Human Capital Accounting Implications on Firm Market Value: A Survey of Kenyan Private Universities

San Lio¹

¹ Chandaria School of Business, United States International University-Africa, Kenya

Correspondence: San Lio, Chandaria School of Business, United States International University-Africa, Kenya.

Received: March 20, 2021

Accepted: May 10, 2021

Online Published: May 21, 2021

doi:10.5430/afr.v10n2p51

URL: <https://doi.org/10.5430/afr.v10n2p51>

Abstract

Purpose- The study examined the findings of an empirical evaluation of Human Capital (HC) accounting implications on firm market value among Kenyan private universities.

Design/methodology/approach- a Cross-sectional survey on finance and human resource directors in Kenyan private universities.

Findings- Kenyan Chartered Private Universities were successful because they accounted for, and reported their HC as material investments. However, further research was recommended to establish whether: the 4.2% who did not enjoy a good reputation and image consecutively for the past three financial periods; the 47% who did not enjoy easy access to Kenya's capital markets consecutively for the past three financial periods; the 25% who did not retain their quality HC consecutively for the past three financial periods; as well as the 30% who did not enjoy high ROI consecutively for the past three financial periods; did so solely because they did not account and report their HC as material investments or there were indeed other factors motivating the results.

Originality/Value- Accounting for HC is a big deal in Kenyan Knowledge-Information-Service-Sector (KISS) firms such as private universities because HC is the intervening factor for competitive advantage: Yet the discipline is unexplored in existing Kenyan empirical works.

Keywords: human resource accounting, human capital, KISS firms, market value

1. Introduction

1.1 Background of the Study

Human Capital (HC) drives organizational prosperity yesterday and today. Whether the firm is in the merchandising, manufacturing, or services sector, the human brain and hand are the intervening constituents for ceaseless competitiveness. However, the need for HC is more pronounced in the Knowledge-Information-Services-Sector (KISS) (Lio, 2018) firms that have little machinery implying that only their HC can act (Sveiby, 1997).

The three essential functions which a global entity does according to Immelt (2004) of 1. Global sales anchored on customer prowess, 2. Global products that are driven by lucid technologies, 3. Global people build on the quest to capture global markets and brains; HC is the unyielding answer. He asserts that General Electric (GE) discovered early on 50 or 60 years ago that people and culture are the common denominators in a multi-business enterprise, and accordingly spent approximately 40% of his time on the people's agenda. Furthermore, GE spent \$1 billion on HC training and growth, which had the most important benefit of connecting people across the organization. While acknowledging the power of HC, and especially in leading roles and competitive advantage, Flextronics CEO Marks (2004) argued that developing global leaders will become easier with each passing year if firms shift their thinking from the past generations and lay emphasis on HC. The executive chairman of Egon Zehnder International, Daniel Meiland (2004) observed that successful multinationals, for example, Shell and GE track their people carefully for many years.

Most Kenyan private universities have witnessed dwindling performance and are struggling to survive following the new admission criteria introduced by the Kenyan education ministry in the 2017/18 intake which put the university entry floor in Kenya at C+. In a report carried out in the Daily Nation, Wanzala (2018) found that the Presbyterian university had put on sale its 34 acres of land in Kikuyu at Kenya Shillings 40 million to solve its financial woes.

Furthermore, the Kenya Methodist and Catholic universities were among private universities in the country which were struggling to pay their debts estimated at Kenya Shillings 3 billion and 1.5 billion respectively. Nyamai (2018) found that Daystar university students boycotted classes to demand the resignation of the vice-chancellor citing massive corruption and mismanagement. This is even though that Human Resource Accounting (HRA) is a unique branch of accounting, and its solitary goal is accounting for HC as material investments in organizations for improved decisions by their key constituents (Chaudhry & Roomi, 2010; Flamholtz, 2005; Flamholtz, Bullen & Hua, 2002; Cascio, 1998; Dobija, 1998; Sveiby, 1997; Mercer, 1989) which enhance firm market value.

Deloitte (2017) has depicted a gap in business performance and attributed it to ill HC accounting and management practices in an empirical survey of 10,000 respondents from 140 countries in Figure 1.

Figure 1. What appears to be happening

Figure 1.

1.2 Research Questions

The survey seeks to answer the following research questions:

- i. What is the influence of the frameworks used in accounting for Human Capital (HC) intangibles on Firm Market Value (FMV) in Kenyan private universities?
- ii. What is the influence of metrics used in accounting for Human Capital intangibles on FMV in Kenyan private universities?
- iii. What is the impact of the platforms employed in reporting Human Capital intangibles on FMV in Kenyan private universities?
- iv. What is the moderating effect of intervening strategies employed to harness Human Capital intangibles on FMV in Kenyan private universities?

Research Hypothesis

Hypothesis 1 H_0 : There was no statistically significant relationship between frameworks used in Accounting for HC and firm market value among Kenyan Private Universities

Hypothesis 2 H_0 : Metrics used in accounting for HC by Kenyan Private Universities had no Statistically significant relation with the firms' market value

Hypothesis 3 H_0 : Platforms employed in reporting HC intangibles by Kenyan Private Universities had no statistically significant relationship with the firms' Market value

2. Theoretical and Empirical Review

2.1 Theoretical Evaluation

2.1.1 The Transaction Cost Economy Theory

Transaction Cost Economy Theory is founded on the premise that hiring and training costs matter to organizations when making decisions relating to HC deployment. Therefore, they choose between recruiting new employees from outside the firm causing hiring costs to occur, or train (reposition) existing ones in which case training costs become inevitable. Inasmuch, they elect to employ HC in the most efficient manner (Chaudhry & Roomi, 2010; Argyres & Liebeskind, 1999). A key question in this study was whether HC accounting costs outmatched Human Capital Earnings potential (HCEP) because Kenyan private universities sought to optimize their firm market value.

2.1.2 The Resource-Based View of the Firm Theory

This is core skills-focused theory, which presupposes that those rare competencies and skills essential for a firm's competitive edge should be nurtured and repositioned from within the firm itself and then supportive systems such as outsourced technology introduced. According to this theory, resources and capabilities are heterogeneously distributed among firms, and that they are imperfectly mobile (Karthikeyan, Bhagat, & Kannan, 2012). Barney (1991) found that the rare competencies are HC qualities such as value, rareness, not being imitable, and immobility. Ray, Barney, and Muhanna (2004) propose that resources are a source of competitive advantage to firms. A key question in this study was whether Kenyan private universities employed metrics that promoted the rare competencies of their HC investments for optimized firm market value.

2.1.3 The Positivity Accounting Theory (PAT)

The PAT is a measurement-recognition- approach that seeks to communicate the interconnectedness between the accounting practice and the social-political-economic paradigms in organizations. PAT is a scientific, empirical, economic-based theory that elucidates the accounting practice (Chambers, 1993). More specifically, PAT augments the accounting practice by promoting: first, assessment of the impact of accounting information on financial markets (Kothari, 2001); second, analyses of the relationships between accounting information and human behavior (Bloomfield, Libby, & Nelson, 2002); and, third, evaluation of the politico-contractual perspective, which examines the organizational, economic, and political determinants of accounting policy choices made by preparers of accounts (Fields, Lys & Vincent, 2001). In this study, the interconnectedness of the theories guided the accountant's vocation in the HC accounting practice among Kenyan private universities. This study sought to establish the platform or platforms used by Kenyan Private Universities to communicate their HC investments' information to assess its impact on Kenya's financial markets and other social-political-economic events.

2.2 Empirical Review

In a survey that included over 10,000 respondents from 140 countries, Deloitte (2017) found that in the modern age of disruptions, corporates and Human Resource (HR) managers were pressed to rewrite their rules on how they organized, recruited, developed, managed, and engaged the 21st –century HC which was more digital, more global, diverse, automation-savvy, and social media- proficient. Furthermore, they observed the ever-increasing gap between technological sophistication and low corporate productivity led to income inequality, wage stagnation, as well as social and political unrest around the world: and concluded that the gap is due to HC strategies, namely, how firms organized, managed, developed, and aligned their people at work. The problem was enhanced by the fact that firm needs were incessantly changing, and at a super speed. Accordingly, the need to account, report, and manage HC was the utmost activity of successful contemporary service-providing firms such as the Kenyan private universities.

In a survey conducted in 177 organizations spread across four regions in 14 countries, PwC (2019) found that decisions about tools that enhanced employee productivity such as technology ought to be made with their impact on HC clearly in mind, or risk harming people's experience, productivity, and morale. In the survey, only approximately 45% of Technology, Media and Telecommunication (TMT) firms managed such tools and aligned them with HC skills effectively. This implied that unless companies, and especially KISS firms accounted for and reported their HC investments, such alignments were difficult to achieve.

Ernst & Young (2019) observed that in the era of disruption, and as HC became a critical focus asset for stakeholders, there was a clear and growing market appetite to understand how firms were accounting for, and reporting their HC investments. They concluded that HC stocks comprised 52% of a company's market value.

3. Research Methodology

This was a survey of Kenyan Private Universities. The investigation targeted a sample of 59 top-level managers; made up of 30 Deputy Vice-Chancellors responsible for finance; and 29 HR managers; each from the 34 private universities chartered by the Commission for University Education (CUE) in Kenya in 2019. The study employed the cross-sectional design primarily because the accounting practice is mercurial in a rapidly changing technological world, in which Kenyan Private Universities operate. In this world: new competitors, products, and brands; new technologies; new business models; emerging customer expectations; changing government rules, regulations, and deregulations; shifting environmental imperatives; as well as the ups and downs in the national and global economy, all impact the organization. Simple random sampling was applied on each of the strata in Table 1.

Table 1. Stratified Sample Size Distribution

Directors	Target Population (N)	%	Sample size (n)
DVCs	34	50	30
HRM	34	50	29
Total	68	100	59

Hard copies of pre-tested questionnaires were used in each case and a response rate of 79% was achieved. The study variables were measured using both the ordinal scale and Likert-type scale. The relationship between accounting for HC and firm market value in Kenyan private universities was predicted using the equation:

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where:

- Y_i = Dependent variable (Firm market value)
- β_0 = Constant or intercept which is the value of dependent variable when all the independent variables are zero.
- β_{1-4} = Regression coefficient for each independent variable.
- X_1 = Accounting for HC frameworks
- X_2 = Metrics in accounting for HC
- X_3 = Platforms employed in reporting HC investments
- X_4 = Intervening strategies to harness HC investments
- E = Error term.

4. Results and Discussion

4.1 Introduction

This study was on Human Capital (HC) Accounting implications on firm market value among the 34 Kenyan private universities chartered by Commission for University Education in 2019. The survey instrument was administered on CFOs and HR leads in the sample Universities, out of which 47 questionnaires were returned for analysis which was a response rate of 79%.

4.2 Demographic Information

Respondents demographic information was presented in Table 2.

Table 2. Demographic Analysis

		Count	%
Gender	Male	30	63.8%
	Female	17	36.2%
	Total	47	
Professional body (s)	HRM	21	44.7%
	ICPAK	21	44.7%
	ACCA	3	6.4%
	CIMA	0	0.0%
	CFA	2	4.3%
	Others	0	0.0%
	Total	47	
Department	CFO	25	53.2%
	HR LEAD	22	46.8%
	Total	47	
Number of years the employee has been in the current position	< 1 year	7	14.9%
	1-5 years	16	34.0%
	>5 years	24	51.1%
	Total	47	
Number of full time employees	<50	3	6.4%
	50-90	13	27.7%
	>99	31	66.0%
	Total	47	
Organization's annual turnover in ksh. millions	<50	13	27.7%
	50-800	13	27.7%
	>800	21	44.7%
	Total	47	

Source: Author's data

As can be skimmed from the table, of the 47 respondents, 63.8% ($n=30$) were male, 36.2% were female ($n=17$), 44.7% were HRM practitioners ($n=21$) and 44.7% ICPAK professionals (CFOs). About half of the respondents had served in their current positions for more than 5 years while 34% had served for a period between 1-5 years. This implied that respondents were proportionately spread between HRM and CFO roles and had served their positions long enough, and hence were competent to answer the questions, although most of them were of the male gender.

More than half of the Kenyan private universities had more than 99 workers employed on full-time basis, and only 6.4% had less than 50 full-time employees. Furthermore, 44.7% of the universities had an average annual turnover of more than Kenya Shillings 800 Million, and only 27% had an annual turnover of less than Kenya Shillings 50 million. The Kenyan Laws identify a medium organization as one with a turnover of Kenya Shillings 50-800 million and 50-99 full-time employees. This implied that the majority of the Kenyan private universities were in the category of large organizations.

4.3 Descriptive Analysis

4.3.1 Frameworks Employed in Accounting for HC Intangibles

Frameworks employed in accounting for Human Capital (HC) as core assets in the Kenyan private universities for improved market value were examined. Participants were asked to rate the frameworks employed on a Likert scale of 1-4 (1 is strongly disagrees and 4 is strongly agrees). Table 3 shows the results.

Table 3. Descriptive statistics for frameworks employed in accounting for HC Intangibles

Treating HC in the financial statements as material investments which can be managed, invested in, and leveraged for profits would lead to the improved market value of my university.

		Frequency	Percent	Mean	SD
Valid	Strongly Disagree	4	8.5		
	Disagree	1	2.1		
	Agree	27	57.4		
	Strongly Agree	15	31.9		
	Total	47	100.0	3.13	0.824

Treating HC in the financial statements as expenses, or liabilities, or depletion of assets leads to the improved market value of my university.

		Frequency	Percent	Mean	SD
Valid	Strongly Disagree	8	17.0		
	Disagree	13	27.7		
	Agree	18	38.3		
	Strongly Agree	8	17.0		
	Total	47	100.0	2.55	0.974

Non-financial measures such as performance evaluation of HC lead to the improved market value of my university.

		Frequency	Percent	Mean	SD
Valid	Disagree	7	14.9		
	Agree	13	27.7		
	Strongly Agree	27	57.4		
	Total	47	100.0	3.43	0.744

Source: Author's data

Three frameworks were investigated: namely, (i) HRA which treats HC as material investments in the financial statements, (ii) IFRSs/GAAPs which treats HC as expenses or liabilities in the financial statements, and (iii) Performance management, a non-financial measure of HC investments. 85.1% of the respondents supported the notion that the application of non-financial measures such as performance evaluation of HC led to the improved market value of private universities in Kenya ($M=3.43$, $SD=0.744$). Approximately 55.3% ($M=2.55$, $SD=0.974$) supported the view that treating HC in the financial statements as expenses, or liabilities or depletion of assets diminished their university's firm market value. However, 89.3% ($M=3.13$, $SD=0.824$) supported the treatment of HC in the financial statements as material investments which can be managed, invested in, and leveraged for profits: as this would lead to the improved market value of their universities.

Table 4. HC accounting frameworks Used by Kenyan private universities

		Number	Percent (%)	Valid Percent	Cumulative Percent
Valid	HRA	7	14.9	14.9	14.9
	IFRS	37	78.7	78.7	93.6
	HC Performance Evaluation	3	6.4	6.4	100.0
	Total	47	100.0	100.0	

Source: Author's data

From the study findings in Table 4, the most applied HC accounting framework was the IFRS which treats HC as expenses/liabilities in the Financial Statements (78.7%). However, 14.9% applied the HRA framework which treats HC as material assets in the Financial Statements. The non-financial measure, the HC performance evaluation tool was applied by 6.4% of the respondents. For their choice of HC accounting frameworks above, the study participants cited the following reasons:

- i. IFRS is a commonly used standard,
- ii. HRA framework adds value in planning and determining the return on investment by year-end,
- iii. IFRS because capturing HC as expenses/liabilities gives the general public the true view of the university, and therefore if it reports a profit then the public understands that the university can pay its staff,
- iv. HRA because employees of any given organization are assets to be treasured because, without them, the firm cannot achieve its objectives,
- v. HC performance evaluation promotes output and enhanced efficiency that adds value to the university,
- vi. IFRS treatment of HC ensures control of staff expenses and that the assets are not overstated,
- vii. IFRS is the standard that is commonly used as it improves the market share of an organization,
- viii. HRA improves the output of HC,
- ix. Applying HRA in HC accounting improves the market value share since it reduces the firm risk and increases its value,
- x. HRA improves the value of the university,
- xi. IFRS is the common practice and used according to accounting standards,
- xii. I do not think HRA improves the market share, it only acts as information of HR costs as compared to total revenue,
- xiii. IFRS has been the practice, however, the university is reviewing the framed model so that practice will soon change,
- xiv. The University has not fully synchronized the financial aspect of Human resource and from an investment perspective, hence the use of IFRS,
- xv. HRA because performance evaluation has not been looked at as a possibility of giving information that can help in improving investment in HR, and
- xvi. We are using the IAS and IFRS as prescribed by the finance act of Kenya.

The HRA discipline was a new concept in Kenya, and the discipline treats HC as material investments in the Financial Statements of firms for the improved firm market value. Participants were asked whether they would recommend it for use in their university as well as other Kenyan universities. The results were presented in Table 5.

Table 5. Recommendation of the HRA Discipline for Use in Kenyan Private Universities

	Number	%
Yes	40	85
No	5	11
Undecided	2	4
Total	47	100.0

Source: Author's Data

Based on the study findings in Table 5, an impressive 85% specified they would recommend the HRA discipline for use by Kenyan universities. In their support of the discipline, they adduced the following reasons:

- i. An attempt would be appropriate so that we can have a comparison basis,
- ii. Like any other capital investment in a business setup, investing in HR puts organizations on competitive advantage and this is likely to result in innovation; thus making organizations strategic,
- iii. Market sense for maintaining sustainability,
- iv. Improves employee satisfaction,

- v. HC is important as it would improve the market value of the firm,
- vi. It helps the management in the employment, locating, and utilization of human resources,
- vii. It would improve the company's culture and communication,
- viii. It would improve on Monitoring & Evaluation of HC and bridge the gap for efficacy, and
- ix. It would enable universities to view HC from a different perspective and put more effort into the development of HC to increase their net worth,

One respondent suggested that the HRA should be treated as a standalone HC accounting discipline, to supplement conventional reporting tools: while another signposted that the HRA should be captured in the accounting books. However, 11% of the respondents opined that they would not recommend the discipline for use by Kenyan private universities. They were of the view that the majority of the Kenyan HC does not possess specialized skills and therefore would not promote firm market value: and that HC is an inevitable expenditure and mostly replaceable. Furthermore, they harangued that being a new concept, more research on the discipline would suffice. Also, 4% of the respondents were indecisive. These were of the view that many factors needed to be considered and would require more research to understand the concept and how to value HC investments.

Respondents were asked whether they would recommend to IFRS writers to include the HRA discipline and HC accounting as material investments in the IFRSs GAAPs. The results were presented in Table 4.5. Sixty-one percent would recommend to IFRS writers to amend the anomaly which sees GAAPs or IFRSs accounting treat HC as liabilities/expenses hence reducing firms' profits and market value. However, 34% would not make the recommendation, while 5% were undecided.

Table 6. Recommendation to IFRS Writers to Include the HRA Discipline in IFRSs framework

	Number	%
Yes	27	61
No	15	34
Undecided	2	5
Total	44	100.0

Those who recommended the inclusion of the HRA discipline in the IFRSs frameworks were of the view that the anomaly led to reduced firms' profits as well as other HR benefits. Additionally, they promoted that HC is the foremost asset for any organization's competitive advantage and hence should not be treated as an expenditure or liability, but as a material investment. However, for those who were undecided as well as those who would not recommend the HRA inclusion in the IFRSs frameworks, they recommended extensive and sufficient research by the IFRS writers to first and foremost, put in place a proper standard of HC measurement. Furthermore, they promoted that a firm needed to present its true value and that if not expensed, the HC amount would overstate profit and contradict the cash flow statement.

On whether performance appraisal, a non-financial tool would suffice in HC accounting among Kenyan private universities, results were presented in Table 7. Approximately 78.7% promoted the proposition that the tool was sufficient in HC Accounting among Kenyan Private universities for their improved market value. However, 21.3% disagreed with that notion. This implied that, even if no financial accounting of HC was undertaken, Performance appraisal would be sufficient in helping managers in Kenyan Private Universities make strategic HC decisions.

Table 7. Performance Appraisal and HC accounting among Kenyan Private Universities

		Frequency	%
Valid	Disagree	10	21.3
	Agree	27	57.4
	Strongly Agree	10	21.3
	Total	47	100.0

Source: Author's data

4.3.2 HC Accounting Financial Measures/Metrics

Descriptive analyses were undertaken on financial measures applied to value HC investments in the Kenyan Private Universities for improved market value. The results were presented in Table 8.

Table 8. HC Accounting Financial Measures/Metrics

My university applies acquisition/recruitment costs in the valuation of its HC investments for improved market value.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	2.1	2.1	2.1
	Disagree	14	29.8	29.8	31.9
	Agree	30	63.8	63.8	95.7
	Strongly Agree	2	4.3	4.3	100.0
	Total	47	100.0	100.0	

My university applies development/training costs in the valuation of its HC investments for improved market value.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	4.3	4.3	4.3
	Disagree	5	10.6	10.6	14.9
	Agree	32	68.1	68.1	83.0
	Strongly Agree	8	17.0	17.0	100.0
	Total	47	100.0	100.0	

My university applies salary costs in the valuation of its HC investments for improved market value.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	8.5	8.5	8.5
	Disagree	9	19.1	19.1	27.7
	Agree	21	44.7	44.7	72.3
	Strongly Agree	13	27.7	27.7	100.0
	Total	47	100.0	100.0	

My university applies HC earnings potential (e.g. revenue he/she can bring in) in the valuation of its HC investments for improved market value.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	6	12.8	12.8	12.8
	Disagree	14	29.8	29.8	42.6
	Agree	21	44.7	44.7	87.2
	Strongly Agree	6	12.8	12.8	100.0
	Total	47	100.0	100.0	

Source: Author's Data

As depicted by the results Table 8: development/training was the most popular metric applied by 85.1%, followed by salary by 72.4%, then acquisition/recruitment used by 68.1% and finally HC Earnings Potential (HCEP) applied by 57.5% of the participants. This implied that of the four financial measures of HC value, managers in Kenyan Private Universities were keenest on HC development/training as it promotes HC skills, values, and capabilities which

augment firm market value. Salary was of keen interest too, as it would diminish profits and consequently firm market value. Surprisingly, HCEP attracted the least attention, although the metric should inform the recruitment and management of HC for optimum productivity.

Respondents were asked to rank the financial measures/metrics in order of importance in Accounting for HC investments in their universities for improved firm market value.

Table 9. Rank of the financial measures/metrics

		Count (N)	%
Acquisition or recruitment	Rank 1	19	40.4%
	Rank 2	3	6.4%
	Rank 3	18	38.3%
	Rank 4	7	14.9%
Development or training	Rank1	9	19.1%
	Rank2	25	53.2%
	Rank3	8	17.0%
	Rank4	5	10.6%
Salary	Rank1	14	29.8%
	Rank2	12	25.5%
	Rank3	12	25.5%
	Rank4	9	19.1%
HC earning potential	Rank2	6	12.8%
	Rank2	4	8.5%
	Rank3	10	21.3%
	Rank4	27	57.4%

Source: Author's data

However, in terms of importance as HC financial measures, acquisition/recruitment was ranked first, followed by development/training, followed by salary and the least important was HCEP. These were interesting results as they suggested that managers in Kenyan Private Universities did not necessarily apply the metric they considered supreme. However, the inconsistencies were immaterial. Furthermore, this underpins the fact that managers in Kenyan Private Universities focused more on acquisition/recruitment when sourcing for new HC stocks, after which focus shifted to HC development/training as well as the salary costs attributable to them. In both cases, HCEP was surprisingly ranked last although the metric would forecast the best HC at the time of acquisition/recruitment.

Additionally, contributors were asked to indicate other HC financial measures used by their University in accounting for HC intangibles for improved firm market value.

The four leading HC measures identified by managers in Kenyan chartered Private universities were: professional qualification, leadership ability, productivity, and attitude. Other popular ones included: knowledge accessibility, specialty, potential, and motivation.

4.3.3 Platforms for reporting Human Capital Investments

Descriptive analysis was employed on platforms used to report Human Capital intangibles in Kenyan Private Universities for improved market value. The study participants were asked to rate the platforms on a scale of 1-4 (1 is strongly disagrees and 4 is strongly agrees). The results were presented in Table 10.

Table 10. Platforms for reporting HC Investments

Reporting HC in the balance sheet/Statement of financial position would lead to more feasibility of HC as material investments for the improved market value of my university

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	4.3	4.3	4.3
	Disagree	12	25.5	25.5	29.8
	Agree	10	21.3	21.3	51.1
	Strongly Agree	23	48.9	48.9	100.0
	Total	47	100.0	100.0	

Reporting HC in the Management financial reports lead to more feasibility of HC as material investments for the improved market value of my university.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	4.3	4.3	4.3
	Disagree	8	17.0	17.0	21.3
	Agree	25	53.2	53.2	74.5
	Strongly Agree	12	25.5	25.5	100.0
	Total	47	100.0	100.0	

Reporting HC on my universities official website leads to more feasibility of HC as material investments for the university's improved market value

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	6.4	6.4	6.4
	Disagree	15	31.9	31.9	38.3
	Agree	18	38.3	38.3	76.6
	Strongly Agree	11	23.4	23.4	100.0
	Total	47	100.0	100.0	

Reporting HC in the mainstream media leads to more feasibility of HC as material investments for the improved market value of my university.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	8.5	8.5	8.5
	Disagree	15	31.9	31.9	40.4
	Agree	18	38.3	38.3	78.7
	Strongly Agree	10	21.3	21.3	100.0
	Total	47	100.0	100.0	

Reporting HC in social media leads to more feasibility of HC as material investments for the improved market value of my university.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	10	21.3	21.3	21.3
	Disagree	12	25.5	25.5	46.8
	Agree	13	27.7	27.7	74.5
	Strongly Agree	12	25.5	25.5	100.0
	Total	47	100.0	100.0	

Source: Author's Data

The notion that: reporting HC in the Management financial reports would lead to more feasibility of HC as material investments for the improved firm market value of Kenyan Private Universities was supported by Seventy-nine percent of the participants. This was followed by the Balance sheet, 70%, University's official website, 62%, mainstream media, 59%, and lastly social media platforms, 53%. This implied that management financial reports were the most preferred platform for reporting HC intangibles by Kenyan Private University managers. The balance sheet was the second most preferred platform.

However, besides rating the five platforms of the balance sheet, management reports, university's official website, mainstream media, as well as social media platforms; participants were asked to select the platform(s) their University used to report their HC intangibles: and how this improved their University's firm market value. Furthermore, they were also asked to indicate other platforms employed by their University to report their HC investments.

Based on the study findings, statement of financial position/balance sheet and management reports were the most popular. Major reasons were: balance sheet was used by stakeholders to determine the strength and/or performance of the firm and this, in turn, provided confidence about the university. Management reports enabled them to include faculty composition versus costs versus revenue generated to enable their university to make decisions on areas that needed improvement. However, other platforms were also employed for various reasons.

The results suggested that: Radio & TV devices, University publications, Use of the AMECEA platform, use of Kenya Conference of Catholic Bishops were the additional platforms used by Kenyan Private Universities to report their HC investments for improved form market value.

4.3.4 Intervening Strategies to Harness HC Investments for Improved Firm Market Value

Strategies employed by Kenyan Private Universities to maximize the efficient use of their HC investments, after being accounted for to achieve improved firm market value were surveyed. Four strategies: repositioning, promotion, hiring, and firing of HC were examined. Contributors were asked to rate the strategies on a scale of 1-4 (1 is strongly disagrees and 4 is strongly agrees) and results presented in Table 11.

Table 11. Strategies used by Kenyan Private Universities to Maximize the Efficient use their HC Investments

<i>My university repositions its HC investments after their accounting to achieve improved market value.</i>				
		Frequency	%	Mean
Valid	Strongly Disagree	8	17.0	
	Disagree	9	19.1	
	Agree	26	55.3	
	Strongly Agree	4	8.5	
	Total	47	100.0	2.55
				0.880
<i>My university uses HC accounting as promotion criteria to achieve improved market value.</i>				
		Frequency	%	Mean
Valid	Strongly Disagree	6	12.8	
	Disagree	12	25.5	
	Agree	18	38.3	
	Strongly Agree	10	21.3	
	Total	46	97.9	
Missing	System	1	2.1	
Total		47	100.0	
				2.70
				0.963
<i>My university uses HC accounting as hiring criteria to achieve improved market value.</i>				
		Frequency	%	Mean

Valid	Strongly Disagree	5	10.6		
	Disagree	13	27.7		
	Agree	19	40.4		
	Strongly Agree	10	21.3		
	Total	47	100.0	2.72	0.926
<i>My university uses HC accounting as firing criteria to achieve improved market value.</i>					
		Frequency	%	Mean	SD
Valid	Strongly Disagree	12	25.5		
	Disagree	9	19.1		
	Agree	20	42.6		
	Strongly Agree	6	12.8		
	Total	47	100.0	2.43	1.016

Source: Author's Data

Sixty-four percent applied the repositioning strategy ($M=2.55$, $SD=0.880$), 59.6% also applied the promotions strategy ($M=2.70$, $SD=0.963$); and 61.7% employed the hiring strategy ($M=2.72$, $SD=0.926$). However, the firing strategy was unpopular with a Mean=2.43, and Standard Deviation=1.016.

4.3.5 Firm Market Value

Indicators assessing Kenya's Private universities' improved market value were studied. Four indicators: good reputation and image, easy access to Kenya's capital markets, retention of quality HC, and ROI were surveyed. Respondents rated these on a Likert scale of 1-4 (1 is strongly disagrees and 4 is strongly agrees).

Table 12. Indicators Assessing Kenya's Private Universities' Improved Market Value

My university has enjoyed a good reputation and image among its stakeholders consecutively for the past THREE financial periods.

		Frequency	%	Mean	SD
Valid	Strongly Disagree	2	4.3		
	Agree	24	51.1		
	Strongly Agree	21	44.7		
	Total	47	100.0	3.36	0.705

My university has maintained high retention of its quality HC consecutively for the past THREE financial periods.

		Frequency	%	Mean	SD
Valid	Strongly Disagree	2	4.3		
	Disagree	10	21.3		
	Agree	18	38.3		
	Strongly Agree	17	36.2		
	Total	47	100.0	3.06	0.870

My university has enjoyed high Return On Investments (ROI) consecutively for the past THREE financial periods.

		Frequency	%	Mean	SD
Valid	Strongly Disagree	2	4.3		
	Disagree	12	25.5		
	Agree	24	51.1		
	Strongly Agree	9	19.1		
	Total	47	100.0	2.85	0.780
<i>My university has enjoyed easy access to Kenya's capital markets consecutively for the past THREE financial periods.</i>					
		Frequency	%	Mean	SD
Valid	Strongly Disagree	12	25.5		
	Disagree	10	21.3		
	Agree	25	53.2		
	Total	47	100.0	2.28	0.852

Source: Author's Data

Ninety-six percent of those surveyed enjoyed good reputation and image consecutively for the past three financial periods ($M=3.36$, $SD=0.702$); 53% enjoyed easy access to Kenya's capital markets consecutively for the past three financial periods ($M=2.28$, $SD=0.852$); 75% maintained high retention of their quality HC consecutively for the past three financial periods ($M=3.06$, $SD=0.870$); and 70% enjoyed high Return On Investments (ROI) ($M=2.85$, $SD = 0.780$) consecutively for the past three financial periods. In sum, the implications were that Kenyan Private Universities were successful because they accounted for, and reported their HC as material investments. However, further research was recommended to establish whether: the 4.2% who did not enjoy a good reputation and image consecutively for the past three financial periods; the 47% who did not enjoy easy access to Kenya's capital markets consecutively for the past three financial periods; the 25% who did not retain their quality HC consecutively for the past three financial periods; as well as the 30% who did not enjoy high ROI consecutively for the past three financial periods: did so solely because they did not account and report their HC as material investments or there were indeed other factors motivating the results.

4.4 Inferential Analysis

4.4.1 Pearson's Correlation

Before carrying out regression analysis, Pearson's correlation was performed to probe the relationship between Firm market value (FMV): and Frameworks employed in accounting for HC Intangibles; financial measures applied to value HC investments (Metric); Platforms for reporting Human Capital Investments (Platforms); and Intervening Strategies to harness HC Assets (Strategies).

Table 13. Pearson's correlation on the Relationship between Firm Market Value and Frameworks, Metrics; Platforms; and Intervening Strategies.

<i>Correlations</i>		<i>Framework</i>	<i>Metrics</i>	<i>Platforms</i>	<i>Strategies</i>	<i>FMV</i>
Framework	<i>Pearson Correlation</i>	1				
	<i>Sig. (2-tailed)</i>					
	<i>N</i>	47				
Metrics	<i>Pearson Correlation</i>	-.206	1			
	<i>Sig. (2-tailed)</i>	.164				
	<i>N</i>	47	47			
Platforms	<i>Pearson Correlation</i>	.300**	-.287	1		
	<i>Sig. (2-tailed)</i>	.041	.051			
	<i>N</i>	47	47	47		
strategies	<i>Pearson Correlation</i>	.100	-.080	.267	1	
	<i>Sig. (2-tailed)</i>	.504	.593	.070		
	<i>N</i>	47	47	47	47	
FMV	<i>Pearson Correlation</i>	.122	-.189	.434**	.434**	1
	<i>Sig. (2-tailed)</i>	.413	.203	.002	.002	
	<i>N</i>	47	47	47	47	47

** Correlation is significant at the 0.05 level (2-tailed).

Source: Author's Data

Results were presented in Table 13. Based on the findings, there was a significant positive linear relationship between FMV, Platforms for reporting Human Capital Investments (Platforms) and Intervening Strategies to harness HC Assets (Strategies) ($r = 0.434$, $p = 0.002$) at 5% significance level. There was however a weak negative linear relationship between Firm market value, FMV and financial measures applied to value HC investments (Metric) ($r = -.189$, $p = 0.203$) at a 5% significance level. This implied that Kenyan Private Universities needed to pay keen attention to the platforms they apply to report their HC investments; Intervening Strategies to harness HC Assets if they hoped to promote their firms' market value.

To test the research hypothesis, the researcher conducted regression analysis with FMV as the Dependent Variable and Accounting for HC frameworks, Metrics in accounting for HC, Platforms employed in reporting HC investments as the Independent Variables. A thorough diagnostic test was applied to the data beforehand, and the results showed that all the underlying regression assumptions were met. The results for the regression model were presented in Table 14.

Table 14. Regression Model on the Dependent and the Independent Variables.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.601	4	.650	4.551	.004 ^b
	Residual	6.000	42	.143		
	Total	8.601	46			

a. Dependent Variable: Farm Market Value (FMV)

b. Predictors: (Constant), Intervening strategies to harness HC investments, Metrics in accounting for HC, Accounting for HC framework, Platforms employed in reporting HC investments

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.550 ^a	.302	.236	.37798

a. Predictors: (Constant), Intervening strategies to harness HC investments, Metrics in accounting for HC, Accounting for HC framework, Platforms employed in reporting HC investments

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	1.724	.821		2.100	.042
	Accounting for HC framework	-.030	.161	-.026	-.189	.851
	Metrics in accounting for HC	-.093	.173	-.073	-.535	.596
	Platforms employed in reporting HC investments	.232	.101	.330	2.297	.027
	Intervening strategies to harness HC investments	.329	.128	.343	2.562	.014

a. Dependent Variable: Farm Market Value (FMV)

Source: Author's data

The results revealed that Intervening strategies to harness HC investments significantly influence Farm Market Value (FMV), $t(42)=2.562$, $p < 0.05$. Platforms employed in reporting HC investments was also significant $t(42)=2.297$, $p < 0.05$. However Accounting for HC frameworks and Metrics in accounting for HC were found to be insignificant $t(42)=-0.189$, $p > 0.05$, $t(42)=-0.535$, $p > 0.05$ respectively. The Analysis of Variance (ANOVA) confirmed that overall, the model was significant: $F(4,42)=4.551$, $p < 0.05$. Furthermore, $R^2=0.302$, indicates that 30.2% of the variations in FMV is explained by the four independent Variables or the model. Hence the H_{03} hypothesis (platforms) was rejected whereas H_{01} (frameworks) and H_{02} (Metrics) were not rejected. Accordingly, frameworks and metrics employed by the Kenyan Private Universities to account for their HC investments had no statistically significant influence on their firms' market value; only platforms had. This was a milestone finding in Kenya. It may explain why global studies which have focused on frameworks and metrics applied in HC accounting have not succeeded in promoting HC accounting adoption in organizations for improved firm market value.

4.4.2 Tests of The Assumptions of Normality, Presence of Heteroscedasticity and Multicollinearity for A Multiple Linear Regression Model

This section sought to test for the assumptions made by parametric tests in which linear regression and Pearson's correlation are part of. These assumptions include normality of the residuals, homogeneity of variance (presence of Heteroscedasticity) and Multicollinearity assumptions.

Table 15. Test of Heteroscedasticity

Heteroscedasticity test: NCVT Method
Non-constant Variance Score Test
Variance formula: ~ fitted. values
Chi-square = 2.502076, Df = 1, p = 0.1137
studentized Breusch-Pagan test
data: fit
BP = 5.5738, df = 4, p-value = 0.2333

To test for this assumption, a Non-Constant Variance Test (NCVT) was conducted, and the results was insignificant, $\chi^2(1) = 2.502076$, $p > 0.05$. We therefore conclude that the assumption of homoscedasticity is not violated.

Table 16. Normality Test

Test of Normality
<i>Shapiro-Wilk normality test</i>
data: FMV
W = 0.93917, p-value = 0.1563
<i>Anderson-Darling normality test</i>
data: FMV
A = 0.38192, p-value = 0.3717

To test this assumption, Shapiro-Wilk normality test was carried out and result was insignificant, $p > 0.3717$ hence this assumption was met.

Table 17. Multi-Collinearity Test: VIF

Multi-Collinearity Test: VIF			
<i>Frameworks</i>	<i>Metrics</i>	<i>Platforms</i>	<i>Strategies</i>
2.562332	5.026048	6.557746	1.749274

To test for this assumption, Variance Inflation Factor (VIF) test was carried out as shown in Table 4.23. The results indicate that no variable have $VIF > 10$ hence the assumption of Multi-Collinearity was met.

5. Discussion and Conclusion

Ninety-two percent of those surveyed promoted the treatment of HC as material investments in the HRA discipline for their Universities' improved market value, and 86% recommended its use in Kenyan Chartered Private Universities as they affirmed that: investing in HC puts organizations on a competitive edge. Fifty-eight percent would recommend to the IFRSs writers to correct the anomaly of the GAAP accounting treating HC as liabilities that diminish the firm market value. This is because the IFRS was applied by 79% as the commonly used standard in Kenya, approved by the Institute of Certified Public Accountants of Kenya (ICPAK). Accounting for HC as material investments in the HRA discipline helped Kenyan Private Universities managers identify their HC rare competencies that promote firm competitiveness: per the propositions of the Resource- Based View of the Firm theory.

The most popular financial measure/metric applied by the Kenyan Private Universities for improved firm market value was training/development (83%), followed by salary (75%) and acquisition/recruitment (67%), and lastly HCEP (58%). This conformed to the Transaction Cost Economy theory as the Kenyan managers were investigating HC costs versus their HC earnings potential.

The majority of those surveyed (79%), promoted the use of management financial reports as the popular platform for reporting HC material investments for their improved firm market value. However, the balance sheet was the most applied platform by Kenyan managers because according to them: it was used by stakeholders to determine firm performance. This implied that the Balance sheet platform helped them communicate and assess their HC impact on Kenya's financial markets and auxiliary social-political-economic events as supported by the PAT theory. Furthermore, Kenyan Private University managers employed: repositioning, promotions as well as hiring as HC strategies based on HRA accounting to enhance their firm market value.

In sum, Kenyan Chartered Private Universities were successful because they accounted for, and reported their HC as material investments. Human Capital is the overriding factor of competitive advantage in KISS firms (Lio, 2018) of the current era. Accounting; reporting, and harnessing HC as material investments helps firms to improve their market value. However, GAAP accounting treats HC as liabilities that reduce profits hence failing to reflect the true value of the firm. This study aimed at intervening to solve this problematic.

Acknowledgment

Damaris Jacinta Kyusya for language improvement and proofreading the manuscript.

References

- Argyres, N. S., & Liebeskind, J. P. (1999). Contractual Commitments, Bargaining Power, and Governance Inseparability: Incorporating History into Transaction Cost Theory. *Academy of Management*, 24(1), 49-63. <https://doi.org/10.5465/amr.1999.1580440>
- Barney, J. (1991). Firm Resource and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99-120. <https://doi.org/10.1177/014920639101700108>
- Bloomfield, R., Libby, R., & Nelson, M. (2002). Experimental Research in Financial Accounting. *Accounting Organization and Society*, 27(8), 775-811. [https://doi.org/10.1016/S0361-3682\(01\)00011-3](https://doi.org/10.1016/S0361-3682(01)00011-3)
- Cascio, W. F. (1998). The Future World of Work: Implications for Human Resources Costing and Accounting. *Journal of Human Resource Costing and Accounting*, 3(2), 9-19. <https://doi.org/10.1108/eb029045>
- Chambers, R. J. (1993). Positive Accounting Theory and the PA Cult. *Abacus*, 29(1), 1-26. <https://doi.org/10.1111/j.1467-6281.1993.tb00419.x>
- Chaudhry, N. I., & Roomi, M. A. (2010). Accounting for the Development of Human Capital in Manufacturing Organizations: A Study of the Pakistani Textile Sector. *Journal of Human Resource Costing and Accounting*, 14(3), 178-195. <https://doi.org/10.1108/14013381011095463>
- Deloitte (2017). *Global Human Capital Trends: Rewriting the Rules for the Digital Age*. Deloitte University Press.
- Dobija, M. (1998). How to Place Human Resources into the Balance Sheet. *Journal of Human Resource Costing and Accounting*, 3(1), 83-92. <https://doi.org/10.1108/eb029044>
- Ernst & Young. (2019). *How and Why Human Capital Disclosures Are Evolving*. https://assets.ey.com/content/dam/ey-sites/ey-com/en_us/topics/cbm/ey-how-and-why-human-capital-disclosures-are-evolving.pdf
- Fields, T., Lys, T., & Vincent, L. (2001). Empirical Research on Accounting Choice. *Journal of Accounting and Economics*, 31, 225-307. [https://doi.org/10.1016/S0165-4101\(01\)00028-3](https://doi.org/10.1016/S0165-4101(01)00028-3)
- Flamholtz, E. G. (2005). Conceptualizing and Measuring the Economic Value of Human Capital of the Third Kind. *Journal of Human Resource Costing and Accounting*, 9(2), 78-93. <https://doi.org/10.1108/14013380510645360>
- Flamholtz, E. G., Bullen, M. L., & Hua, W. (2002). Human Resource Accounting: A Historical Perspective and Future Implications. *Management Decision*, 40(10), 947-954. <https://doi.org/10.1108/00251740210452818>
- Immelt, J. (2004). *Harvard Business Review on Leadership in a Changed World*. Harvard Business School Publishing Corporation, USA.
- Karthikeyan, S., Bhagat, M., & Kannan, N. G. (2012). Making the HR Outsourcing Decision-Lessons from the Resource-Based View of the Firm. *International Journal of Business Insights & Transformation*, 5(1), 87-95.
- Kothari, S. P. (2001). Capital Markets Research in Accounting. *Journal of Accounting and Economics*, 31, 105-231. [https://doi.org/10.1016/S0165-4101\(01\)00030-1](https://doi.org/10.1016/S0165-4101(01)00030-1)

- Lio, S. (2018). Kiss Firms Which Embrace Accounting for Human Capital Have Emerged in Kenya. *Academy of Accounting and Financial Studies Journal*, 22(1), 1-14.
- Mercer, M. (1989). *Turning Your Human Resources Department into a Profit Center*. Amacom: NY.
- Nyamai, F. (2018, April 5). Daystar Students Demand VC Timothy Wachira's resignation. *Daily Nation*, p.60. <https://www.nation.co.ke/news/education/Daystar-students-demand-VC-Timothy-Wachira-s-resignation/2643604-4373892-In6u1a/index.html>
- PwC. (2019). *Workforce Strategy: Benchmarking Survey*. <https://www.pwc.com/gx/en/services/people-organisation/publications/assets/pwc-workforce-datasheet-tmt.pdf>
- Ray, G., Barney, J. B., & Muhanna, W. A. (2004). Capabilities, Business Processes and Competitive Advantage: Choosing the Dependent Variable in Empirical Tests of the Resource-Based-View. *Strategic Management Journal*, 25, 23-37. <https://doi.org/10.1002/smj.366>
- Sveiby, K. E. (1997). *The New Organizational Wealth: Managing and Measuring Knowledge-Based Assets*. Berrett-Korhler. San Francisco, CA.
- Wanzala, O. (2018, March 11). *Cash Crunch: Universities Struggle to Stay Afloat*. *Daily Nation*, p.37. <https://www.nation.co.ke/business/Universities-struggle-to-stay-afloat/996-4337068-icyx7rz/index.html>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).