

# Moderating Effect of CEO Tenure and Managerial Experience on Firm Specific Determinants of Corporate Cash Holdings

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## ABSTRACT

The study examines the moderating effect of CEO tenure and managerial experience on firm specific determinants of corporate cash holdings among private manufacturing firms in Kenya. The research employed the upper echelons theory to identify CEO characteristics that are linked to various organizational processes and outcomes such as cash holding. This survey-based study selected a sample of 156 private manufacturing firms from the firms registered with the KAM that are located in Nairobi and surrounding area using stratified random sampling technique. The research collected primary data using self-administered questionnaires to gather self-reported financial measures from the CFOs. The study employed stepwise multiple regression analysis to determine the moderating effect of CEO tenure and managerial experience on independent and dependent variables. The study concludes that the CEO tenure significantly moderates firm size, growth opportunities, and likelihood of financial distress as determinants of corporate cash holdings. Further, the study concludes that CEO managerial experience in other industries significantly moderates firm size and cash flow volatility determinants of corporate cash holdings among private manufacturing firms in Kenya.

**Keywords:** Cash holdings, CEO managerial experience, CEO tenure, Upper echelons theory

## 1. Introduction

The decision of firms to hold substantial cash reserves has lately been put under the spotlight in the corporate finance literature (Dittmar et al., 2003; Ozkan & Ozkan, 2004). The extant literature, notably Mickelson and Patch (2002) recognizes that holding a certain level of cash might enhance a firm's performance. Indeed, cash holdings empower firms not only to fund day to day operations but also enable firms to undertake investment opportunities without having to

experience remarkable transaction costs through either debt or equity issues (Faulkender & Wang, 2006). Along the same line of thought, Opler et al. (1999) claim that companies with low leverage, small assets, strong investment opportunities and risky investments stockpile comparatively huge cash reserves. In sharp contrast, Jensen (1986) conjectures that cash holdings may also present opportunities for managers to over-invest in sub-optimal projects at the expense of the shareholders or seek private benefits through consumption of supplementary discretionary perquisites. As such, cash reserves are vital ingredients in establishing firms' financial architecture. Arguably, recent empirical evidence augments the idea that cash holdings epitomize a significant constituent of firms' optimal financing structure.

Several studies, try to explain why companies hold cash using theoretical models. Harford et al. (2008) particularly employs the trade-off theory to illuminate corporate cash retention behavior and observe that firms determine their optimal level of cash holding by weighting the costs of cash retention against marginal benefits. However, Bates et al. (2009) extending pecking order theory to explain the determinants of cash holding contends that there is no optimal cash level. As such, there is no consensus from the extant literature on motives of holding cash given that the theoretical predictions are ambiguous. Thus, it remains an empirical question whether the recent increase in corporate cash holdings could be explained by optimal financial planning or precautionary motive as opposed to managerial opportunism (Faulkender & Wang, 2006).

Daher (2010) presents evidence of increasing cash holding ratio, specifically he shows that cash holding of private firms almost double between 1994 and 2005. The finding buttresses the assertion by Nyabwanga et al. (2012) that

businesses reserve cash surpluses and maintain moderately high current ratios to safeguard them against running out of cash. The assertion is in line with the observation by Mitau (2013) that most businesses set minimum cash balance level which guards them against running out of cash. As a result, understanding cash holding seems to be a vital component in enriching knowledge of how firms are financed. It is striking that a review of extant literature shows that most of the empirical work on cash holdings concentrates on data derived from developed economies (Kabui, 2003) and large firms listed on stock exchanges (Majiwa, 2011). In contrast, little has been done in terms of developing market context and Africa's emerging markets have been left largely unexplored (Mugumisi & Mwanza, 2014). Moreover, Kariuki and Kamau (2014) underscore the importance of researching on the private firms as they form the vast majority of the firms globally.

### 1.1 Research Objectives

1. To assess whether the CEO tenure moderates the firm specific determinants of corporate cash holdings among private manufacturing firms in Kenya
2. To assess whether the CEO managerial experience in other industries moderates the firm specific determinants of corporate cash holdings among private manufacturing firms in Kenya

### 1.3 Research Hypothesis

The study tested the following null hypothesis;

H<sub>01</sub>: CEO tenure does not moderate the firm specific determinants of corporate cash holdings among private manufacturing firms in Kenya.

H<sub>02</sub>: CEO managerial experience does not moderate the firm specific determinants of corporate cash holdings among private manufacturing firms in Kenya.

## 2.0 Literature Review

### *Upper Echelons Theory*

The theory was advanced by Hambrick and Mason (1984). Their basic idea is that different top managers greatly influence organizational outcomes by the choices they make. Indeed, the upper echelons theory (UET) literature shows that

CEO characteristics is linked to various organizational processes and outcomes, such as company financial disclosure (Bamber et al., 2010), R&D spending (Barker & Mueller, 2002), innovation (Kitchell, 1997), internationalization (Herrmann, 2002), development of business strategy (Gibbons & O'Connor, 2005) and corporate performance (Weinzimmer, 1997). Hambrick and Mason (1984) argue that under UET, managerial decision making is greatly influenced by top managers' intellectual, psychological and societal settings due to bounded rationality. Consequently, managers make entirely different decisions despite being exposed to similar objective inputs due to their unique way of processing information. As such, organizations are a reflection of their top managers (Carpenter et al., 2004). Hambrick and Finkelstein (1987) contend that CEO discretion is an important moderating factor that influences organizational processes and firm's performance through CEO unique cognitive, social and psychological attributes.

Hambrick (2007) hold the view that CEO discretion is influenced by environmental conditions and organizational factors amongst others. The UET specifies that CEO characteristics features (such as background, tenure, education, gender and age) are satisfactory proxies to measure the CEO's underlying cognitive, psychological and social features (Hambrick, 2007). Along the same line of thought, Graham, Harvey, and Puri (2013) using psychometric tests identify behavioral characteristics of CEOs related to corporate financial policies. The present study considers CEO tenure and CEO managerial experience in other industries as CEO characteristics moderating the influence of the hypothesized firm specific determinants of corporate cash holding.

## 3.0 Methodology

The researchers considered the most appropriate research design to be descriptive survey design. The target population for this study was all the 650 private manufacturing firms listed with the Kenya Association of Manufacturers (KAM) at the close of 2012 as published in the 2013 members' directory. However, an overwhelming majority of these companies (80%) carry out their manufacturing operations in Nairobi and its vicinity. The study therefore, selected a

sample of 156 private manufacturing firms from the firms enumerated with the KAM that are situated in Nairobi using stratified random sampling technique. The research collected primary data using self-administered questionnaires to gather self-reported financial measures from the Chief Finance Officers (CFOs). The study employed stepwise multiple regression analysis to determine the moderating effect of CEO tenure and managerial experience on independent and dependent variables.

3.1 Variables Measurement

- Corporate Cash Holdings - Ratio of total cash and equivalent items to total assets
- Growth Opportunities - Yearly sales growth rate
- Leverage - Total liabilities/Total assets
- Firm Size - Natural logarithm of total assets
- Likelihood of Financial Distress - Research & development expenditure standardized by year-end sales
- Cash Flow Variability - Standard deviation of the pretax profit plus depreciation divided by the total assets over a period of 5 years
- CEO Tenure - Number of years that the CEO holds the current position in the firm
- CEO Managerial experience - Measured as one if the current CEO previously served in firms from other non-manufacturing industries as a CEO or else it was zero

3.2 Model Specification

The study employed stepwise multiple regression analysis to assess the moderating effect of CEO tenure and CEO experience in other industries on the firm specific determinants of corporate cash holding. Regression was important in showing the interactive effect of each independent variable as new variables were introduced into the model on step by step basis. In particular, the following linear regression model was applied.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_z Z + \beta_{1z} X_1 Z + \beta_{2z} X_2 Z + \beta_{3z} X_3 Z + \beta_{4z} X_4 Z + \beta_{5z} X_5 Z + \epsilon \quad (1)$$

Where:

- Y = Cash Holding
- X<sub>1</sub> = Growth Opportunities
- X<sub>2</sub> = Leverage
- X<sub>3</sub> = Firm Size

- X<sub>4</sub> = Likelihood of Financial Distress
- X<sub>5</sub> = Cash Flow Variability
- E = Error term
- β<sub>0</sub> = Intercept
- Z = the theorized moderator
- β<sub>1</sub>-β<sub>5</sub> = Slope coefficients representing the influence of the associated independent variable on the dependent variable
- β<sub>z</sub> = Slope coefficient representing the influence of moderator variable on the dependent variable
- β<sub>1z</sub> - β<sub>5z</sub> = β<sub>iz</sub> = Slope coefficient representing the influence of the interaction between the moderator and each of the independent variable (X<sub>i</sub>\*Z) for i = 1,2,3, 4 and 5

4.0 Results and Discussions

4.1 CEO Tenure and Determinants of Corporate Cash Holdings

The study findings reveal that when CEO tenure was used as the moderator on the determinants of cash holdings, the MMR model had R<sup>2</sup> value of 70.6%. Table 1 shows the regression analysis slope coefficients for the estimated MMR model. The t- statistic was used to test the hypothesis on the significance of the slope coefficients at 5 per cent level of significance. In applying MMRA to examine the regression model the following hypothesis was tested; H<sub>0</sub>: β<sub>iz</sub> = 0 and H<sub>1</sub>: β<sub>iz</sub> ≠ 0. Rejection of H<sub>0</sub> and acceptance of H<sub>1</sub> at the 5% level of significance confirms the existence of a moderating (interaction) effect. The results show that there was significant interaction between firm size and CEO tenure (β<sub>3z</sub> = 0.050, P = 0.000 < 0.05), CEO tenure and growth opportunities (β<sub>1z</sub> = -0.005, P = 0.026 < 0.05), CEO tenure and likelihood of financial distress (β<sub>4z</sub> = -0.012, P = 0.018 < 0.05). The test of beta coefficients shows that CEO tenure significantly moderates the firm size, growth opportunities and financial distress determinants of corporate cash holdings among private manufacturing firms in Kenya. The estimated MMR model is as follows;

$$CH = 0.05 ZFS + 0.139 LEV - 0.005 ZGO - 0.012 ZLFD + 0.117 CFV + \epsilon \quad (2)$$

Where;

- ZFS = Interaction between firm size and CEO tenure
- LEV = Leverage
- ZGO = Interaction between CEO tenure and growth opportunities

ZLFD = Interaction between CEO tenure and likelihood of financial distress  
 CFV = Cash Flow Volatility

Table 1: Corporate Cash Holdings Moderated Regression Coefficients

Model	Coefficients			
	B	Std. Error	t	Sig.
(Constant)	-.255	.671	-.381	.704
ZFS	.050	.006	7.734	.000
LEV	.139	.023	6.067	.000
ZGO	-.005	.002	-2.255	.026
ZLFD	-.012	.005	-2.394	.018
CFV	.117	.019	6.096	.000

The ANOVA test findings (Table 2) indicate that the value of computed F statistic was 53.224 (P value = 0.000) which is sufficiently low (0.000 < 0.005) at the 5% level of significance. Thus, the MMR model fit is acceptable implying that CEO tenure significantly moderates firm size, likelihood of financial distress and growth opportunities determinants of corporate cash holdings among private manufacturing firms in Kenya.

Table 2: Corporate Cash Holdings Moderated Regression ANOVA

Model	Sum of		Mean		Sig.
	Squares	df	Square	F	
Regression	1996.05	5	399.21	53.224	.000
Residual	832.560	111	7.50		
Total	2828.61	116			

a. Dependent Variable: Corporate Cash Holdings  
 h. Predictors: (Constant), ZFS, LEV, ZGO, ZLFD, CFV

4.2 Discussion on CEO Tenure and Determinants of Corporate Cash Holdings

The results of the regression analysis in Table 1 revealed that CEO tenure significantly moderates firm size, growth opportunities, and likelihood of financial distress as determinants of corporate cash holdings among private manufacturing firms in Kenya. The study established that when CEO tenure was used as the moderator on the determinants of cash holdings, the model had R<sup>2</sup> value of 70.6% while without the moderator the model had R<sup>2</sup> value of 53.0%. This

is an indication that CEO tenure significantly moderates the determinants of corporate cash holdings among private manufacturing firms. The study findings indicate that CEO tenure enhances the predicting power of the model explaining corporate cash holdings in addition to the most prominent firm specific characteristics explaining cash holding among private manufacturing firms in Kenya. Richard et al. (2009) argue that new CEOs have to gain knowledge about the organization and the environment in which the firm operates and are more likely to consider numerous alternatives, have a more external focus, and are more open to fresh ideas, change and experimentation than long tenured CEOs.

Consequently, longer tenured CEOs are likely to retain higher cash levels compared to shorter tenured ones. This could be attributed to longer tenured CEOs exhibiting a higher aversion towards risk and change, giving rise to a higher importance attached to the precautionary role of cash and a lower importance to the opportunity cost of cash, resulting in higher cash levels in line with a combination of upper echelons theory and trade-off theory.

4.3 CEO Managerial Experience and Determinants of Corporate Cash Holdings

The study findings show that when CEO managerial experience was used as the moderator on the determinants of cash holdings, the MMR model had R<sup>2</sup> value of 58.9%. The t- statistic was used to test the hypothesis on the significance of the slope coefficients at 5 per cent level of significance. The results show that there was significant interaction between CEO managerial experience and firm size ( $\beta_{3z} = -0.233, P = 0.000 < 0.05$ ), and CEO managerial experience and cash flow volatility ( $\beta_{1z} = 0.123, P = 0.022 < 0.05$ ). The test of beta coefficients shows that CEO managerial experience significantly moderates the firm size and cash flow volatility determinants of corporate cash holdings among private manufacturing firms in Kenya. The estimated MMR model is as follows;

$$CH = -3.611 + 0.122 CFV + 0.139 LDS + 0.63 FS - 0.233 ZFS - 0.128 LFD + 0.123 ZCFV + \epsilon \dots\dots (3)$$

Where;  
 CFV = Cash flow volatility

LEV = Leverage  
 FS = Firm size  
 ZFS = Interaction between CEO managerial experience and firm size  
 LFD = Likelihood of financial distress  
 ZCFV = Interaction between CEO managerial experience and cash flow volatility

Table 3: Corporate Cash Holdings Moderated Regression Coefficients

Coefficients				
Model	B	Std. Error	t	Sig.
(Constant)	-3.611	1.776	-2.034	.044
CFV	.122	.025	4.820	.000
LEV	.139	.022	6.368	.000
FS	.630	.123	5.134	.000
ZFS	-.233	.058	-4.009	.000
LFD	-.128	.049	-2.582	.011
ZCFV	.123	.053	2.327	.022

Table 4 presents the result of ANOVA test. The findings indicate that the value of computed F statistic was 26.267 with a P value of 0.000 which is sufficiently low ( $0.000 < 0.005$ ) at the 5% level of significance. Thus, the MMR model fit is acceptable implying that CEO managerial experience significantly moderates firm size and cash flow volatility firm specific determinants of corporate cash holdings among private manufacturing firms in Kenya.

Table 4: Cash Flow Variability and Corporate Cash Holdings ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1665.89	6	277.650	26.267	.000
Residual	1162.71	110	10.570		
Total	2828.61	116			

a. Dependent Variable: Corporate Cash Holdings  
 g. Predictors: (Constant), CFV, LEV, FS, ZFS, LFD, ZCFV

#### 4.4 Discussion on CEO Managerial Experience and Determinants of Corporate Cash Holdings

The study findings indicate that there was an interaction effect when CEO managerial experience was used as the moderator on the determinants of cash holdings, with both firm size and cash flow volatility. The  $R^2$  value when managerial experience was used as a moderator was 58.9% which was significantly different from 53.0% without the moderator. This empirical evidence suggest that CEO managerial experience significantly moderates firm size and cash flow volatility determinants of corporate cash holdings among private manufacturing firms in Kenya. It is expected that CEOs with experience in only one industry hold more cash than CEOs with experience in varied industries due to their high degree of risk aversion regardless of the firm specific determinants. This buttresses the assertion by Orens and Reheul, (2013) that a greater diversity in CEOs experience is likely to trigger a more optimistic attitude towards risk, change and innovation. As a result, the managerial experience in other industries broadens CEOs capital and liquidity decision making capability. This subsequently leads to retention of lesser levels of cash. Moreover, industry experience broadens CEOs’ professional networks (Richard et al., 2009). This might increase CEOs’ view of more opportunities to invest cash resources. In contrast, executives who have spent their career in the same industry are more committed to industry conventions.

### 5.0 Conclusions and Recommendations

#### 5.1 Conclusions

Based on findings, the study concludes that the CEO tenure and CEO managerial experience in other industries moderate the firm specific determinants of corporate cash holdings among private manufacturing firms in Kenya. The results confirmed that CEO tenure significantly moderates firm size, growth opportunities, and likelihood of financial distress as determinants of corporate cash holdings among private manufacturing firms in Kenya. Further, the study concludes that CEO managerial experience in other industries significantly moderates firm size and cash flow volatility determinants of corporate cash holdings among private manufacturing firms in

Kenya. The study findings indicate that CEO demographics enhance the predicting power of the model explaining corporate cash holdings in addition to the most prominent firm specific determinants explaining cash policy among private manufacturing firms in Kenya.

### 5.2 Recommendations

The shareholders should consider the cash holding practices associated with current or potential new CEO's characteristics to assess the extent to which these propensities are acceptable given the wider organizational setting, and should try to adapt these tendencies if necessary to avoid excess cash levels causing opportunity costs which is detrimental to value of the firm. With regard to CEO experience as a moderator of determinants of corporate cash holding the study only considered whether the CEO had any experience outside the manufacturing industries, and does not focus on the number of years and the functional experience such as; accounting, marketing, human resources management, operations management, finance management among others. Future studies should therefore, explore whether different types of functional experiences and number of years moderate CEO behavior with regard to determinants of cash holdings. Future research could also determine whether CEO's type and level of education such as a high level business-oriented degree course or a more technical-oriented degree course/ training significantly moderates the determinants of corporate cash holdings in Kenya.

### 5.3 Limitations of the Study

The major limitation in this study was that most private manufacturing firms considered financial information as confidential and hence were not willing to unveil the financial reports. Nonetheless, the study relied upon self-reported financial measures for private manufacturing firms from the CFOs. The respondents were also assured that no individual's responses or firm information would be identified and the identity of persons/ firms participating in the study would be treated with utmost confidentiality.

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