm's competitive position can be improved through cash holding in line with Chen et al. (2009).



The study further sought to establish whether there was evidence for the support of free cash flow theory. The results show that overwhelming majorities (82.9%) were in agreement with the statement that managers prefer larger cash balances to provide more discretion in their firm's spending and 12% were neutral with a mean of 4.06. Using the already established key, the mean value indicates agreement with the statement. As such, the agreement with the statement demonstrates that managers employ free cash flow theory in evolving cash holding policy in private manufacturing firms in Kenya. On whether finance managers consider cash levels in establishing the firm's capital structure the study found that the majority (59%) answered in the affirmative while 41% thought otherwise. This shows that corporate cash holdings are an important component in designing the private manufacturing firms' optimal financing structure.

**Table 6: Managerial Perceptions on Corporate Cash Holdings**

STATEMENT	SD %	D %	N %	A %	SA %	Mean	STDEV	t-Value
Firms strive to hold optimal levels of cash that trade off the opportunity costs of holding too much cash against the trading costs of holding too little cash	0	19.7	27.4	40.2	12.8	3.462	.952	5.25*
Firms with higher levels of internally generated cash tend to hold more cash.	6.8	14.5	32.5	39.3	6.8	3.248	1.02	2.64*
Firms that hold persistent large excess levels of cash will have relatively stronger operating performance	6.8	6	27.4	40.2	19.7	3.598	1.08	5.97*
By holding large cash reserves, a firm can deter competition in the product market and help maintain its competitive position.	1.7	6.8	23.9	54.7	12.8	3.701	.843	8.99*
Managers prefer larger cash balances to provide more discretion in their firm's spending and capital expenditure decisions.	0	5.1	12	54.7	28.2	4.060	.780	14.7*

\*Significant at 5% significance level



## 5.0 CONCLUSIONS AND RECOMMENDATIONS

### 5.1 Conclusions

The study concludes that CFOs of private manufacturing firms in Kenya are of the view that growth opportunities, leverage and debt structure, firm size, likelihood of financial distress and cash flow variability are all important drivers of corporate cash holding policy. The CFOs perceptions present supportive evidence for the use of trade off theory, financial hierarchy theory and free cash flow theory in evolving corporate cash holding policy among private manufacturing firms in Kenya.

### 5.2 Recommendations

When firms design cash holding policy, managers should control the suitable level of cash holdings based on the identified drivers and supplement with the management of other corporate governance issues to improve the shareholders wealth. Shareholders on the other hand, should be wary of the management if cash is more or less a permanent feature of the firm's statement of financial position, since it could be there because management has run out of investment opportunities or is too short sighted and doesn't know what to do with the cash. The shareholders should assess the firms' cash position through the sieve of corporate financial theory and evolve a suitable cash holding policy.

## REFERENCES

1. Adetifa S.B (2005). *Corporate finance and investment strategy*. (1st edn.). Lagos: The Chartered Institute of Bankers of Nigeria.
2. Al-Najjar, B., & Belghitar, Y. (2011). Corporate cash holdings and dividend payments: Evidence from simultaneous analysis. *Managerial and Decision Economics*, 32(4), 231-241.
3. Baskin J. (1987). Corporate liquidity in games of monopoly power. *Review of Economics and Statistics* 69, 312-319.
4. Cooper, D. R., & Schindler, P. S. (2003). *Business Research Methods* (8th edn). USA: McGraw-Hill.
5. Cooper, D. R., & Schindler, P. S. (2006). *Business Research Methods* (9th edition). USA: McGraw-Hill.
6. D'Mello, R., Krishnaswami, S., & Larkin, P.J. (2008). Determinants of corporate cash holdings: Evidence from spinoffs. *Journal of Banking & Finance*, 32, 1209-1220.



7. Dittmar, A., Mahrt-Smith, J., & Servaes, H. (2003). International Corporate Governance and Corporate Cash Holdings. *Journal of Financial and Quantitative Analysis*, 38 (1), 111-133.
8. Drobetz, W., & Grüninger, M. (2007). Corporate cash holdings: Evidence from Switzerland. *Financial Markets Portfolio Management*, 21, 293-324.
9. Faulkender, M. & Wang, R., (2006). Corporate Financial Policy and the Value of Cash. *Journal of Finance* 61(4), 1957-1990.
10. Ferreira, M.A., & Vilela, A.S. (2004). Why do firms hold cash? Evidence from EMU countries. *European Financial Management*, 10, 295–319.
11. Foley, C.F., Hartzell, J.C., Titman, S., & Twite, G. (2007). Why do firms hold so much cash? A tax-based explanation. *Journal of Financial Economics*, 86, 579-607.
12. Fresard, L. (2010). Financial Strength and Product Market Behavior: The Real Effects of Corporate Cash Holdings. *Journal of Finance* 65, 1097-1122.
13. Gao, H., Harford, J., & Li, K. (2013). Determinants of corporate cash policy: Insights from private firms. *Journal of Financial Economics*, 109, 623–639
14. Gill, A. & Shah, C. (2012). Determinants of Corporate Cash Holdings: Evidence from Canada *International Journal of Economics and Finance*, 4(1).
15. Guney, Y., Ozkan, A., & Ozkan, N. (2007). International evidence on the non-linear impact of leverage on corporate cash holdings. *Journal of Multinational Financial Management*, , 45-60.
16. Han, S., & Qiu, J. (2007). Corporate precautionary cash holdings. *Journal of Corporate Finance*, 13, 43-57.
17. Iskandar-Datta, M. E., & Jia, Y. (2012). Cross-country analysis of secular cash trends *.Journal of Banking & Finance*, 36(3), 898–912.
18. Islam, S. (2012). Manufacturing Firms' Cash Holding Determinants: Evidence from Bangladesh. *International Journal of Business and Management*, 7(6), 172- 185).
19. Jensen, M.C. (1986). Agency costs of free cash flow, corporate finance and takeovers. *American Economic Review*, 76(2), 323-331.
20. Kalcheva, I. & Lins, K.V. (2003) International evidence on cash holdings and expected managerial agency problems. *Working Paper*.
21. Kariuki S.N. and Kamau C.G. (2014). Determinants of corporate capital structure among private manufacturing firms in Kenya: A survey of food and beverage



- manufacturing firms. *International Journal of Academic Research in Accounting, Finance & Management Science*. 4(3), 49-62.
22. Kenya Association of Manufacturers (KAM), (2013). *Kenya Association of Manufacturers Directory 2013*. Nairobi: Kenya Association of Manufacturers.
  23. Mikkelson, W.H., & Partch, M.M. (2003). Do persistent large cash reserves hinder performance? *Journal of Financial and Quantitative Analysis*, 38 (2), 275–294.
  24. Morais, F. & Silva, P. (2013). Determinants of cashholdings in the accommodation industry. *Tourism and Hospitality International Journal*, 1, 95-136.
  25. Mugenda, A. and Mugenda, O. (2003). *Research methods; quantitative and qualitative approaches*. Africa Center for Technology (ACTS), Nairobi Kenya.
  26. Myers, S.C. (1977). Determinants of corporate borrowing. *Journal of Financial Economics*, 5, 147–175.
  27. Neuman, W. L. (2005). *Social Research Methods: Qualitative and Quantitative Approaches* (6th edn). USA: Allyn & Bacon.
  28. Niskanen, M., & Niskanen, J. (2007). Cash Holdings in SMEs; Evidence on Finnish data. *Working Paper*.
  29. Opler, T., Pinkowitz, L., Stulz, R., & Williamson, R. (1999). The determinants and implications of corporate cash holdings. *Journal of Financial Economics*, 52, 3-46.
  30. Ozkan, A., & Ozkan, N. (2004). Corporate cash holdings: An empirical investigation of UK companies. *Journal of Banking & Finance*, 28, 2103- 2134.
  31. Powell, G. E. & Baker, H. K. (2010). Management Views on Corporate Cash Holdings. *Journal of Applied Finance*, 20(2), 155-168.
  32. Rajan, R.G., & Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *Journal of Finance*, 50, 1421– 1460.
  33. Saunders, M., Lewis, P. & Thornhill, A. (2009). *Research Methods for Business Students*. (5<sup>th</sup> ed.). Harlow: Prentice Hall.
  34. Sekaran, U., & Bougie, R. (2010). *Research Methods for Business: A Skill Building Approach* (5th edn). New Jersey: John Wiley and Sons.
  35. Trochim, W. (2005). *Research Methods: The Concise Knowledge Base*. Atomic Dog Publishers, Cincinnati, OH.