



**THE ROLE OF HUMAN CAPITAL MANAGEMENT STRATEGY IN ESTABLISHING A
COMPETITIVE ADVANTAGE IN ROAD CONSTRUCTION SECTOR:
A CASE STUDY OF KENYA NATIONAL HIGHWAY AUTHORITY (KENHA).**

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ABSTRACT

The human factor in the strategies of organizations under the road construction sector has long been ignored, in the recent times it has gained importance and the leadership of the organization began to realize that the human factor is critical in the creating and sustaining the competitive advantage. There are a growing number of managers who achieve competitive advantage due to human resources instead of using a particular technology, the availability of financial capital and the like.. Somewhere between theory and practice, precious human capital is being misused, wasted or lost. The main objective of the study is to examine the role of human capital management strategy in establishing a competitive advantage in road construction sector. The study was guided by the following objectives: to determine the extent at which Performance measures affect establishing a competitive advantage in KeNHA, to examine how training affect establishing a competitive advantage in KeNHA, to analyze the influence of career development on establishing a competitive advantage in KeNHA and to determine the extent at which learning capacity affect the establishing of a competitive advantage in KeNHA. The research study found out that the four factors played a major role in determining the competitive advantages in the road construction sector. The study recommends that road construction sector have effective training systems and policy in place to ensure road construction sector enjoy competitive advantage. The study also recommends that the public sectors should use training as one of the strategies of human factor management. The road sector should also undertake performance measures as a strategy for rewarding the human factor fairly. Also road construction sector should embrace career development strategy as a way to improve the performance and productivity of the human factor in this sector. Finally, the study recommends that the road construction sector should improve the learning capacity in order to empower the employees in this sector.

Key Words: Human Factor, Competitive Advantage, Strategy, Training, Career Development.

INTRODUCTION

Changes in the world and economy have imposed the human resources as key factors for making and maintaining competitive advantage in firms within the road construction sector. The new economy has become largely dependent on the skills and knowledge of employees, much more than traditional industrial economy. The basic feature of the new economy is that the intangible resources have become holders of corporate performances, with the creation of their activity related exclusively to human resources. They give to an organization a competitive advantage over the other with their knowledge and skills, and with the way they use them. This important role of human resource management in gaining competitive advantages is well known in developed economies. But, when developing and less developed countries are taken into consideration, according to present practice in enterprises, it seems that this concept is still not understood enough (Hitt, *et. al.*, 1998).

These days human capital is considered most important element of competitive advantage in most organizations regardless of the sector that they operate in. It is just one of the organization's intangible assets; it is basically all of the competencies of the people within an organization. These competencies are various skills, education, and experience, potential and capacity. It is believed that if a company know how its human capital contributes to their success, it than can be measured and managed effectively. Developing human capital management strategy in the organization is the major challenge for the leaders formulating future competitive strategies. Dynamic and complex competitive landscape has created considerable uncertainty for firms; however conditions of uncertainty also present opportunities (Hitt, *et. al.*, 1998).

Problem statement

The human factor in the strategies of organizations under the road construction sector has been ignored, in the present time it has become of importance and the leadership of the organisation began to realize that the human factor is important in the creating and sustaining the competitive advantage.

There are a growing number of managers who achieve competitive advantage due to human resources instead of using a particular technology, the availability of financial capital and the like. Therefore, today more and more attention needs to be paid to the nature and characteristics of these resources.

Also, managers today need to understand the strategic implications of the information-based, knowledge-driven, service-intensive economy. They are supposed to recognize that skilled and motivated people are central to the operations of any company that wishes to flourish in the new age. And yet, a decade of organizational delayering, destaffing, restructuring and reengineering has produced employees who are more exhausted than empowered, more cynical than self-renewing. Cuyanesan (2006). Also in the case of the highway authority it is assumed that the high level of unemployment within the country will force one to accept to do the hard work involved in this sector without concerns for empowerment and recognition. This has made it possible for the management in this sector not to recognize the importance of the human factor in their decision making. It is assumed that there will be people to work even without much to pay. Somewhere between theory and practice, precious human capital is being misused, wasted or lost. Therefore, the study seeks to fill the gap by examining the role of human capital management strategy in establishing a competitive advantage in road construction sector. The study focused on a case study of Kenya National Highway Authority (KeNHA).

Objectives of the study

The key objective of the study is to examine the role of human capital Management strategy in establishing competitive advantage in road construction sector, focusing on a case study of Kenya National Highway Authority. This study was guided by the objectives to determine how performance measures influence competitive advantage, to examine the effect of training on determining a competitive advantage, to analyze the influence of career development in determining a competitive advantage and to determine the extent at which learning capacity affects the establishing of competitive advantage in KeNHA.

Research Questions

- i. To what extent do performance measures influence a competitive advantage in KeNHA?
- ii. How does training affect competitive advantage in KeNHA?
- iii. What is the influence of career development on determining a competitive advantage in KeNHA?
- iv. To what extent does learning capacity affect the establishing of a competitive advantage in KeNHA?

1.6 Scope of the Study

The study was conducted in Kenya National Highway Authority (KeNHA) in Nairobi County. The study mainly focused on the role of human capital management strategy in establishing a competitive advantage in road construction sector. It focused on a case study of Kenya National Highway Authority (KeNHA). This study was conducted within a period of four months, That is, from January 2014 to May 2014. The research proposal was prepared from January 2014 to March 2014.

LITERATURE REVIEW

Through the human capital Management pool and employee behavior that human resources can constitute a sustained competitive advantage. Thus, managers can implement human resource practices that can positively impact the knowledge creation process and, as a result, the strategic goals of the firm. A manager can use human resource practices such as developmental assignments, formal training opportunities, and compensation to create new tacit knowledge and new explicit knowledge, and to reduce tacit knowledge loss by reducing employee turnover. Given the dynamic environment and the criticality of knowledge workers, firms must have human resource practices that promote continuing skill development. According to Stone (1998) whenever an organization formulates its strategy, it requires identification, analysis and balancing of its internal strengths and weaknesses and external threats and opportunities. This chapter will highlight the theoretical review, the empirical review and the conceptualization of the study.

Theoretical Review

Key to the theory of Human Capital is the concept that acquisition of more knowledge and skills raises the value of a person's human capital, thereby increasing their employability, income potential and productivity. For example, if an individual has acquired knowledge and skills in a number of different disciplines, the theory suggests that when one area of the economy suffers and their company closes, they can apply another skill set to get a job in another industry.

a) Universalistic Theory

It is also referred to as the best practice model, which is based on the assumption that there is a set of superior/best HCM practices, and that adopting them will inevitably lead to superior organizational performance Luthans & Summer, (2005). The notion of best practice was identified

initially in the early US models of HCM, many of which mooted the idea that the adoption of certain 'best' human capital practices would result in enhanced organizational performance, manifested in improved employee attitudes and behaviors, lower levels of absenteeism and turnover, higher levels of skills and therefore higher productivity, enhanced quality and efficiency and of course increased profitability Marchington & Wilkinson, (2008). Here, it is argued that all organizations will benefit and see improvements in organizational performance if they can identify, gain commitment to and implement a set of best HCM practices. Thus, universalistic perspective maintains that firms will see performance gains by identifying and implementing best practice irrespective of the product market situation, industry or location of the firm Pfeffer, (2001). However, the notion of a single set of best HCM practices has been overstated.

There are examples in every industry of firms that have very distinctive management practices, distinctive human capital management practices which shape the core competences that determine how firms compete. What works well in one organization will not necessarily work well in another because it may not fit its strategy, technology or working practices Pfeffer, (2001). According to Becker, *et. al.*, (2001), organizational high performance work systems are highly idiosyncratic and must be tailored carefully to each firm's individual situation and specific context in order to provide maximum performance. These high performance work practices will only have a strategic impact therefore, if they are aligned and integrated with each other and if the total HCM system supports key business priorities. This approach therefore ignores potentially significant differences between organizations, industries, sectors and countries. The idea of best practice might be more appropriate for identifying

the choices of practices as opposed to the practices themselves. The good practices that do well in one successful environment should not be ignored altogether. Benchmarking is a valuable way of identifying areas of innovation and development that are practiced to good effect elsewhere by leading companies. But it is up to the firm to decide what may be relevant in general terms and what lessons can be learnt that can be adopted to fit its particular strategic and operational requirements.

b) Contingency Theory

For the contingency theory, otherwise known as best fit HRM, there are no universal prescription of HCM policies and practices. It is all contingent on the organization's context, culture and its business strategy Wright & Snell, (2005). Contingency scholars have argued that HCM strategy would be more effective only when appropriately integrated with a specific organizational and environmental context. The best fit theory emphasizes the importance of ensuring that HCM strategies are appropriate to the circumstances of the organization, including the culture, operational processes and external environment.

HCM strategies have to take account of the particular needs of both the organization and its people. It explores the close link between strategic management and HCM by assessing the extent to which there is vertical integration between an organization's business strategy and its HCM policies and practices (Mahoney & Decktop, 2006).

According to Purcell (2001), this theory is limited by the impossibility of modeling all the contingent variables, the difficulty of showing their interconnection, and the way in which changes in one variable have an impact on others. Boxall and Purcell (2003) further emphasize the complexity of matching HCM and business strategy by stating the need to keep up with ongoing environmental change. They

bring attention to a model by Wright (2005) asserting that HCM should simultaneously promote fit and flexibility to cope with the future. However, responding to those external demands may undermine the possibility of achieving internal fit Legge, (2005). Models of external fit fail to recognize the needs of employees. More evident in highly competitive markets, businesses cannot survive without balancing the pressures from social norms, labour laws and critical employee interests. Conclusively, an alignment of business and employee needs is needed. The best fit school also lacks emphasis on the internal context of individual businesses within the same sector and the unique characteristics and practices that may provide its main source of sustainable competitive advantage.

c) Configurationally Theory

A strategy's success turns on combining external fit and internal fit. A firm with bundles of HCM practices should have a high level of performance, provided it also achieves high levels of fit with its competitive strategy Richard & Thompson (1999). Emphasis is given to the importance of bundling HCM practices and competitive strategy so that they are interrelated and therefore complement and reinforce each other. Implicit in is the idea that practices within bundles are interrelated and internally consistent, and has an impact on performance because of multiple practices. Employee performance is a function of both ability and motivation. Thus; there are several ways in which employees can acquire needed skills (such as careful selection and training) and multiple incentives to enhance motivation (different forms of financial and non-financial rewards).

A key theme that emerges in relation to best-practice HCM is that individual practices cannot be implemented effectively in isolation Storey (2007) but rather combining them into integrated

and complementary bundles is crucial. MacDuffie (2005) argues that a 'bundle' creates the multiple, reinforcing conditions that support employee motivation, given that employees have the necessary knowledge and skills to perform their work effectively (Stavrou & Brewster, 2005).

In the configuration school, cohesion is thought likely to create synergistic benefits which in turn enable the organization's strategic goals to be met. Wilkinson (2002) note that the key point about configurationally perspective is that it seeks to derive an internally consistent set of HCM practices that maximize horizontal integration and then link these to alternative strategic configurations in order to maximize vertical integration and therefore organizational performance. Thus put simply, SHCM according to configuration theorists requires an organization to develop a HCM system that achieves both horizontal and vertical integration. The configuration approach contributes to the SHCM debate in recognizing the need for organizations to achieve both vertical and horizontal fit through their HCM practices, so as to contribute to an organization's competitive advantage and therefore be deemed strategic. The use of performance management practices and competency frameworks are typically adopted to provide for coherence across a range of HCM activities (Wilkinson, 2002).

2.3 Conceptual Framework

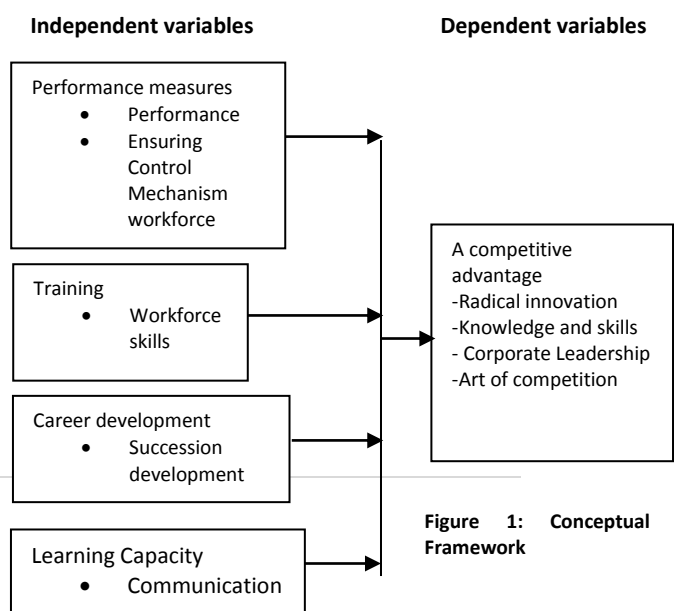


Figure 1: Conceptual Framework

Concept of Human Capital Management Strategy and Competitive Advantage

Human resources are one of the most important resources for creation of value and competitive advantage in modern enterprises. Employees with their knowledge, expertise, motivation, loyalty and dedication to the company essentially determine the performances and market position of a company. Also, employees viewed as the human capital of the company have the ability to create other forms of intellectual capital that will have a growing strategic importance for the company in long run. They create patent inventions, brands, processes, databases, information systems, training programs and organizational culture (Vemić Đurković, 2009).

As a creative and innovative part of every company, Štangl Šušnjar and Zimanji (2006) points out that people play a leading role in creating and maintaining its competitive advantage. Only highly trained, properly motivated employees, with constant and continuous learning new business skills, can meet these challenges imposed by the new business environment that is characterized by risk and uncertainty. Namely, one society survives as good as their companies are successful in providing goods and services for modern industrial and post – industrial state (Šušnjar and Zimanji, 2006).

Human resource management implies a process containing several activities such as: design of scope of work, planning, staffing, training and development, performance evaluation, compensation system, relations with employee's unions, among others. Each of these activities is important for successful human resources management. For example, planning of human resources is tightly connected to strategic and business planning in company Berber, (2011). The goal of human resource management is as efficient as possible usage of them and achieving the highest possible economic effects. The importance of human

resource management for the modern business enterprise, and the principles by which modern management is guided determines the philosophy that man is the most valuable resource in the organization. This resource is perceived as a potential and total power (competitive advantage) of the company.

Performance measures

Performance measures are also important because for companies, a higher performance is relative to their competitors it gives them a competitive advantage, in the market place. With a high performance, they can afford to undercut competitor's prices to gain market share, or charge the same prices but realize greater profits (Stangl-Susnjar & Lekovic, 2009).

Training policy

A sustainable competitive advantage occurs when an organization acquires or develops an attribute or combination of attributes that allows it to outperform its competitors. These attributes can include access to natural resources or access to highly trained and skilled personnel human resources. It is an advantage (over the competition), and must have some life; the competition must not be able to do it right away, or it is not sustainable (Bartlett & Ghoshal, 2002).

Empirical Review

From the organizational level, human capital plays an important role in the strategic planning on how to create competitive advantages. Following the work of Snell, *et. al.*, (2009) it stated that a firm's human capital has two dimensions which are value and uniqueness. Firm indicates that resources are valuable when they allow improving effectiveness, capitalizing on opportunities and neutralizing threats. In the context of effective management, value focuses on increasing profits in comparison with the associated costs. In this sense, firm's human capital can add

value if it contributes to lower costs, provide increased performances.

Another study by Seleim, Ashour, and Bontis (2007) analyzed on the relationship between human capital and organizational performance of software companies. They found that the human capital indicators had a positive association on organizational performances. These indicators such as training attended and team-work practices, tended to result in superstar performers where more productivity could be translated to organizational performances. This was also supported by Dooley (2000) who found a significant positive correlation between the quality of developers and volume of market shares. Based on the above arguments we can conclude that human capital indicators enhanced the firm performance directly or indirectly.

Critique

After analyzing previous secondary data, there is a general observation that organizations today have increasingly become aware of the importance of strategic human resource management (HCM). This awareness in a system is a critical dimension in the performance of organizations Edwards & Rees (2006). The real life experiences substantiate the assumption that no matter how sophisticated and modern the business activities of the organization may become, it will be extremely difficult to sustain its growth and effectiveness unless there are strategies that complement its operations.

There has been a debate by numerous researchers whether SHCM should always be positively related to firm performance. Universalistic scholars argue that there is a universal set of HCM best practices that can maintain a firm's performance. Contingency scholars hold different points of view and argue that the assumptions underlying the HCM strategy-performance link are applicable only

under high external fit conditions, termed the 'best fit' school Boxall & Purcell (2003); Bamberger & Meshoulam,(2000). Delery and Doty (2000) proposed the notion of the configurationally perspective which focuses on how unique patterns or configurations of multiple independent variables are related to the dependent variable, by aiming to identify ideal type categories of not only the organizations but also the HR strategy. In most firms today, it is the employees' skills and commitment that create competitive advantage for an organization.

It is, therefore, important that organizations truly leverage on the workforce as a competitive weapon to develop a competitive advantage. Although most of the studies speak of HCM practices leading to performance, such a one-way line of causation is unsatisfied. The usual key critique of HCM and organizational performance is that sound theoretical development that explains how such HCM practices operate is absent Guest, (2001). In an effort to address such theoretical developments in this area, researchers have proposed further studies to consider intermediate linkages between SHRM and organizational performance Ferns et al., (2008). Accordingly, a better understanding of the role of HCM in creating and sustaining organizational performance and competitive advantage should be achieved through further theoretical development and empirical evidence. Most studies examining the relationship between HCM practices and organization's performance have been conducted mostly in developed countries like United States and United Kingdom, Purcell, Hutchinson, & Kinnie, (2003); Guest (2001); Marchington & Wilkinson, (2008); Leung 2003); Grant (2008) and that only a few researchers have measured the mediators and addressed their importance.

The majority of this work in HCM adopts the resource-based view perspective which tends to ignore contextual variables, particularly competitive strategies, which influence organizational performance. The scarcities of such studies showing association between HCM practices and organizational performance and also the mediating role of competitive strategies in the Kenyan context makes it important to further explore the critical role of HCM. As the role of corporate organizations continue to increase in importance in Kenya, they continue facing the challenges of improving quality and improving people skills, managing workforce diversity, responding to greater globalization and stimulating innovation and change. This paper seeks to determine the influence of HCM on organizational performance, and establish the moderating role of competitive strategies on HCM-performance in Kenya as firms must increase their accesses to markets and knowledge by reading correctly changes in external market. This study may, therefore, be valuable to researchers and academicians in providing more knowledge on contributions of competitive strategies to organization's performance. The corporate organizations have a great potential for improvement of quality, profits, innovation and competitiveness.

Gaps to be filled by the Study

Competitive strategies are deemed strategic in linking HCM policies and practices to the goals of the business and the external context of the firm, and are therefore contributing in different ways to performance. Increasingly, many firms are pursuing competitive strategies aimed at cost reduction, quality improvement and innovation with the goal of gaining competitive advantage.

Developing human capital in the organization is the major challenge for the leaders for formulating future competitive

strategies. Dynamic and complex competitive landscape has created considerable uncertainty for firms; however conditions of uncertainty also present opportunities (Hitt, *et. al.*, 1998).

The competitors of the firm always try to employ better peoples for the job, so firms should constantly evaluate the human factor. Contemporary management recognizes human resource activities as having the possibility of contributing to sustainable competitive advantage in organizations.

For business practitioners, the human capital definition and the human capital management strategy framework in this proposal will help clarify an action plan to leverage the value of their human capital. In sum, Human capital management strategy is not merely a new name for HR it's strongly believed that it is the beginning of a new era for HCM, an era where HR is more strategic, more business oriented, more integrated with other functions, more flexible and more future-oriented .

RESEARCH METHODOLOGY

Research Design

The design that was used in the research was descriptive survey. It involved collecting and analyzing of data in order to answer questions concerning the current status of the subject of study. Descriptive survey was used because it is intended to provide statistical information about aspects of discipline to educators. The descriptive design was used since it determines and report the way things are Mugenda and Mugenda (1999). According to Orodho (2002) descriptive survey design is used in preliminary and explorative study to allow the researcher to gather information, summarize and interpret for the purpose of clarification. The study was fitted within the provisions of descriptive survey design because the researcher collected the data and reported the way things were without

manipulating any variables. This assisted the researcher to comprehend the role of human capital management strategy in establishing a competitive advantage in road construction sector

Target Population

Target population is defined as all the members of a real or hypothetical set of people, events or objects to which a researcher wishes to generalize the results of the research study Borg &Gall (1989). The target population for this study was 410 respondents who included both permanent and casual employees.

Sample and Sampling technique

The study selected a sample of 150 respondents from the total target population by use of stratified random sampling methods.

The research instrument used in this research was structured questionnaire. A sample of the questionnaire used was attached to the paper .The study used close ended questionnaire. The questionnaire was self-administered by the researcher where respondents were asked to complete the questionnaires and send them either through e-mail or hard copy back to the researcher. The questionnaire was divided into two main sections.

The first section provided the background information of the respondent whereas the second section captured pertinent issues touching on the subject of the study.

The data gathered included quantitative data from both primary and secondary sources. Primary sources involved direct description of any occurrences as is observed by the researcher through questionnaires. Secondary sources involved publications written by an author who is not a direct observer or participants such as from the journals, internet, textbooks, and magazines, paper presentations at conferences, theses and dissertations

Data collection and procedures

Both primary and secondary data were collected in this study. The study adopted a questionnaire method for collection of primary data with a combination of open and closed questions depending on the questions that was asked. The structured questions aimed at saving time, since the period of the study is short as compared to other methods such as mailed questionnaire method. Also it created confidence among the respondents. All the data collected through the questionnaire were analyzed to identify any inconsistencies and institute the necessary corrective measures.

FINDINGS AND DISCUSSION

Return Rate

The sample of the study comprised of 150 respondents. The research instrument was administered to the respondents who completed the questionnaires on the spot or later returned the completed instrument. Out of the 150 questionnaires administered, 144 were dully filled and returned. This was a response rate of 96% response rate. This is adequate and conforms to assertions by Mugenda and Mugenda (2003) that a 50% response rate is adequate for analysis and reporting, a rate of 60% is good while a response rate of 70% and over is excellent. Non-responses were attributed to unavailability of respondents even with persistent follow ups and the respondents considering the information sensitive.

Reliability and Validity

Reliability refers to the extent to which a measuring instrument contains variable errors that appear inconsistency from observation during any one measurement attempt or that vary each time a give unit is measured by the same instruments. Cronbach's alpha of well above 0.7 implies that the instruments were sufficiently reliable for the measurement. As most items total correlation were reasonably high, the construct validity of

the instruments was considered reasonable.

Table 1 Reliability and validity

variable	Mean	Std. Deviation	Coefficient Reliability
performance measures	4.030	8.513	0.952
Training policy	3.958	8.942	0.933
career development	3.775	9.019	0.894
learning capacity	3.994	9.152	0.942

Genders

It was paramount for the study to determine the respondent's gender to ascertain gender parity in Kenya National Highway Authority (**KENHA**). According to the analysis, majority of the respondents were male represented by 80% while 20% were female.

Age

According to the finding 8% indicated that they are less than 25 years.,14 % of the respondent indicated that they are 25 to less than 35 years old ,45% were 35 to less than 45 years old, and 33% were 45 years old and above. This shows that majority of the respondents were in their late thirties and forties

Level of education

According to the finding 1.4% indicated that they had primary level of education, 13.9% indicated that they had secondary 33.3% indicated that they had College/Vocational/Professional level, while 47.2% indicated that they had University graduate level, 2.8% indicated that they had University postgraduate level and 1.4 % indicated that they had others. This shows that majority of the respondent had degrees and so were well informed.

Length of service

According to the finding the majority of the respondent had worked for three and above years this was represented by 55.6% of the respondents. This was followed by those who had worked for 6 to less than 9 years who were 27.8%. The

least had worked for less than 1 year, which was represented by 2.7%.

Training policy

The study sought to find out the influence of training policy on determining a competitive advantage in KeNHA. On whether training policy affect a competitive advantage in KeNHA. a likert scale was used with the result as shown in the table 2.

Table 2. The effect of training policy on the organisational competitive advantage

Training policy	Highly Disagree	Disagree	Neutral	Agree	Highly agree	Mean	Standard Deviation
Training policy framework should provide clear directions in training	4.5	10.8	4.9	39.0	40.8	4.01	1.140
Training policy framework should develop guidelines for training programs	6.3	10.5	3.5	35.2	44.2	4.01	1.212
Training policy framework should allow inputs from stake holders	5.9	11.1	3.8	37.6	41.5	3.98	1.199
Training policy framework should support training of staff to the highest standards of competence	9.8	4.9	1.7	24.7	58.9	4.18	1.285
Training policy framework should clarify the desired results of the organization	5.6	10.8	5.6	36.6	41.5	3.98	1.187
Training policy framework should be designed to achieve the strategic goals of the organization	7.3	7.0	3.1	28.6	54.0	4.15	1.221
Training policy framework should guide on the funding of the training	8.4	9.8	6.3	32.4	43.2	3.92	1.280
The training policy should be reviewed at every strategic plan cycle.	10.1	6.6	3.8	30.7	48.8	4.01	1.306

From the finding, the respondents indicated that training policy should provide clear directions on training and training policy should develop guidelines for training programmes as indicated by a mean of 4.01 for both .4.01. Also it should be reviewed at every strategic plan cycle which has similar mean of 4.01. It is also clear that the training policy should be designed to achieve the strategic goals of the organisation.

Performance measures

The study sought to find out the effect of performance measures on competitive advantage in KeNHA. According to the finding 57% of the respondent indicated that Performance measures affect competitive advantage while 43% said Performance measures does not affect competitive advantage. The findings on the rate at which Performance measures affect competitive advantage in KeNHA are indicated in Figure 3 below.

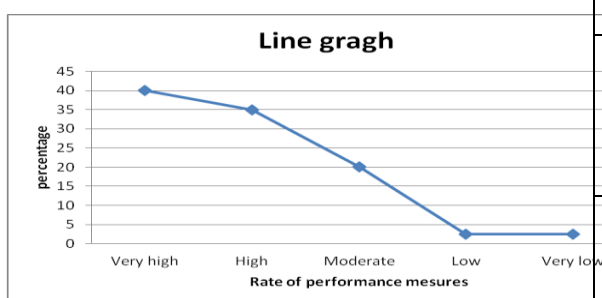


Figure 3. The rate at which Performance measures affect competitive advantage in KeNHA

From the finding, 40% of the respondents rated the extent to which Performance measures affect competitive advantage as very high, 35% of the respondents rated the extent to which Performance measures affect competitive advantage as high, 20% the respondents rated the extent to which Performance measures affect competitive advantage as moderate, while 2.5% of the respondents rated the extent to which Performance measures affect competitive advantage as low and very low respectively.

Table 3. Positions about the influence of the Performance measures affect competitive advantage at KeNHA using the likert scale.

Performance measures	Highly Disagree	Disagree	Neutral	Agree	Highly agree	Mean	Standard Deviation
Organization should carry out Performance measures to determine level of performance for the employees	6.6	10.5	2.4	33.1	47.4	4.04	1.231
Performance measures determines if training is right to work place problem	5.2	11.5	5.6	41.1	36.6	3.92	1.162
Performance measures should be carried for organization, departmental level and for individual	5.6	10.5	5.2	33.4	45.3	4.02	1.196
Performance measures identifies the gaps which require training intervention	6.3	9.8	4.9	36.6	42.5	3.99	1.197
TNA identifies the training gaps necessary to meet the strategic goals of the organization	5.9	11.1	7.0	35.2	40.8	3.94	1.207
Performance measures identifies the training gaps necessary to meet the departmental objectives	6.6	9.4	6.6	38.0	39.4	3.94	1.197
Performance measures identifies the deficiencies of skills, knowledge and competences necessary for an individual to perform work	7.7	10.5	6.3	31.7	43.9	3.94	1.269
The outcome of the Performance measures should be shared with stakeholders	8.7	9.8	7.7	28.6	45.3	3.92	1.305
Training should be programmed after the Performance measures have been carried out.	9.4	9.8	5.2	32.4	43.2	3.9	1.311

From the finding the respondents indicated that organisations should carry out the Performance measures to determine level of performance. As indicated by mean of 4.04 which highly

agreed. It also indicated that the Performance measures were right for the organisation as indicated by a mean of 3.92 agreeing on the statement. The finding also indicated that Performance measures identifies the training gaps necessary to meet the human capital management strategies goals of the organization, and identifies the training gaps necessary to meet the departmental objectives and identifies the deficiencies of skills, knowledge and competences necessary for an individual to perform work this is proved by a mean of 3.94 respectively. The respondents also indicated that the Performance measures should be shared with the stakeholders and the training should be programmed after the assessment has been carried out. This indicated by the means of 3.92 and 3.9 respectively.

Regression analysis

This section presents a discussion of the results of inferential statistics. The researcher conducted a multiple regression analysis so as to investigate the role of human capital management strategy in establishing a competitive advantage in road construction sector. The researcher applied the statistical package SPSS to code, enter and compute the measurements of the multiple regressions for the study. Findings are presented in the following tables;

Table 4. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.760 ^a	.577	.559	5.69097

- Predictors: (Constant) Training policy, Performance measures, Career development, Learning capacity
- Dependent variable: A Competitive advantage

The four independent variables that were studied, explain 57.7% of variance in competitive advantage in road

construction sector as represented by the R². This therefore means that other factors not studied in the research contribute 42.3% of variance in the dependent variable. Therefore, further research should be conducted to investigate into the other factors that influence of competitive advantage in road construction sector.

Table 5. ANOVA (Analysis of variance)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.239	4	.157	16	.001 ^a
	Residual	50.345	140	.120		
	Total	56.584	144			

- Predictors: (Constant), Training policy, Performance measures, Career development, learning capacity
- Dependent variable: A Competitive advantage

The F critical at 5% level of significance was 3.54. Since F calculated is greater than the F critical (value = 16.0), this shows that the overall model was significant. The significance is less than 0.05, thus indicating that the predictor variables, (Training policy, Performance measures, Career development, learning capacity) explain the variation in the dependent variable which is competitive advantage in road construction sector.

Table 6. Multiple regression analysis

Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	3.632	.77		.000
	Training policy	3.254	0.261	.243	.001
	Performance measures	1.132	0.123	.175	.004
	Career development	2.868	0.557	.349	.002
	Learning capacity	1.355	0.576	.054	.003

From the regression findings, the substitution of the equation ($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4$) becomes:

$$Y = 3.632 + 3.254 X_1 + 1.132X_2 + 2.868X_3 + 1.355X_4.$$

Where Y is the dependent variable (competitive advantage in road construction sector.), X_1 is training policy variable, X_2 is Performance measures, X_3 is Career development and X_4 is the Learning capacity variable.

According to the equation, taking all factors (Training policy, Performance measures, Career development, learning capacity) constant at zero, Competitive advantage will be 3.632. the data findings also show that a unit increase in Training policy variable will lead to a 3.254 increase in Competitive advantage; a unit increase in performance measures will lead to a 1.132 increase in Competitive advantage; a unit increase in Career development will lead to a 2.868 increase in Competitive advantage and a unit increase in learning capacity variable will lead to a 1.355 increase in Competitive advantage. This means that the most significant factor is training policy followed by career development in affecting the competitive advantage in the construction sector.

At 5% level of significance and 95% level of confidence, training policy had a 0.001 level of significance; career development had a 0.002 level of significance, implying that the most significant factor is training policy followed by career development.

SUMMARY OF FINDINGS

Form the finding, the respondents indicated that training policy should provide clear directions on training and training policy should develop guidelines for training programmes as indicated by a mean of 4.01 for both .4.01. Also it should be reviewed at every strategic plan cycle which has similar mean of 4.01.It is also clear that the training policy should be

designed to achieve the strategic goals of the organisation. This is supported by the study by Seleim, Ashour, and Bontis (2007) who analyzed on the relationship between human capital and organizational performance of software companies. They found that the human capital indicators had a positive association on organizational performances. These indicators such as training attended and team-work practices, tended to result in superstar performers where more productivity could be translated to organizational performances. This was also supported by Dooley (2000) who found a significant positive correlation between the quality of developers and volume of market shares. Based on the above arguments we can conclude that human capital indicators enhanced the firm performance directly or indirectly.

From the finding the respondents indicated that organisations should carry out the Performance measures to determine level of performance. As indicated by mean of 4.04 which highly agreed. It also indicated that the Performance measures were right for the organisation as indicated by a mean of 3.92 agreeing on the statement. The finding also indicated that Performance measures identifies the training gaps necessary to meet the human capital management strategies goals of the organization, and identifies the training gaps necessary to meet the departmental objectives and identifies the deficiencies of skills, knowledge and competences necessary for an individual to perform work this is proved by a mean of 3.94 respectively. The respondents also indicated that the Performance measures should be shared with the stakeholders and the training should be programmed after the assessment has been carried out. This indicated by the means of 3.92 and 3.9 respectively. This is in support of the literature review that Managing human capital management strategy performance effectively requires new

perspectives and new competencies on the part of both line managers and HR professionals. We have summarized this new approach in six key principles that can be used to guide human capital management strategy performance measurement in any organization. Drawing on both our research and our work with senior HR professionals and line managers, these principles will enable your organization to transform human capital potential into significant drivers of organization performance (Wu, 2007).

Conclusions

The study concludes that training policy influenced competitive advantage in road construction sector and that should develop guidelines for training programmes and should allow inputs from stake holders to influence competitive advantage in road construction sector to a very high extent. The study also concludes that performance measures influenced competitive advantage in road construction sector and that performance measures should be carried out to determine the level of performance and should be carried out for the organization, departmental level and for individuals. All

these showed a very high level of agreements with the statements presented to the respondents.

Recommendations

The study recommends that road construction sector have effective training systems and policy in place to ensure road construction sector enjoy competitive advantage. The study also recommends that the public sectors should use training as one of the strategies of human factor management. The road sector should also undertake performance measures as a strategy for rewarding the human factor fairly.

Recommendations for Further studies

This study has investigated into the role of human factor management strategy in determining the competitive advantage in road construction sector. to this end therefore a further study should be carried out to assess the other factors that may affect the road construction sector in Kenya. Moreover, a study should be carried out to investigate the challenges facing human factor management in road construction sector in Kenya.

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