HUMAN CAPITAL ACCOUNTING TOOL USAGE: EVIDENCE FROM A SURVEY OF KENYAN FIRMS

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ABSTRACT

I study the effect of applicability and assessability of accounting for Human Capital tools on the Human Capital accounting practice in the Kenyan medium and large organizations. The study employed the explanatory-mixed method cross-sectional survey on Chief Finance Officers (CFOs) in the Kenyan medium and large organizations. The need to establish the causal relationships between the explanatory and response variables promoted the research design. Mixed method was selected due to its suitability as it allows the collection of both qualitative and quantitative data, as well as data integration into meaningful findings. The study found that accounting for Human Capital tools' applicability, and assessability would enable the Human Capital accounting practice in the Kenyan medium and large organizations for improved decisions which enhance firm value. However, it is difficult to delineate Human Capital; the total stock of skills of an entire workforce in an organization from Human Resources and People, which possess dynamic social and relational non-financial or accounting measures. This paper contributes to the body of knowledge by establishing a link between accounting for Human Capital practice and Human Capital tool usage which is a new phenomenon in Kenyan.

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KEYWORDS: Accounting, Human Capital, Medium and Large Organizations, Applicability, Accessibility for Efficacy

INTRODUCTION

Jones (2013) has defined an organization as a tool people use to achieve their unique goals. One huge goal is wealth creation. To achieve this goal, organizations thrive in assets as means of wealth production. To carry on business, a corporation needs almost endless variety of real assets (Brealey, Myers and Allen, 2011). Mello (2011) has identified financial, physical, market, operational, and Human Capital (HC) as the five key assets in organizations. However organizations extol HC as the foremost factor of competitive advantage (Chouhan & Naghshbandi, 2015; Chang, 2014; Kaur, Raman, & Singhania, 2014; Butt, 2013; Enofe, Mgbame, Otuye, & Ovie, 2013; Akintoye, 2012; Fischetti, 2011; Mello, 2011; Zhang, 2006; Theeke, 2005; Flamholtz, Bullen, & Hua, 2002; Batra, 1996; Likert, 1967), as nothing can ensue without its mediation. The most ubiquitous statement in most large publicly listed corporations' annual reports is that 'people are our most valuable assets' (Steen, Welch & McCormack, 2011; Cascio, 1998; Baker, 1974). This authenticity is historical as depicted in existing literature, and dates back to the 1960s of the last century when organizations relied on physical assets such as raw materials and machines; to the present time when HC is supreme (Gamerschlag, 2013; Flamholtz, Bullen & Hua, 2002) in the knowledge economy. This reality is conceptualized in this study in Figure 1. As illustrated, HC is centrally positioned as it is the intervening factor in aligning others core assets for optimal productivity in organizations.

All indispensable tangible and intangible assets of firms are accounted for as material investments in their financial reports for improved decisions which enhance firm value (Chouhan &Naghshbandi, 2015;

Andrade & Sotomayor, 2013; Bullen & Eyler, 2010). Accordingly; organizations which engage in HC accounting (ACC) practice report superior financial performance. Becker, Huselid and Ulrich (2001) investigated HC ACC and management quality indices in various organizations and confirmed that the top 10% of those studied earned 391% Return On Investment (ROI) as a result of ACC and managing their HC. Gates (2002) established that sound and strategic management of HC ACC can explain up to 47% increase in firm market value. The American Bankers Association conducted a study among America's leading banks on the relationship between a bank's investments in HC and its overall business performance and concluded that the institutions with the greatest focus on HC ACC enjoy the greatest financial returns (Pickett, 2005). Pfau and Kay (2002) established that firms with the best HC ACC practices provide returns to shareholders three times greater than their counterparts with weak HC ACC practices in a study of 750 huge publicly traded companies.

Figure 1: Alignment of Firm Assets Which Create Value: Source: Researcher 2017
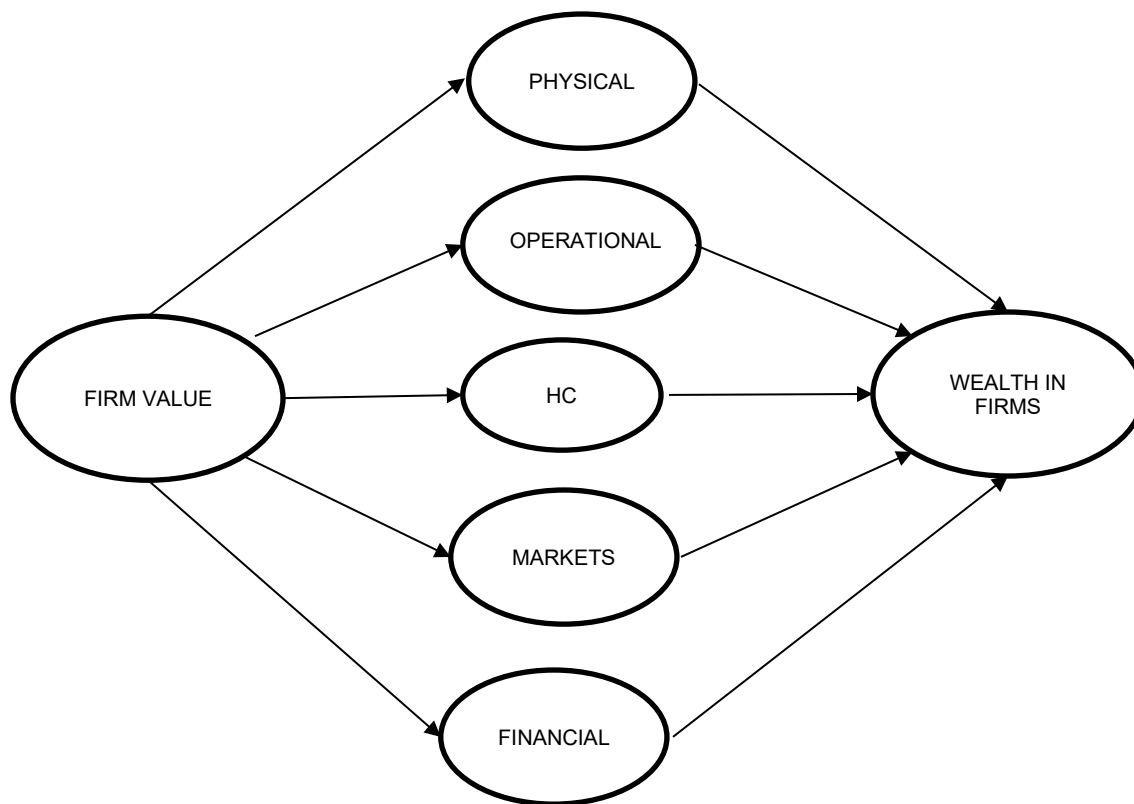
This figure shows firms and the assets they use, including physical, operational, HC, markets, and financial for wealth creation. As shown in the middle of the figure, HC is centrally positioned because it is the utmost factor of competitive advantage in firms as the other assets cannot function without its intervention.

Consequently, several ACC for HC tools, such as the Acquisition Cost (AC) which takes into account recruitment, selection, contracting, and placing; Learning Cost (LC) which includes training, orientation, promotion, and improvement; Actual Human Capital Return (AHCR) in an organization; Intangibles Monitor (IM) which uses measures such as growth, renewal, efficiency, and stability; Adjusted Present Value technique (APVT) which estimates the Present Value (PV) of future wages, future earnings, and value addition by workers; among others have been unveiled (Massingham, Nguyen & Massingham, 2011; Andriessen, 2004; Flamholtz, Narasimhan, & Bullen, 2004; Sveiby, 1997) to promote ACC for HC practice in organizations. However, the tools are unadopted by key constituents in organizations (Butt, 2013; Kirfi & Abdullahi, 2012; Mello, 2011; Theeke, 2005; Flamholtz, Narasimhan, & Bullen, 2004) because they lacks generally accepted HC ACC frameworks. As a result, Kenyan Medium and Large

Organizations (MLOs) have not used the tools in ACC for their HC as the superlative wealth productive investments. One way to solve this puzzle is to enquire on the applicability and assessability of the tools in the Kenyan MLOs because of their all-embracing financial reporting. The objective of the study is therefore to investigate HC ACC tool usage in the Kenyan MLOs. Much of HC ACC practice studies have been contacted in various international settings such as UK, Scandinavia, Australia, Canada, Austria, USA, and Malaysia, among others, (Bontis, Keow, & Richardson, 2000) but none in Kenya. The study findings will come in handy to help overcome the challenges currently overloading the existing accounting for HC tools. The remainder of the document will underscore literature review, data and methodology, results, concluding remarks, references, and acknowledgements.

LITERATURE REVIEW

In this study, applicability means using an accounting tool to calculate Total Human Capital Cost (THCC) in the Kenyan MLOs successfully for comparison with AHCR and Human Capital Earnings Potential (HCEP) in the assessment of HC as the utmost factor of competitive advantage in organizations. It addresses the key concerns of whether firms: would support the notion of HC as the foremost factor of their competitive advantage; would have requisite data to compute AC and LC; would forecast their anticipated HCEP; and whether they would have skilled managers to execute the HC ACC practice. Several firms have applied various ACC for HC tools with positive bottom-line results (Mello, 2011; Hansson, 1997; O'Regan, O'Donnell, Kennedy, & Cleary, 2001; Garcia-Ayuso, Moreno-Campos, & Sierra, 2000) as shown in Table 1.

Table 1: Application of Existing Accounting for HC Tools in Organizations with Positive Financial Results.

1 Firm	2 ACC For HC Tool Applied	3 How the Firm Has Applied the Tool	4 Why the Tool is Not Adopted	5 This Research Propositions
RG Barry Corporation (USA)-1970	AC (Brummet, 1970), as cited in Flamholtz (1999)	Presented Statement of Financial Position (SFP) based on seven functional accounts.	According to Flamholtz (1999): first, cost data was not readily available hence data used was costly to retrieve and unreliable; second, presenting many (7) accounts had the potential of introducing errors in the HC values; and finally, there was lack of empirical evidence on the system as a HC management and strategic decision tool. In addition, only AC and replacement cost parts of the model were used. Finally, the tool was not cost effective (Kaur, Raman, & Singhania, 2014)	Acquisition or Historic costs are fundamental costs used to identify and recognize assets in the Financial Statements (FS) of firms initially (per IAS 16). However replacement costs are inappropriate for HC ACC in this study because when HC exit, a loss ought to be recognized and Acquisition costs incurred on new HC. A model is proposed in this study based on empirical evidence from Kenyan MLOs which aggregates AC, Learning Costs (LC), 3 Months' Salary and HCEP to calculate THCC, using Stochastic Rewards Valuation Model (SRVM) (Flamholtz, 1999), as a surrogate measure in **Figure 4**. SRVM is a probabilistic positioning of HC in various positions throughout their life in an organization and was not applied by RG Barry Corporation. Furthermore, the definition of replacement cost in Flamholtz (1999) is similar to AC.
Touche Ross & Co. (CPA Entity)-1970	AC (Brummet, 1970) and Opportunity Cost (Hekimian & Jones, 1967); as cited in Flamholtz (1999)	Presented a Human Resource Investments Report	Flamholtz (1999) observed that the system designed by the firm was inadequate in aiding the assessment of validity, reliability, and utility of HC ACC information.	Current operational assets such as advanced technology are instrumental in aiding firms of the current era to collect, analyse, and report data in sophisticated systems which are in turn assessed for efficacy.

'Metro Bank' USA PLC-1999	AC (Flamholtz, 1999)	Presented divisional summary of cost per hire	The accounts presented portrayed disparity in costs incurred by different divisions; and the notion that high costs signified an adverse variance did not hold, as these could imply material investments in LC such as quality training (Flamholtz, 1999).	As in RG Barry Corporation above. However in the 'Metro' case, AC was restricted to recruitment and selection costs only (Flamholtz, 1999).Contemporary research (Barcons-Vilardell et al 1999) has identified AC to constitute recruitment, Selection, Contracting, and Placing HC in organizations.
The USA Navy-1999	AC (Brummet, 1970; Flamholtz,1999)	Presented statements of Acquisition and Development costs for Individuals	See R G Barry above.	As in R G Barry above.
Dow Chemical Co (USA)-2003	Tailor made tool, which aggregates AC , LC and AHCR (Mello, 2011)	Presented statements of Break-Even Points (B-E-P) which compare the AHCR, expected HCEP and Net Present Value (NPV) of projects executed by each employee in a single business unit.	This was an on-going effort by the entity, and the tool was expected to be rolled out to other business units.	The tool computes the B-E-P metric, rather than the THCC in organizations, which is the focus in Kenyan MLOs. THCC is essential for comparison with AHCR in the assessment of HC as the utmost factor of competitive advantage in organizations.
18 British Football clubs - 1997	Most clubs applied the AC cost approach (Morrow, 1997)	Presented SFP	The practice is ongoing.	Morrow (1997) supported the practice and recommended the historical cost approach (Similar to AC). However, clubs can efficiently account for their players by determining the THCC favoured by MLOs in Kenya, for comparison with AHCR.
Swedish National Tele-Communications Co-1996	Tailor made tool (Telia, 1996) as cited in Kaur et al (2014)	Presented Human Resource (HR) Income Statement and HR SFP	The ACC for HC efforts were ongoing. However, according to Sveiby (1997), several reasons made the process difficult, namely: Financial analysts were unfamiliar with HC data and hence the company did not get good response; there was the fear that the indicators could give too much away; there exists no rigorous theoretical model on ACC for HC; there is lack of benchmark experience; and finally, lack of empirical evidence that the metrics were sufficient in HC ACC practice. Furthermore, HC ACC is a HR rather than ACC function and includes non-financial measures.	Managers are increasingly becoming aware of ACC for HC practice and its positive impact on the quality of management decisions Kouhy et al, 2009) which enhance firm value. Kenyan CFOs in MLOs validate ACC for HC tools which may be applied as the basis of a sound theoretical model in ACC for HC practice. Furthermore, reporting mechanisms, including social media platforms have transformed the way ACC for HC information is transmitted (Dumay & Guthrie (2017). In addition, ACC for HC is a strategic integration (Kouhy et al, 2009) and as such, cannot be condemned as an HR preserve.
Swedish Civil Aviation Administration-1998	IM (Sveiby, 1997) as cited in Kaur et al (2014)	Presented HR income statement and HR SFP	See Swedish National Tele-Com above.	See Swedish National Tele-Com above.
WM data-Swedish Computer software consulting Co-1995	IM (Sveiby,1997)	Presented statements of ACC for HC ratios such as Number of employees, Turnover, Net Profit, Market value, Return On Capital Employed (ROCE), and Return On Equity (ROE).	This was an on-going effort by the firm. However, the model employed by this entity is multi-faceted as it includes non-financial measures of HR such as the social dynamics (Flamholtz, Narasimhan & Bullen, 2004), and therefore made it infeasible for the firm to effectively undertake HC ACC practice, which calculates THCC.	Cascio and Boudreau (2011) have concluded that it is impossible to measure everything about talent or HR program effects. Accordingly, firms can distinguish between HC financial measures and non-financial HR programs.

Skandia Group-Swedish Insurance Co-1994	IM –Sveiby (1997)	Presented statements of HC ACC ratios such as Number of employees, Turnover, Net Profit, Market value, Return On Capital Employed (ROCE), and return On Equity(ROE).	As in WM data above	As in WM data above
Bharat Heavy electrical (India)-2003	APVT As modified by Lev & Schwartz (1971)	Presented SFP	The tool: ignored the probability of HC turnover for reasons other than retirement or death; ignored HC learning and growth as it assumes people will remain in the same position; assumed individual measures could be aggregated to THCC, although this is infeasible because of synergism (Flamholtz, 1999)	Salary is an input, rather than an output in HC, and hence should be offset against AHCR. Furthermore, firms wish to focus on THCC, which is cost effective to measure for accurate and effective decisions, rather than Individual capital which is not cost-effective to measure (Jensen, 2001; Johanson & Mabon, 1998).
Cement Corporation of India-2006	APVT as modified by Lev & Schwartz Model (1971)	Presented SFP	See Bharat Heavy electrical above	As Above
Oil & Natural Gas Corporation India-2006	APVT as modified by Lev & Schwartz Model (1971)	Presented SFP	See Bharat Heavy electrical above	As Above
Engineers India Ltd-2006	APVT as modified by Levi & Schwartz Model (1971)	Presented SFP	See Bharat Heavy electrical above	As Above. It is noted that the companies in India were in the public sector, and their private sector counterparts were not studied.

This table shows organizations which have applied ACC for HC tools. Column one shows the name of the firm and the year it applied the tool. Column two and three show the author and ACC for HC tool applied; and how the firm applied the tool respectively. Column four shows why the tool has not been adopted by Kenyan MLOs for use in HC ACC practice. The last column shows the authors propositions based on research findings. Source: Researcher 2017.

Assessability for efficacy answers such questions such as: did the tool compute accurate THCC meaningful for managers' decisions based on the available historical records? How much time is it taking the staff to arrive at the THCC value? At what cost? Is it going to help the firm to grow its bottom-line and shareholder value? Does the firm have a budget to implement the tool? Has its implementation received managers and shareholders support? Who will be responsible for implementing it and championing the change? Is the firm willing to release this information to all the stakeholders? Jackson (2010) has introduced additional key concerns on assessability: what subcultures are within the firm and how will they resist the new changes? What cultural traits are puny or will obstruct the changes? What will be the toughest changes and how will they be managed? For example how would HC ACC conform to an entity's social order between the management leaders, employees and other stakeholders (Grojer, 1997)? Jensen (2001) investigated 350 firms and established that time and resources are material barriers to the assessment and implementation of HC ACC practice in organizations. In a study on Swedish firms, Sveiby (1997) found that few managers were willing to allocate budgets to assess how HC ACC practice can be applied to their firm strategies. In their empirical work, Johanson and Mabon (1998) cited the challenge of the costs of assessment and implementation of HC ACC practice as being greater than the benefits. In their study, Hedlin and Adolphson (2000) determined that the assessment and implementation of ACC for HC practice in organizations is characterised by uncertain benefits and lack of transferable value. After successfully computing the estimated THCC, managers at R.G. Barry Corporation dropped the tool after its assessment because it was not cost effective (Kaur et al, 2014).

DATA AND METHODOLOGY

The study employs the critical realism philosophical view, centred on the explanatory-mixed methods research design, and is anchored on the cross-sectional sampling scheme. Combining qualitative, quantitative, action, and critical research (Mertens, 2007) has been brought to a level of legitimacy as a result of numerous outstanding documented works (Creswell, 2009). The key assumption of the study is that: The applicability and assessability for efficacy of any accounting tool is inextricably linked to its practice. The target respondents were 165 CFOs in two strata as follows: The 100 Kenyan best medium firms in the year 2016 (as ranked by renowned KPMG on the basis of financial performance) and the 65 Kenyan large organizations listed at the NSE in 2016. The firms were selected for this study on HC ACC practice because of their all-embracing financial reporting. Primary data was collected from a sample of 116 CFOs through the survey strategy and a response rate of 51% achieved. The criteria for medium firms in Kenya include: turnover in Kenyan shillings between 5-800 million ($50,000-$8,000,000) and employees between 50 and 99. These were part of the nominal portion of the data collection instrument. The data were collected using both hard copies (34) as well as web-based questionnaires (25) and A *t*-test was employed to analyse any disparities and it was found that there was no significant difference in the average scores of the variables between the two survey methods with a ($p > 0.05$). The questionnaire was pre-tested on a pilot set of respondent from the technical staff of the Institute of Certified Public Accountants of Kenya (ICPAK) for comprehension, logic and relevance. All the aspects of the questionnaire were pre-tested including question content, question difficulty, layout wording, sequence, and form and instructions. The feedback obtained was used to revise the questionnaire before administering it to the study respondents. The study variables were measured using both the ordinal scale and Likert-type scale (*1= Very strongly disagree; 2= strongly Disagree; 3= Disagree 4= Not sure; 5= Agree; 6= strongly agree; 7= Very Strongly Agree*). The relationship between applicability, assessability and ACC for HC practice in the Kenyan MLOs was modelled using the simple linear regression models. The models were as follows:

$$Y_i = \beta_0 + \beta_1 X_1 + \varepsilon \tag{1}$$

$$Y_i = \beta_0 + \beta_2 X_2 + \varepsilon \tag{2}$$

Where:

- Y_i = Dependent variable (HC Accounting Practice)
- β_0 = Constant or intercept which is the value of dependent variable when all the independent variables are zero.
- β_{1-2} = Regression coefficient for each independent variable.
- X_1 = Applicability of existing accounting for HC tools
- X_2 = Assessability for efficacy of existing accounting for HC tool
- ε = Error term.

The results are presented in Tables 2 and 4 respectively. Two hypotheses were assessed:

H_1 applicability of ACC for HC tools has a significant relationship with ACC for HC practice in Kenyan MLOs.

H_2 Assessability for efficacy of ACC for HC tools has a significant relationship with ACC for HC practice in Kenyan MLOs.

 Hypotheses one and two were conceptualized in Figure 2 and Figure 3 respectively based on the theoretical review. Furthermore, the two hypotheses are not mutually exclusive since after a successful

application of a tool in HC ACC practice in the Kenyan MLOs, the tool should be assessed for use in the long-term.

Figure 2: Applicability of ACC for HC Tools Effect on ACC for HC Practice in Kenyan MLOs
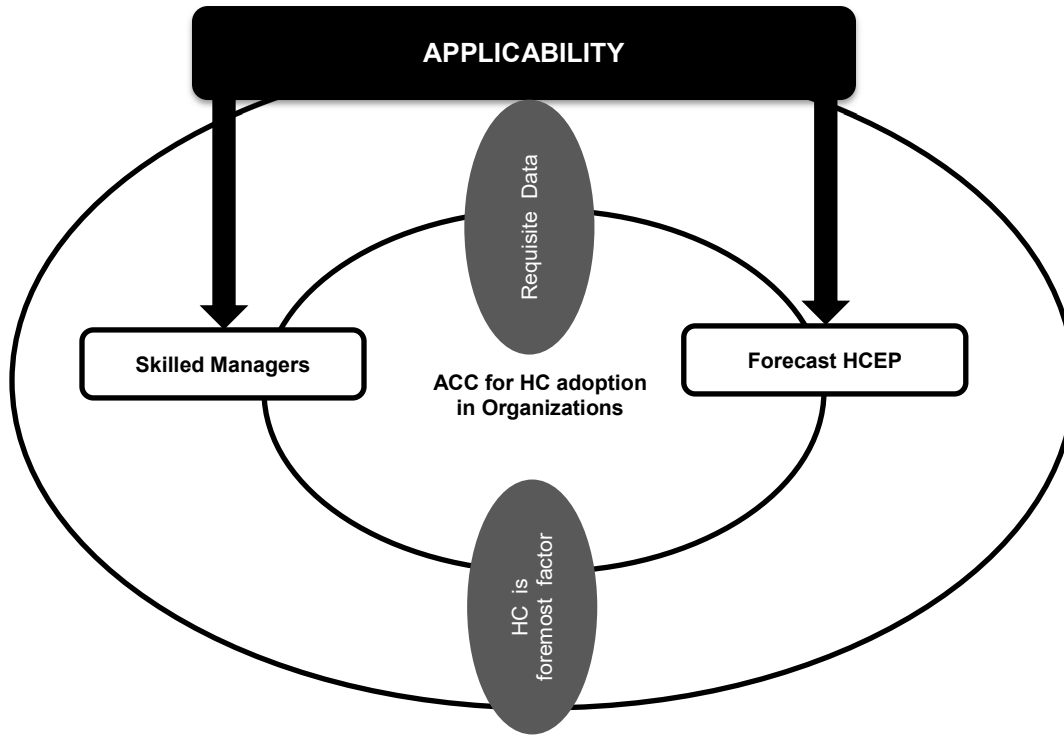
This figure shows how the applicability hypothesis was conceptualized. Existing literature proposes that, in order for firms to apply an ACC for HC tool, it must have requisite data, skilled managers, be able to forecast HCEP, and treat HC as the foremost factor of competitive advantage. Kenyan CFOs in MLOs were asked these questions to test the applicability hypothesis and results presented in Tables 2 and 3. Source: Researcher 2017

The depiction of the applicability hypothesis, namely, the availability of requisite data for HC ACC (AP1), ability to forecast HCEP (AP2), skilled managers in organizations (AP3), as well as the verity that HC is the foremost asset in organizations (AP4); if supported would aid ACC for HC practice in the Kenyan MLOs as shown in Figure 2. CFOs were asked to state whether the existing ACC for HC tools were applied in real organizations before they were unveiled (AP5).

In Figure 3, organizations' willingness to set aside budgets (ACSB1), willingness to share THCC information with stakeholders (ACSB2), readiness to deal with tough changes arising from ACC for HC practice (ACSB3), and the quest for accuracy (ACSB4), should promote the assessability of ACC for HC tools for efficacy, and promote ACC for HC practice in the Kenyan MLOs. CFOs were asked to state whether the existing ACC for HC tools were assessed for efficacy before they were unveiled (ACSB5).

EMPIRICAL RESULTS

The Applicability Hypothesis

Table 2 shows simple regression analysis for the applicability hypothesis based on the first equation. The first and second Columns show the model and the un-standardized coefficients with the constant (β_0) (13.151), applicability hypothesis (β_1) (0.352) and the standard errors associated with the results. The third column shows the coefficient of the model without a constant. The forth column shows the t-test statistic

at 95% level of confidence. The fifth, sixth and last columns show the significance of the model and its explanatory power, as well as the variation (R^2) on the HC ACC practice in the Kenyan MLOs.

Figure 3: Assessability of ACC for HC Tools Effect on ACC for HC Practice in Kenyan MLOS
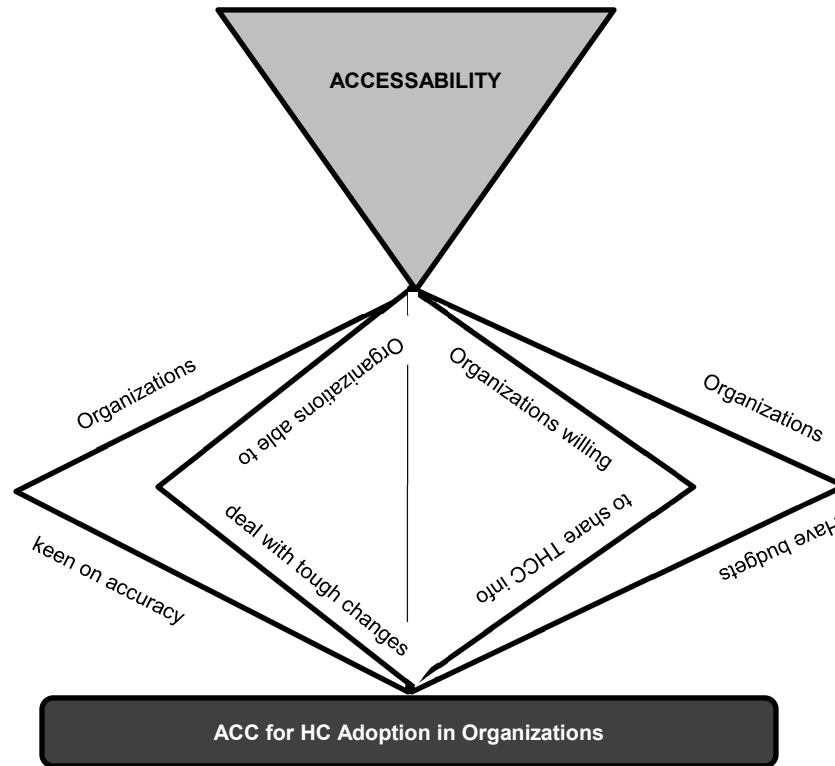
This figure shows how the assessability hypothesis was conceptualized. Existing literature proposes that, in order for firms to assess an ACC for HC tool, it must have a budget, be willing to share THCC information, be able to deal with tough changes caused by HC ACC, and be keen on accuracy. Kenyan CFOs in MLOs were asked these questions to test the assessability hypothesis and results presented in Tables 4 and 5. Source: Researcher 2017

Table 2: Regression Model with ACC for HC Practice and ACC for HC Tools' Applicability

Model	Un-standardized Coefficients		Standardized Coefficients	t	Sig.	R^2	F-Value (p-value)
	B	Std. Error	Beta				
(Constant)	13.151	1.982		6.635	0.000	0.207	14.853
Applicability	0.352	0.091	0.471	3.854	0.000		(<0.001)

This table shows simple regression analysis for the applicability hypothesis based on the first equation. The first and second Columns show the model and the un-standardized coefficients with the constant (β_0) (13.151) applicability hypothesis (β_1) (0.352) and the standard errors. The third column shows the coefficient of the model without a constant. The forth column shows the t-test statistic at 95% level of confidence. The fifth, sixth and last columns show the significance of the model and its explanatory power, as well as the variation (R^2) on the HC ACC practice in the Kenyan MLOs.

The analysis in Table 2 reveals that ACC for HC tools' applicability had a significant positive linear relationship with ACC for HC practice, with an r=0.471. Based on the regression analysis, ACC for HC tools' applicability would explain 20.7% of the variation in the ACC for HC practice in Kenyan MLOs, and would significantly predict it as indicated by an F-value of 14.853 and p-value of 0.001. According to the research findings, a unit change in ACC for HC tools' applicability would increase ACC for HC practice in Kenyan MLOs by 0.352 units. This implies that Kenyan MLOs need requisite data, skilled managers, ability to forecast HCEP, and to position HC has the overriding factor of competitive advantage to successfully implement the HC ACC practice for improved decisions which enhance firm

value. Thus the hypothesis was supported. When asked whether the tools were applied in real organizations before they were unveiled, the respondents were unsure.

Correlation analysis was carried out on each of the statements in Figure 2 measuring the applicability hypothesis and their effect on HC ACC practice in the Kenyan MLOs. The results are presented in Table 3. The table shows the statistical significance as well as the Pearson's correlation between each of the statements measuring the applicability hypothesis and HC ACC Practice in the Kenyan MLOs. As can be seen from the table, each of the statement has a positive correlation and is statistically significant in predicted HC ACC practice in Kenyan MLOs. * And ** means the Pearson correlation value is significant at 5% level of significance. N' represents the number of respondents used in each case.

Kenyan CFOs in medium firms supported applicability to enable ACC for HC practice more than CFOs in large organizations. CFOs of the male gender considered ACC for HC tool's applicability more fundamental in predicting the ACC practice than those of the female gender. Members of ICPAK were more inclined to applicability than CFOs of other professional bodies. Service sector CFOs felt that applicability would explain ACC for HC practice in the Kenyan MLOs to a greater degree than CFOs in other sectors. CFOs with less than one year experience in their current positions thought that applicability would predict ACC for HC practice more, than CFOs with more experience, although those with more than five years experience also supported this view. CFOs with costing expertise were more agreeable that applicability would elucidate ACC for HC practice, compared to those with expertise in other accounting disciplines; a view taken by those who had not worked in HC ACC related assignments relative to those who had. This implies that a Kenyan male CFO who is a member of ICPAK, and has worked for less than one year in a medium firm in the service sector, and has previous HC ACC experience, promoted applicability as predicting the HC ACC practice in the Kenyan MLOs.

Table 3 Correlation Coefficient between ACC for HC Practice and the Statements Measuring ACC for HC Tools' Applicability

		ACC for HC Practice	Ap1	Ap2	Ap3	Ap4	Ap5
ACC for HC Practice	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	56					
Ap1	Pearson Correlation	0.342**	1				
	Sig. (2-tailed)	0.010					
	N	56	59				
Ap2	Pearson Correlation	0.542**	0.652**	1			
	Sig. (2-tailed)	0.000	0.000				
	N	55	58	58			
Ap3	Pearson Correlation	0.297*	0.557**	0.546**	1		
	Sig. (2-tailed)	0.028	0.000	0.000			
	N	55	57	56	57		
Ap4	Pearson Correlation	0.497**	0.643**	0.515**	0.690**	1	
	Sig. (2-tailed)	0.000	0.000	0.000	0.000		
	N	55	57	56	57	57	
Ap5	Pearson Correlation	0.290*	0.087	0.206	0.368**	0.226	1
	Sig. (2-tailed)	0.032	0.518	0.128	0.005	0.091	
	N	55	57	56	57	57	57

*This table shows the statistical significance and the Pearson's correlation between each of the statements measuring the applicability hypothesis and HC ACC Practice in the Kenyan MLOs. As can be seen from the table, each of the statement has a positive correlation and is statistically significant in predicted HC ACC practice in the Kenyan MLOs. * And ** means the Pearson's correlation value is significant at 5% level of significance. N' represents the number of respondents used in each case.*

The Assessability Hypothesis

 Table 4 shows simple regression analysis for the assessability hypothesis based on the second equation. The first and second Columns show the model and the un-standardized coefficients with the constant (β_0)

(13.421), the assessability hypothesis (β_1) (0.341), and their standard errors. The third column shows the coefficient of the model without a constant or the beta coefficient of 0.429. The forth column shows the t-test statistic at 95% level of confidence. The fifth, sixth and last columns show the significance of the model and its explanatory power, as well as the variation (R^2) on the HC ACC practice in the Kenyan MLOs. According to the findings in Table 4, there is a significant positive correlation between ACC for HC tools' assessability for efficacy and ACC for HC practice in the Kenyan MLOs with r=0.429.

Table 4: Regression Model with ACC for HC Practice and ACC for HC Tools' Assessability

Model	Un-standardized Coefficients		Standardized Coefficients	t	Sig.	R^2	F-value (p-value)
	B	Std. Error	Beta				
(Constant)	13.421	2.004		6.697	0.000	0.168	11.941
assessability	0.341	0.099	0.429	3.456	0.001		(0.001)

This table shows simple regression analysis for the assessability hypothesis based on the second equation. The first and second Columns show the model and the un-standardized coefficients with the constant (β_0) (13.421), assessability hypothesis (β_1) (0.341) and the standard errors. The third column shows the coefficient of the model without a constant. The forth column shows the t-test statistic at 95% level of confidence. The fifth, sixth and last columns show the significance of the model and its explanatory power, as well as the variation (R^2) on the HC ACC practice in the Kenyan MLOs.

Regression analysis reveals that ACC for HC tools' assessability would explain 16.8% of the variation in the ACC for HC practice in the Kenyan MLOs, with the independent variable found to significantly predict the dependent variable with an F-value of 11.941 and p-value of 0.001. This implies that Kenyan MLOs need to set aside budgets, be willing to share THCC information with stakeholders, be prepared to deal with the tough changes occasioned by HC ACC practice, and be keen on accuracy to successfully implement HC ACC practice. These findings are supported by former research work, such as Narayand (2014), Jackson (2010), Pineda (2010), Flamholtz, Narasimhan and Bullen (2004), and Batra (1996) who supported assessability of ACC for HC tools before implementation as a determinant of ACC for HC practice in organizations. Therefore the hypothesis was supported. The respondents were unsure as to whether the tools were assessed for efficacy before they were unveiled. Correlation analysis was carried out on each of the statements in Figure 3 measuring the assessability hypothesis and their effect on HC ACC practice in the Kenyan MLOs. The results are presented in Table 5. The table shows the statistical significance and the Pearson's correlation between each of the statements measuring the assessability hypothesis and HC ACC Practice in the Kenyan MLOs. As can be seen from the table, each of the statement has a positive correlation and is statistically significant in predicted HC ACC practice in the Kenyan MLOs. * And ** means the Pearson's correlation value is significant at 5% level of significance. 'N' represents the number of respondents used in each case.

CFOs in medium organizations supported assessability as influencing ACC for HC practice in the Kenyan MLOs to a greater extent, when compared to their counterparts in large organizations. Female CFOs were more agreeable with assessability as a predictor of the ACC for HC practice than CFOs of the male gender. CFOs who were members of ICPAK supported assessability as influencing the practice to a greater degree compared to their counterparts in other professional bodies. CFOs in the manufacturing sector promoted assessability as predicting HC ACC practice more than CFOs in other sectors. CFOs who had held their positions for less than one year concurred with assessability as a determinant of ACC for HC practice at a greater scale when compared to those holding the position for a longer period. CFOs with HC ACC experience preferred assessability as a determinant of the ACC for HC practice to a larger extent than those without; and so were CFOs with expertise in other accounting disciplines when compared to their costing colleagues. This implies that a female CFO who is a member of ICPAK, and has worked for less than one year in a medium firm in the manufacturing sector, and has previous HC ACC experience promoted assessability as corroborating the HC ACC practice in the Kenyan MLOs.

Table 5: Correlation Coefficient Between ACC for HC Practice and the Sub-Hypotheses Measuring ACC for HC Tools' Assessability

|		ACC for HC Practice	ACSB1	ACSB2	ACSB3	ACSB4	ACSB5
ACC for HC Practice	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	56					
ACSB1	Pearson Correlation	0.351**	1				
	Sig. (2-tailed)	0.008					
	N	56	59				
ACSB2	Pearson Correlation	0.320*	0.697**	1			
	Sig. (2-tailed)	0.016	0.000				
	N	56	59	59			
ACSB3	Pearson Correlation	0.305*	0.790**	0.620**	1		
	Sig. (2-tailed)	0.022	0.000	0.000			
	N	56	59	59	59		
ACSB4	Pearson Correlation	0.401**	0.572**	0.492**	0.586**	1	
	Sig. (2-tailed)	0.002	0.000	0.000	0.000		
	N	55	58	58	58	58	
ACSB5	Pearson Correlation	0.370**	0.253	0.134	0.264*	0.467**	1
	Sig. (2-tailed)	0.005	0.053	0.312	0.043	0.000	
	N	56	59	59	59	58	59

*This table shows the statistical significance and the Pearson's correlation between each of the statements measuring the assessability hypothesis and HC ACC Practice in the Kenyan MLOs. As can be seen from the table, each of the statement has a positive correlation and is statistically significant in predicted HC ACC practice in the Kenyan MLOs. * And ** means the Pearson's correlation value is significant at 5% level of significance. 'N' represents the number of respondents used in each case.*

Unique ACC For HC Tool in Kenya

The support of the two hypotheses based on empirical evidence from the Kenyan MLOs has led to the development of an integrated ACC for HC tool for use in HC ACC practice in Kenya as shown in Figure 4. The figure shows an integrated tool which would be applied in the Kenyan MLOs in HC ACC Practice. The MLOs would start by including AC, plus LC, plus the first three months salary before HC can be fully engaged, to calculate Initial Total Human Capital Cost (ITHCC) in their financial statements. Thereafter, the ITHCC would be modified using the SRVM (Flamholtz, 1999) which estimates HC value based on their mobility to various positions within the firm during their contract life, to arrive at HCEP. The PV of HCEP would equal to THCC in the financial statements of Kenyan MLOs. This would enable the firms to match the THCC, with AHCR and HCEP and execute better HC decisions which improve firm market value.

In the proposed formula, AC plus, LC plus, Three months' salary before HC is fully placed in functional teams: will total ITHCC to be recorded in organizations. After the three months period when HC is fully and productively engaged; the ITHCC figure would be revalued to its PV based on performance in terms of future economic benefits anticipated from HC by the firm or the HCEP. This would be done using the SRVM (Flamholtz, 1999) as a surrogate measure due to its stochastic positioning of HC in various positions within the organization during their contractual life. Thereafter, salaries would be treated as expenses to be matched with AHCR in conformity with the matching postulate. AC and LC are adopted from Barcons-Vilardell et al (1999). THCC would be amortized normally, in the normal working period of HC to retirement. Upon liquidation before retirement, a loss would be recorded in tandem with normal accounting practice. If THCC is revalued as an increase, the amortization period would be adjusted to the new economic productive life of HC. The revaluation will aid managers undertake a cost-benefit analysis on their HC, especially linking it to performance. For example, a firm may find that it is either over compensating or under compensating its HC. Accordingly, mangers in organizations will manage their HC better, by paying benefits which are commensurate with performance, and anticipated HCEP and AHCR.

Figure 4: Integrated ACC For HC Tool (IAHCM)
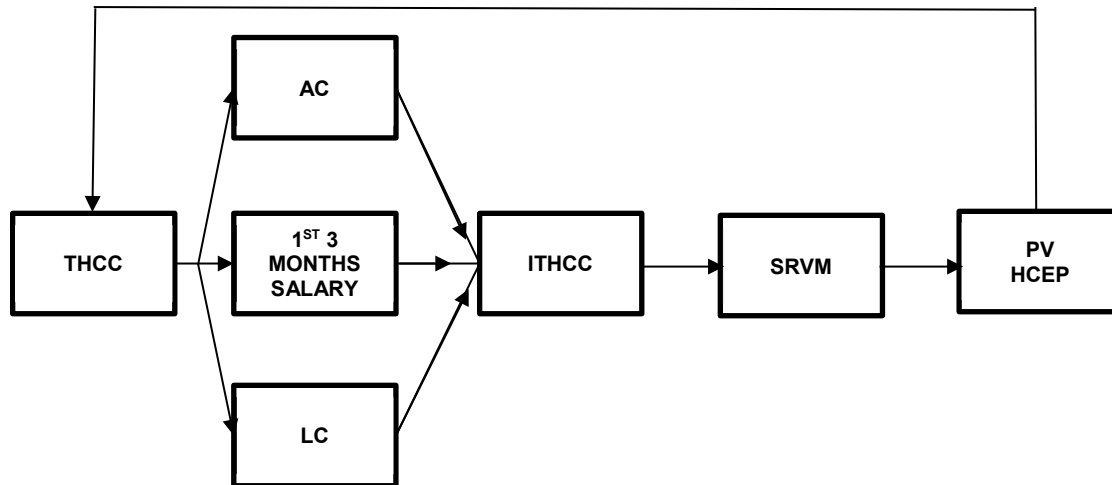
This figure shows an integrated Tool which would be applied in the Kenyan MLOs in HC ACC Practice. The MLOs would start by including AC, plus LC, plus the first three months' salary before HC can be fully engaged to calculate Initial Total Human Capital Cost (ITHCC) in their financial statements. Thereafter, the ITHCC would be modified using the Stochastic Rewards Valuation Model (SRVM) (Flamholtz, 1999) which estimates HC value based on their mobility to various positions within the firm during their contract life to arrive at HCEP. The Present Value (PV) of HCEP would equal to THCC in the financial statements of Kenyan MLOs. This would enable the firms to match the THCC, with AHCR and HCEP and execute better HC decisions which improve firm market value. Source: Researcher 2017

CONCLUDING COMMENTS

The main goal of this study was to investigate HC ACC tool usage as a predictor of HC ACC practice in the Kenyan MLOs for improved decisions which enhance firm value. The study took the explanatory research design, and sought to explain the applicability and assessability of ACC for HC tools as predictors of HC ACC practice in the in Kenyan MLOs. A research design is an outline that forms the basis for conducting a well-directed study, amidst relational variables. Explanatory researchers ask one fundamental question: 'why is it going on', and the study sought to establish why HC ACC is not practiced in Kenya. A survey was contacted on a sample of 116 CFOs, and simple regression and Pearson's correlation analysis used to test the hypotheses.

The two hypotheses of applicability and assessability of ACC for HC tools were supported. This implies that HC ACC practice for improved decisions which enhance firm value can be successfully undertaken by the Kenyan MLOs. Based on the empirical evidence obtained, a unique ACC for HC tool for use by the Kenyan MLOs has been developed to enable the firms calculate THCC in their financial statements and execute the consequent decisions which augment firm market value. CFOs in Kenyan Medium firms were more supportive of the HC ACC practice than their large organizations counterparts. Female CFOs were more supportive of assessability, while their male counterparts supported applicability. This was an interesting finding as it may exemplify gender characteristics. For example based on this finding, CFOs of the female gender were more interested in the long-term success of the HC ACC practice, while their male colleagues were more interested on its immediate use.

A major limitation of the study is that it focused on ACC for HC, which is the total stock of skills of an entire workforce in an organization. However it is difficult to disengage HC from people and Human Resource (HR) which possess dynamic relational and social dynamics which may not be quantifiable in monetary terms. HC ACC experienced a major drawback in the 1970s due to a widespread erroneous belief suggesting that the discipline would treat people as financial objects (Grojer & Johnson, 1998). Furthermore, Kenya has tens of thousands of CFOs but the study targeted only 165 as its population, and employed cross-sectional rather than longitudinal data collection scheme. Therefore any changes on the

respondents' characteristics after the data collection were ignored. In addition, correlation analysis lacks in that, it does not consider all the essential variables inherent in measuring relationship models and hence the need to manage the omitted variables' bias (Greene, 2012).

Future research is recommended in Kenya and the region targeting a larger population of CFOs and HR managers, and enquiring on ACC for HC, HR, and people as agents of innovation and performance.

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