Liquidity Risk Management and Financial Performance of Water Service Providers in Bungoma County, Kenya

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Abstract— Despite the commercialization of all public water service providers in Kenya by the water Act 2002, the firms are still struggling in their management of their liquidity. Even with the high demand for water services as well as sewerage systems, the water service providers in Kenya are still experiencing challenges of liquidity risk as majority of them are not able to cover their operation costs. The aim of this study was to investigate the effect of liquidity Risk management practices on financial performance of water service providers; a case of NZOWASCO in Bungoma County. The study specifically established the effect of liquidity risk management. The study was anchored upon Liquidity risk theory and anticipated income theory and trade off theory. The study used descriptive survey research design. A total of 115 employees of NZOWASCO water services in Bungoma County comprised the study population. A pilot study was conducted in order to test the validity and reliability of the research questionnaire. Content validity of the research instrument was tested by consulting the supervisor in giving informed professional judgment while reliability was tested using Cronbach's alpha coefficient. For the primary data, semi-structured questionnaire was administered to the WSP employees of the institutions concerned. The secondary data for the study was drawn from published articles, journals and audited financial statements of NZOWASCO in Bungoma County. Both descriptive and inferential statistics was used for data analysis. Data was presented using tables, charts and graph. To investigate whether there was any statistical significant influence of cash flow management on financial performance of Water Service Providers of Bungoma County, the study finding concludes that Cash flow management does influence the financial performance of Water Service Providers. The study sought to determine the extent to which the presence of Liquidity risk influences the financial performance of Water Service Providers. The study finding also concluded that Liquidity risk does affect financial performance of Water Service Providers. To investigate whether there was any statistically significance influence of liquidity sources on financial performance of Water Service Providers of Bungoma County regression analysis was conducted. The study finding concludes that the liquidity sources influence financial performance of Water Service Providers. To investigate whether there was any statistically significance moderating influence of government regulation on the relationship between liquidity management and financial performance of Water Service Providers regression analysis was conducted. The equation above indicates that one unit change in Liquidity management results in unit change in the relationship between liquidity management and financial performance of Water

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Service Providers, while a unit change in the interactive effects of the government regulation and Liquidity management results inunit increases in financial performance of Water Service Providers.

Index Terms-water service, Bungoma County.

I. INTRODUCTION

1.1. Background to the Study

Water Service Providers (WSPs) are utilities that have been licensed by Water Service Boards and regulated by Water Services Regulatory Board (WASREB) which is charged withresponsibility of provision of water and sanitation services to the citizens. With the promulgation of the constitution, these utilities are now owned and managed by the County governments. Initially, before the formation of water private companies, service provision under the local authorities was faced with frequent shortages and wastage (World Bank, 2004). These challenges compromised the financial situation of water utilities. According to Global partnership report (2003) water and sanitation services that are essential for human habitation are still a crisis. This crisis is due to many challenges affecting several countries globally, which include: physical, economical, governance and social problems. Ageing infrastructure which is subject to frequent leaks and bursts, poor billing and revenue collection systems and low staff productivity have made the above crisis more prevalent in Africa. Water services in countries which are developing is inadequate. There is increased demand of water daily and WSPs is unable to meet the demand. This has been occasioned byinability to manage supply, institutional weaknesses, financial and technical problems.

Liquidity management (LM)is the bedrock of management of finances. Liquidity is the ability of the borrower to meet repayments as they fall due. In the case of a personal loan this would be from monthly salary, and for a business from cash generated from business operations. Liquidity is a measure of the financial health of a business or personal investment portfolio. When analyzing the financial health of firms there are four different groups of ratios that the analyst considered. The groups are liquidity ratios, financial leverage ratios, efficiency ratios and profitability ratios. The most used liquidity ratios are: ratios concerning receivables, inventory, working capital, current ratio, and acid test ratio (Muranaga&Ohsawa, 2012).

Liquidity risk is the potential that a financial institutional borrower or counterparty failed to meet its obligations in accordance with agreed terms. According to Chijoriga



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(2007), liquidity risk is the most expensive risk in financial institutions and its effect is more significant as compared to other risk as it directly threatens the solvency of financial institutions. The magnitude and level of loss caused by the liquidity risk as compared to other kind of risks is severe to cause high level of loan losses and even institutional failure. To manage all possible risks, problems or disasters before they happen it important to carry out risk management (Frosdick, 2007).

Liquidity sources (LS) occur from diverse sources like employee negligence, mismanagement, systems errors, or other human errors. One of the objectives of internal control is to reduce liquidity sources. If the WSPs (WSP) risk management strategies are effective, then a WSP can mitigate LSsimply by ensuring that employees respect policies and follow procedures, and that all systems are functioning well (Cooper,2013). According to Good hart (2011), LS occurs when business transactions are undertaken which can arise from the people, systems and processes.

Financial performance (FP)refers to the financial position and structure of the firm. This information is derived from the financial statement which is the yard stick to evaluate and monitor performance. According to Kabethi (2013), FPis the process of measuring the results of a firm's policies and operations in monetary terms. The condition and the performance of a firm are determined byoperating and financial ratios(Ogilo, 2012). What measures the FP of a WSP are profitability and return on assets. What determine the financial institutions bottom line are profitability ratios (Gorton, 2012).

Globally, performance of WSPsvaries from country to country. Survey conducted in Nepal, South Asia by Nepal Rastra bank (2004) revealed that only 20% of rural population has access to formal Water Services and the remaining relied to informal Water Services. The survey recommended setting up of WSPs so as to fasten the rate of economic development in the country. In Latin America, a sample of 229 WSPs was analyzed based on: outreach, transparency and efficiency pillars. It was established since the year 2001; water supply level grew at rate of 50 % and 137% respectively. This is widely considered as a successful rate of transformation. During the period, the WSPs experienced positive return on assets. From 1988-2006, private WSPs covered 36% of the supplies while the public WSPs had 34.4% (Kumar &Kabir, 2015).

In Nigeria, Water Services cooperatives are generally more community-based. In contrast to South Africa where due to the low population density, rural access and funds are real issues and thus many WSPs are based in urban areas and are focused. Perhaps as a result the July 2003 WSPsBulletin identified only eight (8) sustainable institutions and estimated that only around 25 million clients are being served throughout the continent. However, these numbers may underestimate or ignore the large numbers being served by other service providers (Wright, 2005). WSPs (WSP) in Uganda are always often faced with high operating costs to provide financial services to the people. As more WSPs



grow, they tend to become formal financial institutions. This situation is similar to what has been witnessed in Tanzania.

Kassa (2010) did a study on the FPof service provider firms in Ethiopia where he found that to a large extent, the liquidity has a positive correlation with FP. However, he also found that the regulatory and supervision framework also had its own constraints and challenges such as the costs of supervision, focus on historical and not future performance of WSPs, weak information management systems, shortage of skilled manpower among other challenges.

Locally, Kinyua (2015) did a study on financial management practices in Passenger Service SACCOs in Nyeri South district, Kenya. The study was descriptive in nature with questionnaires which were analyzed using SPSS version 22. The findings find that PSV SACCOs exhibited good financial management practices in several ways.

A study by Onyango (2016) on cash management practices and financial sustainability of Sacco in Siaya County used descriptive research design with a relative sample of 124 those who took part in research. The study embraces correlation and regression analysis. Findings revealed that FPwhich is measured by return on investments and return on assets. However, the study did not consider cash flow management (CFM) policy, liquidity and working capital as variables. The identified gaps shall form the focus of the current study.

In Kenya, most of the WSPs, both private and publicly owned, have been experiencing financial liquidity difficulties resulting in poor provision of services to the people (WHO, 2010). There is a high demand for water services in the urban areas, which could have led to improved FPof such providers in the sector, but most of them are not able to meet their current and long-term obligations. These arguments form the basis for the study to investigate on LMon FPof WSPs in Kenya.

1.2 Statement of the Problem

Despite the commercialization of all public WSPs in Kenya by the Water Act of 2002, the firms are still struggling in the management of their liquidity. Even with the high demand for water services as well as sewerage systems, the WSPs in Kenya are still experiencing challenges of liquidity risk as majority of them are not able to cover their operation costs (WASREB, 2019). The liquidity risk experienced by many WSPs is highly accredited to delays in effecting payments by water users yet their isn't a clear compelling framework apart from disconnection that can be engagement by the WSPs to ensure timely payment of water bills. Managing the liquidity thereby becomes an essential strategy to avoid illiquidity or even closure of the firm. Liquidity level of an organization has significant effect on the FPof firms and especially those in the service sector. Therefore, there is need for service institutions to check that they have enough cash or liquid assets that can easily be converted to cash to cover short term obligations.WSPs rely on payments from clients to run their operations and ensure profitability. However, most clients delay to pay and some don't even pay at all leaving a deficit which the WSP have to find ways like borrowing from commercial banks and other institutions to sustain the deficit(Wafula, 2011).

Varied findings have been accrued out of various studies conducted on financial management practices and performance of WSPs for example, results of the researches have illustrated the link of liquidity, water services risk and performance being outreach and positive while LSmanagement showed a negative association with performance. This study therefore focused on identifying the influence of LMpractices on the performance of WSPs in Bungoma in Kenya. The findings regarding performance of WSPs suggest that there may be other factors affecting performance. Further, most of the studies and literature in existence on performance of water sector in Kenya was limited to just one water service provider (Asingo, 2005; Nyangeri, 2003; Wambua, 2004; Olum, 2007; Nyangena, 2008 and Wagah et al., 2010). The study sought to address LMpractices on the performance of WSPs in Bungoma in Kenya to triangulate the previous findings.

1.3. General Objective

Study sought to determine the influence of liquidity risk management on financial performance of Water Service Providers in Bungoma, Kenya.

1.4. Research Hypothesis

Research hypotheses which guided this research were: H_01 : There is no statistically significant relationship between liquidity risk management and FPof WSPs in Bungoma County, Kenya.

II. LITERATURE REVIEW

2.1 Liquidity Risk Theory

Liquidity risk theory was developed by Acerbi and Scandolo in 2007. It explains that a WSP should define and identify the liquidity risk to which it is exposed for all legal entities, branches and subsidiaries in the jurisdictions in which it is active. In Bungoma should consider the interactions between exposures to funding liquidity risk and market liquidity risk. WSP that obtains liquidity from capital markets should recognize that these sources may be more volatile than traditional retail deposits. For example, under conditions of stress, investors in money market instruments may demand higher compensation for risk, require roll over at considerably shorter maturities, or refuse to extend financing at all (Jean &Svensson, 2012).

Moreover, reliance on the full functioning and liquidity of financial markets may not be realistic as asset and funding markets may dry up in times of stress (Perera, 2012). Market liquidity may make it difficult for a WSP to raise funds by selling assets and thus increase the need for funding liquidity. In NZOWASCO should ensure that assets are prudently valued according to relevant financial reporting and supervisory standards. NZOWASCO should fully factor into its risk management the consideration that valuations may deteriorate under market stress, and take this into account in assessing the feasibility and impact of asset sales during stress on its liquidity position (Jenkinson, 2010).

NZOWASCO should recognize and consider the strong interactions between liquidity risk and the other types of risk

to which it is exposed (Guglielmo, 2010). Various types of financial and operating risks, including interest rate, credit, operational, legal and reputational risks, may influence a WSP liquidity profile. Liquidity risk often can arise from perceived or actual weaknesses, failures or problems in the management of other risk types. A WSP should identify events that could have an impact on market and public perceptions about its soundness, particularly in wholesale markets (Akhtar, 2011). This theory addresses the variable of liquidity as a determinant of FPof NZOWASO in Bungoma. Its application is that WSPs (WSP) needs to identify better ways to invest their resources with the view of how easy it can be to convert them into cash whenever there is a financial need. In Bungoma which puts its money in hard to convert resources is likely to face liquidity risk issues in case of need. The critique to this theory is that it is against proper financial management practices to invest so much in easily convertible assets since this is likely to pose problem to financial manager to liquefy assets even when that can be avoided. This theory anchored the objective on liquidity risk and liquidity sources.

2.2 Empirical Literature 2.2.1 Liquidity Risk and Performance of WSPs

In a study by Bourke (2011) on comparative analysis of liquidity and performance among 90 WSPs (WSP) in Europe, North America and Australia from 2006-2011, contradicts the previous findings and also presents an assertion that is one sided since financial management principles advocate for WSPs (WSP) to increase their liquidity to be able to ensure financial sustainability.

Pour (2013) did research on the link between modern liquidity indices and stock return in companies listed on Tehran Stock Exchange of 2007-2012. Findings illustrated a positive and significant associationof comprehensive liquidity index on stock returns while there was no significant relationship between the index of cash conversion cycle as well as net liquidity balance and stock returns. The weaknesses of this study were that the period under study experienced a global economic meltdown which might have been the cause of the findings witnessed. This section presented important empirical research findings from relevant literature on the effect of cash flow management, liquidity risk management, and LSmanagement on the performance of WSPs.

Bandyopadhyay (2014) studied the LM in Indian corporate sector: a study of selected companies during the postliberalization periodusing questionnaires with a sample of 543 those who took part in research The study found that in the current changes in the Indian industries due to intense competition in the labour place as a result of liberalization, privatization and globalization and the collapse of big businesses has made many managers to look keenly at liquidity management. Success of the firm is depends largely on the efficient management of its liquidity. The LM involves planning and controlling current assets and current liabilities in such a manner that eliminates the risk of the inability to meet the short-term obligations, on one hand, and avoids excessive investment in current assets on the other. A firm's



liquidity is fueled by the structure of its balance sheet by the nature and composition of its assets and the way they are funded.

The level of LM and corporate profitability among manufacturing companies listed on the Nigerian stock exchange using structured questionnaires and interview schedules with a sample of 653 those who took part in research show the importance of firms checking and maintaining their liquidity ratios (Owolabi & Obida, 2012). The LM is considered to be an important factor of company's growth; and an effective working capital management implies a trade- off between liquidity and profitability of the company; this trade-off must be through a carefully thought out process. Each company should maintain a particular level of liquidity to support its day to-day operations. Over financing leads to additional expenses like the storage and maintenance costs. Also, the surplus of cash, inventories and accounts receivable constitute the excess current assets and generate the cost of lost opportunities. On the contrary under financing may affect revenues.

Boadi (2013) established the linkof liquidity and the profitability of WSPs listed on the Ghana Stock Exchange. For the period of 2005-2010, it was realized that both the liquidity and the cost-effectiveness of the listed WSPs were declining. Again, it was also found that there was a very weak positive relationship between the liquidity and the profitability of the listed WSPs in Ghana. The fact that the study did not employ descriptive survey could have been a contributor to the findings above. According to Bassey and Moses (2015), LMis inversely related with FP. This implies that poor LMpractices of WSPs affects FP. During the Global financial crisis of 2007 to 2008, mostWSPs in Kenya were largely affected. This was the worst financial crisis that raised concerns of LMand how it affects FPof WSPs in particular (Central Bank of Kenya CBK, 2016).

2.2.2 Relationship between LSand Performance Bandyopadhyay (2014) did a study on LSmanagement and performance in the corporate sector in India. The study used multiple regression analysis with a sample of 432 those who took part in research. The findings revealed that most businesses are now considering managing their liquidity due to prevailing market demands caused by competition, market liberalization, privatization and globalization. The study further found that business were embracing effective planning as well as controlling their current assets and liabilities to remove the risk of running short of liquid cash as well as avoid having too much cash at their disposal. Most corporate firms had set liquidity points and were keen to ensure that those levels are observed all through.

Owolabi & Obida, (2012) did another study on LSand profitability in processing firms on the Nigerian stock exchange. It employed descriptive survey research design with a sample of 764 those who took part in research using correlation and regression analysis. The findings revealed that liquidity levels are important in managing a business liquidity risks since poor liquidity may cause a collapse in business operations. The findings recommend that firms ought to manage specific liquidity levels to facilitate its daily operations. In a case where a firm indulges in over financing, they are likely to suffer storage and maintenance expenses and in a case where there is a surplus in stock, accounts payables and receivables and cash a business may suffer from lost opportunities and revenue may be affected negatively by under financing. Proper practices of managing liquidity enable firms to attain the immediate needs of the organization and that of their customers conveniently.

2.3. Conceptual Framework

This study hadcash flow management, liquidity risk management and LSmanagement as the independent variables while performance of WSPs in Bungoma as the dependent variable. Government regulation was the moderating variable.



Independent Variables

Dependent Variable



2.4. Summary of Reviewed Literature

Liquidity risk theory explains that relatively WSPs (WSP)



are more likely to benefit from financial assurance through reduced administrative costs. It is indicated that the low-income groups, rural households and the informal sector cannot access formal water due to their lack of financial wherewithal. It is acknowledged that the rationale behind automation of WSP business is not only to cut on costs and speed up transactions but also to provide better accessibility to products and services. It is noted that cost of the WSPs (WSP) products coupled with lack of competitive prices of WSPs (WSP) products also contributed to locals not accessing WSP products.

2.5 Research Gaps

Despite the commercialization of all public WSPs in Kenya by the water Act 2002, the firms are still struggling in their FP. Even with the high demand for water services as well as sewerage systems, the WSPs in Kenya are still experiencing challenges as majority of them are not able to cover their operation costs. The findings regarding performance of WSPs suggest that there may be other factors affecting performance. Further, most of the studies and literature in existence on performance of water sector in Kenya was limited to just one water service provider (Olum, 2007; Nyangena, 2008 and Wagah et al., 2010). Therefore, the reason for this study sought to answer the question: what factors affect FPof WSPs in Kenya. The study sought to address this disparity by examining all urban WSPs in Kenya, so as to understand what factors affect their FP. A study conducted elsewhere has revealed a contradicting positive position on the subject matter. The researcher aims at conducting a study specifically in BungomaCounty to see if the findings are in tandem or in disagreement.From the evidence gathered from the literature review, it was found that studies have been done on WSPs (WSP) in the world. In Kenya, there are several researches touching on WSPs (WSP). However, none of these researches have zeroed on cash flow and LSmanagement as determinants of FPof WSPs (WSP). Furthermore, majority of these studies were done on developed countries. To bridge the literature gaps, this study determined the relationship between LMpractices and FPof WSPsin Bungoma County, Kenya.

III. RESEARCH METHODOLOGY

3.1. Research Design

Descriptive survey research design was used in this study because the design enables one to apprehendevery information onLM and FPin the instruments for data collection (Sekaran and Bougie, 2011).

3.2. Target Population of the Study

This refers to the aggregate of all that conforms to a given specification and to which results was generalized (Mugenda, 2008). A total of 115 employees of NZOWASCO water services in Bungoma County made up the target population as illustrated in Table 3.1.

Table	3.1:	Target	Pop	ulation

S/No.	Category	Target population					
1	Top management staff	15					
2	Middle management staff	43					
3	Lower management staff	57					
	Total	115					
		3.6 Data Analysis					

3.3. Sample Size and Sampling Procedures

Census survey was used, where all the targeted 115 employees of NZOWASCO were involved during data collection exercise. Those who took part in research were first categorised into top, middle and lower management staff. The three cadres of management staff were purposively sampled since they have knowledge in LMandFPof WSPs.

3.4. Data Collection Instruments

The study used self-administered semi-structured questionnaires in order to gather first-hand information on LMand FPof WSPs. Questionnaires gavethose who took part in research ample time to give their responses. Secondary data was gathered from the annual reports using the secondary data collection sheet (see Appendices).

3.5 Data Collection Procedures

The researcher sought the consent and authorityfor data collection from School of Graduate Studies of Kibabii University and NACOSTI. The questionnaires werethen administered to those who took part in researchey the researcher and trained research assistants for a period of three (3) weeks and collected thereafter. Secondary data was collected from the annual reports.



Descriptive and inferential statistical tools wereduring analysis of data. Descriptive statistical and inferential tools were used. Multiple regression analysis and Pearson Product Moment Correlation were the inferential statistical tools used. The followingmodels wereusedto analyzeeach respectiveobjective;

$Y = \beta_0 + \beta_1 X_1 + \epsilon_{\dots}$	
(i)	
$Y = \beta_0 + \beta_2 X_2 + \varepsilon \dots$	
(ii)	
$Y = \beta_0 + \beta_3 X_3 + \varepsilon$	
	(iii)
$Y = \beta_0 + \beta_4 M_4 + \epsilon \dots$	
(iv)	
Regression equatio	n:
$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2$	$+\beta_3 X_3 + \beta_4 M_4 + \epsilon$
F0 F1 1 F2 2	(V)
WhereYi	isthedependentvariabledenotingFP.Xi
isthecompositeofthe	independentvariables.
Theregressioncoeffici	entspath β i, β 2, measure the effect of X ₁ ,
X_2 when ε equals zero	(0).
Where:	· ·

Yi=the dependent variable (FP) X1= CFM X2=Liquidity risk management

X3=LSmanagement

M1= government regulation

βo=intercept

 β I, β 2,etc. =Beta coefficients

 ϵ =Errorterm(Epsilonknot)normallydistributedaboutamean ofandforpurposeof Computation, the ϵ is assumed to be zero (0)

IV. DATA, ANALYSIS, PRESENTATION,INTERPRETATION AND DISCUSSION

4.1. Questionnaire Response Rate

The 115 questionnaires were issued and 104 were filled and returned representing a response rate of 90.43% comparable to the recommended response rate of 75% based on Nachimias and Nachimias (2005). Therefore, the response rate was good as shows in Table 4.1.

Table 4.1:	Questionn	aire	Return	Rate
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Questionnaire	Number	Percentage %	
Issued	115	100.00	
Returned	104	90.43	
Not returned	011	9.57	
Not returned	011	9.57	

Source: Research Data (2020)

4.2. Influence of Liquidity risk on FPof WSPs

This was objective number three that sought to establish the influence of liquidity risk on FPof WSPs. The results are presented in Table 4.7.

Table 4.7: Descriptive Statistics for liquidity	v risk
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Variable		SD	D	U	А	SA	То	Mean	SD	
							t.			
We have set an operational liquidity level	F	0	3	0	47	54	104	4.46	.652	
in our Firm	%	0	2.9	0	45.2	51.9	100			
Poor LMpractices of a Firms affects its	F	0	8	8	40	48	104	4.23	.895	
FP	%	0	7.7	7.7	38.5	46.2	100			
Sound LMpractices help our FIRMs to	F	9	3	3	57	32	104	3.96	1.11	
meet the short-term demands, needs and obligations of their customer in the most effective and convenient manner		8.7	2.9	2.9	54.8	30.8	100			
Firm's liquidity is determined by the	F	3	19	4	35	43	104	3.92	1.20	
assets and how they are funded	%	2.9	18.3	3.8	33.7	41.3	100			
We have experienced risks of liquidity in	F	0	3	8	40	53	104	4.48	.696	
the last financial year	%	0	2.9	7.7	38.5	51.0	100			
Our risk register includes liquidity risks	F	2	23	9	53	17	104	3.58	1.07	
	%	1.9	22.1	8.7	51	16.3	100			
Composite								4.144	0.799	

Source: Research Data (2020)

On whether those who took part in research have set an operational liquidity level in our Firm, the study revealed that out of 104 those who took part in research who participated in the study, 54(51.9%) strongly agreed, 47((45.2%) agreed, 3(2.9%) disagreed while there was no response for not sure and strongly disagree respectively. This implies that majority 101(97.1%) agreed that they have set an operational liquidity level in our Firm. This is confirmed with a mean of 4.4615 which is way above the composite mean of 4.1442.

On whether Poor LMpractices of a firms affects its FP, out of the 104 participants in the study, 48(46.2%) strongly agreed, 40 (38.5%) agreed, 8(7.7%) were not sure, 8(7.7%) disagreed, while there was no one who strongly disagreed. This means that 88(84.7%) agree that Poor LMpractices of a Firms affects its FPwhile only 8(7.7%) disagree with this.



This is supported by the mean of (4.2308) which is way above the composite mean of (mean = 4.1442). Concerning the issue of whether Firm's liquidity is determined by the assets and how they are funded, out of 104 those who took part in research, 32(30.8%) strongly agreed, 57(54.8%) agreed, 3(2.9%) were not sure, 3(2.9%) disagreed, while 9(8.6%) strongly disagreed. This implies that 89(85.6%) agree that Firm's liquidity is determined by the assets and how they are funded while only 12(11.5%) disagree with this as 3(2.9%) were not sure. This is accompanied by a mean of 3.9615. This is also provided for by the Kenyan constitution.

As for whether those who took part in research have experienced risks of liquidity in the last financial year, out of 104 participants, 43(41.3%) strongly agreed, 35(33.7%) agreed, 4(3.8%) were not sure, 19(18.3%) disagreed, while 3(2.9%) strongly disagreed. This implies that majority

78(75%) agreed that they have experienced risks of liquidity in the last financial year. 4(3.8%) were not sure while 22(21.2%) disagreed. This is accompanied by a mean of 3.9231.

On whether When an organization does not determine its margin of cash flow safety its likely to suffer from cash flow problems, out of 104 those who took part in research who participated in the study, 53(51%) strongly agreed, 40(38.5%) agreed, 8(7.7%) were not sure while 3(2.9%) did not agree. This shows that 93(89.5%) of those who took part in research were in agreement that, When an organization does not determine its margin of cash flow safety its likely to suffer from cash flow problems as opposed to only 3(2.9%) who did not agree. This is reflected in the mean of 4.3750 which is above the composite mean 4.3053.

On the issue of whether those who took part in research risk register includes liquidity risks, out of 104 those who took part in research who took part in the study, 17(16.3%) strongly agreed, 53(51%) agreed, 9(8.7%) were not sure, 23(22.1%) disagreed, while 2(1.9%) strongly disagreed. From the study 70(67.3%) agreed with the assertion that their risk register includes liquidity risks as supported by the mean of 3.5769.

To determine any statistically significance influence of liquidity risk on FPof WSPs of County Assembly regression analysis was conducted. The study sought to determine how Liquidity risk influences FPof WSPs and the regression results are in Table 4.8.

ANOVA statistics							
Model	Sum of Squares	df	Mean Square	e	F	S	ig.
Regression	.87455055	1	.87455055		F(1,102) =	= 78.38 0	.000
Residual	45.9008341	102	.450008177				
Total	46.7753846	103	.454129948				
R-squared = 0.587	Adj	. R-squared = 0	.541	Root	MSE= .67	7083	
Coefficient estimat	es						
FPof WSPs	Unstd	Std beta	Std. Err.	Т	P>t	[95% Co	nf. Interval]
	Coefficient.						
Constant	4.493481		.2847034	15.78	0.000	3.928773	5.05818
Liquidity risk	0.115364	1367363	.074785	-1.54	0.126	263700	.032971

Table 4.2:Liquidity Risk

Source: Research Data (2020)

The presence of liquidity risk explains the variations in FPof WSPs. Since the overall model is statically significant, all the beta coefficients are significant. The null hypothesis, H_02 :liquidity risk has no significant influence on the FPof WSPs, was therefore rejected sinceliquidity risk was found to affect FPof WSPs.

in the Indian industries due to intensified competition in the market place as a result of liberalization, privatization and globalization and the collapse of big businesses has made many managers to look keenly at liquidity management.

4.6. Influence of LSon FP of WSPs

The objective number three sought to examine the influence of LSon FPof WSPs. Using a Likert scale of 1-5, the results are presented in Table 4.9.

Indeed	it's	true	that	the	findings	are	suppor	ted by	
Bandyopa	dhya	y (20	014)	who	studied	the	LMin	Indian	
corporate sector. The study found that in the current changes									
Table 4.3: Descriptive Statistics for LS									

Statement		SD	D	U	А	SA	Tot	Mean	SD
Cash flow Sources management	F	0	3	3	39	59	104	4.48	.696
encompasses a Firm's level of liquidity	%	0	2.9	2.9	37.5	56.7	100		
Liquidity is essential in determining	F	0	1	0	49	54	104	4.50	.557
the financial sustainability of a firm	%	0	1	0	47.1	51.4	100		
We have a liquidity reserve fund in the	F	19	15	6	13	51	104	3.44	1.32
firm	%	18.3	14.1	5.8	12.5	49.0	100		
We have external sources of funding	F	3	0	1	45	55	104	4.43	.785
our liquidity	%	2.9	0	1	43.3	52.9	100		
We have an emergence operational	F	0	3	3	39	59	104	4.48	.696
fund	%	0	2.9	2.9	37.5	56.7	100		
	%	2.9	0	1	43.3	52.9	100		



Liquidity Risk Management and Financial Performance of Water Service Providers in Bungoma County, Kenya

LSdetermine FPof WSPs of a firm	F	0	3	0	47	54	104	4.46	.652
Our LSare sustainable	% F	0 0	2.9 8	0 8	45.2 40	51.9 48	100 104	4.23	.895
	%	0	7.7	7.7	38.5	46.2	100		
Composite								4.213	0.544

Source: Research Data (2020)

On the statement that Cash flow Sources management encompasses a Firm's level of liquidity, out of 104 those who took part in research who took part in the study, 59(56.7%)strongly agreed, 39(37.5%) agreed, 3(2.9%) were not sure, 3(2.9%) disagreed; while there was no response for strongly disagree. This implies that majority of those who took part in research 98(94.2%) agreed that Cash flow Sources management encompasses a Firm's level of liquidity. This is confirmed by a mean of 4.480 which is way above the composite mean of (mean = 4.2139).

On the statement that Liquidity is essential in determining the financial sustainability of a firm, 54(51.9%) strongly agreed, 49(47.1%) agreed, 1(1%) disagreed and there was no response for not sure and strongly disagreed. These findings imply that majority 103(99%) of those who took part in research agree that Liquidity is essential in determining the financial sustainability of a firm. This is confirmed by the mean of 4.5000 which is way above the composite mean of 4.2139.

About the statement that those who took part in research have a liquidity reserve fund in the firm, out of 104 those who took part in research who took part in the study, 19(18.3%)strongly agreed, 51(49%) agreed, 6 (5.8%) were not sure, 13(12.5%) disagreed, while 1(14.4%) strongly disagreed. This finding implies that the majority of those who took part in research 70(67.3%) agreed that they have a liquidity reserve fund in the firm which is confirmed by the mean of (mean \approx 3.4423) which was way below the composite mean of (mean = 4.2139).Concerning the statement that those who took part in research have external sources of funding their liquidity, out of the 104 those who took part in research, 55(52.9%) strongly agreed, 45(43.3%) agreed, 1(1%) were not sure while 3(2.9%) strongly disagreed. Since majority of those who took part in research 100(96.2%) agreed, this implies that they have external sources of funding their Table 4.10 LS

liquidity. This is confirmed by the mean of 4.4327 which is higher than composite mean 4.2139.

On the statement that those who took part in research have an emergence operational fund, out of 104 those who took part in research who took part in the study, 59(56.7%)strongly agreed, 39(37.5%) agreed, 3(2.9%) were not sure, 3(2.9%) disagreed; while there was no response for strongly disagree. This implies that majority of those who took part in research 98(94.2%) agreed that those who took part in research have an emergence operational fund. This is confirmed by a mean of 4.480 which is way above the composite mean of (mean = 4.2139).when people learn and implement what they learn, results are inevitable.

On whether LSdetermine FPof WSPs of a firm, the study revealed that out of 104 those who took part in research who participated in the study, 54(51.9%) strongly agreed, 47((45.2%) agreed, 3(2.9%) disagreed while there was no response for not sure and strongly disagree respectively. This implies that majority 101(97.1%) agreed that LSdetermine FPof WSPsof a firm. This is confirmed with a mean of 4.4615 which is way above the composite mean of 4.1442.

On whether those who took part in researchLSare sustainable, out of the 104 participants in the study, 48(46.2%) strongly agreed, 40(38.5%) agreed, 8(7.7%) were not sure, 8(7.7%) disagreed, while there was no one who strongly disagreed. This means that 88(84.7%) agree that their LSare sustainable while only 8(7.7%) disagree with this. This is supported by the mean of (4.2308) which is way above the composite mean of (mean = 4.1442).

In examining whether there was any statistically significance influence of LSon FPof WSPs of County Assembly regression analysis was conducted and the results are in Table 4.10.

ANOVA statistics							
Model	Sum of Squares	df	Mean Square	F		Sig.	
Regression	34.3043104	1	34.3043104	F(1,102	2) = 320.41	0.0000	
Residual	12.4710742	102	.122265434				
Total	46.7753846	103	.454129948				
R-squared = 0.7334	Adj.	R-squared = 0	0.7308	.34966			
Coefficient estimates							
FPof WSPs	Unstd	Std beta	Std. Err.	T P:	>t [95% (Conf. Interval]	
	Coefficient.						



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Constant	4589797		.2630461	-1.74	0.084	993161	.0752015
LS	1.0618	0.8563783	.0593182	17.90	0.000	.9360665	1.187534

Source: Research Data (2020)

The LSwas found to explain variations in FPof WSPs. The $R^2=0.7334$ indicating that 73.34% in FPof WSPs is explained by liquidity sources.The beta coefficients: constant, $\beta_0=$ -0.4589 (t = -1.74, p> 0.05) and Liquidity sources, $\beta_1=0.856$ (t = 17.90, p< 0.05) indicating that effect of LSis significant. The overall model is, Y=0.127 + 0.856X $_1$. This indicates that one unit change in LSbehaviour has a corresponding 0.856 unit changes in FPof WSPs. The study finding therefore rejects the null hypothesis, H_03 : that LShas no significant influence on the FPof WSPs and therefore concludes that the LS influenceFPof WSPs .

The findings above are supported by findings of a study conducted by Owolabi & Obida, (2012) who did a study on LSand profitability in processing firms on the Nigerian stock exchange. The findings revealed that liquidity levels are important in managing a business liquidity risks since poor liquidity may cause a collapse in business operations. The findings recommend that firms ought to manage specific liquidity levels to facilitate its daily operations. In a case where a firm indulges in over financing, they are likely to suffer storage and maintenance expenses and in a case where there is a surplus in stock, accounts payables and receivables and cash a business may suffer from lost opportunities and revenue may be affected negatively by under financing. Proper practices of managing liquidity enable firms to attain the immediate needs of the organization and that of their customers conveniently.

V. SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1. Influence of Liquidity risk on FPof WSPs

The objective number two sought to establish the influence of liquidity risk on FPof WSPs. Out of 104 those who took part in research, the majority 101(97.1%) agreed that they have set an operational liquidity level in our Firm. This is confirmed with a mean of 4.4615 which is way above the composite mean of 4.1442.

On whether Poor LMpractices of a Firms affects its FP, out of the 104 participants in the study, majority 88(84.7%) agree that Poor LMpractices of a Firms affects its FPwhile only 8(7.7%) disagree with this. This is supported by the mean of (4.2308) which is way above the composite mean of (mean = 4.1442). Concerning the issue of whether Firm's liquidity is determined by the assets and how they are funded, out of 104 those who took part in research, Majority 89(85.6%) agree that Firm's liquidity is determined by the assets and how they are funded while only 12(11.5%) disagree with this as 3(2.9%) were not sure. This is accompanied by a mean of 3.9615. This is also provided for by the Kenyan constitution.

As for whether those who took part in research have experienced risks of liquidity in the last financial year, out of 104 participants, majority 78(75%) agreed that they have experienced risks of liquidity in the last financial year.



4(3.8%) were not sure while 22(21.2%) disagreed. This is accompanied by a mean of 3.9231.On whether When an organization does not determine its margin of cash flow safety its likely to suffer from cash flow problems, out of 104 those who took part in research who participated in the study, majority 93(89.5%) of those who took part in research were in agreement that, When an organization does not determine its margin of cash flow safety its likely to suffer from cash flow problems as opposed to only 3(2.9%) who did not agree. This is reflected in the mean of 4.3750 which is above the composite mean 4.3053. On the issue of whether those who took part in research risk register includes liquidity risks, from the study 70(67.3%) agreed with the assertion that their risk register includes liquidity risks as supported by the mean of 3.5769.

In establishing whether there was any statistically significance influence of liquidity risk on FP of WSPs of County Assembly, regression analysis was conducted. It was established thatthe liquidity risk had an influence on the FPof WSPs and the presence of Liquidity risk explained the variations in FP of WSPs. The null hypothesis, H_02 which stated that that liquidity risk has no significant influence on the FPof WSPs was rejected.

5.2 Conclusions

To investigate whether there was any statistical significant influence of CFMon FPof WSPs of the County assembly the study findings conclude that CFMinfluences the FPof WSPs. The study findings also conclude that liquidity risk influencesFPof WSPs. The study findings conclude that the LSinfluence FPof WSPs. To investigate whether there was any statistically significance moderating influence of government link ofLMand regulation on FPof WSPsregression analysis was conducted. The government regulation has a moderating influence on the link between the LMand FP of WSPs.

5.3 Recommendations

It was recommended that:

- i) National government should develop a policy and regulations to guide the practice of LMamong WSPs.
- ii) WSPs in Kenya should ensure effective and efficient LMto enhance FPof WSPs to ensure realization of effective service delivery

5.4 Suggestions for Further Research

- i. Another study can be conducted on government regulation as an independent variable and not a moderating variable
- ii. Another study can also be conducted on individual variable of the study

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