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## Moderating Role of Environment on Organizational Resources and Performance in Telecommunication Industry in Kenya

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### Abstract:

*Different empirical studies show that one player has dominated the telecommunication industry for a number of years without any change. Different strategies and effort of other players such as lowering tariffs, coming up with cheaper money transfer, other attractive offers like free calls and messages, they have not managed to get a competitive edge leading to one company continuing to dominate the market. For this reason, homogeneity in performance for the companies operating in similar competitive conditions and industrial environment has not been explained. This study examined the moderating role of environment on organizational resources and performance of telecommunication industries in Kenya. To achieve the objectives, the study used a combination of explanatory design and descriptive survey research design, specifically cross sectional design. The target population consisted of 381 respondents and the sample size was 170 respondents from the telecommunication industries in Kenya. The research adopted stratified random sampling technique. The study used mainly primary data which was collected using self-administered questionnaires. Data was analyzed using descriptive and inferential statistics. Descriptive statistics was used to summarize data while inferential statistics, specifically multiple linear regressions was used to test hypotheses. The analysis used strata statistical package version 11.0 to aid data analysis. The results were presented using tables Environmental factor had no moderating effect on the influence of organizational resources on performance it was just an explanatory variable. Finally, the study recommended that further research be done by replicating the same study in other companies or industries like banks.*

**Keywords:** *Competitive advantage, organizational resources, performance and telecommunication industry*

## 1. Introduction

### 1.1. Background of the Study

According to the Resource Based View theory, performance results from the possession of distinctive resources and capability that must fulfill the conditions of evaluability, 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 (Arend & Levesque, 2010, & Barney, 2011).

An organization puts in place policies and processes to facilitate use of VRIN resources. It is important resources satisfying all the criteria of VRIN are known to be unique and they are the tools that enable a firm to gain above average profit and retain market leadership. Superior performance and market leadership exist when a firm's resources overcomes erosion by competitors' behavior over a period of time through imitability and non-substitutability (Kenneth, Anderson & Eddey, 2011)

Barney (2007) posits that when an organization is able to monitor and change with the changing environment, this will lead to superior performance, given the fact that firms focus their strategies towards enhancing their resource pool. In addition, Barney (2007) has argued that a firm's resources which include all its assets, capabilities, organizational processes, the firm's attributes, is information and knowledge that is owned and controlled by the firm will eventually enable the firm to conceive and implement strategies that will improve its efficiency and effectiveness, giving it superior performance. Empirical evidence indicate that reputation gives the firm a higher performance than competitors if and only if it has an inimitability base and it is created when the firm's constituencies recognize it to be more attractive than other firms (Rose & Thomasen, 2009).

Rouse and Daellebach (2009) argued that for a firm to advance its performance, it must comprehend and ascertain its main resources that will improve its competitiveness and sustainability. The study established that a firm's skills, strategic positioning and intangible resources results to superior performance and that they aid the firm in formulating and implementing strategies that can improve effectiveness and efficiency of the firm. Barney and Hesterly (2010) advanced that intangible resources are more sustainable than tangible resources which can be acquired and

duplicated by competitors. In addition, Kenneth, Anderson and Eddy (2010) pointed out that a firm has an advanced performance when it has the capability of maintaining VRIN resources for a number of years.

According to Wade (2010), a firm's performance superiority is not from one source but from a package of resources both tangible and intangible. Tangible resources such as physical building and land would only result to a temporal competitive advantage which is inadequate in the long run since the competitors are in a position to obtain crucial resources through substitutes, hence eliminating above average profitability of a firm. Intangible resources are the only resources that are able to produce superior performance since they are valuable, rare, inimitable and non-substitutable (Njoroge et al., 2015).

According to Srivastava and Frankwikk (2011), environmental factors are unstoppable in relation to the influence of a firm's performance in an industry. In Kenya, mobile phone industry is under the policy governing the operations of such business activities. The policies that govern the business operations in the mobile phone industry take the form of industry definite regulations and by laws. Communication Commission of Kenya is mandated by the government to control the mobile phone service providers. The regulations can be formulated in such a way that a firm can be favored, hence remaining competitive in the industry. In the same way, the regulations can be formulated to disfavor a firm's operations, thus affecting its performance (Njoroge, 2015 & GOK, 2013).

## 2. Literature Review

### 2.1. Theoretical Literature

#### 2.1.1. Resource Based View

How a firm controls its key resources will determine its performance. The focus of the RBV is on attributes of resources and capability from the source they are gained to clarify a firm's heterogeneity, performance and sustainability. Further, resources are substances of approach in that gaining dominance in an aggressive marketplace is dependent on firm capability to recognize, build up, position and safe guard meticulously resources that differentiate it from its competitors (Morheney and Pandian, 1992 & Njoroge et al., 2016. ).

Barney, Wright and Ketchen (2001) noted that every firm owns a diverse outline of tangible and intangible resources. Barney is one of the late contributors of RBV who studied and established the existence of key firm resources for superior performance. The theory of RBV assumes that individuals are inspired to make maximum use of economic resources available and rational choices that a firm makes which are shaped by economic framework (Barney, 2007). Resource Based View theory in this study played a role of evaluating and explaining resources and capability of a firm that have the capability to create and maintain a firm's higher performance among the telecommunication industry in Kenya (Sheehan & Toss, 2007).

Complex packages of skills, obtained knowledge, ability and experience that facilitate the company to manage activities of the firm and make use of resources to create performance through coordinating and putting resources into proper production use is what defines capability (Amit and Shoemaker 1993; Barney, 2007 and Mckelvie and Davidsson, 2009). According to Lockett, Thompsons and Morgensrern (2009) on strategic management, RBV scrutinizes the resources and abilities that facilitate how the firm will produce above the ordinary rates of return and higher performance benefits.

The theory of RBV contributes in enabling the firm managers to check whether factors relevant to superior performance exist or not. This enables them to be in a position of exploiting market imperfection to advance their performance. That way, managers are put in a place where they can combine resources to sustain their performance advantage. Resource Based View theory provides the benefit to the firm specifically highlighting factors that create superior performance for a firm (Lockett, Thompson and Morgenstern, 2009). Resource Based View allows executives of the organization to choose the most important strategic factors to invest in from a given range of probable strategic factors in the telecommunication industry.

Barney and Hesterly (2010) advanced that resources in general include the following key constructs: resources, capabilities and competences. In strategic management literature, resources are defined as stocks of accessible things that are possessed by the firm. Competencies are the firm's strengths that enable it to better differentiate its products or service quality by building technological system to respond to customers' needs, hence allowing the firm to compete more efficiently and successfully than other firms (Defillippi, 1990; Arend and Levesque, 2010 and Anderson, 2011). Resource Based View has contributed in strategic management through its emphasis on firm-specific resources as bona fide source of CA and high performance (Mckelvie & Davidsson, 2009).

For a firm to have superior performance, resources and capabilities have to qualify as exceedingly valuable, rare, inimitable, and non-substitutable. Resources that are valuable add to advancing the firm's performance. Rareness creates ideal competition in view of the fact that resources in that category are possessed by fewer firms. Inimitable resources are costly to duplicate and non-substitutable, meaning that there is no alternative to accomplishing an equal function instantly available to competitors (Barney 2007, Barney and Hesterly, 2010). Tangible resources are physical substances that an organization possesses such as facilities, raw materials and equipment. Intangible resources include corporate brand name, organizational values, networks and processes that are not included in normal managerial-accounting information. Intangible resources are more likely to generate superior performance as compared to tangible resources (Rouse & Daellenbach, 2009 & Kenneth *at el.*, 2011).

## 2.2. Empirical Literature Review

### 2.2.1. Organizational Resources and Firm's Performance

Previous studies on performance in most cases have conceptualized performance using non-financial and financial approach, such as customer satisfaction, market-share and profitability which were used in the current study. A study by Grahovac and Miller (2009) noted that dynamic environmental factors will not always result to superior performance because it is a relational perception and it is also context-specific. Anderson (2011) in a correlation research noted that the performance of a firm keeps on changing due to factors like competitive environment, firm's resources, technology and strategies used in the industry; therefore, the firm ought to persistently meet changes that affect it and change the structure of the industry to meet the forthcoming market demand and thus retain its superior performance.

Hoq and Chauhan (2011) conceptualized performance measurement system in terms of market share and financial profitability, manager performance and development, worker performance. Market share and financial profitability were adopted as performance measures for the current study. In addition, the study found out that there is a significant relationship between organizational resources and performance of organizations. Further, the study made use of multiple regression, which was adopted for the current study.

A research by Costa, Cool and Dierickx (2013) clarified that resources that are possessed by other firms who are either present or future competitors cannot achieve above average profitability unless they are made hard to obtain, implying that they are rare. The study concluded that resources, skills and techniques applied by a firm can only result to sustainable profitability if, and only if, competitors cannot duplicate them. Costa *et al.* (2013) recommended further research on the relationship between resources and performance; therefore, this study related the organizational resources and performance.

### 2.2.2. Environmental Factors and Firm's Performance

Environmental factors are unstoppable as far as influence of a firm's performance is concerned. Political influence takes the dimension of government regulatory bodies and policies, whereas legal influences comes from constitutions and laws by the authorities at local, national and international levels. Economic influence, on the other hand, is caused by inflation and taxation, which can therefore favor creation of superior performance or not (Srivastava & Frankwick, 2011).

Government intervention in the development of industry is very vital (Bremmer, 2009). Cimoliet *al.* (2009) in an industrial policy study noted that industry policies are forms of government involvement that endeavor to improve productive investment. Gichunge (2010) found out that political factors considerably influence the level of organizational performance. Solomon *et al.* (2010) noted that though consumers are faced with diverse options, they use simple decision rule to choose from many alternative.

According to Xavier (2011), a company's pricing judgments are affected by both internal company factors and external environmental factors which turn out to be complicated factors to handle due to uncontrollable nature of external environmental factors like taxation and inflation. Further, the study noted that a company's performance is directly affected by the existing pricing and taxation policy. Nkatha (2012) found out that for the firm to sustain its competitive advantage over its competitor, it must be in a position to implement changes in the society and changes in the trends of communication for better performance.

In the telecommunication industries in Kenya, the government has given communication commission of Kenya authority to regulate the operations in the telecommunication sector. Lazzarin (2012) in the research on strategizing by government industry policy and SCA found out that industry policies can lead to higher performance or lower performance.

Koumparoulis (2013) observed that studying and examining of environmental factors will assist the managers to achieve superior performance by inventing competitive strategies that can take advantage of opportunities arising from changes in the environment. The Communication Commission of Kenya (CCK) is charged with the responsibility of ensuring that new players in the sector follow the standards that are kept in place and act according to laid down policies. These regulations concern interconnection rates, consumer protection, tariff regulation, universal service obligation and funding as well as competition. As the industry develops, offering diverse services, so do implications of the regulations change the direction of the whole mobile industry, the operators and the users at large. For example, to increase competition in the industry, CCK reduced the cost operating licences to allow more players in a market that was initially a monopoly to now 4 players. At the same time, the telecoms industry was liberalized. Also, interconnection rates were reduced, which was very beneficial to consumers, as it allowed them to access service reasonably, though some felt it was too low to enable them recoup their expenses. Low tariff charges translated to growth in mobile phone penetration in the country.

Consumer protection is very important in that CCK and the whole mobile phone companies are also required to educate the users on several risks that are associated with usage of the service and make them aware of the consequences if the rules are violated. Innovations of course come with risks here and there and consumers have to be made aware, and to educate the customers, CCK has developed the consumer education program. Technological advances will still grow and with them new implications will follow and thus the regulatory body, operators and the users should brace themselves for the changes that will come along. As for CCK, it should be able to predict the modifications and, accordingly, amend the policies (Njoroge, 2015 & CCK, 2013).

### 3. Research Methodology

#### 3.1. Research Design

The study adopted both descriptive and explanatory research design. According to Eriksson and Kovalainen (2008), descriptive research involves producing data that is holistic, contextual and with rich details to test hypotheses or answer questions concerning the current status of the subject of the study. Explanatory research attempts to clarify why and how there is a relationship between two or more aspects of a situation or phenomenon. The explanatory research design was the best to explain the characteristics of the variables and, at the same time, examine the cause-effect relationship between variables. Cross-sectional design allowed collection of quantitative data from a population in an economical way (Saunders, Lewis & Thornhill, 2009).

#### 3.2. Empirical Model

The study adopted regression model. Linear regression was used to access the combined effects of independent variables organizational resources on the dependent variable performance. The model was presented in a linear equation form. Using linear regression analysis, it was possible to calculate the values of the constant coefficient ( $\beta_0$ ) and the slope coefficients ( $\beta$ ) from data already collected.

The overall equation of the effect of independent variables on performance:

Model 3.1 was estimated as the base model to determine the relationship between the independent variable organizational resource and dependent variable organizational performance. Model 3.2 Secondly, model (3.2) which included environmental factors as the moderating variable was estimated.

$$\text{Performance} = \beta_0 + \beta_1 \text{OR} + \varepsilon \dots\dots\dots 3.1$$

$$\text{Performance} = \beta_0 + \beta_1 \text{OR} + \beta_3 \text{E} + \varepsilon \dots\dots\dots 3.2$$

Where;

OR= Organizational Resources

E= Environmental factors

Finally model (3.3) was estimated to give the direction and effect of the moderator on the independent variables and its total effect on the dependent variable.

$$\text{Performance} = \beta_0 + \beta_1 \text{OR} + \beta_2 \text{E} + \beta_3 \text{E} \cdot \text{OR} + e \dots\dots\dots 3.3$$

Where,

E.OR = Environmental factors X Organizational Resources

If environmental factors are significant when introduced into a model (3.1) then, this explains the first condition of explanatory where all variables should be significant (Mackinnon *et al.*, 2007). Model (3.2) was estimated where products of environmental factors and organizational resources were used to estimate the moderation effects. If the coefficient in model (3.2) are not significant and the environmental factors in model (3.3) are not significant, there is no moderating effect (Mackinnon *et al.*, 2007). That way, environmental factor is just an explanatory variable.

#### 3.3. Sampling Design and Procedure

The study used proportionate stratified random sampling technique to select the required sample from the target population of 381 managers, drawn from the three strata of top-, middle and lower-level managers of the telecommunication industries in Kenya. Based on the total population of 381 managers, a sample of 170 was determined using Saunders *et al.*, (2009) sample size determination table at 95% confidence level.

#### 3.4. Data Collection Instruments

The study used mainly primary data, which were collected using a self-administered structured questionnaire. This study also made use of secondary data obtained through document review of company's reports. Structured questionnaires were used in this study since they enabled the researcher to collect quantitative data (Gall and Borg, 2003).

#### 3.5. Data Analysis Methods

Quantitative data was analyzed using descriptive and inferential statistics. Descriptive statistics was used to describe and summarize the data. Descriptive statistics of mean and standard deviation was necessary to access data characteristics and thus make it possible to interpret the information. Inferential statistic was carried out using linear regression models. Linear regression was conducted to determine which variables influenced the dependent variable most and determine the nature of influence. The adjusted coefficient of determination (R-squared) was used to indicate the percentage of variability of the variables that was accounted for by the factors under study. This was followed by determination of standardization beta ( $\beta$ ) coefficient which indicated the direction (+ or -) and the magnitude of the influence as well as compare the relative contribution of independent variable in the firm's performance (Hair *et al.*, 2006). To derive the composite index for the variables of the study of the study, the harmonic mean formular was used (Gupta, 2008).

$$C_i = \frac{\sum f_i w_i}{\sum f_i} \dots\dots\dots 3.7$$

Where,

C<sub>i</sub>= Composite Index for Variable.

f= Total Number of Respondents

$W_i$  = The Relative Weight given to each Component in a particular Variable.  
 $i$  = Total Number of Components.

#### 4. Research Findings and Discussion

##### 4.1. Response Rate

A total of 170 questionnaires were administered to 57, 49, 38 and 26 managers in Safaricom, Airtel Orange and Yu respectively, Out of 170 questionnaires that were distributed, 143 were correctly filled and returned. This represented 84 percent. According to Mugenda and Mugenda (2003) and Saunders, *et al.*, (2007), a response rate of 50 percent is adequate, 60 percent is good, and 70percent is very good. Therefore, the response rate of 84 percent is very good and hence acceptable for drawing conclusions on the current study.

##### 4.2. Descriptive Analysis

##### 4.2.1. Performance of Telecommunication industries in Kenya

The responses were on the level of 1 to 5. The results are given in Table 3.

Description	Response Rate in Scale of 1-5					Mean	Std. Deviation
	None	Less than a million	1million-10million	11million-20 million	Above 20 million		
Profitability							
1st year	14.5	8.6	1.3	13.2	62.5	4.007	1.516
2nd year	14.5	4.6	1.3	1.3	78.3	4.243	1.496
3rd year	0	0	19.1	9.9	71.1	4.520	.797
4th year	0	1.3	5.3	15.1	78.3	4.704	.629
5th year	0	.7	3.3	.7	95.4	4.908	.436
Aggregate score						4.476	.975
Market Share							
Year	0%	1-25%	26-50%	51-75%	Above 75%	Mean	Standard Deviation
2009	9.9	78.9	3.3	7.9	0	2.092	.665
2010	6.6	58.6	25.7	9.2	0	2.375	.744
2011	3.3	63.8	9.2	23.7	0	2.533	.891
2012	68.4	68.4	29.2	1.3	0.7	2.342	.541
2013	0.7	7.7	3.3	24.3	0	2.513	.869
Aggregate score						2.371	.742

Table 1: Firm's Profitability and Market Share  
 Source: (Survey data, 2014)

The aggregate score for profitability after tax was  $M = 4.476$ ;  $SD = 0.975$ , this implies that on average the respondents affirmed that their service providers made profits of between 10 to 20 million shillings over the last five years. Different managers of different companies had divergent views on the profitability of their firms with a standard deviation of 1.516 since some companies were new and others were well established. A mean of 4.908 indicated that the profit after tax of above 20 million was achieved at the fifth year. The respondents across the five years stated that the market share increased by 1-25%. In the first year 78.9% of the respondents stated that market share increase was between 1-25% compared the fifth year which increased by 7.7%. There was no increase in market share of 75% and above apart from the fourth year which increased by 0.7%. The employees indicated that 68.4% of the market share increased by 0%.

##### 4.2.2. Environmental Factors

The responses were on the scale of 1 to 5, the extent of agreement on statements based on the environmental factors. The results are given in Table 4.6.

Description	Response Rate in Scale of 1-5					Mean	Std. Deviation
	To no extent	Low extent	Moderate extent	To a large extent	To a very large extent		
Our performance is always affected by the elections in our country	0	3.3	18.4	63.8	14.5	3.895	.673
Devolution has reduced our company's performance	0	15.8	21.1	63.2		3.474	.754
During the political rallies we always record better performance	0	3.9	48.7	47.4		3.434	.572
Civil wars has always lead our company to losses	0	0	54.6	40.1	5.3	3.507	.598
Political stability improves our performance	2.0	0	34.9	53.9	9.2	3.684	.723
Legal factors	0	0					
The industry is given a special considerations by the constitution	3.9		30.3	63.8	2.0	3.599	.721
Our policies are in line with the government requirements	0	15.8	28.3	34.2	21.7	3.618	.996
The government competition regulations are favorable to firm performance	2.0	15.8	3.9	62.5	15.8	3.743	.973
We are involved when regulatory body (CCK) is formulating policies	0	0	40.8	43.4	15.8	3.750	.712
The government support the industry to a access information needed	0	0	23.0	59.2	17.8	3.947	.639
The government control prices to favor our performance	3.9	0	17.1	77.0	2.0	3.730	.690
The industry is well protected by the law	2.6	0	20.4	59.2	17.8	3.921	.696
Local and international authorities laws favors our business	0	0	19.1	63.8	17.1	3.980	.603
There is an easier and a fair way of getting licence for the business	0	0	15.8	82.2	2.0	3.862	.399
Economical factors							
The existing taxation polices favors our profitability	0	0	18.4	63.8	17.8	3.993	.603
We are in a position to determine how much we pay for tax	3.9	2.0	13.2	48.0	32.9	4.039	.948
Inflation has a lot of effect on our business operation			58.6	23.0	18.4	3.599	.783
Existing inflation rate determine the price we offer our product and services	0	3.3	28.9	50.0	17.8	3.822	.756
The government control prices to favor our performance	7.2	14.5	11.2	67.1		3.382	.983
Aggregate						3.736	.727

Table 2: Environmental Factors That Affect Performance of the Mobile Telecommunication Industry in Kenya  
Source: (Survey Data, 2014)

Table 5 shows that the aggregate score for environmental factors is a M= 3.736; SD =0.727. The finding shows that the respondents to a moderate extent agree that environmental factors affect the performance of a firm. The respondents agree with a mean of 4.039 that the organization is in a position to determine how much they pay for tax. Respondents who were neutral that inflation has a lot of effect on business operation had a mean of 3.599, while there was a respondents' mean of 3.434 for those who were neutral that political rallies increased performance. A mean of 3.993 represented people who agreed that taxation policies favoured profitability.

Goodness of Fit	Test Statistic	P-value	
Adjusted R-squared	0.5470		
F-statistic (4, 138)	43.86	0.000***	
Dependent Variable= Performance	Linear Regression Results		
	Coefficients	t-statistic	P-value
Organizational resources	0.458	2.35	0.020**
Dummy: Airtel	-4.511	-5.83	0.000***
Orange	-0.994	-01.19	0.236
Yu	-11.53	-12.44	0.000***
Constant	30.61	2.79	0.000***

Table 3: Regression Results for Organizational Resources and Performance

\*\*\* Significant At 1 Percent

\*\*Significant At 5 Per Cent

Source: (Survey Data, 2014)

$$Y = 30.61 + 0.458OR + \epsilon \dots\dots\dots 3.4$$

Table 4.12 shows that adjusted R squared is 54.70%. This shows that the model explains 54.70% variation in influencing performance. The rest are explained by the variables not fitted in the model. The F statistic is 43.86 and P = 0.000 where P < 0.05. Hence, organizational resources are jointly significant in explaining variations in performance. The organizational resources coefficient is positive and significant at 0.458, and P value = 0.020 < 0.05. This implies that there is appositive relationship between organizational resource and performance. The findings are in line with Gamero *et al.*, (2011) findings that organizational resources result to high performance. In terms of performance, Airtel coefficient is negative and significant at -4.511 and P value = 0.000 < 0.05. Yucoefficient is negative and significant at -11.53 and P value = 0.000 < 0.05 meaning Airtel and YU affect Safaricom performance negatively. However, the coefficient comparison between Safaricom and Orange mobile company was inconclusive, as the coefficient was insignificant at 1 percent level.

4.2.3. H0<sub>1</sub> The Firm's Environmental Factors Have No Moderating Effect on the Relationship between Organizational Resources and Performance of Telecommunication Industries in Kenya

The fourth hypothesis sought to investigate whether environmental factors have a moderating effect on the influence of organizational resources and performance. To test the moderating effect of the environmental factors on the relationship between organization resources and performance, Stepwise regression analysis was used, where the moderating variable was introduced. The results were presented in table 4.13.

Goodness of Fit	Test Statistic	P-value	
Adjusted R-squared	0.6664		
F-statistic (5, 137)	57.74	0.000***	
Dependent Variable= Performance	Linear Regression Results		
	Coefficients	t-statistic	P-value
Organizational resources	1.1503	7.04	0.000***
Environmental factors	-0.229	-5.79	0.000***
Dummy: Airtel	-3.806	-5.71	0.000***
Orange	-1.002	-1.40	0.165
Yu	-11.14	-13.97	0.000***
Constant	34.736	-11.89	0.002***

Table 4: Moderating Effect of Environmental Factors on Independent and Dependent Variables

\*\*\* Significant At 1 Percent

Source: (Survey Data, 2014)

$$\text{Performance} = \beta_0 + 1.1503 OR - 0.229E + \epsilon \dots\dots\dots 3.2$$

The regression results show that the adjusted R- squared is 66.64%, indicating that the model explains the 66.64% of variation in organizational performance and the rest is explained by the variables that are not fitted in the model. F- statistic is 57.74 and p-value is 0.000, implying that human capital and technology are jointly significant in explaining variation in firm performance. Table 4.14 above shows that environmental factors are negative and significant at (-0.229,

$t=-5.79$   $p=0.000$ ). This implies that environmental factors are significant when introduced into Model (3.1). Xavier's (2011) findings agree with the current study findings that a company's performance is affected by the environment. The findings are also supported by Winter (2000) who postulated that in a changing environment, the ability to learn faster than competitors strongly influences the performance of an organization. The findings are also in line with Koumparouis' (2013) findings which indicate that the examination of environmental factors leads to superior performance.

Goodness of Fit	Test Statistic	P-value	
Adjusted R-squared	0.6655		
F-statistic (6, 137)	48.09	0.000***	
Dependent Variable= Performance	Linear Regression Results		
	Coefficients	t-statistic	P-value
Organizational resources	2.98	1.29	0.201
Environmental factors	0.246	0.41	0.683
Organizational resource^Environmental factors	-0.0272	-0.79	0.430
Dummy: Airtel	-3.887	-5.75	0.000***
Orange	-0.978	-1.36	0.176
Yu	-11.14	-13.96	0.000***
Constant	2.508	-0.06	0.965

Table 5: Moderating Effect of Product of Environmental Factors on Independent and Dependent Variables

\*\*\* Significant at 1 percent

Survey Data (2014)

Performance =  $\beta_0 + 2.98OR + 0.246E - 0.0272E \cdot OR + e$ .....3.3

Model (ii) was estimated where products of environmental factors and organizational resources were used to estimate the moderating effects. Table 4.15 above shows that the coefficient for interactive terms were all not significant where organizational resource was not significant at (2.98,  $t=1.2$  Where the coefficient in model (ii) are not significant and the environmental factors in model (iii) are not significant, there is no moderating effect based on Mackinnon (2007) argument ( $p=0.201$ ) and environmental factors were not significant at (0.246,  $t=0.41$   $p=0.683$ ). Therefore we fail to reject the null hypothesis and state that there is no significant effect on the relationship between organizational resources and performance and thus environmental factor is just an explanatory variable.

The findings are supported by CCK (2014) that the environmental factors do not strengthen the firm's performance instead they should be amended according to the legal requirement for proper operations of the firm. The findings also to get support from Wasike (2011) in the argument those environmental factors do not weaken or strengthen the performance but they safeguard the industries for appropriate operations within the country. The findings agree with Srivastava and Frankwick (2011) findings that environmental factors favor or strengthen performance. In addition the findings get support from Anderson (2011) that performance dependent on environment. Finally organization learning theory supports the findings in that monitoring of environment indirectly produce high performance (Winter, 2000).

## 5. Summary, Conclusion and Recommendations

### 5.1. Summary

The performance of the telecommunication industries in Kenya seems to have been stagnated for a period of time despite the availability of better and modern organizational resources. Previous studied done on performance globally and in Kenya did not focus on the mobile phone companies. The current study sought to determine whether environmental factor had a moderating effect on the relationship between organizational resources and performance of telecommunication industries in Kenya. The findings showed that environmental factors did not moderate the influence of organizational resources on performance of the telecommunication industries in Kenya. This implied that the environmental factors were an explanatory variable.

This was achieved by the use of explanatory and descriptive survey design which was cross-sectional by design. Primary and secondary data was collected using structured questionnaire. The data collected was analyzed using descriptive and inferential statistics. The descriptive analysis was used to describe and summarize the data.

### 5.2. Conclusions

The study found out that environment factors were not statistically significant in affecting the firm's performance; therefore, the research concludes that environmental factors did not moderate and therefore it was an explanatory variable. Furthermore, the organizations should always change to the dynamic environment.

### 5.3. Recommendations for Policy Implication

Management should note that environmental factors are common to all organization as long as they are external. Therefore, it is the management responsibility to adjust its working environment to fit to the external environment for it to perform.

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