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TECHNOLOGICAL RESOURCES, CORPORATE GOVERNANCE AND PERFORMANCE OF REGIONAL DEVELOPMENT AUTHORITIES IN KENYA

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ABSTRACT

The objective of this study was to determine the influence of corporate governance on the relationship between technological resources and performance of regional development authorities in Kenya. The study adopted explanatory research design. The study was conducted in six regional development authorities that cover 47 counties. This includes Kerio Valley Development Authority, Ewaso Ngiro South Development Authority, Ewaso Ngiro North Development Authority, Coast Development Authority, Lake Basin Development Authority, Tana and Athi Rivers Development Authority. The targeted population was 169 comprising of chief managers, managers, heads of department and chief accountant. The study used stratified random sampling to select 118. Primary data was collected using structured questionnaires and interview schedules. Pilot study was conducted to test validity and reliability of research instruments. Validity was ascertained using content and construct validity while reliability using Cronbach alpha. Data was analyzed using both descriptive and inferential statistics. The researcher used descriptive statistics that included measure of central tendency; mean and measure of variability; standard deviation, maximum and minimum while inferential statistics included correlation and multiple regressions. The null hypotheses were tested at 5% significance level. The findings revealed that when technological resources changes by a unit, performance changes by 0.236 units (β2=0.236, P=0.011). Corporate governance has significant moderating influence on the relationship between technological resources and performance as indicated by change in R^2=0.254, p=0.000 implying that the corporate governance explained up to 25.4% change in performance of regional development authority. However, the interaction effect was not significant. Accountability had insignificant positive moderating effect on the relationship between technological resources while board composition had insignificant negative moderating effect on the relationship between technological resources and performance. The study recommended that regional development authorities ought to reduce overdependence on exchequer to resources but generate their own technological resources. The study also recommended that board should be diverse in terms of gender, relevant industry experience and independent board member from the management.

Keyword: *Technological Resources, Corporate Governance, Performance, Regional Development Authorities*

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INTRODUCTION

The conditions of performance of state owned corporation constitute a major research theme in strategic management which has been going through a major shift from 1990s to date (Ho & Teo, 2015). A firm is said to enjoy higher performance than competitors when it puts into practice a value creating strategy and hence, the process of creating superiority in performance is consistent with the Resource Based View theory of the organization (Eriksson, 2013). The Resource Based View perspective puts emphasis on firm specific resources and capabilities as elementary sources of competitive advantage which results to high performance (Barney & Hesterly, 2010).

According to the Resource Based View theory, performance results from competitive advantage which originates from the possession of distinctive resources and capability that must fulfill the conditions of valuability, rareness, inimitability and non-substitutability (VRIN). Valuable resources add to improving the firm's performance. Rareness creates perfect competition since resources are possessed by fewer firms. Inimitable resources are costly to copy and non-substitutable, meaning that there is no alternative to fulfill the same function immediately (Knott, 2015). Barney and Hesterly (2010) concluded that resources satisfying all the above criteria are known to be unique and they are the tools that enable a firm to gain above average profit and retain market leadership.

Sebastian (2018) indicated that firms operate using several resources including financial, human, capital and others. Financial resource is one of the key elements in achieving organizational objectives and goals. Technological resources include debt, equity and earning (Waswa, 2017). Technological resources are about the finance required to fund the budget of implementing strategy. Each and every business enterprise needs adequate technological resources for development, daily operations and growth (Ridley-Duff, 2015). In both the developed and developing economies, finance has been identified as the most important factor determining the survival and growth of organization (Tambunan, 2009). A number of studies support the need of adequate technological resources in strategy implementation. However, organizations face quite some challenges in accessing the needed technological resources (De la Torre, Gozzi & Schumukler, 2017).

Organization must have distinctive technological resources to face the dynamism of today's knowledgeable society Okanga & Groenewald (2017). Technological resources increasingly encourage absorptive capacity in firms to enable organizations to achieve higher objectives by themselves through organizational learning processes thus increase organizational performance (García-Morales, Bolívar-Ramos & Martín-Rojas, 2014). The disparity between technological progression and consumer demand means that technology does not have an impact on superior performance of a firm (Wilden & Gudergan, 2015).

Kinot (2009) indicated that investment in technological resources directly contributed to higher performance of a firm. However, Kinot (2009) only analysed a direct relationship between technology and performance without taking into account any moderation, which is a gap that the current study attempted to fill by moderating the relationship with organization performance while maintaining technological resources as an independent variable. Liang, You and Liu (2010) examined whether technological resources have significant effect on firm performance. It was found that the mediated model that includes organizational capabilities as mediators between organizational resources and firm performance can better explain the value of technological resources than the direct-effect model without organizational capabilities. The limitation of meta-analysis is that findings are based on prior research conducted on different sources at different times. This may cause observation biases.

Njagi, Muathe and Muchemi (2020) established that there was a positive and a statistically significant effect of financial and physical resources on the

performance of public health institutions in Embu County, Kenya. However, in their study, these resources are usually treated as environmental factors or constraints rather than the main variables of interest. The study also did not focus on the relative influence of different resources on organizational performance. Sulaiman (2016) demonstrated that Chief Financial Officer Experience and the financial resource dimensions do not significantly influence firm performance. This contradicts previous numerous studies that have established that technological resources influences organization performance. Nganga, Wangithi and Njeru (2016) found that resources were critical to a firm's performance. Technological resources were not necessarily influential since the availability of the resources could not guarantee performance unless properly utilized.

The lack of homogeneity in the results of previous studies suggests that the relationships between organizational resource and corporate performance are complex and very probably moderated or mediated by factors (Chiara, 2011). The use of corporate governance in relation to organization resources and performance has continued to get adequate recommendation although few of the previous studies have included it. In Tanzania, Sebastian (2018) revealed that informal organizational resources lead to weak profits. Aliyu et al (2014) indicated that deterioration in performance is related with resource management and corporate governance in Nigeria. Corporate governance has also been successfully used as moderating variable on the performance. Muturi, Mwau and Oloko (2017) indicated that moderating effect of the ownership structure have a positive effect on the performance of firms in insurance industry in Kenya. Love and Rachinsky, (2015) in their study on Indian firms established that there is a negative relationship between corporate governance and firm performance. These contradictions in findings create aspersions as to whether corporate governance impacts performance of State owned corporations in Kenya.

The GoK established 6 Regional Development Authorities (RDAs) through various Acts of Parliament. The areas of jurisdiction covered by the RDAs were developed based on the river basin boundaries in the country. They include: Kerio Valley Development Authority (KVDA) established under Cap 441 of 1979, Lake Basin Development Authority (LBDA) under Cap 442 of 1979, Ewaso Nyiro South Development Authority (ENSDA) under Cap 447 of 1989, Ewaso Nyiro North Development Authority (ENNDA) under Cap 448 of 1989, Tana and Athi Rivers Development Authority (TARDA) under Cap 443 of 1974, and Coast Development Authority (CDA) under Cap 449 of 1990 (MORDA, 2008).

The mandate of these agencies was to map the resources in the area for proper planning and coordination of their use, integrated basin based development, protection of river basins, water bodies and catchments and finally to empower and support communities in the various areas of jurisdiction. The RDAs were very instrumental in ensuring rapid economic growth after their inception contributing to the country's GDP growth. However, challenges emerged such as limited funding that raised questions on the sustainability of the RDAs. With limited resources in not been left out. There is need for them to optimize the resources allocated to them and this means that they must have sound corporate governance practices in place.

Statement of the Problem

The Kenyan government acknowledges that over the years there has been poor performance in the public sector including RDA, especially in the management of public resources which has hindered the realization of sustainable economic growth (GoK, 2012). This is why performance of these RDA has been of great concern to many stakeholders including management practitioners, government and the public at large. Three regional authorities-Coast, Ewaso Ngiro and Kerio Valley-have Sh57 billion stalled projects (GoK, 2019). The Auditor-General, in a report tabled in Parliament in

October last year, questioned the delay in completing four irrigation projects initiated by Kerio Valley Development Authority, Aror irrigation scheme and Tot irrigation project. After more than Sh300 billion set aside by Jubilee government for water projects across the country, there is little to show on the ground as project delays, financing hitches and lethargy of contractors derail the dream. This is partly due to dwindling resource base and growing need for public services (GoK, 2013). Therefore organizational resources moderated by corporate governance could be a recipe for better performance.

There have been a number of studies on organizational resources on organizational performance although with mixed outcome. Some studies indicating no significant influence (Lee, 2009), other negative Mwai et al., (2018) other positive influence Ongeti, (2014). Kinot (2009) indicated that investment in technology directly contributed to higher performance of a firm. However, the study takes into account any moderation, which is a gap that needs to be filled. These contradictions in findings have created aspersions on the relationship between organization resources and performance. Existing studies have provided evidence that introduction of moderating variables, has resulted to establish a definite relationship between organizational resources and performance yet few studies have examined moderating influence of corporate governance. However, some studies have indicated negative moderating effect (Juma, 2012), non-significant (Love and Rachinsky, 2015) and positive moderating effect (Muturi et al., 2017) of corporate governance. This leaves a significant knowledge gaps on the relationship between organizational resources, corporate governance and organizational performance.

Objectives of the study

The specific objectives of this study were to;

- Establish the influence of technological resources on performance of regional development authorities in Kenya.
- Determine the influence of corporate governance on the relationship between technological resources and performance of regional development authorities in Kenya.

The study was guided by the following hypotheses;

- $\mathbf{H_{01}}$: Technological resources have no significant influence on the performance of regional development authorities in Kenya.
- $\mathbf{H_{02}}$: Corporate governance has no significant moderating effect on the relationship between technological resources and performance of regional development authorities in Kenya.

LITERATURE REVIEW

Dynamic Capabilities Theory (DCT) proponents suggest that capabilities are the drivers behind the creation, evolution, and recombination of other resources (Pearce et al, 2012; Teece et al., 1997). According to Penrose (1958) it is never resources that are inputs in the productive processes in exclusion, but the services that resources render. She argues that the same resources when used for different ways and in combination with different other types of or amounts of resources, provide a different service or set of services. Consequently, the production activity requires the cooperation and coordination teams of resources (Teece, et al., 1997). This theory emphasizes on the ability and capacity of organizations to combine, integrate, renew and reconfigure resources as needs arise. If control over scarce resources is a source of economic profits, then it follows that such issues as skill acquisition, management of knowledge, know-how (Teece et al., 1997) and learning become fundamental issues. Organizations need more than just possessing resources. They must go an extra mile to ensure precise combination of such resources as needs arise or changes in the external environment occur.

Scholars such as Pearce et al (2012) argue that capabilities are a resource on their own. The bottom-line argument of the DCT is that, organizational performance is enhanced when firms are keen to recombine, coevolve, reconfigure,

acquire and reallocate resources as their needs change. The theory is still in its formative stages and equally short on empirical grounding. Capability has a conceptually different meaning than resources and assets. Capabilities are built upon resources using routines/ processes and are source of heterogeneity between firm performances, which affects their respective market position. Dynamic capabilities emphasize resource development and renewal. One without the other is insufficient for long term success since the market place is ever changing. If an organization has resources and competencies but lacks these dynamic capabilities, it may make a competitive return in the short run but is unlikely to sustain this in the face for change.

Technological resources may take on many of the attributes of dynamic capabilities, and thus may be particularly useful to organizations operating in rapidly changing environments. Thus, even if technological resources do not directly lead the firm to a position of superior sustained performance, they may nonetheless be critical to the firm's longer-term competitiveness in unstable environments if they help it to develop, add, integrate, and release other key resources over time. This study proposed that capabilities are a resource and have an influence on organizational performance.

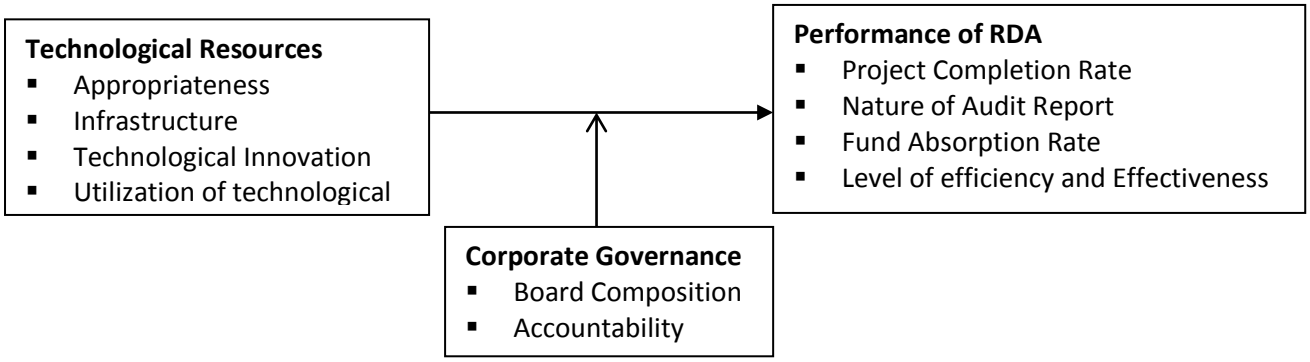

Figure 1: Conceptual Framework

Technological resource in the RDA was operationalized into sub constructs that was used to measure the latent variables as indicated in the questionnaire. These constructs included appropriateness of technological resources at the RDAs. The aim was to establish, whether, technological resources are appropriate for significant contribution to RDA performance. Technological resources were also operationalized in term of infrastructure. The study was keen to establish the adequate of technological infrastructure in the Six RDAs as studies have indicated that adequacy influences performance. Another observed indicator that was used to measure technological resources in technological innovation. Holding technological resources is not adequate if there is no accompanying innovation to match. Lastly, the study also used utilization of technological resources in the RDA, the research was keen to find out if the technological resources are specifically used for RDA projects. Corporate governance in this study was operationalized into board composition and accountability. The board accountability was determined by reporting systems, auditing, performance contracts, financial and technical monitoring. Performance of RDAs which is dependent variable was measured using indicators such as development project completion rates, nature of audit reports, fund absorption rate, level of efficiency and effectiveness.

Empirical Review

Kimani (2015) determine the level of use of information technology and its relationship with

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organizational performance at Public Services Kenya. A descriptive survey was used. Primary data was collected using a semi-structured questionnaire. The population for this study comprised of the entire PS Kenya staff which was 438. The study findings also revealed that there was a positive relationship between the level of IT use and organizational performance at Population Services Kenya. However, State owned Corporations such as RDA were not sampled. The role of corporate governance in resource-performance relationship was not the focus of this study. The study also assed the level of IT uses and not how it influence performance which is the purpose of this study. The study also investigated appropriateness of technological resource on organizational performance in presence of moderating variable (corporate governance).

García-Sánchez, García-Morales and Martín-Rojas (2018) sought to analyse whether technological assets influence absorptive capacity (potential and realized absorptive capacity) and how absorptive capacity influences internal labour flexibility, organizational innovation and performance. Relationships proposed in the theoretical model were estimated through a structural equation model, using a sample of 160 European technology companies. The results show that support for technology and improvement of technological skills and technological distinctive competencies promote improvement in organizational performance through their positive influence on the processes of potential and realized absorption capacity. However, the study used technological asset as a moderating variable. The study was also conducted in Europe unlike developing economies. The gaps were filled as this study; corporate governance was used as a moderating variable. The study targeted regional development authorities in Kenya.

Abdi (2018) examined the effect of information Technology on performance of Dakawou Transport LTD. This study adopted a descriptive research design. The target population for this study comprised of 105 top management, middle level management and subordinate staff across the organization. Structured questionnaire was used as a data collection tool to collect both qualitative and quantitative data. The findings indicated that, majority agreed that Information technology is a major contributor to organizational performance. It was also established that Information technology offers organizations, competitive and effective communication. However, the study did not used inferential statistics to establish effect of IT on performance and therefore, the findings cannot be generalized. The current study used inferential statistics such as Pearson correlation analysis and linear regression analysis to establish the relationship between variables.

Mutuku (2018) was to determine the effects of the strategic use of Information Technology (IT) on the performance of Machakos Huduma Centre. The study used a case study research design. Data collection was done through use of interview guide as the primary instrument of data collection and Huduma Kenya publications, their website and other studies conducted on Huduma Centres as sources of secondary data. The results showed that there was substantial connection between the strategic use of Information Technology resources and the performance of Machakos Huduma Centre. Nevertheless, the study was purely qualitative and therefore, the philosophical approach was purely inductive. The research adopted case study research design and thereby suffer limitation of case study. The study adopted mixed methodology. Explanatory design which informed the philosophical approach of the study

Kihara (2017) intended to establish whether technological resources influence the performance of manufacturing SMEs in Kenya. A mixed design involving quantitative and qualitative designs was used to obtain information from 115 firms drawn from the total population of 593 registered SMEs in Kenya. Stratified sampling technique was used to classify these firms as small or medium, young or old. Specifically, four out of five drivers tested in

this study were found to be significant and positive influence on the performance of manufacturing SMEs. These drivers are leadership styles, structural adaptations, human resources and technology embraced by the SME firm. The study cannot be utilized in the context of RDAs as it only targeted only SMEs, and it failed to indicate which counties were sampled in Kenya. The study targeted RDAs from six regions in the country and therefore, the conclusion and recommend were conclusive and definite in regard to regional development authorities.

Karimi Mazidi, Amini and Latifi (2014) investigated the impact of information technology capability on firm performance; a focus on employee customer profit chain. This was accomplished based upon quantitative data gathered from a sample of 212 employees of the Technical and Vocational organization in Mashhad city. Results revealed a strong support for the proposed model. In particular, the association between IT capability and Service process innovation with Employee-customer-profit chain and their leverage effect facilitate the organizations' movements along with the chain which was significantly confirmed.

METHODOLOGY

The study adopted explanatory research design which explores cause effect relationships. The explanatory research design also allows for systematic collection of data in standardized form from an identifiable population or representative (Mugenda & Mugenda, 2008). The study was carried out in six regional development authorities that cover all 47 counties in Kenya. The target population was 169 managerial staff in the RDAs which was categorized into chief managers, manager, head of departments and chief accountants. Stratified proportionate random sampling technique was used to select the sample. The study grouped the respondents into four strata i.e. chief managers, managers, heads of departments and chief accountants. From each stratum the study used simple random sampling to select 118 respondents from a target of 169. The study used Yamane (1973) formula to arrive at a sample of 118. The study utilized primary data collected using questionnaire and interviews. This study assessed validity of the study instrument using construct validity and content validity. To measure the reliability, Cronbach Alpha technique was employed. The researcher used descriptive statistics that include measure of central tendency; mean and measure of variability; standard deviation, maximum and minimum. The study used inferential statistics such as correlation analysis and regression analysis to test null hypothesis. SPSS software version 22 was used for statistical analysis.

FINDINGS AND DISCUSSIONS

The study analyzed the data using quantitative approach to produce descriptive statistics. These descriptive statistics were used to derive conclusions and generalizations regarding the relationship between the technological resources and the performance. The respondents were asked to indicate the level of agreement from strongly disagree (1) to strongly agree (5) in regard to technological resources. The results are as shown in Table 1.

Table 1: Descriptive Results for Technological Resources

Technological Resources	Mean	Std. Error	Standard Deviation
The organization has acquired relevant and adequate technologies for strategy implementation	3.225	.0736	.7434
The available technological resources are adequate for implementation of RDAs projects	3.245	.0853	.8610
There are adequate planning, systems, and training in place for managing technological resources	3.157	.0878	.8871
There is adequate skills and know-how required to	3.324	.0778	.7855

manage, create, and extend the existing pool of technological resources.			
There is adequate resource needed to generate and manage technological change.	2.451	.0877	.8858
Technological resources within the organization have led to the overall good performance of the organization	3.373	.0858	.8666
I am satisfied with the technological resources in my organization	3.255	.0910	.9194
Average	**3.147**		

Source: Field Data (2019)

From Table 1, the Regional Development Authority (RDA) have fairly acquired relevant and adequate technologies for strategy implementation (Mean (M)=3.225, Standard Deviation (SD)=0.7434). The insignificant deviation implies that not all RDA have fairly s acquired relevant and adequate technologies for strategy implementation. The RDA also have fairly available technological resources are adequate for implementation of RDAs projects (M=3.245, SD=0.8610). The insignificant standard deviation implies that not have fairly available technological resources are adequate for implementation of RDAs projects. The results also revealed that RDAs have fairly adequate planning, systems, and training in place for managing organizational resources (M=3.157, SD=0.8871).

The results also revealed that RDAs have fairly adequate planning, systems, and training in place for managing organizational resources (M=3.157, SD=0.8871). The insignificant standard deviation implies that there is some variation in terms of adequacy of planning, systems, and training in place for managing organizational resources. The RDAs have fairly adequate skills and know-how required to manage, create, and extend the existing pool of technological resources (M=3.324, SD=0.785). On the other hand, there is no adequate resource needed to generate and manage technological change (M=2.451, SD=0.8858). RDAs technological resources within the organization have fairly led to the overall good performance of the organization (M=3.373, SD=0.8666). Lastly, respondents were fairly satisfied with the technological resources in my organization (M=3.255, SD=0.914). A significant standard deviation implies that not all respondents in RDAs were satisfied with the technological resources in my organization.

Most of the respondents associated technological resources with the ability to aid any business or organization become more effective. There are some overarching resources that most any business can use to increase productivity and decrease waste. Interview results indicated the RDAs have acquired various technological resources such as hardware and software to improve efficiency of human resources and thereby achieve organization performance goals. The RDAs were found to have in possession various software especially in human resources management and other ERP systems as required by the government. Most of processes in the RDAs have been automated thereby increase efficiency of their human resources and financial accountability. In terms of hardware, it was revealed that RDAs have acquired ICT resources such as computers, laptops, network gadgets and mobile phones which have aided in communication between head office and satellite offices as well as headquarters. Apart from ICT facilities, the RDAs have also acquired other technological resources in farm mechanization for example Lake Basin Development Authority has invested a lot in technological resources through farm mechanization so as to improve farm productivity such as rice milling technology, dairy farming, coffee etc. Similar assertion were obtained in other regional development authorities such as Coast Development projects which have adopted coral block production technology which has results to

increase in supply of coral blocks in the construction industry.

It was noted that globalization and need advance in technology requires organization to have adequate technological resources to complement and supplement human resources. Therefore, the importance of technological resources cannot be underestimated regardless the size of the organization as well as the nature of organization. Some of the benefits associated with technological resources included efficiency in service delivery as most of RDAs had service charter which spell out the services that are accessible in their headquarters. The respondents also revealed that appropriateness of technological resources has resulted to increase in productivity as it has reduced wastage and detection of fraud and error for the case of software.

However, it was noted that the cost of acquiring technological resources is high as most of the technological resources are not locally available meaning, they have to be imported. Another limitation of technological resources has been need to offer the local employment opportunities and by the use of technology, some of tasks that were previously done by human are been undertaken by technological resources. This leads to conflict of interest between job creation and efficiency in service delivery. One of the respondents indicated that adoption of technological resources has faced resistance as some of the employees fear job cuts and downsizing which may hurt them negatively in terms of income.

Inferential Statistics

Inferential statistics for this objective which entail simple linear regression and hierarchical linear regression was conducted to determine the influence of technological resources on performance of regional development authorities in Kenya. The results are as shown in Table 2.

Table 2: Inferential Statistics for Technological resources

Model	R	R^2	Adj R^2	Std. Error of the Estimate	Change Statistics			
					R^2 Change	F Change	Df	Sig. F Change
1	.508[a]	.258	.251	.33765	.258	34.792	1,100	.000
2	.688[b]	.473	.457	.28750	.215	19.968	2,98	.000
3	.714[c]	.510	.485	.28000	.037	3.659	2,96	.029

a. Predictors: (Constant), TR
b. Predictors: (Constant), TR, BC, AC
c. Predictors: (Constant), TR, BC, AC, TRBC_, TRAC_

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.995	.287		6.943	.000
	TR	.509	.086	.508	5.898	.000
2	(Constant)	.003	.405		.008	.994
	TR	.342	.079	.341	4.300	.000
	BC	.534	.117	.406	4.551	.000
	AC	.165	.115	.132	1.435	.155
3	(Constant)	.203	.431		.471	.639
	TR	.339	.146	.338	2.315	.023
	BC	.755	.148	.574	5.102	.000
	AC	-.063	.153	-.051	-.414	.680
	TRBC_	-.592	.283	-.286	-2.094	.039
	TRAC_	.533	.287	.295	1.861	.066

a. Dependent Variable: PF

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PF=Performance, TR=Technological Resources, BC=Board Composition, AC=Accountability, TRBC_= Technological Resources * Board Composition, TRAC_= Technological Resources* Accountability

Source: Field Data (2019)

Direct Influence of Technological resources on Performance

From Table 2, the R value is 0.508, P=0.000 implying that the relationship between technological resources and performance of RDA is moderate and positive. Therefore, increase in technological resources would results to increase in performance of RDAs. The R square which is coefficient of determination shows that up to 25.8% of variation in performance of RDAs is significantly accounted for by technological resources (R^2=0.258, P=0.000). This indicates that technological resources have significant influence of the performance of RDA. The F test gave a value of (1, 100) = 34.792, P<0.01, which supports the goodness of fit of the model in explaining the variation in the dependent variable. It also means that technological resources are a significant predictor of RDA performance. The unstandardized regression coefficient (β) value of technological resources was 0.509 and significance level of p< .001. This indicated that a unit change in technological resources would result to change in performance of RDAs by 0.509. The regression equation to estimate the performance of RDAs in Kenya as a result of technological resources was hence stated as:

Performance = 1.995+0.509 Technological resources

Moderating Influence of corporate governance on Technological resources and Performance

The study also sought to establish the moderating influence of corporate governance on technological resources and performance. In this regard, board composition (BC) and accountability (AC) were added in the model and thereafter, the interaction between technological resources and board composition as well as interaction between technological resources and accountability was added in the model.

The results revealed that addition of board composition and accountability in the model resulted additional 21.5% variation in the effect of technological resources on performance of RDA bring the overall R square to 45.7%. This change in R square was significant as indicated by F(2,98)= 19.968, P=0.000. In the third model, the interaction between technological resources and corporate governance measures were added in the model resulted additional 3.7% variation in the effect of technological resources (TR) on performance of RDA bring the overall R square to 48.5%. This change in R square was significant as indicated by F(2,96)= 2.285, P=0.029. It is clear that in model 3 with the interaction between corporate governance (CG) constructs and technological resources accounted for significantly more variance than just technological resources and corporate governance level by themselves, (R^2 change = .037, p = .029), indicating that there is potentially moderation of GC on the relationship between TR and performance.

The results revealed that the regression coefficients and their respective significance level for technological resources decreases when CG constructs was added to the regression model suggesting that CG constructs may be exerting a partial moderating effect on the relationship between the two variables. The results confirmed that CG (BC) and CG (AC) had an insignificant moderating influence on the relationship between technological resources.

DISCUSSION

From the results it evident technological resources have significant positive influence on the performance of regional development authorities in Kenya. This implied that RDAs which have superior technological resources would realize greater performance. This support the assumption of resource based theory whereby organizations which have valuable and unique resources are likely

to have superior performance. In this case, RDAs are required to have appropriate technological resources in form infrastructure; hardware and software which would ensure that they are able to increase the efficiency and effectiveness of human resources as well as other resources. Besides, RDAs, should utilize the technological resources as required in this case, they should deploy technological resources where it would add value to the organization thereby increase performance.

The major theory that has been adopted to interpret the relationship between technology and organizational performance is the RBV proposed by Wernerfelt (1984). Barney (1991) argues that organizational resource that can create advantage must have VRIN attributes which technological resources possess. In this view, technological resources are considered a valuable organizational resource that can enhance organizational capabilities and eventually lead to higher performance. When RBV is applied to analyse the value of IT, these technological resources are usually considered to be a type of resources. In regard to dynamic capabilities theory, on their own very few resources are productive. Organizations can possess similar amounts of resources but variations in performance would surface from resource utilization. In this cases, the findings indicated that there is moderate extent equate planning, systems, and training in place for managing technological resources. Similarly, there are less adequate skills and know-how required to manage, create, and extend the existing pool of technological resources.

This finding agrees with Kimani (2015) who revealed that there was a positive relationship between the level of IT use and organizational performance at Population Services Kenya. The study also confirms results from Mutuku (2018) who showed that there was substantial connection between the strategic use of Information Technology resources and the performance of Machakos Huduma Centre.

CONCLUSION AND RECOMMENDATION

It was evident that most of RDAs to a fair extent have acquired relevant and adequate technologies which have aided them to implement their strategies including various projects been undertaken. The RDAs have fairly adequate skills and know-how required to manage, create, and extend the existing pool of technological resources. However, there is no adequate resource needed to generate and manage technological change. Technological resources have significant relationship with RDA performance in Kenya. This implies that increase in technological resources would resource to significant improvement in RDA performance in Kenya. Therefore study concluded that technological resources have significant influence on the performance of Regional Development Authorities in Kenya.

The study concluded that technological resources have significant influence on performance of regional authorities in Kenya. However, there are no adequate resources to generate and manage technological change which may impact the influence of technological resources on performance. The study recommended that, regional development should treat the technological resources as critical strategic resources as it utilization enhance efficiency in service delivery and contribute to the reduction in operational costs by leaning transactional operations as well as detection of fraud. The study also recommended that management regional development authorities should form linkage with other organization both locally and international so as to acquire appropriate technological resources which have impact on performance.

REFERENCES

Abdi, A. A. (2015). *Effect of Corporate Governance on Organizational Performance of State Corporations in Kenya* (Doctoral dissertation, School Of Business, University of Nairobi).

Abdi, A. F. (2018). *The Effects of Internal Factors on Non-Performance of Trucking Firms in Kenya: A Case of Dakawou Transport Ltd* (Doctoral dissertation, United States International University-Africa).

Aliyu, N. S., Jamil, C. Z. M., & Mohamed, R. (2014). The mediating role of management control system in the relationship between corporate governance and the performance of bailed-out banks in Nigeria. *Procedia-Social and Behavioral Sciences*, *164*, 613-620.

Barney, J. B., & Hesterly, W. S. (2010). VRIO framework. *Strategic management and competitive advantage*, 68-86.

De la Torre, A., Gozzi, J. C., & Schumukler, S. L. (2017). *Innovative Experiences in Access to Finance: Market-Friendly Roles for the Visible Hand?*. The World Bank.

Eriksson, T. (2013). Methodological issues in dynamic capabilities research–a critical review. *Baltic Journal of Management*, *8*(3), 306-327.

García-Sánchez, E., García-Morales, V., & Martín-Rojas, R. (2018). Influence of technological assets on organizational performance through absorptive capacity, organizational innovation and internal labour flexibility. *Sustainability*, *10*(3), 770.

Ho, M., & Teo, S. (2015). The state of human resource (HR) competency research: Charting the research development of HR competencies and examining the signals from industry in New Zealand. *New Zealand Journal of Employment Relations*, *40*(2), 72.

Juma, O. W. (2014). Organizational resources, corporate governance structures and performance of Kenyan state corporations. Unpublished MBA Thesis.

Karimi Mazidi, A. R., Amini, A., & Latifi, M. (2014). The impact of information technology capability on firm performance; a focus on employee customer profit chain. *Iranian Journal of Management Studies*, *7*(1), 95-120.

Kihara, M. P. (2017). *Influence of strategy implementation on the performance of Manufacturing small and medium firms in Kenya* (Doctoral dissertation, COHRED, JKUAT).

Kinot, F.B. (2009), Determinant of performance in technology based firm in Kenya. Unpublished Kenyatta University PhD Thesis

Knott, P. J. (2015). Does VRIO help managers evaluate a firm's resources?. *Management Decision*, *53*(8), 1806-1822.

Lee, S. Y. (2009). *Impacts of organizational resources on agency performance: Evidence from Federal Agencies* (Doctoral dissertation, University of Georgia).

Liang, T. P., You, J. J., & Liu, C. C. (2010). A resource-based perspective on information technology and firm performance: a meta analysis. *Industrial Management & Data Systems*.

Love, I., & Rachinsky, A. (2015). Corporate governance and bank performance in emerging markets: evidence from Russia and Ukraine. *Emerging Markets Finance and Trade*, *51*(sup2), S101-S121.

Mugenda, A.G. (2008). Social science research: theory and principles. ARTS: Kijabe Printing Press.

Mugenda, O. M., & Mugenda, A. G. AG (2008) Research Methods: Quantitative and Qualitative Approaches: Nairobi. *African Centre for Technology Studies*.

Mutuku, G. K. (2018). *Strategic use of information technology and performance of machakos huduma centre* (doctoral dissertation, school of business, university of nairobi).

Mwai, G. M., Namada, J. M., & Katuse, P. (2018). Influence of Organizational Resources on Organizational Effectiveness. *American Journal of Industrial and Business Management*, *8*(06), 1634.

Mwau, P. M., Oloko, M., & Muturi, W. (2017). The moderating effect of ownership structure on the relationship between the growth strategies and the performance of firms within the insurance industry in Kenya.

Njagi, D. K., & Maina, E. (2020). Empirical investigation on the influence of human resources and financial resources on implementation of strategic plans in private primary schools in Kirinyaga County, Kenya. *International Academic Journal of Human Resource and Business Administration*, *3*(8), 99-112.

Okanga, B., & Groenewald, D. (2017). Innovation culture as a driver of SMEs' dynamic capabilities. *The Retail and Marketing Review*, *13*(1), 29-52.

Pearce II, J.A., Robinson, R.B., & Mital, A. (2012). *Strategic management: formulation, implementation and control.* 12th ed. New Delhi, Tata McGraw Hill Education Private Ltd.

Ridley-Duff, R. (2015). *The case for fairshares: A new model for social enterprise development and the strengthening of the social and solidarity economy*. CreateSpace Independent Publishing Platform.

Sebastian, A. Y. (2018). *Effects of Budgeting on Performance: A Study of Selected Manufacturing Firms in Kinondoni District Dar es salaam Tanzania* (Doctoral dissertation, The Open University of Tanzania).

Sulaiman, N. (2016). The impact of financial knowledge and capabilities on SME firm performance in Australia.

Tambunan, T. (2009). Women entrepreneurship in Asian developing countries: Their development and main constraints. *Journal of Development and Agricultural Economics*, *1*(2), 027-040.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic management journal*, *18*(7), 509-533.

Waswa, P. (2017). *Effects of Organizational Distinctive Capabilities On Organizational Performance In Telecommunication Industry In Kenya* (Doctoral dissertation, United States International University-Africa).

Wilden, R., & Gudergan, S. P. (2015). The impact of dynamic capabilities on operational marketing and technological capabilities: investigating the role of environmental turbulence. *Journal of the Academy of Marketing Science*, *43*(2), 181-199.

Yamane, T. (1973). Statistics: An introductory analysis.