

Human Resource Information System and Competitive Advantage of Companies Listed on Nairobi Securities Exchange in Kenya

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Abstract

The main objective of this study was to determine the influence of human resource information system (HRIS) on competitive advantage of firms listed on Nairobi Securities Exchange. Data was collected using a questionnaire from the human resource managers of firms listed on Nairobi Securities Exchange. 62 questionnaires were distributed to various firms and 39 were returned and fully completed forming a response rate of 63 percent. Data was analyzed using multiple regression analysis to test the effect of HRIS on each component of competitive advantage (market share, profitability, public image). The results show that HRIS had a significant influence on profitability, public image and overall competitive advantage and no influence on market share. Specifically, the results show human resource analysis explained profitability, public image and overall competitive advantage.

Keywords: Human Resource Information System, Public image, profitability, market share, Competitive Advantage

1.0 Introduction

In the recent years organizations have deployed information's systems for achieving efficiency, effectiveness, enhancing quality and gaining competitive advantage. Human Resource Information systems (HRIS) are used by HR department to achieve the same objectives ((Kumar, 2012). The deployment of HRIS in organization is the key to development of information technology. It is an important tool to achieve crucial organization human resource objectives. HRIS is used in HR administration, salary administration, leave and absence recording, skill inventory, performance appraisal, training and development, HR planning, recruitment and career planning and others HR activities (Mureithi, Gachunga and Burugu, 2014). Human resource information systems should add value to the outcomes for the organization. Declining costs and time consumption, improved communication should create an environment in which the HR department plays a strategic role in the organization (Lengnick-Hall and Moritz, 2003). HRIS give the HR department an opportunity to become strategic partners with top management. Kumar (2012) argues that HRIS should allow the HR functions to become more efficient and to provide better information for decision making.

The vision 2030 economic reform progress initiated by the government of Kenya is aimed at turning Kenya into middle income country. It incorporates information communication technology (ICT) as a social economic force under the economic pillar for driving development among other sectors. The government key objective is to turn Kenya into global ICT hub and premier location for business process outsourcing. To capitalize the synergy between these two assets, HRIS is an emerging area that may lead HRM into new era. Technological developments and particularly those based on advancing information technology (IT), are essential for organizational effectiveness and are powerful drivers of organizational change (Warui, Mukulu and Karanja, 2015). According to Mureithi, Gachunga and Burugu (2014), Kenya ICT has been widely used in the HRIS from the late 1960s. The technology has changed with time. In 1960s, it was the mainframe type which was used in processing the payroll and government accounts. In the late's 1970s and early 1980s it was the micro computers which were used in word processing. Client servers came to use in the 1990s and were used in information sharing and online transactions (Wachira, 2010). ICT has been used in organizations to add value in transactions by improving efficiency of transaction services. It is also used in back office, production time of staff and in offering choice of delivery channels from face to face, online or through telephones, teleconferencing etc and information sharing through building IT systems with technology that enables information to be shared across departments which means citizens or clients or customers can receive faster and more transparent service (Wachira, 2010).

This shows that even though there has been use of HRIS, most organization in Kenya engage the use of HRIS to carry out mundane tasks at a very basic level which would not lead to competitive advantage. Listed companies in NSE are very competitive and their HR managers should be at forefront to ensure that HRIS is adopted and used optimally in their organizations so that they can leverage on its benefit that will help the government of Kenya to achieve its vision 2030. Huselid and Berker (1997) found that there were financial returns for the

organizations whose HRM systems have achieved operational excellence and are aligned with business strategic goals. The result is an HRM system that produces employee behaviors that are focused on key business strategy, which in turn drive profits, growth and market value. This study seeks to understand the influence of HRIS and competitive advantage of Firms Listed on Nairobi Securities Exchange (NSE).

2.0 Literature Review

Competitive Advantage

Porter (1995) suggests that competitive advantage is how a firm can actually create and sustain leadership in industry by implementing broad generic strategies. Firm experiences competitive advantage when its action in an industry or market creates economic value and when few competing firms are engaging in similar actions. Competitiveness is the capacity of the firm to achieve its target. These targets can be expressed in variety of terms depending on context namely macroeconomic or entrepreneurial perspective (Barney, 2001). From entrepreneurial perspective, a competitive firm needs to survive in the market, achieve market share and profitability. The success of a competitive firm can be measured by both objective and subjective criteria. Objective measures include return on investment, market share, profit and sales revenue while subjective measures include enhanced reputation with public, customers, supplies, competitors and improved quality of delivered services (Barney, 2001).

Market share means shares of the actual sales for a product in a given period or geographical area. In this era of competition, business organizations of all sizes and varieties have become more concerned with the market-shares figure they achieve in the market place. Most organization use market share as the measure of organization performance. Market share analysis is competitive in nature. This implies that the effects of one's actions must be analyzed with the market positions and actions of the competitors. Market share analysis is also profit oriented. A positive association between market share and profitability has been demonstrated empirically in several cross- section studies. Businesses with larger market share tend to display higher levels of profitability (Buzzel, Gale & Sultan, 1975).

Modern literature provides two schools of competing models of firm profitability which includes structure-conduct-performance and firm effects models. The structure-conduct-performance is embedded in neo-classical theory and asserts that firms in concentrated industries are more profitable than firms in perfectly competitive market The industry effects such as concentration and entry barriers determines profitability (Bain,1951). The fundamental assumption in firm effect models is that firms are heterogeneous. According to Demsetz (1973) firms can be distinguished with respect to their level of cost- or production efficiency. Efficient firms have a competitive advantage over non efficient rivals. In his model, superior performance can exist for some time. Potential reasons for that can be a firm's reputation, resource heterogeneity, and complexity of organizational structures, factor immobility or uncertainty of investments. Peltzman (1977) asserted that high market concentration, inform of high market shares and higher firm profitability occur simultaneously and are a result of the same cause; differences in production levels.

Strong public image and good reputation have a positive impact on growth in profit margin, employee morale, community good will, and investor support, relationships with vendors and suppliers, and overall organization pride. Organizations need corporate identity for survival. This identity is developing through the projection of one positive image that will increase its public confidence and achievement of competitive advantage. Publics` looks, products and a service that is offered by the organization are in bundle package. Public is a more concerned about corporate image because a good image can attract the whole public to using products and services offered. Fombrun (1996) suggested that public image breeds customer loyalty, repeat business, enhances sales attractiveness and dampens the effect of business downturn in event of crises. Robert and Dowling (2002) confirmed that firms with good public image sustain superior performance for longer period of time and have an easier time attaining competitive advantage. This study focused focus on market share, profitability and public image because these measures present both objective and subjective criteria of competitive advantage.

Human Resource Information Systems

Tannenbaum (1990) defined HRIS as the system used to acquire, store, manipulate, analyze, retrieve and distribute pertinent information regarding an organization's HR functions and applications. DeSanctis (1986) posits that HRIS is the blend of HRM and IT. In a similar argument, Brodrerick and Boudreau (1992) argue that HRIS is composed of database, hardware, and software that are used to store information in the database from all departments of the organization and produce the required information when demand arises. It is also a computerized system comprising a database or interrelated database that tracks employees and their employment specific information. Therefore in short, HRIS is an integrated systems used to gather, store and analyze

information regarding an organization's human resources (Hendrickson, 2003). Mayfield and his associates (2003) and adopted by Casico (2006) proposed the dimensions of HRIS to be strategic integration, forecasting and planning, performance development, communication and integration, records and compliance, human resources analysis and knowledge management.

Strategic Integration is the process of improving organizational performance through continuous alignment of business strategies within the ever-changing business environment (Burgelman and Doz, 2001). It refers to the gradual combination and transformation of independent components of HRM and the overall objectives of the organization into cohesive and synergistic entities (Ford, Evans and Masterson, 2012). Use of HRIS is very important in realizing this synergy. It enables the management to clearly analyze the organization's needs in terms of HR and management of the HR as well. Strategic integration gives decision makers the information that is necessary to make both short and long-range plans about organizational operations, as well as providing a feedback loop to integrate HR planning with strategic development. It is a HRIS tool that leads to an improvement in organizational performance and changes the method in which organizations are managed (Troshani, Jerram and Hill, 2011). The use of strategic integration HRIS tools has been advocated as an opportunity for HR professional to become strategic partners with top management (Lengnick and Moritz, 2003). The idea has been that HRIS would allow for the HR functions to become more efficient and to provide better decision making. Human resource information systems generates strategic value by helping design and implement internally consistent policies and practices which ensure that, HR contribute to accomplishing organization objectives (Boateng, 2007). Strategic value can be derived by strategic integration HRIS tools that assist decision-making process regarding essential HR functions and applications (Troshani, Jerram, and Hill, 2011).

Most of the HR decisions are based on human resource analysis function. Human resource analysis is used to assist an organization to makes a decision of whether their personnel capabilities are congruent or not (Obeidat, 2012). It is considered to be an ongoing mean of collecting and identifying human resource needs from the HR functions (Mayfield, Mayfield & Lunce, 2003). Human resource analysis functions are used to determine instantly who has applied for what post and track the progress in recruiting for a specific post. The analysis functions are used to match and process internal candidates. The system helps also to analyze and report on average pay or pay distributions by job, grade, and length of service. In performance management, it is used to analyze and report on results of performance reviews showing the distribution of people with different degrees of potential and highlighting the individuals with particular skills. Through computer managed learning, the systems can be used to analyze the training recommendations contained in performance reviews report to identify collective and individual training needs (Armstrong, 2008).

Human resource information system is mostly created for knowledge management of HRM. It is used to control the basic data on HR, which make organizations more profitable and effective (Remenyi, 2005). Furthermore, it is a HRIS tool that makes vital contributions to knowledge management by advancing organizational learning. For example, HRIS helps to facilitate double loop learning feedback that enables organizational change, intra organizational communication, decision-making and shared visions (Mayfield, Mayfield and Lunce, 2003).

Communication and Integration is function of HRIS tool help in supporting and co-coordinating different organizational activities as well as changes in the organization (Mayfield, Mayfield & Lunce, 2003; Casico, 2006). This function of HRIS involves a communication mechanism suitable for communicating necessary information to all customers within and outside an organization (Mayfield, Mayfield and Lunce, 2003). The system may be web based enabling access to remote or online at any time. Communication HRIS function also includes HR intranet and B2E portal. A HR intranet is an electronic network that enables information to be communicated across organizations. It posts static data such as information on HR policies and communications about employees' facilities which include learning opportunities and flexible benefits. It may also include links that enable managers and other employees to interface directly with HR applications and make changes or enquiries. A B2E portal provides a single intranet screen that enables the organization to gather and present information to people needing it (Armstrong, 2008).

Forecasting and planning is a HRIS function process that uses historic data to establish the direction of future trends in any organization (Mayfield, Mayfield and Lunce, 2003). Forecasting and planning function transforms input from HRIS analysis and other sources into its predictive feedback, which estimates about future organizational personnel and skill requirements. This function is also very closely linked to the personnel development unit of an HRIS. In response to HR forecasting and communications, personnel development can

address any organizational talent deficiencies with such methods as employee training or through recruitment (Obeidat, 2012). Forecasting and planning function of HRIS is used to transform the input of an HRIS analysis into its predictive feedback about organizational future and HR requirement needs (Mayfield, Mayfield and Lunce, 2003). Data maintained in an HRIS database can be used as a competitive information resource for all HRM functions such as HR planning, job analysis, recruitment and selection, training and development, compensation, employee relations, performance appraisals, health and safety. HRIS as a tool supports strategic planning through the creation of work force supply and demand needs, requirements and forecasting (Lippert and Swiercz, 2005). Record and compliance function meets legal requirements that mandate specific information retention and to present database that puts into proper functioning of the other HRIS functions (Mayfield, et al., 2003). Employee's records play a vital role in providing the information needed by organizations to manage and pay their staff members, plan their work force requirements and monitor staff performance.

This study adopted HRIS dimensions, which include strategic integration, forecasting and planning, communication and integration, records and compliance and HR analysis because they are HRIS dimensions that would represent both strategic and administrative purposes of the organization which would lead to competitive advantage.

Human Resource Information Systems and Competitive Advantage

Several studies concur on positive relationship between HRIS and competitive advantage (Huber, 1990; Broderick and Boudreau, 1992; Powell and Dent-Micallef, 1997; Hendrickson, 2003). Huber (1991) noted that information technology provides opportunities to transform organizations and help them to achieve competitive advantage. Similarly, the successful way to gain competitive advantage is using appropriate application of HRIS (Zhang & Wang, 2006). It is also noted that HRIS supports decision-making processes to achieve competitive advantage (Broderick and Boudreau, 1992). Therefore, effective utilization of HRIS in combination with policies and people could give competitive advantage to the organization (Hendrickson, 2003).

Broderick and Boudreau (1992) studied HRIS for competitive advantage. They interviewed 10 leaders selected from among 40 members of the Center for Advanced Human Resource studies at Cornell. They established that current and future differences in HRIS across the firms are viewed as competitive according to a framework that draws on theories of information value and organizational contingency. While the study brought some insight on the role of information systems and competitive advantage, they did not use HRIS in terms of strategic integration, planning and forecasting, human resource analysis, communication and integration, record and compliance as independent variable. Also they did not focus on competitive measures of firm profitability, public image and market share which are the focus of this study.

A Similar study conducted by Troshani, Jerram, and Gerrard (2010) explored the organizational adoption of HRIS of 16 Australian public sectors. They found that HRIS can be used as a source for achieving cost savings and inimitable competitive advantage. Although the study brought some insight on how HRIS brings a positive relationship with competitive advantage, the study considered factors such as technology context, organization context and environment context as determinant of HRIS competitive advantage. The current study focused on (Strategic integration, planning and forecasting, human resource analysis, communication and integration, record and compliance as the independent variable. The study is based on the Australian public sector, and therefore its external validity cannot be ensured. Consequently their finding may not be generalized beyond the context of the study suggesting that further research is required in other contexts. The current study focused on companies listed in NSE in Kenya which has varied contexts since it is composed of private and public sector.

Mayfield, Milton, Jackie, Lunce and Steve (2003) did a theoretical study on HRIS a review and model development. The study provided a comprehensive framework that advances HRIS research. The model addressed all the major HR components and offered information on how these facets interact to support each other and the larger organizational outcomes. This makes it relevant to use of human resource flow model. The model units consist of organizational vision, strategic integration, communication and integration, records and compliance, knowledge management, performance development, HR analysis and forecasting and planning. Casico (2006) and Obeidat (2012) adopted this model. The study also found that HRIS that is driven by a strategic vision is an open system, where information technology facilitates communication freely between integrated features. Such information sharing is crucial to learning organizations that views employees as their main competitive advantages. The study developed human resource flow model that provided the theoretical foundation of the current study by providing HRIS applications framework. This study only used HRIS dimensions, which include strategic integration, forecasting and planning, communication and integration, records and compliance and HR analysis. The study did not use firm profitability, public image and market share as measures of competitive advantage.

Sandri and Chatterjee (2003) advanced their study on building organizational character through HRIS. They found that HRIS help in developing corporate character through customer and strategic HR intervention. This is an indication that there is a positive relation between HRIS and competitive advantage. This study used only one measures of competitive advantage i.e. public image whereas the current study focused on market share, public image and profitability as measures of competitive advantage. Krishna and Bhaskar (2011) examined the assessment of support and benefits of HRIS in medium-scale textiles industry of Hyderabad with a sample of 98 using stratified sampling. Data analysis was performed using cumulative weighted average technique that concluded high levels of information systems exists in medium scale textiles industry and they are able to attain only 2/3 of the benefits. Further the research, based on an evolutionary view of computing growth suggests improvements in HRIS in order to gain competitive advantage and to maximize the benefits. This study did not use HRIS dimensions such as strategic integration, forecasting and planning, communication and integration, records and compliance and HR analysis. The study did not also use firm profitability, public image and market share as measures of competitive advantage.

Were, Gakure, Kiraithe and Waititu (2013) studied resource availability and utilization on the performance of the police at Nairobi police force in Kenya. Using a sample of 150 police officers the researchers found that resource availability and utilization has a positive influence on the performance of the police officers. 10.9% of the corresponding change can be explained by a unit of change in the performance of the police officers. Resources in the form of ICT have lead to improvement in the performance of the police in other countries. In the case of Nairobi, ICT is completely not used except at police headquarters/Vigilance house. Tangibles resources like vehicles, phones are so limited that some stations have to share vehicles. Resources determine how fast and efficiently officers can respond to distress calls. Without resources, it is difficult for the police to communicate. This study did not use HRIS dimensions such as strategic integration, forecasting and planning, communication and integration, records and compliance and HR analysis. The study did not also use firm profitability, public image and market share as measures of competitive advantage.

Although the above studies brought some insights into the role of the HRIS on competitive advantage. They did not operationalize the independent variable HRIS into strategic integration, planning and forecasting, human resource analysis, record and compliance and the dependent variable into firm profitability, public image, market share hence leaving a knowledge gap. They did not also use human resource flow theory by May field et al (2003) as theoretical foundation of HRIS applications. In addressing this knowledge gap, current study incorporated HRIS (strategic integration, planning and forecasting, human analysis and record and compliance) as the independent variable and competitive advantage measures as firm profitability, public image, and market share.

3. Methodology

The study used cross-sectional design whereby the study was carried out at a specific moment in time. Data was collected using questionnaire from all the 62 companies listed on NSE. The target respondents were human resource managers of firms listed on NSE. 62 questionnaires were distributed to the human resource and 39 were filled and completed representing a response rate of 63 percent. For example Kariuki (2014) recorded 68 percent response rate.

4. Analysis

Before testing the study hypotheses, reliability test was performed to examine the reliability of the study variables. Following the approach recommended by Nunnally (1967, 1978) reliability is demonstrated when Cronbach alpha is 0.6 to 0.7. Table 1 shows the results of reliability test. In addition, the variables were tested for multicollinearity through correlation analysis.

In addition, the Variance Inflation Factor (VIF) was included in regression models to further test for assumption of regression analysis. The VIF indicate whether a predictor has a strong linear relation with other predictor variables in the regression models. Multicollinearity is a statistical phenomenon in which there exists a perfect or exact relationship between the predictor variables. When there is perfect or exact relationship between the predictor variables, it is difficult to come up with reliable estimates of their individual coefficients. It will result in incorrect conclusions about the relationship between outcome variable and predictor variables. The VIF ranges from 0.6 to 4.2 showing there is no problem of multicollinearity.

Hypothesis Testing

The objective of the study was to determine the relationship between human resource information systems and competitive advantage.

The study set out to establish the independent effect of HRIS and competitive advantage. The HRIS was measured using, strategic integration, forecasting and planning, human resources analysis, communication and integration, record and compliance. The competitive advantage was measured into 3 concepts which include market share, public image and profitability. The results of analysis done to determine the effect of HRIS and market share as shown Table 1. Hypothesis (H1) was stated

H₁: There is a significant relationship between HRIS s and competitive advantage.

Three sub-hypothesis were derived from the main hypothesis stated as:

H_{1a}: There is a significant relationship between HRIS and market share.

H_{1b}: There is a significant relationship between HRIS and profitability.

H_{1c}: There is a significant relationship between HRIS and public image.

In order to test the sub-hypotheses and their effect on market share, profitability and public image, simple regression analysis were performed. To test the main hypothesis, multiple regression models was performed so as to understand the effect of each construct of HRIS on competitive advantage. The results are presented in Table 1.

Table 1: HRIS and competitive Advantage

Variable	H _{1a} Market Share			H _{1b} Profitability			H _{1c} Public Image			CA		
	β	SE	t	β	SE	t	β	SE	t	β	SE	t
Constant	2.369	1.618	1.464	.830	.436	1.903	-.094	7.61	-.124*	.357	.386	.926
Strategic Integration	-.258	.254	-1.016	-.172	.068	-2.51*	-.046	.119	-.384	-.106	.061	-1.747*
Forecasting and Planning	.246	.254	-.710	-.085	.093	-.913	.293	.163	1.796*	.104	.083	1.264
Human resource Analysis	-.301	.481	-.626	.899	.130	6.929*	.873	.226	3.853*	.900	.115	.842*
Communication and Integration	.452	.382	1.184	.002	.103	.015	-.169	.180	-.940	-.084	.091	-.925
Record and compliance	.456	.357	1.277	.083	.096	.865	.176	.168	1.048	.118	.085	.382
R ²	.180			.750			.634			.828		
Adjusted R ²	.009			.698			.558			.792		
F	1.052			14.388*			8.325*			23.047*		

As shown in Table 1, H_{1a}, the study found that HRIS explained 18 percent (R²=0.180) of the market share with remaining 82 percent explained by the other variables implemented by the organizations. (R²=0.180, adjusted R²=0.009). The overall model was not significant (F=1.052, p>.05) for effect of HRIS on market share. The beta coefficient was not significant for all variables of HRIS on market share (Strategic integration, Forecasting and planning, Human resource analysis, communication and integration and records and compliance). The findings imply that HRIS implementation does not significantly increase the market share on firms listed on NSE. .

H_{1b} show that HRIS explained 75 percent (R²= 0.750, Adjusted R²=0.698) of the profitability, imply that this is a strong model. The overall model was significant (F= 14.388, p<.05). The beta coefficients were significant but negative for Strategic integration (β=-.172 t=-2.51, p<.05) and human resource analysis (β=-.899, t=-6.929, p<.05), while strategic integration, forecasting and planning, communication and integration, records and compliance were not significant predictors of profitability (P>.05). Thus, H_{1b} is confirmed.

H_{1c}, show that HRIS explained 63 percent (R²= 0.634, Adjusted R²=0.558) of the public image, implying a strong model. The regression model was significant at (F= 8.325, p<.05). The regression coefficient was significant for forecasting and planning (β=-.293, t=-1.796, p<.05) and human resource analysis (β=-.873, t=-3.853, p<.05). The coefficient for strategic integration, communication and integration and records and compliance were not statistically significant. Thus, H_{1c} was confirmed.

HRIS accounted for 82 percent of the variance in competitive (R²= .828, Adjusted R²=0.792). The overall model was statistically significant (F=23.04, p<.05) and the beta coefficients for strategic integration (β= -.106, t=7.47, p>.05) and human resource analysis were (β=. 900, t=7.842 p>.05) were significant. However, the coefficient for communication and integration and records and compliance were not statistically significant. There is a positive effect of HRIS on the competitive advantage. This confirms the hypothesis that there is a significant relationship between human resource information systems and competitive advantage.

5. Discussion

The main objective of the study was to find out the relationship between HRIS and competitive advantage. Competitive advantage was measured through the market share, public image and profitability. The study found out that HRIS influences competitive advantage. This is supported by (Zhang and Wang, 2006, Beadles et al 2005, Troshani et al, 2010). As discussed in the literature and consistent with the results in the study, HRIS influence competitive advantage. This means that for organization to achieve competitive advantage they need to integrate their HRIS components such as strategic integration, forecasting and planning, Human resource analysis, communication and integration and record and compliance. HRIS strategic integration would allow for the HR functions to become more efficient and to provide better decision making. This generates strategic value by helping design and implements internally consistent policies and practices which ensure that, HR contribute to accomplishing organization objectives (Boateng, 2007). The study also found that HRIS influences profitability is supported by (Obeidat, 2012).

The result revealed that HRIS influences the public image. Sandri and Chatterjee (2003) advanced their study on building organizational character through HRIS. They found that HRIS help in developing corporate character through customer and strategic HR intervention. The study revealed also that HRIS does not influence the market share. This contradicts Becker and Bsai (2002). Further research on whether HRIS influence the market share need to be done in other companies listed in stock exchange in other countries.

6. Conclusion and Recommendation

The current study confirms that there is evidence to support that there is relationship between HRIS and competitive advantage. The objective one of the study was to determine the relationship between Human resource information systems and competitive advantage. The competitive advantage was measured through market share, profitability and the public image. This objective gave rise hypothesis below as stated

H1: There is a significant relationship between human resource information systems and competitive advantage. The objective was analyzed into four ways. First, study sought to determine the relationship between HRIS and the market share. The study found out that there is no significant relationship between the HRIS and the market share. Secondly, the study sought to find out the relationship between the HRIS and profitability. The results evidently indicated strong relationship between HRIS and profitability. Thirdly the study determines the relationship between the HRIS and the public image. The results revealed positive relationship between the HRIS and the public image and lastly the relationship between HRIS and competitive advantage was established. The results revealed a positive significant relationship between HRIS and competitive advantage

Implication

The current study confirms that there is evidence to support that there is relationship between HRIS and competitive advantage. This means that the organizations need to consider HRIS components when they are developing organization strategy. Top managers should strongly support the use of HRIS and make use of HRIS to make strategic decisions. The organizations need to have seamless flow of information between various departments. This means that the organizations need to consider HRIS components when they are developing organization strategy.

Limitation and Recommendation for Future Research

The entire population comprised of only 62 companies listed in Nairobi securities exchange which is relatively small. The external validity of the current study may be in question since the data belong only to Kenyan firms listed in NSE which are few compared to those listed in other stock exchange in other world. Studies need to be done in other countries in the world.

The study used cross-sectional design whereby the study was carried out at a specific moment in time. Although this may save (given the time constraint of the study) it may limit deeper investigations of many other possible causal relationships in the study. Therefore, a longitudinal study would provide more insightful findings of the study.

In measuring competitive advantage the studies used only empirical data based on perceptions on profitability. The main limitation was that data for the profitability was not collected through publicly available data sources such as annual reports and other databases. Although validity may encountered especially when problem may be encountered related to data disclosures and professional accounting process.

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