EFFECT OF FIRM CASH-FLOW STRUCTURE ON THE FINANCING POLICY OF WOMEN LED SMALL AND MEDIUM SIZE ENTERPRISES IN KENYA

[1*] **Okwiri Saad Minado**
minadosaad@gmail.com

[2**]**Prof. Gregory Simiyu Namusonge**
gnamusonge@jkuat.ac.ke

[3***] **Prof. Iravo Mike**
miravo@jkuat.ac.ke

[4****] **Prof. Sakwa Maurice**
msakwa@jkuat.ac.ke

[1, 2, 3,4] Jomo Kenyatta University of Agriculture and Technology/Umma University-Kajiado, Kenya

Abstract: Cash flow and financial structures are very critical for survival of firms yet it is not clear how the cash flow structure affects the financing policy of small and medium size enterprises (SMEs) given the inconclusive theoretical and empirical evidence.

Objective: This study is a follow up of an earlier published study done by the same researchers regarding effect of quality of financial information on the financing policy of women. This study sought to appraise the effect of cash-flow structure on the financing policy of women led SMEs in Kenya.

Methodology: The target population of 1,746 firms yielded a sample size of 290 firms assuming normal distribution at 0.05 level of significance. Following data cleaning procedure, an actual sample size of 188 firms from the 290 in the original qualified for analysis. The study tested the hypothesis that cash flow structure, as proxied by the operating cash flow as a ratio of all the cash flows, had no significant effect on financing policy as indicated by the debt equity ratio. Secondary data relating to business cash flows, debt and equity was collected on a cross-sectional basis. The study rejected null hypothesis and found out that cash flow structure positively affects the financing policy of women-led SMEs in Kenya.

Findings: The study finds that firm cash flow structure has a significant positive effect on the finance policy (debt-equity ratio) of the women led SMEs.the study also finds that as the operating cash flow ratio increases through enhanced cash flows from operating activities, the proportion of debt in the overall capital of the SME also increases. This is possibly because with more cash flows from operations, the firm can easily be able to finance the debt obligations.

Keywords: Cash flow Structure; Financing Policy, Debt-Equity Ratio

1. Background of the Study

Small and Medium-Sized Enterprises (SMEs) which are business entities in the private sector make a significant claim towards economic development of most countries in the contemporary world (Amoako, 2013). This is through their substantial revenue generation and more significantly on the Gross Domestic Product - GDP (Koech, 2015). SMEs' contribution to generation of employment is unmatched in the private sector (Opinya & Rotich, 2015). Globally, SMEs have immensely contributed to respective economies (Gichuki et al., 2014). Given their critical importance to the economy, their survival is a matter of concern to policy makers.

One aspect that is likely to influence their long run survival is their financing policy (Opinya & Rotich, 2015). By employing an effective financing policy, the enterprise would then follow a pre-determined hierarchy in exhausting available strategic financing options. An appropriate capital structure is a critical outfit for any enterprise. Amoako (2013) is of the opinion that the potential for survival is greatly dependent on the ability of the firm to generate positive cash flows from operations. It therefore implies that the structure of cash flows is likely to have a bearing on the financing policy of a firm. Theoretical and empirical evidence is however not clear n how cash flow structure impacts the financing policy, especially for the SMEs.

Capital structure, which reflects the financing policy of a firm, is one of the most critical concerns in contemporary corporate finance and in a sense it has not only has attention increased in recent years but also it has received much attention from contemporary scholars (Nakhaei & Jafari, 2015). It becomes phenomenal when it is considered alongside cash flow management. According to Nakhaei and Jafari (2015), the objective of cash flow management is to optimize the levels of cash flow in order to maximizing shareholder wealth. Nakhaei and Jafari (2015), set out to appraise the relationship between capital structure and free cash flows and financial performance in companies listed on Tehran Stock Exchange (TSE). The scope of the study covered the period 2009 through 2013. In their study, capital structure and free cash flow are the concepts forming the independent variables while financial performance is proxied by return on asset, annual stock return and economic value added. They further use firm size as a control variable. The study employed the use of secondary data on the financial affairs of the listed companies and relied on regression analysis to test the hypotheses. The findings of the study reveal that capital structure is inversely related with all metrics of financial performance being stock returns, return on assets and economic value added.

Memon, Chen, Tauni and Ali (2018) for instance set to establish if cash flow volatility determine the financing structure of a firm especially with reference to the debt structure. The study is borne out of the limited focus on developing country firms particularly chine establishments. They evaluate the influence of cash flow volatility on leverage levels of firms among Chinese firms listed at Chinese stock exchanges. The study employs 5-year moving standard deviations of cash flows from operating activities of the firms. They rely on a methodology that uses generalized linear model to test whether cash flow volatility influences firm leverage, which is related to financing policy that is used in this study. The study further uses ordered probit regression to evaluate the effect of volatility on debt maturity ordered categories. To do away with endogeneity difficulties, the study uses lag volatility and related determinant variables in the estimation models. The research evidence from Memon et al. (2018) indicate that cash flow volatility has a negative effect on firm leverage. Further evidence shows that in the analysis of the sub-samples of Chinese state owned firms, the inverse relationship is non-existent. With respect to maturity terms of debt held by firms, the evidence reveals that the higher the volatility of cash flows, the shorter the debt maturities of the debt held in the ownership structure and vice versa. In a nutshell, a unit standard deviation increase leads a 9% fall in long term market leverage ratio coupled with a fall of 27% in the probability of issuing long-term notes or debentures.

Keefe and Yaghoubi (2016) on the other hand evaluated the influence of cash flow volatility on capital structure and different use of debt maturities across world markets. Their study is borne out of the reality that the inter-relationship between capital structure, which is related to financing policy in this study, with cash flow volatility has not reached a consensus point. Their study employ a variety of measures of cash flow volatility as well as approaches to non-linear association of proportional variables. Their find9ngs indicate that holding all factors constant, a unit standard deviation change from the arithmetic average of cash flow volatility corresponds with a 24% change, in the opposite direction as the standard deviation, of long term debt ratio. It

similarly implies a fall of 26% of the possibility of holding debt with maturities exceeding ten years as well as a positive change of the possibility of holding none of the short or long term debt.

According to Manian and Fathi (2017), free cash flows provide a yardstick for evaluating the performance of businesses. They further indicate that free cash flows show confirm the cash available to a firm once it has factored in the costs of maintaining or procuring assets. In is instructive that companies that have positive free cash flows are likely to experience superior performance when compared with those with negative cash flows (Manian & Fathi, 2017). To illustrate this point, Manian and Fathi (2017) using listed companies at the Tehran Stock Exchange over the 2011-2015 period set to establish the relationship between free cash flows and financial performance. The population of 102 companies translated into a census study. The results of the study indicated that there is a positive relationship between free cash flows, return on assets and return on equity as indicators of performance as well as future value of firms listed at TSE. Whereas instrumental, the study focused on only listed companies and it is not clear if the findings can be replicated for SMEs and other firms not listed at the stock markets. Further, the findings are unique to the Tehran market that is influenced by Islamic finance and it is not clear if they are applicable to environments that do not follow the Islamic finance model.

This study is based on the conceptual relationship between cash flow structure and financing policy as indicated by the debt-equity ratio. This is depicted in figure 1.
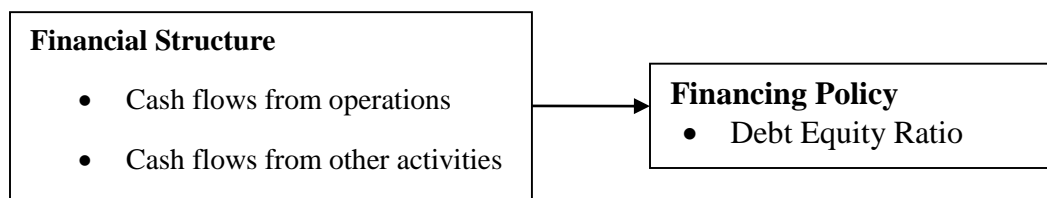

Figure 1: Conceptual Structure

2. Objectives of the Study

The study sought to establish the effect of cash flow structure on the financing policy of women led SMEs in Kenya. It is hinged on the reality that the cash flow structure is based on the proportions of cash flows from operations, cash flows from investing activities and cash flows from financing activities in the overall cash flows generated by a firm. It is from this perspective that the study hypothesizes that the structure of cash flows has no significant effect on the financing policy of the women led SMEs

3. Methodology

This study is based on the philosophy of positivism. According to Sekaran (2013), the positivism philosophy is also identifiable by other names. In essence, it can also be identified as the traditionalist, the objectivist, the quantitative or the scientific philosophy. Positivism was adopted for this study given that it accommodates the descriptive approach used as the predominant research design in this research. The cause –effect association between cash flow structure and financing policy by necessity required the descriptive approach to be adopted.

The target population was 1,746 women led SMEs located in Kajiado County of Kenya. Most of the self-employed persons are engaged in livestock trade, business retail and wholesale trade, horticulture / floriculture, industrial activities and Jua kali and tourist sector-sale of beads. Currently, there are limited employment

opportunities in the County and efforts need to be intensified to create off-farm employment through establishment of small-scale enterprises' diversification (County Government of Kajiado, 2013).

Using the Sekaran (2013) approach, a sample of 290 was obtained based on simple random sampling. The analytical model is specified as

$$Y = \beta_0 + \beta_i X_i + e$$

In this case Y is the debt equity ratio while X is the cash flow structure represented by the ration of cash flows from operating activities to all the cash flows generated by the SME.

Various interpretations were made based on regression results to establish the significance, at the 95% confidence level (i.e. 0.05 level of significance) of the independent variables in determining the dependent variable. The Statistical Package for Social Sciences (SPSS) software version 21.0 was used to analyses the data.

4. Findings and Discussion

The initial sample size as determined from the population at 95% confidence interval assuming normal distribution from a large sample was 290. Based on data availability and data cleaning mechanism, only 188 had valid data suitable for analysis. This translates into a valid data company composition of 64.83%. This valid composition rate was considered satisfactory because Werner, Praxedes and Kim (2007) indicate that validity composition rates of at least 60% are satisfactory and useful in drawing conclusions generalizable on the entire study sample.

The financing policy of the women led SMEs was indicated by the ratio of debt used by the firm's to equity as indicated by the owner's funds.

Results from the analysis show that mean of the debt equity ratio was 0.21124 while the median was 0.11712. This indicates that the ratio is skewed to the left a clear indication that a majority of the firms rely on equity rather than debt to finance their firms. This indicates that the dominant form of financing among the women led SMEs is equity. This finding seems to agree with what Hogan and Hutson (2005) found among the Irish firms that in the Irish Software sector, firms finance more by equity rather than debt. It however contradicts the Modigliani and Miller (1958) hypothesis that capital structure is an irrelevant financial decision.

Descriptive statistics of cash flow structure were also evaluated. Cash flows according to Oluoch (2014) are critical for survival of organizations and need to be maintained at the optimum to not only save the organizations from operational difficulties, but to also avoid high opportunity costs of holding cash since cash is a non-return generating asset. Using the ratio of cash flows from operations to total cash flows, the descriptive findings for the 188 companies in the sample are presented in table 1.

The findings indicate that the mean of the cash flow from operations to total cash flows ratio was 0.05357. This compares to a median of 0.03275. Just like the case of financial structure, size and growth, this also points to a negatively skewed distribution of the ratio for the women led SMEs. This is indicative of the reliance on financing cash flows to run the business.

Table 1: Cash Flow Structure Descriptive Statistics

	CS
Mean	0.05357
Median	0.03275
Standard Deviation	0.26902
Coefficient of Variation	5.02152
Count	188
Confidence Level(95.0%)	0.03871

Typical to SMEs as indicated by Afande (2015), firms in their formative stages of establishment may be over reliant on the contributions of the owners relative to cash emanating from operations. The distribution is confirmed by a seemingly wide range of 3.4948 ranging from a low of -2.61368 (for firms that have more cash outflows from operations than cash inflows from operations) to a high of 0.88111 (indicative of firms where majority, in this case 88.111%, rely on cash flows from operations rather than those from financing and investing activities).

Moving away from the central tendency measures of mean and median as well as the range dispersion measure, table 1 also provides measures of dispersion as well as relative description as provided by standard deviation and coefficient of variation of 0.26902 and 5.02152 respectively. These measures of actual and relative dispersion point towards a very wide ranging levels of the ratio of cash flows from operations to overall cash flows for the women led SMEs. Before the tests of hypotheses, analysis of variances was conducted for all the variables. This involves arranging the variables in ascending order and then grouping the data into two portfolios one comprising the high half of the variable while the other representing the bottom half companies with respect to the variable. The ideas was to check if the characteristics of the high value components of the female led SMEs were similar to the low value components of these SMEs. The findings are presented in this subsection.

The financial structure was the dependent variable of the study. The structure was measured using the debt equity ratio. This measure is in line with the approach used by Amanuel (2011) among Ethiopian companies. After computation, the SMEs in the study were ranked from the lowest debt equity ratio to the highest and then split into half forming 94 companies for each half. An ANOVA test was then conducted to check if the financial structure of the top half (FSH) was significantly different from that of the bottom (FSL). The findings are shown in Table 2.

Table 2: ANOVA Test for Financial Structure

Groups	Count	Sum	Average	Variance		
FSL	94	2.340006	0.024894	0.01157		
FSH	94	37.37276	0.397583	0.039272		
ANOVA						
Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	6.528158	1	6.528158	256.8014	7.09E-37	3.89194
Within Groups	4.728314	186	0.025421			
Total	11.25647	187				

The ANOVA was evaluated using the F-test in line with the recommendations of Sekaran (2013). The findings indicate that the critical F is 3,89194. This is less that the SMEs F of 256.8014. This implies that the financial structures of the smallest SMEs is significantly different from that of their larger counterparts.

With respect to cash flow structure, after computation of the operating cash flow ratio, the 188 SMEs in the study were ranked from the lowest cash flow ratio value to the highest and then split into half forming 94 companies for each half. An ANOVA test was then conducted to check if the cash flow structure of the top half was significantly different from that of the bottom. The findings are shown in Table 3.

Table 3: Single factor ANOVA for Cash Flow Structure

Groups	Count	Sum	Average	Variance		
CSL	94	-6.23822	-0.06636	0.085181		
CSH	94	16.31012	0.173512	0.031264		
ANOVA						
Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	2.704403	1	2.704403	46.44937	1.27E-10	3.89194
Within Groups	10.8294	186	0.058223			
Total	13.5338	187				

The ANOVA was evaluated using the F-test in line with the recommendations of Sekaran (2013). The findings indicate that the critical F is 3.89194. This is less that the SMEs F of 46.44937. This implies that the cash flow structure of the lowest cash flows from operations is significantly different from that of the highest cash flows from operations of the women led SMEs.

Test of hypothesis was by a simple linear regression of firm financing policy as reflected by the debt equity ratio on the firm cash flow structure as indicated by the operating cash flow ratio. The findings are recorded in Table 4. The model reveals a weak positive coefficient of correlation of 0.12657 which translates into a coefficient of determination of 0.01602. The implication of this is that only 1.602% of the changes financing policy as indicated by the debt equity ratio are caused by changes in firm cash flow structure as indicated by the operating cash flow ratio.

Table 4: Simple Linear Regression of Financial Structure on Cash Flow Ratio

Multiple R	0.12657					
R Square	0.01602					
Adjusted R Square	0.01073					
Standard Error	0.24403					
Observations	188					
	df	SS	MS	F	Signf F	
Regression	1	0.18032	0.18032	3.02809	0.01349	
Residual	186	11.07615	0.059549			
Total	187	11.25647				
	B	Std Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	0.20505	0.01815	11.29848	0.00000	0.16925	0.24086
CS	0.18175	0.06633	2.74014	0.01349	00.01543	0.24629

The coefficient of correlation shows a weak positive correlation such that as firm cash flow ratio increases, so does the reliance of debt as opposed to equity, albeit by a small degree of association. The finding seems to be in line with the implied overreliance on operating cash flows by SMEs in Kenya based and around the world (Hogan & Hutson, 2005).

The cash flow ratio data fits the model very well because the model F ratio of 3.02809 is greater than the critical value of F shown in table 5 as 0.01349. Based on this F test the null hypothesis that the simple linear regression cannot be used in relating firm cash structure to finance policy is rejected with the conclusion that the model is suitable for analysis. Following determination of the suitability of the model in analysis, the implication of the coefficient of the cash flow ratio was evaluated.

Using the t-test at 95% confidence interval, the fixed term is set at 0.20505 while the coefficient of the firm cash structure indicator is established at 0.18175. Their respective t-statistic values are 11.29848 and 2.74014. The critical t at 187 degrees of freedom from the standard t-tables is 1.973. Accordingly, the study finds that firm cash flow structure has a significant positive effect on the finance policy (debt-equity ratio) of the women led SMEs since the regression t is greater than the standard t. This is confirmed by comparing the p-value to 0.05, the level of significance at 95% confidence interval. Since the P-value of 0.01349 is less than significance level (0.05), the null hypothesis that firm cash flow structure has no effect on finance policy is rejected with the conclusion that it indeed has a positive effect on the debt-equity ratio that reflect the finance policy of the SME. The implication is that as the operating cash flow ratio increases through enhanced cash flows from operating activities, the proportion of debt in the overall capital of the SME also increases. This is possibly because with more cash flows from operations, the firm can easily be able to finance the debt obligations.

From a theoretical orientation, this finding is in line with the signaling effect hypothesis of Ross (1977) that points towards a positive relationship between financial structure and cash flows. The findings however contrast those inherent in the pecking order theory of Myers and Majluf (1984) that implies a negative effect. From an empirical perspective, the findings support the assertion by Hasanaj (2014) that capital adequacy is the cornerstone of firm stability and that it can be improved through enhanced cash flows. Typical to SMEs as indicated by Afande (2015), firms in their formative stages of establishment may be over reliant on the contributions of the owners relative to cash emanating from operations.

5. Conclusion

Cash flows are one of the important variables that determine the long term survival of a firm. This is especially the case for operating cash flows because they relate to the core business of a business organization. The conclusion from the findings of this study is that cash flow structure as defined by the operating cash flow ratio has a positive effect on the debt equity ratio used to indicate the financing policy of the women led SMEs. SMEs with high proportions of operating cash flows are seen to have a high ability of relying on debt for their financing needs. This is particularly true because it is easier to service debt obligations when a firm can access high amounts from operations than form financing activities.

REFERENCES

Afande, F.O. (2015). Factors Influencing Growth of Small and Microenterprises in Nairobi Central Business District. Journal of Poverty, Investment and Development www.iiste.org ISSN 2422-846X An 9, 104-137.

Amanuel, M, (2011). *The determinants of capital structure evidence from manufacturing share companies of Addis Ababa city* (Master's thesis, Addis Ababa University, Addis Ababa, Ethiopia).

Hasanaj, S. (2014). *determinants of capital structure: evidence from banking sector in Albania*. (Mastera Thesis, Epoka University).

Hogan, T. & Hutson, E. (2005). *Capital Structure in new Technology-Based Firms: Evidence from the Irish Software Sector*. Global Finance Journal 15, 369- 387.

Keefe, M.O. & Yaghoubi, M. (2016). *The influence of cash flow volatility on capital structure and the use of debt of different maturities*. Journal of Corporate Finance, 38 (1),18-36

Koech, E. (2015). *Financing Of Small And Medium Business Enterprises In Kenya: A Case Of SMEs In Ongata Rongai – Kajiado County* (Masters Research Project, United States International University - Africa, Nairobi, Kenya).

Manian, F. & Fathi, Z. (2017). *Studying the Relationship Between Free Cash Flows and Performance Prediction in the Corporations of Accepted in Tehran Stock Exchange*. Quid (1), 2274-2282.

Memon, Z.A., Chen, Y., Tauni, M. Z & Ali, H. (2018) *The impact of cash flow volatility on firm leverage and debt maturity structure: evidence from China*. China Finance Review International, 8 (1), 69-91.

Modigliani, F. & Miller, M.H. (1958). *The cost of capital, corporate finance, and the theory of investment*. American Economic Review.

Myers, S C & Majluf, N. (1984). *Corporate financing and investment decisions when firm have information that investors do not have*. Journal of Financial Economics, 13, 187-221.

Nakhaei, M. & Jafari, S.M. (2015). *Survey of the Relationship between Capital Structure and Free Cash Flow with Financial Performance of Companies Listed in Tehran Stock Exchange*. Indian Journal of Science and Technology, 8(27), 1-11.

Oluoch J. O. (2014). *College Introductory Financial Accounting*. TGCL Publishers. IASB 978-9966-074-87-4.

Penrose, E. T. (1952). *Biological analogies in the theory of the firm*. The American Economic Review, 804-819.

Psillaki, M., & Daskalakis, N. (2009). *Are the determinants of capital structure country or firm specific Small Business Economics*, 33(3), 319-333.

Republic of Kenya. (2010). *Economic Survey*. Nairobi, Kenya: Government Printers.

Ross, S. (1977). *The determination of financial structure: The incentive-signalling approach*, Bell Journal of Economics 8, 23-40.

Sekaran, U. (2013). *Research methods for business: a skill-building approach*, New York: John Wiley and Sons, Inc

Werner S, Praxedes M, Kim H (2007) *The reporting of nonresponse analyses in survey research*. Organizational Research Methods 10: 287–295