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Board Members' Characteristics, Dispersion, Managerial Cognition and Performance of Saving and Credit Co-operatives in Nairobi City County

Stephen Kagwathi GITHII*
Africa Nazarene University, Nairobi, Kenya,

Thomas Senaji; Eunice Kirimi and Peter Kihara
Kenya Methodist University, Meru, Kenya

Abstract

The SACCO sector is a key contributor to Kenya's attainment of Vision 2030. However, poor governance and management of the sector remains a challenge and threat to its survival. It is without no doubt that the sector influence will continue to be felt, however this may not be guaranteed if management of SACCOs is not well addressed. In the past several SACCOs have gone under, researchers and even authorities have emphasized that governance and management of SACCOs remain a challenge to the sector. Equally the number of dormant SACCOs continues to rise. This paper presents findings of a study on the influence of board members' characteristics, dispersion and managerial cognition on SACCOs performance. The study was anchored on upper echelons theory, resource-based view and dynamic capabilities view. The study used descriptive cross-sectional survey research design and targeted 2,528 SACCOs that were in operation by the end of December 31st 2015. A sample of 254 was selected using simple random sampling. Data was collected using a structured questionnaire that targeted board members of the sampled SACCOs. Multiple regressions were used to test the hypotheses and to make conclusions on the presumed relationship between variables. Board's characteristics (age, functional background, and education level) were found to predict SACCOs performance. Gender was not significance in predicting performance when combined with other variables. The linear regression test revealed that managerial cognition was not a significant mediator, with the reported indirect effect being too small (0.63%). Through hierarchical multiple regression managerial dispersion was found to moderate between the board's characteristics and SACCOs performance, and that this was an enhancing moderation. It is concluded that age, functional background, and education level are important predictors of SACCO performance and that this relationship is moderated by the social distance between the board members.

Keywords: Board characteristics, cognition, dispersion, SACCOs and performance

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INTRODUCTION

Firm performance has always been a concern for researchers for many years. Researchers have tried to look at various aspects that explain firm performance and top management team (TMT) characteristics have been one such area. As pointed out by

Mutuku, K'Obonyo, Awino and Musyoka (2013), past studies have no consensus on the relationship, with some concluding TMT to be influencing performance of organizations while others found no relationship. This study founded on Upper Echelon Theory, resource-based view, and dynamic capability

*Corresponding Author: Stephen Kagwathi Githii Africa Nazarene University, Nairobi. Kenya, Email: kgithii@anu.ac.ke

view investigated the relationship of TMT characteristics (Board members' characteristics) and firm performance taking a rare path by including dispersion of the team as a moderating variable and management cognition as a mediating variable.

LITERATURE REVIEW

The influence of TMT characteristics on firm performance has attracted considerable research over the years (Homberg & Bui, 2013, Setiyono & Tarazi, 2014, Milana & Maldaon, 2015, Yohannes, Ayako & Musyoki, 2016), but the results have also varied greatly as noted by Mutuku, *et al.* (2013). There seem to be no agreement on the existence and significance of the relationship between TMT characteristics and firm performance. Furthermore, different researchers have used different constructs in measuring TMT characteristics as well as the measure for firm performance. Researches pursuing firm performance from TMT characteristics are mostly founded on the Upper Echelons theory postulated by Hambrick and Mason (1984). The two argued that organizational outcomes (strategies and effectiveness) are a reflection of the values and cognitive bases of powerful actors in the organization and that this relationship can be detected empirically. Emphasis was paid to observable managerial characteristics (i.e. demographic characteristics) such as age, tenure in the organization, functional background, education, socioeconomic roots, and financial position (Hambrick & Mason, 1984).

Upper echelon research employs the use of observable demographic characteristics as proxy measures of executive orientation. Executive orientation works through a perceptual or filtering process that results in what is called managerial perceptions (Hambrick & Mason, 1984). Managerial perceptions, in turn, influence strategic choices and executive actions. Their study triggered researchers to look at these

characteristics from different angles and the result have been mixed.

Herrmann & Datta (2005) observed a significant positive association between average TMT educational level and firm performance measured using international diversification. Contradicting, this Diaz-Fernandez, Gonzalez-Rodriguez & Pawlak (2014), found educational level diversity to have a negative and significant impact on corporate performance and no significant effects for functionality and education background diversity. This finding seems to go against Upper Echelon assertion and those of Setiyono & Tarazi (2014). However, their analysis also showed a relatively weak influence of international experience diversity on corporate performance. They concluded that organizations are more concerned with employee's education level rather than the degree diversity. Looking at a similar variable-nationality, Darmadi (2010) had found no relationship between board nationality and firm performance. This may be at odd with assumptions that there are some national cultures that are more aggressive than others.

Yohannes and colleagues' (2016) findings were in support of Upper Echelons assumption in as far as TMT demographic characteristics and firm performance is concerned. Their study concluded that TMT demographic characteristics affect performance however, the control variables revealed significant statistically positive effect on firm performance and as such firm performance cannot be totally explained by the characteristics. The focus of their study was on educational level, educational background, experience, age, and gender.

Herrmann & Datta (2005) findings show a negative relationship between organizational tenure, age and internationalization. The findings seem to suggest that new and younger managers are likely to pursue internationalization as opposed to those who have been in the organization for long and are older. They also attributed these findings to fact that such

TMT are likely to exhibit greater flexibility, information-processing capabilities and are likely to take risk. This notion was also affirmed by Philemon & Kessy (2016), who postulated that younger managers are likely to be international minded and cosmopolitan than older ones. Darmadi (2010) also concurred that age influence market performance.

In their study of commercial banks in Kenya, Mutuku *et al.* (2013) found no significant effect of TMT diversity on performance. They concluded that biases, conflicts and communication barriers which are likely to be present in a diverse team contribute negatively to performance of banks. These findings were supported in part by Wasike, *et al.* (2015), who found no significant results for the model testing the influence of demographic characteristics on organizational performance. However, they found behavioral characteristics to have significant positive influence on performance. Philemon & Kessy (2016) in a study of top management characteristics and firm performance in Tanzania found demographic characteristics to have a positive bearing on firm performance. Youthfulness, length of industrial experience and level of education of the managers positively relate to firm performance. The two noted that younger managers with at least tertiary level of education and come from middle to high socio-economic status families are observed to influence positively the firm's performance. This was in agreement with Colombelli (2015), who found young and highly educated Chief Executive Officers to positively influence firm growth.

Setiyono & Tarazi (2014), in their research involving 38 commercial banks in Indonesia, found that female presence in the TMT does not strongly impact performance and that presence of more diverse ethnic groups is associated with lower performance. Contradicting these findings on gender, Dezso & Ross (2012) had found out that female representation in top management

leads to better firm performance. Marimuthu & Kolandaisamy (2009) in a study of listed companies in Malaysia, found no relationship between gender, ethnic and performance.

Functional diversity, which some research looks at as work experience, was found to be positively associated with firm performance in collocated TMTs (Cannella, Park & Lee, 2008). Working experience, education diversity and tenure period were linked to higher performance (Setiyono & Tarazi, 2014). Yang & Wang (2014) looking at the impact of TMT characteristics on entrepreneurial strategic orientation, found age, gender and functional experience to significantly and positively influence entrepreneurial strategic orientation.

Looking at managerial characteristics and organization performance in Syria, Milana & Maldaon (2015) found manager's tenure as the only one having significant and positive influence on organizational performance. But manager's age, level of education, and functional track didn't have any significant influence on organizational performance. This partly agrees with Yang & Wang (2014) findings that educational background has no relations to strategic orientation. However, the two researchers noted that their study could only apply to a highly bureaucratic public organization.

From the foregoing, it is clear that disagreement and inconclusiveness exist. It is from this backdrop that the researchers seek to build the body of knowledge and help to understand more the influence of TMT characteristics on firm performance. The study focused on SACCOs in Nairobi region and went further than just relating TMT characteristics (Board) with performance by introducing dispersion of the Board to see how it moderates the relationship as well as how managerial cognition may mediate this relationship.

Characteristics of SACCOs in Developing Countries: SACCOs in developing countries are unique from other regions. Bwana & Mwakujonga (2013) while undertaking their study on issues in SACCOs

development both in Kenya and Tanzania, identified several characteristics of cooperatives in all of developing countries. Firstly, it was noted that members tend to come from low income and lower middle-income groups. However, it doesn't mean that the rich do not form SACCOs, on the contrary they do. United Nation SACCO is a good example. Secondly, the services offered by these SACCOs are almost exclusively financial in nature, their main aim being to mobilize resources from the members. Thirdly, the contributions that the SACCOs mobilize from the members form the pool from which the members borrow from, thereby helping most of them to be self-reliance. The last characteristic is that members are united through at least one common bond or interest such as people who work in the same organization.

Organization Performance: Successful organizations represent key ingredient for developing nations and happen to be one of the most popular variables under study by researchers (Gavrea, Ilies & Stegorean, 2011). Although the concept of organization performance is very common in the academic literature, definitions attached to it are many and for this reason there isn't a universally accepted definition of this concept (Gavrea, Ilies, & Stegorean, 2011).

Different measures have been used in the past research as indicators of firm performance. Several researchers have used ROA (Return on Asset) as the main measure for performance (Cannella, Park & Lee, 2008; Setiyono & Tarazi, 2014; Diaz-Fernandez et al., 2014). Wasike *et al.* (2015) in their study of TMT characteristics and performance of tea factories in Kenya operationalized organizational performance in terms of customer perspectives, internal business process, learning and growth. Philemon & Kessy (2016) used profitability, growth and survival as the key measures of firm performance. Milana & Maldaon (2015) in a study of managerial characteristics and its impact on organizational performance in Syria operationalized performance to

include; service quality, development of services, ability to attract and retain essential employees, satisfaction of customers, satisfaction of employees and reduction in customer complaints.

Not far from these indicators, Yohannes *et al.* (2016), used ROA, net profit margin and employee satisfaction as measure of firm performance, they argued that the higher the profit margin the more effectively a firm is converting revenue to profit. In addition to ROA, Mutuku *et al.* (2013) introduced dividend yield as a measure of organizational performance. The current study used profitability, loan issued, dividend pay-out, members' deposit, and new product and service as the main measures of SACCOs performance. The measurements have been used regularly by SASRA in measuring performance of SACCOs in the country.

Research Problem: Past literature shows contradicting findings on the influence that top management team may have on performance. Further, research on SACCO's sector has not related TMT characteristics with performance, most have focused on examining determinants of their financial performance. Management of SACCOs is unique unlike other organizations, to start with a great deal of decisions are made by the board who are mandated by the members to run the enterprises on their behalf. This is especially so for small SACCOs who due to financial limitations may not afford full pledged workforce working independently from the board. In the recent past several SACCOs have gone under and the number of dormant ones continues to rise. This has left thousands of members in limbo and government probing what went wrong. In addition, authorities and researchers have raised an alarm pointing that management of these institutions continues to be a challenge. Clearly the important role the movement play in our sector may indeed be in jeopardy if the top management team is not addressed. It is for this reason that the current study endeavoured to related board members' characteristics and performance of SACCOs.

RESEARCH METHODS

The current study adopted descriptive cross-sectional survey design. The research targeted the SACCOs operating within Nairobi region that were in operation by the end of 31st December 2015. According to Ministry of Cooperatives (2016) there were a total of 2,528 SACCOs in Nairobi. The current study used the 2,528 SACCOs as the population. The current study relied on the sampling frame of the 2,528 SACCOs as provided by the Ministry of Cooperative. Using a confidence level of 95 % the current study used a sample of 254 SACCOs, this is derived from the sample determination table by Krejcie and Morgan (1970).

Quantitative data were collected using structured questionnaire. The respondents were asked to indicate their level of agreement to given statements relating to the variables. Likert scale format where 1 represented not at all to 5 very large extent was used. Independent variable which was capturing board members characteristics was

captured by age, functional background, education level, and gender. Moderating variable (board's dispersion) was measuring the social distance between the board members. Intervening variable (managerial cognition) which relates to how managers process information during decision making, this variable was to identify whether board members were more inclined to logic reasoning or intuition approach. Finally, performance was measured using five indicators; profitability, loan issued, dividend pay-out, members deposit, and new product development.

Analytical Models: This study sought to establish the influence of TMT characteristics (independent variables) and SACCOs performance (dependent variable). As such regression model was used to establish the relationship, multiple regression was preferred as it helped to establish simultaneously the effects of one or more variables. The following equation was used in this study:

$$SP = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

Where: SP is the SACCO Performance

Independent variable represented by X_1, X_2, X_3 and X_4 ($X_1 =$ Age, $X_2 =$ Functional Background, $X_3 =$ Education level and $X_4 =$ Gender.

β_0 is the constant or intercept while $\beta_1, \beta_2, \beta_3, \beta_4$, the corresponding coefficients for the respective independent variables ε is the error term.

FINDINGS

In the current study, Cronbach's alpha test was carried out, a correlation coefficient of 0.955 from 85 items was attained which is higher than 0.80 and hence the instrument was internally reliable. The study managed a response rate of 88.5% whereby out of 254 questionnaires that were issued 225 were returned. The study revealed that SACCO boards were male dominated with 76 % of the respondent being male and 23% being female. Majority of the board members who took part in the research were between 31 and 50 years. On education level of the board members, majority (76%) of the respondents had a Bachelor Degree as their highest qualification. On SACCO representation

industry-wise majority (76%) came from transport and education sector.

Board's characteristics influence on SACCO's performance: When individual components of board characteristics were regressed on performance simultaneously the results are as indicated in Tables 1 and 2.

Table 1 indicates that the predictive model on performance by BOD characteristics as significant with $p < 0.0005$ and accounted for about 60.9% change in SACCOs performance. BOD characteristics, therefore, linearly affect performance of SACCOs in Nairobi region. With exception of gender which as shown in Table 2 had a p-value (0.771) greater than the established significance level, the results support

hypothesis that, BOD characteristics significantly influence SACCOs performance. When gender was dropped from the independent variables the results are depicted in Table 3. The model without gender was still statistically significant and

fit in explaining performance of SACCOs. Clearly, inclusion of the gender in the variables does not make any difference in the change that the board's characteristics account for in performance.

Table 1. Regression Model Summary for Board's Characteristics on Performance

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .780 ^a | .609 | .602 | .46402 |

a. Predictors: (Constant), Gender, Age, Education level, Functional Output

Source: Primary Data

Table 2. Regression Coefficients for Board's Characteristics on Performance

| Model | | Unstandardized Coefficients | | Standardized Coefficients (Beta) | T | Sig. |
|-------|-------------------|-----------------------------|------------|----------------------------------|--------|------|
| | | B | Std. Error | | | |
| 1 | (Constant) | 1.198 | .208 | | 5.753 | .000 |
| | Age | -.280 | .060 | -.303 | -4.662 | .000 |
| | Functional Output | 1.090 | .109 | 1.178 | 9.983 | .000 |
| | Education level | -.341 | .069 | -.450 | -4.965 | .000 |
| | Gender | .016 | .056 | .018 | .292 | .771 |

a. Dependent Variable: Performance

Source: Primary Data

Table 3. Regression Model Summary for Age, Functional background, Education Level on Performance

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .780 ^a | .609 | .604 | .46305 |

a. Predictors: (Constant), Education level, Age, Functional Output

Source: Primary Data

Table 4. Regression Coefficients for Age, Functional Background, Education Level, on Performance

| Model | | Unstandardized Coefficients | | Standardized Coefficients (Beta) | T | Sig. |
|-------|-------------------|-----------------------------|------------|----------------------------------|--------|------|
| | | B | Std. Error | | | |
| 1 | (Constant) | 1.238 | .157 | | 7.899 | .000 |
| | Age | -.289 | .052 | -.313 | -5.561 | .000 |
| | Functional Output | 1.112 | .078 | 1.202 | 14.196 | .000 |
| | Education level | -.352 | .059 | -.463 | -5.953 | .000 |

a. Dependent Variable: Performance

Source: Primary Data

From the Table 4, the following equation was derived.

$$Y=1.238-0.28x_1+1.112x_2-0.352x_3, R^2=60.9\%, P<0.005.$$

It can be deduced that from the above regression model that the three variables (Age, functional background, and education level) that were used as characteristics of board members influence the performance of

SACCOs. This is confirmed by P values that were less than 0.05, hence having effect on the SACCO performance. From these results, there is indeed statistically significant relationship between the board characteristics (age, functional background, and education level) and SACCOs performance. The direction of the relationship is however

varying, age and education level have negative relationship meaning as the age and education level of the board members increases the performance of the SACCOs decreases. Functional background had positive influence on performance, specifically it was found that, board that is more inclined to output would experience increased performance.

Moderating Effect of managerial dispersion: Hierarchical multiple regression analysis was conducted in order to determine the moderating role of managerial dispersion between board’s characteristics and performance of saving and credit co-operatives. From Table 5) it can be seen that the effects were statistically significant with model 5 having an R² of 0.609 and model 6 (with moderator) having an R² of 0.618. It is also confirmed that gender is not a relevant predictor of performance in this model. The two models (5 and 6) were also fit as it can be seen by the p values that were all less than 0.05 in coefficients Table 6. When the interaction term was added to the model (Table 7), the R² increased slightly to 0.63, two percent change is significant and indicates that moderation is occurring. Further, given that the predictors and moderator were significant with the interaction term added, then the moderation has occurred, and the effect is significant. Finally, the moderation effect of managerial dispersion in the relationship between the board’ characteristics and SACCOs performance can be termed as enhancing,

since increasing moderator would increase the effects of the predictor on the outcome.

Mediation effect of managerial cognition: To test the theorized mediation of managerial cognition, linear regression was used specifically using the special process developed by Andrew F. Hayes. The results of this process are displayed in Appendix I. From model 4 there were three variables and a sample of 225. From the analysis, significance relationship was established between the following variables: board’s characteristics and SACCOs performance, board’s characteristics and managerial cognition, and finally between managerial cognition and SACCOs performance. This is necessary first step for the test to continue. All these relationships scored a p-value of 0.000 hence were statistically significant. Board’s characteristics were a significant predictor for both the performance and managerial cognition. Confirming that there is no mediation effect, board’s characteristics was still significant predictor of performance in presence of managerial cognition as is represented with a p-value of 0.0001 this is further confirmed by the insignificance indirect effect (0.63% with a 95% confidence level) of board characteristics on performance. If there was mediation, board’s characteristics would not have remained significant predictor of performance in presence of managerial cognition. Therefore, it was found that managerial cognition does not mediate the relationship between board’s characteristics and SACCOs performance.

Table 5. Regression Summary Model 1 (without the Interaction Term)

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .731 ^a | .534 | .532 | .50301 |
| 2 | .748 ^b | .560 | .556 | .49006 |
| 3 | .755 ^c | .570 | .565 | .48529 |
| 4 | .780 ^d | .609 | .602 | .46402 |
| 5 | .780 ^e | .609 | .604 | .46305 |
| 6 | .786 ^f | .618 | .611 | .45855 |

a. Predictors: (Constant), Functional Output

b. Predictors: (Constant), Functional Output, Gender

c. Predictors: (Constant), Functional Output, Gender, Education level

d. Predictors: (Constant), Functional Output, Gender, Education level, Age

e. Predictors: (Constant), Functional Output, Education level, Age

f. Predictors: (Constant), Functional Output, Education level, Age, Managerial Dispersion

Source: Research Data

Table 6. Regression coefficients for Model 1 (without the interaction term)

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|-------|-----------------------|-----------------------------|------------|---------------------------|--------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .510 | .116 | | 4.411 | .000 |
| | Functional Output | .676 | .042 | .731 | 15.995 | .000 |
| 2 | (Constant) | .312 | .125 | | 2.492 | .013 |
| | Functional Output | .575 | .050 | .621 | 11.505 | .000 |
| | Gender | .178 | .049 | .194 | 3.597 | .000 |
| 3 | (Constant) | .437 | .135 | | 3.233 | .001 |
| | Functional Output | .703 | .074 | .760 | 9.474 | .000 |
| | Gender | .147 | .051 | .160 | 2.891 | .004 |
| | Education level | -.121 | .052 | -.160 | -2.321 | .021 |
| 4 | (Constant) | 1.198 | .208 | | 5.753 | .000 |
| | Functional Output | 1.090 | .109 | 1.178 | 9.983 | .000 |
| | Gender | .016 | .056 | .018 | .292 | .771 |
| | Education level | -.341 | .069 | -.450 | -4.965 | .000 |
| | Age | -.280 | .060 | -.303 | -4.662 | .000 |
| 5 | (Constant) | 1.238 | .157 | | 7.899 | .000 |
| | Functional Output | 1.112 | .078 | 1.202 | 14.196 | .000 |
| | Education level | -.352 | .059 | -.463 | -5.953 | .000 |
| | Age | -.289 | .052 | -.313 | -5.561 | .000 |
| 6 | (Constant) | 1.986 | .358 | | 5.544 | .000 |
| | Functional Output | 1.229 | .093 | 1.328 | 13.277 | .000 |
| | Education level | -.427 | .067 | -.563 | -6.379 | .000 |
| | Age | -.395 | .069 | -.428 | -5.735 | .000 |
| | Managerial Dispersion | -.215 | .093 | -.129 | -2.316 | .021 |

a. Dependent Variable: Performance

Source: Research Data

Table 7. Regression Model Summary with the interaction term

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | R Square Change | Change Statistics | | | Sig. F Change |
|-------|-------------------|----------|-------------------|----------------------------|-----------------|-------------------|-----|-----|---------------|
| | | | | | | F Change | df1 | df2 | |
| 1 | .731 ^a | .534 | .532 | .50301 | .534 | 255.847 | 1 | 223 | .000 |
| 2 | .748 ^b | .560 | .556 | .49006 | .026 | 12.937 | 1 | 222 | .000 |
| 3 | .755 ^c | .570 | .565 | .48529 | .010 | 5.386 | 1 | 221 | .021 |
| 4 | .780 ^d | .609 | .602 | .46402 | .039 | 21.732 | 1 | 220 | .000 |
| 5 | .780 ^e | .609 | .604 | .46305 | .000 | .085 | 1 | 220 | .771 |
| 6 | .786 ^f | .618 | .611 | .45855 | .009 | 5.365 | 1 | 220 | .021 |
| 7 | .795 ^g | .633 | .624 | .45086 | .014 | 8.565 | 1 | 219 | .004 |

a. Predictors: (Constant), Functional Output

b. Predictors: (Constant), Functional Output, Gender

c. Predictors: (Constant), Functional Output, Gender, Education level

d. Predictors: (Constant), Functional Output, Gender, Education level Age

e. Predictors: (Constant), Functional Output, Education level, Age

f. Predictors: (Constant), Functional Output, Education level, Age, Managerial Dispersion

g. Predictors: (Constant), Functional Output, Education level, Age, Managerial Dispersion, INTT

Source: Research Data.

DISCUSSION

Board's characteristics had a significant linear positive effect on SACCOs performance ($R^2 = .609$ and $p = 0.000$) as depicted in Table 3. Regression analysis showed different variables of board's characteristics significantly affecting performance of the SACCOs though at different percentages and direction. From Table 2 it is clear that gender was not statistically significant in predicting performance and this was later confirmed in table 3 where the model yielded the same R^2 of .609 even with exclusion of gender, this is in support of Setiyono and Tarazi (2014), Marimuthu and Kolandaisamy (2009) as well as Darmadi (2010) whose findings showed negative relationship between gender and firm performance. The findings contradict Deszo and Ross (2012), who found female representation to have positive and significant influence on firm performance.

This could be partly explained by the fact that 76% of the respondents were male.

Age and education level were found to have negative relationship with performance as it can be seen in Table 4. On age, the findings support Herrmann and Datta (2005), Colombelli (2015) and Philemon and Kessy (2016) where youthfulness was seen to influence performance positively. Further, the findings support Yoon, Kim and Song (2015) who found that higher average age of TMT to have negative effects on organizational creativity. The current study's findings disagree with Yohannes *et al.* (2016) who found positive influence on performance, but this could be due to the fact that their study looked at the age diversities and not just age.

On education level, the current study findings support Diaz-Fernandez, Gonzalez-Rodriguez & Pawlak (2014) who found a negative relationship between education level and performance, they argued that firms are more concerned with education

background that education level. From the current study, given that functional background had a positive relationship it would seem that the level of education as not so necessary compared to the diversity of the education. Milana and Maldaon (2015), found education level not to have significant influence on performance in public organizations due to controlled environment that managers are likely to operate in. This could partly also be the case for SACCOs in Kenya given that they are highly regulated by authorities especially those operating front office services. The findings contradicted Herrmann and Datta (2005), Philemon and Kessy (2016) who found education level to be a positive predictor of firm's performance.

When individual board characteristics were regressed on performance of the SACCOs, functional background had the biggest R^2 of .534 least being age with .036. This show that when characteristics are related individually functional background would have bigger percentage in accounting for performance compared to the other three variables. Signifying, the importance of board members previous orientation on SACCO performance. This, positive relationship of functional background and performance was in line with Connella, Park and Lee (2008), Yang and Wang (2014), Setiyono and Tarazi (2014), and Yohannes *et al* (2016) findings. The study also sorts to determine the mediation effect of managerial cognition on the relationship between board's characteristics and performance of SACCOs. The linear regression special process by Andrew F. Hayes test revealed that managerial cognition was not a significant mediator, with the reported indirect effect being too small (0.63%). Therefore, managerial cognition of the board members does not in any way influence the performance of the SACCOs that they represent.

Moderation role of board's dispersion (social) in the relationship between board's

characteristics and performance of SACCOs was also tested. All conditions for mediation test were established, as correlation coefficients for each path were statistically significant. When the interaction term was added to the model, as seen in Table 7, the R^2 increased slightly to 0.63, the two percent change is significant and indicates that moderation is occurring. It was concluded that the moderation was an enhancing type. The results are in support of Zenun, Loureiro and Araujo (2007), Cannella, Park and Lee (2008), Rashid (2013) who found where employees are working close to one another firm performance is likely to be high. However, it must be noted that the current study looked at the social distance as explored by Robert (1924) and Borgadus (1925) and not physical distance as most research have.

CONCLUSION

The study's findings lead to several conclusions. First and foremost, board' characteristics strongly influence SACCOs performance. Thus, the composition of the board will have implication on the performance of SACCOs. Secondly, SACCOs must ensure that the board age is lining more to youth as findings revealed a negative relationship between the age and performance. Another conclusion that can be drawn from the findings is that functional background is an important predictor of performance. Specifically output background such as marketing, sales, produce, research and development and entrepreneurship orientation were found to have positive relationship with performance. Therefore, the SACCOs must be keen on the prior orientation of their members.

Another conclusion that can be drawn from the findings is that gender is not an important predictor of performance. Therefore, the composition of the board in terms of gender should not be a concern when SACCOs are looking to enhance their performance. Managerial cognition can be

concluded not to be a significant mediator of the relationship between board characteristics and performance. Hence, SACCOs seeking to improve their performance need not to be concerned on the cognitive style of their board.

On managerial dispersion, it can be concluded that where the board are socially close, performance of SACCO is enhanced. The findings showed an enhancing moderation effect therefore indicating the importance of the social distance between the board members. The closer the members are the better it is for the SACCOs performance.

Suggestions for further studies: From the findings, the current study's variables were able to explain only a 60% of the variance in performance. Thus, a study could be done to try and capture the 40 % unexplained variance. Given that the study looked at the education level and not diversity a research could be done using education diversity to see how the relationship would turn out.

Managerial implications: From the findings, it is clear that firms must be concerned with the composition of their top management team specifically their age, and functional background. Youthfulness and output background of the team must be ensured if performance is to be enhanced. Organizations must as much as possible try to create social proximity between its members as this was seen to have an enhancing moderation effect on performance.

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APPENDIX I: ANDREW F. HAYES SPECIAL PROCESS TEST FOR MODERATION

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 3.1 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com

Documentation available in Hayes (2018). www.guilford.com/p/hayes3

Model : 4

Y : P

X : IV

M : MC

Sample Size: 225

OUTCOME VARIABLE: MC

Model Summary

| R | R-sq | MSE | F | df1 | df2 | p |
|-------|-------|-------|----------|--------|----------|-------|
| .5919 | .3504 | .2410 | 120.2667 | 1.0000 | 223.0000 | .0000 |

Model

| | coeff | se | t | p | LLCI | ULCI |
|----------|--------|-------|---------|-------|--------|--------|
| constant | 3.1338 | .0581 | 53.9785 | .0000 | 3.0194 | 3.2482 |
| IV | .0235 | .0021 | 10.9666 | .0000 | .0193 | .0277 |

Covariance matrix of regression parameter estimates:

| | constant | IV |
|----------|----------|--------|
| constant | .0034 | -.0001 |
| IV | -.0001 | .0000 |

OUTCOME VARIABLE: P

Model Summary

| R | R-sq | MSE | F | df1 | df2 | p |
|-------|-------|-------|----------|--------|----------|-------|
| .7403 | .5480 | .2467 | 134.5849 | 2.0000 | 222.0000 | .0000 |

Model

| | coeff | se | t | p | LLCI | ULCI |
|----------|-------|-------|---------|-------|-------|--------|
| constant | .6624 | .2203 | 3.0066 | .0029 | .2282 | 1.0965 |
| IV | .0282 | .0027 | 10.4718 | .0000 | .0229 | .0335 |
| MC | .2697 | .0678 | 3.9813 | .0001 | .1362 | .4033 |

Covariance matrix of regression parameter estimates:

| | constant | IV | MC |
|----------|----------|--------|--------|
| constant | .0485 | .0002 | -.0144 |
| IV | .0002 | .0000 | -.0001 |
| MC | -.0144 | -.0001 | .0046 |

***** TOTAL EFFECT MODEL *****

OUTCOME VARIABLE: P

Model Summary

| R | R-sq | MSE | F | df1 | df2 | p |
|-------|-------|-------|----------|--------|----------|-------|
| .7182 | .5157 | .2631 | 237.5025 | 1.0000 | 223.0000 | .0000 |

Model

Performance of SACCOs in Nairobi City County/GITHII, et al.

| | coeff | se | t | p | LLCI | ULCI |
|----------|--------|-------|---------|-------|--------|--------|
| constant | 1.5077 | .0607 | 24.8530 | .0000 | 1.3881 | 1.6272 |
| IV | .0345 | .0022 | 15.4111 | .0000 | .0301 | .0389 |

Covariance matrix of regression parameter estimates:

| | constant | IV |
|----------|----------|--------|
| constant | .0037 | -.0001 |
| IV | -.0001 | .0000 |

***** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y *****

Total effect of X on Y

| Effect | se | t | p | LLCI | ULCI | c_ps | c_cs |
|--------|-------|---------|-------|-------|-------|-------|-------|
| .0345 | .0022 | 15.4111 | .0000 | .0301 | .0389 | .0469 | .7182 |

Direct effect of X on Y

| Effect | se | t | p | LLCI | ULCI | c'_ps | c'_cs |
|--------|-------|---------|-------|-------|-------|-------|-------|
| .0282 | .0027 | 10.4718 | .0000 | .0229 | .0335 | .0383 | .5862 |

Indirect effect(s) of X on Y:

| Effect | BootSE | BootLLCI | BootULCI |
|--------|--------|----------|----------|
| MC | .0063 | .0019 | .0105 |

Partially standardized indirect effect(s) of X on Y:

| Effect | BootSE | BootLLCI | BootULCI |
|--------|--------|----------|----------|
| MC | .0086 | .0027 | .0147 |

Completely standardized indirect effect(s) of X on Y:

| Effect | BootSE | BootLLCI | BootULCI |
|--------|--------|----------|----------|
| MC | .1319 | .0350 | .1981 |

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output: 95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals: 5000

----- END MATRIX -----